

PWC Hearing – CSIRO Electrical Infrastructure Works – Mon 28 Oct 24

Response to Questions on Notice (Public Hearing)

Question 1:

Mr PITT: Some of the switchboards are leaking oil. It's an insulating oil, is it? There are no PCBs or any other contaminants in the oil currently that's currently leaking?

Mr Howard: To the best of my knowledge it's insulating oil, yes.

Mr PITT: Is there anything that has PCB contaminants and, if there is, how do you intend to deal with that and dispose of it?

Mr Howard: I don't know the specifics of disposing of PCB oils. But it is a known volume, so the amounts we have will be managed through contracted works with appropriately licensed and accredited contractors.

Mr PITT: I might get you to take that on notice, because we deal with a lot of different types of contaminants in different projects, whether it's defence bases or others, and I think it's important to know how that's going to be dealt with and disposed of in an appropriate way. This one is a bit out of the box, literally.

Answer to Question 1:

The transformer oil will be independently sampled and tested via a NATA accredited testing lab. Any electrical equipment found to contain PCB oils will be transported under EPA permit – for transport of PCB.

The equipment will be transported to EPA licensed organisations/facilities for treatment and disposal. Appropriate Certificate of disposal and destruction will be obtained (and registered with the EPA) for the equipment.

All movements and final disposal/treatment of PCBs and PCB contaminated equipment will be monitored and controlled through EPA and regulation guidelines.

Question 2:

Mr ZAPPIA: It might be a side question, but what is the process for racing horses when they come in from overseas in terms of testing for anything?

Ms Rothwell: We did not bring any research capability with us today. I would be happy to take that question on notice as a research process question if you like.

Mr ZAPPIA: I'd just be curious what process they have to go through to ensure there is no risk associated with them.

Answer to Question 2:

Horse importation into Australia is managed by the Department of Agriculture, Fisheries and Forestry (DAFF). The process involves pre-importation testing and vaccination based on the country of origin. After horses arrive in Australia, ACDP assists DAFF by conducting testing for Equine Influenza and provides advice on other exotic diseases as requested. ACDP conducts further testing for the export of horses from Australia for viruses such as Hendra Virus. DAFF are best placed to provide further details on the full import/export process for horses and other animals noting these processes, procedures, and regulations typically are specific to the country of origin.

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Question 3:

Mr ZAPPIA: ... Lastly, I think you mentioned both the USA and Europe have similar facilities in. Was it Europe? I could be wrong. What have we learned from what they do that we could be doing differently or better here?

Ms Rothwell: Again, it would be our scientists who have the closest relationship with those facilities who have a large animal containment. It would be Germany and Canada that have those facilities. We would be able to take your question away with us and ask our scientists to provide more detail if that would be helpful.

Answer to Question 3:

CSIRO's ACDP maintains close connections with similar facilities across North America, Europe and UK. In relation to Electrical Infrastructure there have been no improvements adopted from learning through networking with other facilities.

More broadly, for ACDP international connections include the Friedrich Loeffler Institute (FLI) Germany, the Canadian Food Inspection Agency (CFIA), National Centre for Foreign Animal Diseases and Public Health Agency of Canada (PHAC), National Microbiology Laboratory, and the Plum Island Animal Disease Centre (PIADC) which will soon be decommissioned and replaced with the National Bio and Agro-Defence Facility (NBAF) in Kansas. Our relationships with colleagues at these facilities range from researchers visiting to share technical information on research or operations, through to formal visits by delegations such as a delegation received from the US Department of Homeland Security in February 2024. Members of ACDP management have also visited these facilities in recent years to further share information regarding facility operations, management and strategy.

ACDP is also a member of the BSL4ZNet (a network of laboratories that work on zoonotic agents at Biosafety Level 4) and uses those meetings to share knowledge on current global disease threats and facility operations. An example of some of the collaborations that have stemmed from BSL4ZNet includes the current work ACDP is assisting NBAF with, as they commission their new site. This includes NBAF staff coming to ACDP to receive BSL4 training and provide advice and share procedures related to biocontainment. From these meetings and collaborations, ACDP in turn receives updated information on, for example, the H5 bird flu situation in the US and research they are conducting that is highly relevant to our preparedness needs.

