Submission to the Review of the NPI

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Doctors for the Environment Australia

67 Payneham Road
College Park SA 5069
P 0422 974 857
E admin@dea.org.au
W www.dea.org.au

Healthy planet, healthy people.

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-government organisation of medical doctors in all Australian States and Territories. Our members work across all specialties in community, hospital and private practices. We work to minimise public health impacts and address the diseases locally, nationally and globally caused by damage to our natural environment.

DEA submits that citizens and non-governmental organisations have a right to know about pollutant emissions, and so supports the availability of information provided by the National Pollution Inventory (NPI). However, DEA contends that this information should be readily available and at sufficient frequency to enable any analyst to judge whether there are likely to be health impacts on the community – either local or distant from the polluting source.

In Australia, it is estimated that urban air pollution contributes to approximately 3,000 deaths annually – more than double the deaths of the national road toll. As there is no threshold where air pollutants do not have an effect, DEA advocates for the absolute reduction of air pollutants rather than a cap on emissions from pollution sources.[2]

Objectives of the NPI

The desired environmental outcomes described in the NPI NEPM are:

(a) the maintenance and improvement of:
(i) ambient air quality; and
(ii) ambient marine, estuarine and fresh water quality;
(b) the minimisation of environmental impacts associated with hazardous wastes; and
(c) an improvement in the sustainable use of resources.

National Environment Protection (National Pollutant Inventory) Measure 1998

Although this objective makes no actual mention of "human health", by implication environmental health is that which supports human and bio-system health.[3] For example, in Victoria the connection between health and the environment is identified and is central to the function of its EPA. Therefore we recommend that "health" be mentioned in the Objectives by amending to the following; "To preserve human and bio-system health, the desired environmental outcomes described".

TOR 1

An assessment of the extent to which the National Pollutant Inventory contributes, and its potential to contribute, to achievement of the desired environmental outcomes specified in the National Environment Protection (National Pollutant Inventory) Measure 1998, and whether those outcomes remain appropriate

The degree to which the NPI contributes to the maintenance and improvement of air quality depends on the accuracy of the data and the response of Authorities to that information. There are concerns with both the accuracy of the data (discussed in TOR 2) and the failure of regulatory action when pollution has increased.

NPI data in relation to air pollution does not require regulatory action by states. There have been numerous reported air quality alerts in the Hunter Valley[4] over the last 12 months with little meaningful response.

Licensing requirements for heavy polluters such as coal-fired power stations bear no relationship to the NPI. They are dependent on stack emissions data which are often intermittent. Moreover, emissions limits vary from state to state and between power stations. The mechanism for setting limits also varies from state to state.

As an example of the vagaries of emission measurement and subsequent response, levels of $PM_{2.5}$ from Bayswater power station jumped 69% in 2017 and from Vales Point power station emissions increased by 179%. Subsequently no changes were made to the licensing requirements to reduce their pollution.[5] Clearly the system is failing.

What is required to most directly *encourage industry to use cleaner production techniques to reduce emissions and waste* are national standards for power station emissions with limits that properly protect human and environmental health within a strong regulatory framework. These should be supported by real-time publicly available data from stack emissions.[6]

As there is no threshold below which air pollutants have no effect, DEA believes that the regulation of polluting industries should include financial incentives for cleaner production rather than just setting a cap for the maximum emissions.

TOR 2

Improving the user experience

National environment protection goals include:

2. To disseminate the information collected to all sectors of the community in a useful, accessible and understandable form.[7]

The current interface does not satisfy the obligations of the community's 'right-to-know'; it is not-user friendly, has limited functionality and barriers to transparency, and it takes persistence and experience to use. There is currently no functionality for downloading time series data. It should be possible for users to make online queries for data from multiple years, and to follow the trend in emissions from single and regional facilities. The excellent download facility for ambient air quality data on the website of the NSW Office of Environment and Heritage might serve as the model for improvement.

Reporting periods and frequency: It is important that NPI data be reported and released in a manner that makes it easy for community-based individuals and organisations to interpret and compare the data with those of other facilities or airsheds. This requires that reporting dates be fixed and regular, as variable dates would lead to difficulties and mistakes in interpretation.

NPI reporting periods should be annual and should match state pollution licensing periods wherever possible.

Improving the integrity and accuracy of the data

The NPI data often contains inexplicable anomalies that suggest data errors. For instance, Mt Piper seemed to suddenly stop releasing PM_{10} in 2015-16. Bayswater's NPI figures for PM_{10} were more than double the NSW regulatory Load Based Licensing (LBL) reports in 2012-13. When the NPI and LBL figures disagree, it is not possible to determine which is correct, or if both are wrong. Reporting errors need to be remedied, so that the public can have confidence in the data.

When emissions from the Muja coal fired power plant in Collie, Western Australia, increased dramatically in 2010, the accuracy of the data was questioned. Only later, after a series of enquires, did the explanation emerge that emissions controls were relaxed to allow greater output as a result of the Varanus gas outage.

We recommend that large industrial emitters be required to report stack emissions from continuous monitoring of all stacks; that reports be auditable; and that penalties apply for falsification of data. In addition, real time emissions monitoring should be undertaken as it would detect excessive concentrations of pollutants on a given day or period which aggregated data would fail to demonstrate.

Therefore, we would oppose collection and aggregation of data by industry associations as it removes the detail necessary to understand local pollution problems. Industry associations may wish to develop expertise and assist members, but responsibility for reporting should still rest with operators.

We do not see any problem with the current thresholds for reporting.

Additional data to improve the value of emissions information

It would be helpful when interpreting trends in emissions data to have statements from polluters on the time of the plant's operations. For instance, a 2-month maintenance shutdown would explain what otherwise might be interpreted as a trend to reduced emissions.

Extent of coverage

It would be of public interest for air pollution from fireworks displays to be covered by the NPI.

Platforms for access

DEA access to the NPI is likely to be via desk top and laptop computers, not phones or tablets.

References

[1] http://www.npi.gov.au/resource/review-national-pollutant-inventory-discussion-paper
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[3] https://www.epa.vic.gov.au/~/media/Publications/1661.pdf
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[7] National Environment Protection (National Pollutant Inventory) Measure 1998. Available at http://www.nepc.gov.au/nepms/national-pollutant-inventory