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

5 February 2013

Dear Sir/Madam,

The impacts on Health of Air Quality in Australia

I refer to the Senate inquiry being conducted on this subject, and I would like to thank you for this opportunity to add my comments. Specifically, I wish to talk about the issues of the small but deadly PM 2.5 particulates; of coal trains and the health impacts these cause.

I live in Gulgong in Central Western NSW, which is a heritage-listed town with its nineteenth century main street and buildings still largely intact. Nearby Mudgee is the centre of the MidWestern local government area.

This area has seen a massive expansion of the coal industry, with major mines operating at Ulan, Wilpinjong and Moolarben. The NSW State Government also owns the proposed Cobbora mine just north of Gulgong. However, there is also huge coal mining development underway all along the Hunter rail corridor and its environs to Newcastle.

The cumulative impacts are enormous from this immense increase in coal train traffic, with major ramifications for communities all the way to Newcastle.

Particulate pollution
There are a number of pollutants released from fossil fuel combustion. These include nitrous oxide and sulphur dioxide, and fine particles measuring 2.5 micrometres or less, which penetrate more deeply into lung tissue than larger particles and are considered particularly hazardous to health. In the US, exposure to these particles has been shown to reduce life expectancy. Their monitoring in Australia is extremely limited. This is the same PM 2.5 particulates that devastated China recently. We need extensive monitoring of this type of pollution in Australia.

Coal dust on open wagons
In discussing this problem, I wish to use the proposed mine at Cobbora as an example, but the cumulative impacts exist for all coal communities.

The Project will lead to 5 coal trains per day from Cobbora and return from power stations in the Hunter Valley, and from the Central Coast or Newcastle if the coal is for export. These trains

will each carry loads of between 7,800 and 8,800 tonnes. Studies conducted in Canada and USA have shown that up to 3% of the coal load can potentially be lost from the top of open wagons during rail transportation (Cope et al and Canter).
Given the total tonnage of coal transported, the potential for dust emissions is enormous. In the example of trains from Cobbora we are looking at an average transportation of 290,500 tonnes of coal per week. Three per cent of that comes to 8715 tonnes of coal producing dust per week, a quite significant amount to cause health problems to communities along the rail corridor, especially for 21 years.

That figure of 8715 tonnes of coal dust is just from one proposed mine. Every five trains along that rail corridor will produce an equal amount, regardless of where they are from. Even when empty, uncovered wagons still have a certain amount of dust in them that will blow away. The Cobbora Assessment has stated that airborne particulate matter impacts are unlikely from coal trains to and from Cobbora, and in any case would be within safe limits. I beg to disagree.

Airborne dust raises real issues of health, safety and environmental concerns and increased maintenance costs across industry and communities, where these are in coalmining areas or along rail corridors.

Coal dust emissions are normally influenced by a number of factors such as: coal type, particle size, moisture content, ambient temperature and humidity, and wind speeds. Add to that issues stemming from rail transportation, and this makes the control of dust emissions from trains a complex problem.

Doctors for the Environment's Report on the Health Impacts of Coal Pollution states:

"Pollution from coal affects all major body organ systems and contributes to four of the five leading causes of mortality in the U.S: heart disease, cancer, stroke, and chronic lower respiratory disease and asthma. It interferes with lung development, and increases the risk of heart attacks."

Coal is hazardous to human health in each step from mining, transport, combustion and disposal of waste products. The adverse health effects of coal dust are very well known. While there has been substantial research into the impacts of air pollution from coal in Europe and the USA, related research in Australia has been limited. This must be rectified.

In summary I believe that the cumulative impacts from all stages in the coal industry have far-reaching effects on air quality and the community's health, and that urgent action is required to correct this situation. This would involve:

- Health impact studies and widespread monitoring of air quality in coal affected areas, including those along transport corridors.
- All wagons covered, regardless of whether they are full or not.
- Extensive research on the effects of coal mining activities and the relationship these have with the health of our communities.

Historically the area has been a major coal mining region and is now experiencing unprecedented growth in that industry. I request therefore that the Senate Committee hold a public hearing in the Hunter region.

Thank you.

Yours sincerely

Ms Diane O’Mara