Question 4:

Senator KOVACIC: ... My question relates to the comments both verbally and in the report around reactive maintenance, and I want to get an understanding of what the impacts have been to date of reactive maintenance, including on capability and on responsiveness, and then by extension to that whether there are any other key functions at the ACDP that have started to have reactive maintenance and whether there is a plan to work on those in the near future as well.

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Ms Rothwell: CSIRO's property strategy requires us to invest in maintaining key infrastructure as a matter of course, and we do that at all of our facilities, including at ACDP. In this case we also have an eye on our multiple regulatory frameworks to keep that sovereign capability safe. Mr Howard, are you able to talk more generally on the reactive maintenance and preventative maintenance regimes we have at ACDP?

Mr Howard: I don't have a great load of detail; we might have to take some of that on notice for Jason to respond to. I can say that in the lead-up to a report from 2023 that identified concerns with the failures there was a period of time—again, I'd have to find the timeframe—where we were without one of the generators; it could not be operated. We operate on the basis that we have N+1 capability, where N is the number of units we need, and the plus one allows us to operate if one of those happens to fail. When we have one of those units fail, we no longer have that N+1 redundant capacity, so that did leave us what we consider to be exposed. A further failure would have left us unable to completely power the facility during an electrical outage. That is where that concern is coming from, but I don't have the specifics of the duration for that event.

Answer to Question 4:

In relation to the failure that led to the 2023 report, one of the three generators was out of operation for approximately 9 weeks. This did not impact the capability or responsiveness of ACDP.

The ACDP facility is maintained according to the needs of each asset. Maintenance types generally include Preventative maintenance, Predictive maintenance techniques where applicable, and reactive maintenance on components or systems where periods of downtime are tolerable. A 30 year forward infrastructure plan has been created, which includes updates to equipment condition and predicted end of life (EOL) as part of the planning process.

Question 5:

Mr DAVID SMITH: Thanks, Ms Rothwell and Mr Howard, for your answers so far. It's good to see action on a report like this. The May 2023 report on the condition of key assets identified these issues. Were there any earlier reports that identified similar issues? I imagine there would be reasonably regular reports on the conditions of key assets. Were there any that identified the risks and the need for the emergency replacement?

Mr Howard: I am not aware of any that identified this level of replacement. There was certainly email correspondence, but I do not recall specific reports.

Mr DAVID SMITH: I am happy for you to take that on notice.

Answer to Question 5:

In September 2017, multidisciplinary engineering consultancy Jacobs noted that the anticipated working life of the ACDP backup generators could extend for 10-20 years but did indicate their remaining life as likely less than 10 years. The Jacobs report did not flag this as emergency replacement but noted it as a high priority. A subsequent report by multidisciplinary engineering consultancy Aurecon in 2023 listed the generator and related electrical infrastructure replacement

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as of the highest priority, and this more recent report provided the basis for the Electrical Infrastructure Project referred to the PWC in this hearing.

Question 6:

Mr DAVID SMITH: Just to follow up, Ms Rothwell, and I'm happy for you to take this on notice, would there be other sites with similar aged switches, around 40 years, or potentially older?

Ms Rothwell: I will take that one on notice.

Answer to Question 6:

CSIRO does have switchboards that are more than 40 years old. Where CSIRO has implemented service contracts to maintain our suite of various switchboards, they are being maintained following statutory legislation and a part of the statutory requirements is for the contractor to provide condition reports and advice on any equipment that is deemed end of life. Concerning high-voltage switchboards that contain oil, ACDP is the only site that currently operates these types of switches due to the nature and capacity requirements associated with the site; all other CSIRO sites, while they do have high-voltage equipment, do not run switchboards of this nature.