

### Question 1

*Ms SYLVIA HALE: Yes. Mr McKinstry, you said that the dross that is presumably processed at Yennora is not carcinogenic and that it differs from that produced in the United States of America. What compounds or chemicals are different in the dross used in Australia from that used in the United States of America?*

The composition of aluminium dross is primarily made up of aluminium and aluminium oxide, both of which are considered to be essentially biologically inert with a very low health risk by inhalation. Due to alloying and other process reasons, there are some differences in the constituents of aluminium dross as noted in the US material safety data sheet (MSDS) and the Australian MSDS. Aluminium dross contains trace quantities of some carcinogens. In the case of Pt Henry Australia dross, the amount of these constituents are in trace quantities and at significantly lower levels than the US dross. The table below shows the orders of magnitude difference for nickel and chromium between the US dross MSDS and the Pt Henry Australia dross.

|           | <u>US MSDS</u> | <u>AARP MSDS</u> |
|-----------|----------------|------------------|
| %Nickel   | 0.01-5.00      | <0.005           |
| %Chromium | <1.00          | <0.001           |

It is important to note that an MSDS is designed to provide the reader with the safety precautions to follow when handling material. The MSDS does not act as an indicator of process air emissions, which can only be determined through air emission sampling and analysis. With regard to the health risk of air emissions, including carcinogens, I would point out that the independently modelled ground level concentrations are within health based guidelines.

## **Question 2**

**Ms SYLVIA HALE:** *Whilst one can recognise that Weston may have a motivation in supplying information, nevertheless it is appropriate for the Committee to inquire into whether the submissions—particularly from affected residents—have any basis. One submission states, "In May 2006 Alcoa had to supply corrected pollution values for the years 1999 and 2000 to the EPA. Originally the data supplied in November 2005 showed only one-twentieth of the data supplied later. Alcoa had no explanation for the reason that they underreported so blatantly in November 2005". Would you comment on that?*

**Mr McKINSTRY:** *Yes, that was to do with a change in the measurement process. The measurements after that time were different.*

**Ms SYLVIA HALE:** *Who instituted the changes in the measurement process?*

**Mr McKINSTRY:** *I believe it was DEC. But I would have to clarify that.*

**Ms SYLVIA HALE:** *So DEC said, "You are using the wrong basis for measuring emissions"? Is that correct?*

**Mr McKINSTRY:** *No, I do not believe so.*

**Ms SYLVIA HALE:** *Can you report back to the Committee as to why those changes had occurred?*

**Mr McKINSTRY:** *Absolutely.*

Following an internal review of the methodologies used to determine load based licensing requirements, Alcoa Australia Rolled Products and the DEC reached agreement to use the methodologies applied in 2002-2003 to the years 1999-2002 and recalculate the load and submit variations to our original reports.

This was done in 2003 not 2005 as stated in the submission referred to by Ms Hale.

The DEC completed a compliance audit with a focus on the load-based licensing requirements. The audit established that the licensee has correctly calculated the load of assessable pollutants discharged from Alcoa Australia Rolled Products for the period ending 21<sup>st</sup> November 2004.

### **Question 3**

**Ms SYLVIA HALE:** Page 12 of the submission, in relation to events at other Alcoa factories in Australia, in 2003 it states that Alcoa lost its self-policing rights for dust after it was disclosed that an employee had falsified dust level recordings on a database and Alcoa was fined for breaching dust emissions. Can you supply the Committee with further details? Obviously, if that is the case, it goes to the whole question of whether Alcoa should be its own policeman?

**The Hon. CHRISTINE ROBERTSON:** Excuse me Ms Hale, is that claim from Western Sydney? They know there is an industrial issue right across Australia, that little group?

**Ms SYLVIA HALE:** I am just interested in finding from Mr McKinstry whether that is accurate. If it is accurate I ask him to supply the details of that event. I mentioned it because it goes to whether Alcoa is the appropriate body to monitor pollution emissions from the site.

**Mr McKINSTRY:** I could not personally comment regarding the Western Australia operation. My division is based in Victoria and New South Wales. I will defer that question to Western Australia.

**Ms SYLVIA HALE:** Could you get back to the Committee on that?

**Mr McKINSTRY:** I could.

**CHAIR:** Are you talking about something that has happened in Western Australia?

**Mr McKINSTRY:** Correct. To me it seems outside the scope of this inquiry. I am happy to respond to that.

**CHAIR:** I am not sure it is within our terms of reference. The extent to which you think it may go to broader policies of your company, you may want to answer. The Committee needs to be conscious of the fact that it is possibly not relevant to the terms of reference.

