

**From:**  
**To:** [Community Affairs Committee \(SEN\)](#)  
**Subject:** Air Quality Senate Enquiry -Submission  
**Date:** Tuesday, 23 April 2013 11:31:33 AM

---

David Dettrick

23 April 2013

Committee Secretary  
Senate Standing Committees on Community Affairs  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
Australia

Dear Committee Secretary,

RE AIR QUALITY IN AUSTRALIA

Thank you for the opportunity to provide comment to the Senate Enquiry on Air Quality.

I have worked as an environmental engineer and scientist for around 20 years throughout Australia and Asia, and have worked on many odour issues. My comments to the enquiry relate to some general observations and possible economic instruments that may help change the air quality performance of an industry.

At present I am living in Altona, one of the most industrialised areas in Australia. It seems the heavy industry on Kororoit Creek area has been developed within the urban areas with the use of a buffer zone of perhaps 1-2km. If so, this plan does not appear to be not publicly available, and may no longer be adhered to for planning purposes and would most likely predate computers.

**1. Air quality buffer zones and other risk management details should be freely available to the public and community groups.**

While some air quality issues are just odours and some may potentially have unknown health effects due to the large variety of industrial chemicals now used, and the lack of sufficient toxicology testing, it is clear that many communities suffer for ongoing odour issues. The amenity of a backyard and house has value, and is indeed attached to the real estate value of the house and land. Odour can reduce the value of real estate which should be the subject of appropriate compensation.

**2. Mechanisms should be created so that industries with persistent odour problems can compensate those effected by the loss of amenity, or environmental nuisance.**

Altona is an interesting case. Southerlies bring in arguably some of the the cleanest air

on the planet, as Cape Grim air station would attest to. Northerlies, however, bring industrial smells. The difference is very noticeable. I have been in Altona for 3 years, but I despite the southerly fresh air, my sensitivity to odour has diminished. The number of odour complaints seems to be reducing through time.

Some of the odours I smell at home are of 2,4,D and can make your nose face and fingers tingle, similarly with plastic smells. It is some concern that we can exposed to odour that can seemingly affect your nervous system. I am not aware of any research on these kinds of chronic health effects particularly in the long term. I would like to see some research undertaken on these issues pertaining to nervous system effects.

Asthma is also on the rise in Australia. While this may be related to increasing car numbers or even desertification of Australia through poor farming activities, I would like to see some targeted research decision tree analysis on nervous system effecting air toxics. Sulphur, ozone, hydrocarbon and particulate loadings should be studied in our industrial precincts to determine the area of effects of these loadings, and any results should be made public.

**3. Air toxics with the capability to cause nervous system responses at low levels should be prioritised for research in Australia and internationally. Research targeted to nervous system and particularly Asthma type effects which can be related to chemical groups, and used by regulators and industry to manage planning zones and environmental/safety management for the chemical.**

There are identified climatic conditions that exacerbate poor air quality for a variety of different problematic air toxics and odourous chemicals. The design of industrial systems to contain odourous/toxic chemicals during medium to high risk conditions need to be prioritised. Underground storage of poor quality emissions should be incorporated into industrial design, in a similar way to the improvements to sewage pumping station storage and "smart sewers" have developed. Existing industry should be offered funding to improve the technology of air quality systems. The funds could be targeted to help industry based on risk.

**4. Industry funding for dealing with and modernising air quality management systems, scrubbers, storage, and local climate model prediction and program logic control (PLC) devices should be used to control "smart stacks" .**

Thanks once again for the opportunity to submit to the Air Quality enquiry.



Figure 1: Mobil Altona Refinery -bad day at the office, and bad day for a BBQ in Altona North (image from Authors mobile phone).

Yours sincerely,

*David Dettrick*

David Dettrick  
Senior Environmental Engineer