Rick Banyard

Newcastle

[cdcopy@hunterlink.net.au](mailto:cdcopy@hunterlink.net.au)

0419993867

Chief Scientist

Professor Mary O’Kane

Sydney

Dear Chief Scientist.

I have read your preliminary report into coal train dust and all the attachments and related web site information.  
I am very disappointed and extremely concerned.  
I base my concern on three major areas

**Firstly**

I do not consider your report addresses the fundamental issue from the 2014/15 Parliamentary Inquiry into the performance of the NSW Environment Protection Authority “EPA investigations and public statements about the effects of coal dust pollution in the Hunter”

*Coal dust pollution in the Hunter*

*The Hunter Valley Coal Chain is the largest coal export operation in the world. In response to concerns about coal dust pollution in the Hunter region, between 2008 and 2013, the EPA imposed three pollution reduction programs on the Australian Rail Track Corporation (ARTC), which operates the Hunter Valley rail network. As part of this, the ARTC was required to undertake two dust monitoring studies undertaken at sites within the Hunter Rail Corridor. These studies were carried out by Environ Pty Ltd and Katestone Environmental Pty Ltd.*

*During the period in which both reports were produced and published, allegations emerged that the EPA had made public statements that were contrary to the findings of the reports, or had altered the findings of the reports to benefit the ARTC and fit within a pre-determined public relations plan prepared by the EPA. The Hunter Community Environment Centre stated that these allegations were corroborated by documents obtained under freedom of information legislation.*

*The committee has considered the evidence received, and compared the findings made in the various versions of the reports with the comments made publicly by the EPA. The committee did not find any evidence to suggest that alterations to draft reports had sought to do anything other than ensure that the findings accurately reflected the data gathered. In the case of the Katestone report, this conclusion was also corroborated by an independent review undertaken by Professor Louise Ryan, Professor of Statistics at the University of Technology. Nevertheless, the committee considers that it was not unreasonable for residents of the Hunter to express concern upon learning that such significant amendments had been made, as the EPA did not inform the public of the necessity for the amendments or that the reports had not been sufficiently reviewed. The committee believes that it would be prudent for the EPA to acknowledge the need for frank and open dialogue with the community, particularly where the information on which it relies has not been subject to adequate review and assessment.*

*The committee recommends that the EPA consult with the NSW Chief Scientist and Engineer to review the air quality monitoring strategy in the Upper and Lower Hunter. If the review recommends that coal wagons should be covered and empty wagons be washed, the relevant licences should in turn be amended to give this recommendation effect*

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It is abundantly clear that the subject of the monitoring was coal dust originating from coal wagons and not general particulates in the rail corridor.

The report by you as Chief Scientist is titled “Independent Review of Rail Coal Dust Emissions Management Practices in the NSW Coal Chain”

That gives no hint of diesel emissions or a reporting on other particulates. I acknowledge that both diesel emissions from locos and particulate emission in general are certainly a real problem. I contend that they are not included in the scope of your study.

I firmly believe that the initial report should be withdrawn and rereleased based on the terms of reference. That is a report on coal dust in the coal rail corridors of the Hunter.

**Secondly**

The interim report considers and reports on much information that is totally irrelevant and or of dubious benefit to a study of coal dust issues in the Hunter rail Corridor.

I give three examples to support my point:-

1. Professor Ryan’s second report is simply a statistical analysis of totally unsound data and information. To consider rainfall at some far off location and totally ignore the impact of evaporation on trains that may or may not exist is unsound to say the least.
2. To give credence to a report on research led by University of Washington professor Dan Jaffe is alarming. In a comment (a copy is attached to this letter) I reported to other Hunter people the following issues with the Jaffe results when related to the Hunter Valley.

*You may like to consider my thoughts as following:-*

1. *There is almost no similarity between the coal from the Powder River Basin and the Hunter.*
2. *The coal in question is commonly low sulphur, low fly ash lignite coal and is a fine powder.*
3. *Milwaukee Road MILW operated 262 covered wagons to transport lignite coal. These were sold off in 1996 and de-roofed*
4. *The PRB produces “run of mine coal” with a large quantity just powder.*
5. *The study was in 2013*
6. *The ratio of 74 coal trains to 293 freight trains over a two month period seems unrealistic. It is my understanding that the daily track usage is 30 plus or about 2000 per month.*
7. *Wind speed of 90kph seems to be critical*
8. *Coal trains are far more uniform, aerodynamic and of similar length with the same number of locos compared to the freighters.*
9. *This research gives strong indications that coal dust recirculated from coal on the tracks is a key factor.*
10. *Debbie Niemeier, professor of civil and environmental engineering at University of California Davis at the Oakland coal proposal hearing said (September 2015) that safety measures used while transporting coal, like train car covers and topping agents, are ineffective. “****There are no scientifically validated methods to mitigate coal dust,”*** *she said.*

Professor Jaffe’s research is about as relevant to Hunter valley coal train dust as a road train in western NSW travelling through bulldust.

1. The comparison with Queensland coal movement with Hunter Valley coal train movements fails to identify the relevance given the vast differences of the two operations.

**Thirdly**

You interim report has failed to identify much of the information that is present. I ask you to consider the following:-

1. The huge volume of photographic evidence of poor coal wagon operation. This evidence is the work of the EPA, Rick Banyard, CPCFM and many others.
2. The report does not site the CPCFM formal complaint of Feb 2014 or the follow up call to suspend the operation of the coal trains.
3. The report and its support material does not record for public viewing the notes of any meetings, verbal evidence collected or observations made at site visits by you or your team members. This is very important as it is essential for transparency to see from where your organisation has gathered information.

It also would provide the opportunity for people or groups making submissions to expand on or address the material considered.

1. In my submission I pointed out that I am unable to locate any operational covered coal wagons in the world other than a few that are covered for climatic reasons to prevent the coal from freezing. I note you have not indicated any operational covered coal wagons.
2. I offered to facilitate a coal train corridor inspection to visually demonstrate to you there is considerable coal within the corridor and that the evidence is that the emissions from the top of loaded coal wagons is almost zero (3kg). On the other hand about 300kg of coal is lost from a train of unloaded wagons into the corridor.

There is no evidence from your report that you have visited the sites of the monitoring work done as directed by the EPA. I am sure that a visit to those sites would give you a clear understanding as to why the data collection and analysis was so problematic.

The interim report has failed to attract submissions possibly due to the poor publicity.

**Conclusion**

The work being undertaken is highly important and a quality report will direct quality research and operational practices in the future.

For your efforts to get clouded in the issues of other particulate matter and diesel exhaust emissions would be a shame.

The escape of coal from coal wagons and its dispersal into the atmosphere and the water courses is a sizable topic in itself.

Before considering the way forward in your final report I believe it is mandatory for you to revise the initial report. This could be done in the form of a stage two working paper at the end of January.

Rick Banyard

[cdcopy@hunterlink.net.au](mailto:cdcopy@hunterlink.net.au)

10th December 2015

**Attachment re Joffe**