**Mr McKINSTRY:** I welcome the chance to respond to that. You are right, it is outside the scope of this inquiry. If the question is about Alcoa generally, I do not believe that Alcoa would be recognised internationally for its environmental management if that were the case. We would not be included in Dow Jones, for example, and their awards, if there were any question regarding Alcoa's ability to manage that process.

Alcoa of Australia's response to the issue reflects the seriousness with which the company, and Alcoa Australia Rolled Products deals with these issues. When it became apparent, due to an internal process, there were discrepancies in the reporting on dust from the Kwinana refinery's dust residue monitors between October 1999 and January 2003, Alcoa notified the West Australian Department of Environment.

In addition, Alcoa in conjunction with the Department of Environment established an independent review conducted by Environmental Resources Management Australia (see attachment) that analysed the dust data, highlighted inaccuracies and made a series of recommendations in addition to those made during an internal Alcoa review.

This report was provided to the Kwinana Community Consultative Network and the West Australian Government. It is publicly available.

#### **Question 4**

**The Hon. Dr ARTHUR CHESTERFIELD-EVANS:** *I did my best with DEC. I noticed also in your 2004-05 annual report that you have doubled the amount of hydrochloric acid, triple the amount of mercury, double the amount of polycyclic aromatic hydrocarbons [PAHs], and that you are slowly increasing VOCs. Is that the case?*

**Mr McKINSTRY:** *As I mentioned earlier, ALCOA has been in the fortunate position to grow the business. More volume has gone through, more sales have gone through and more production has gone through. Naturally you will see some growth in particulates, for example. But, as I mentioned, per tonne it is less.*

**The Hon. Dr ARTHUR CHESTERFIELD-EVANS:** *In every case?*

**Mr McKINSTRY:** *I could double-check every case. I believe so.*

**CHAIR:** *Would you take that question on notice? That is a relevant question and I think the answer to it would be insightful for the Committee.*

The varying figures in the NPI are based on variations during processing. In turn, these are based on concentration of particular compounds at the time of air emission sampling. Although increases are noted, all remain below acceptable levels. Furthermore many compounds decreased in the same period for example dioxins 37%, lead 76%, copper 80% and arsenic 84%

## Question 5

**The Hon. Dr ARTHUR CHESTERFIELD-EVANS:** *You have variation in your furnace charges—in other words, what you put in your furnaces from time to time. Presumably there would be a difference in the amount of plastics, polyurethanes or gunmetal going into those furnaces?*

**Mr McKINSTRY:** *No, they would not have plastics or polyurethane going in them.*

**The Hon. Dr ARTHUR CHESTERFIELD-EVANS:** *What lines the drink cans?*

**Mr McKINSTRY:** *That is controlled through the emission stacks. That would not be an issue.*

**The Hon. Dr ARTHUR CHESTERFIELD-EVANS:** *But the lining of the drink cans is plastic, is it not?*

**Mr McKINSTRY:** *No. It is a chemical compound, but it is not a plastic.*

**The Hon. Dr ARTHUR CHESTERFIELD-EVANS:** *It is not a plastic?*

**Mr McKINSTRY:** *I do not believe so. Again, I could check from an engineering point of view.*

**The Hon. Dr ARTHUR CHESTERFIELD-EVANS:** *Do you have polyurethane from powder coating, or anything like that?*

**Mr McKINSTRY:** *Not as far as I am aware.*

**The Hon. Dr ARTHUR CHESTERFIELD-EVANS:** *So, there are no polyurethanes going into that furnace?*

**CHAIR:** *I believe Mr McKinstry has effectively taken that question on notice.*

All contaminated aluminium is processed in the rotary furnace, contaminated aluminium includes used beverage containers (UBC's). I know of no "gunmetal" being melted on site. The rotary furnace is designed to melt contaminated aluminium due to the fitted scrubbing system.

Any plastics or polyurethanes that may be present are burnt off and destroyed during the melting process. The majority of VOC are emitted from the rolling process. The melters and rotary furnace contribute approximately 10% of the total VOC for the site. Again this is not an indicator that polyurethanes would be present. Further analysis could be conducted to determine if any polyurethanes are present in VOC emissions.