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c/o: NPI@environment.gov.au

# ACF Submission: Review of the National Pollutant Inventory

## About the Australian Conservation Foundation

The Australian Conservation Foundation (ACF) is Australia's peak national environmental organisation. We represent a community of more than 500,000 people who are committed to achieving a healthy environment for all Australians. For more than 50 years, ACF has been a strong advocate for the nation's forests, rivers, people and wildlife. ACF is proudly independent, non-partisan and funded by donations from our community.

## Introduction

Thank you for the opportunity to provide a Submission to the review of the National Pollutant Inventory.

Since it was agreed and introduced by Australia's nine state, territory and Commonwealth governments in 1998, the National Pollution Inventory (NPI) has been Australia's most comprehensive annual report on toxic pollution to air, water and land, providing the community with access to data on toxic pollution as of right, that would be otherwise unavailable. NPI data is of immense value to the Australian public, civil society and academia. ACF uses the data contained in the NPI frequently for analysis and research. It is important that the data set be preserved and improved so it may continue to enable important work on Australian air pollution moving forward.

However, the NPI is far from perfect and ACF believes it requires updating and strengthening in five key ways.

## 1. The NPI needs the backing of strong national air pollution standards and a national pollution control agency

To date, State Governments have failed to control air pollution.

Pollutant concentrations exceed the national ambient air pollution standards frequently in some communities, without meaningful consequence for polluters. In the Hunter Valley for example, thirty-four air pollution alerts were issued in July 2017, but the coal mines that are responsible for this pollution are not compelled to implement best practice pollution controls.

Additionally, fine particle concentrations in communities near power stations exceed the national standards, but the generators are not required to install readily available technologies that would reduce the sulphur dioxide emissions that form secondary particle pollution.

To effectively control air pollution, we need more than a comprehensive, accessible pollution inventory.

**Recommendation 1:** Introduce national air pollution standards and establish an independent, expert authority to determine and review them. These standards should be overseen, monitored and enforced by a new National Environmental Protection Agency (EPA).

## 2. The NPI should be used by environmental regulators in their efforts to control pollution

The NPI review is intended to assess the extent to which the NPI, *“informs, empowers and enables policy and regulatory actions and behaviours that contribute to the achievement of the desired outcomes.”*

In reality, there is a disconnect between NPI data and state government pollution control. State governments don't use NPI data to ensure compliance with licence conditions, relying instead on occasional stack monitoring results. State Governments don't determine pollution limits or pollution fees according to the NPI, or initiate compliance action when the NPI identifies polluters whose emissions appear to have significantly increased. There is no meaningful incentive or disincentive for a polluter to report that they have significantly reduced their toxic emissions.

The NPI's desired environmental outcome is the maintenance and improvement of ambient air quality. The NPI in its current format has failed to achieve this outcome. In fact, ambient air pollution has increased in many Australian communities during the last twenty years.

State Governments have failed to respond when the NPI has highlighted a significant increase in toxic emissions. For example, this year's NPI showed that coarse particle (PM10) emissions from Queensland's Mount Owen open cut coal mine increased 17% to 3.3 million kilograms, yet no additional pollution controls have been enforced.

Fine particle pollution (PM2.5) from the five power stations in New South Wales increased by 39% to a total of 755,000kg, while PM2.5 emissions from Vales Point power station increased by 179%, and PM2.5 from Bayswater power station jumped by 69%.

Despite an EPA review of their licences and compliance history, none of the power stations in New South Wales have had their licences strengthened, and none have been required to implement additional pollution controls.

**Recommendation 2:** To achieve its purpose, the NPI must be utilised by environmental regulators to effectively control pollution, not merely as a 'tick a box' exercise as is currently the case.

## 3. NPI data must be accurate and reliable

Regularly, the NPI data is found to be incorrect, and nothing appears to be done to correct it. The 2016-17 data, for instance, included several errors.

Bayswater coal fired power station in NSW reported emitting 73.5kg of mercury in 2017 while Eraring, Australia's biggest power station, emitted just 1.3kg of mercury. Either one of these reports is in error

or one of these power stations is utilising a pollution control measure that should be mandatory for the other.

In the last two NPI reports (2015-16 and 2016-17), the operators of the Yallourn power station in Victoria reported fine particle (PM2.5) emissions more than 50% lower than any year in the preceding decade. This is not credible, as the power station has not installed any new equipment to control pollution. Yallourn still has failed to install bag filters, decades after this basic pollution control was fitted to power stations around the world.

The discrepancies in emission reports from the Mt Piper is another example. Fine particle pollution is the air pollutant of greatest concern to Australian governments, and power stations are the nation's single greatest source of PM2.5. In their last five NPI reports, Energy Australia reported emitting 160,000kg, 210,000kg, 130,000kg, 10,000kg then 59,400kg of fine particle pollution from their Mt Piper power station. If this was accurate, it would suggest Mt Piper had successfully reduced toxic fine particle pollution by 95% in just 3 years, only to see emissions increase again by a factor of 6. In fact, Energy Australia had installed no new PM2.5 controls during this period. The variation did not reflect huge changes in energy output from the power station.

These errors are probably just the tip of the iceberg. A rigorous audit of the NPI data reported during the last decade would doubtless reveal scores of similar errors. Reporting errors are not remedied. Even when the under-staffed NPI office is advised of an obvious error or omission in the dataset, errors can remain uncorrected for years.

**Recommendation 3:** Stricter oversight from the Department of the Environment and Energy is required to ensure trust and credibility in the data set. The Department must ensure reporting errors in the NPI data are identified and remedied in a timely fashion and so queries made by third parties relating to inconsistencies and potential data errors are responded to appropriately.

#### **4. The NPI needs to allow users to easily compare pollution year to year, facility to facility**

The NPI website has barely changed since it was first published and allows very limited functionality. It is not possible, for instance, to compare the toxic emissions from a power station year by year. Instead, it is necessary to download the data for each year, then import multiple csv files into Excel to make this comparison.

To compare all Australia's coal-fired power stations, coal mines or other major polluters over several years, it's necessary to download hundreds of separate search results, then meticulously deposit them into an integrated spreadsheet. This requires skill and patience and presents an entirely unnecessary and preventable obstacle. A programmer with modest skill levels could create a more user-friendly interface in no time.

When community members can easily compare polluters' reports year by year, and quickly access the full details of emission control measures implemented, polluters will begin to be held to account. The purpose of the NPI was to inform and empower communities to compel polluters to reduce their toxic impacts. That purpose is being stymied by an inadequate interface.

**Recommendation 4:** Investment should be made to modernise the NPI data set. A user-friendly interface that allows real time comparison between different pollutants, industry classification and across multiple years. This would bring the NPI in line with many other key government datasets

## 5. The NPI must be expanded to include other toxic pollutants and sources of pollution

When the NPI was first developed in the 1990s, Australian governments made the pragmatic decision to start with 93 pollutants, pledging that the inventory would expand over time. By comparison, the United States' Toxics Release Inventory contains 594 toxic substances.

At present, there are several major sources of pollution that are not required to be reported. These include coal stockpiles, coal mines owned and operated by power stations and coal trains with uncovered wagons. The NPI is also unable to provide an accurate and consistent measurement of vehicle emissions. By exempting major sources of toxic pollution, the NPI currently underestimates the total volume of air pollution across the country.

Further, these substance reports are just an estimate of point source (e.g. stack) emissions and fugitive emissions. They are not based on actual monitoring, and therefore, the NPI can only estimate Australian air pollution levels. A rigorous air quality monitoring regime would provide a more accurate a credible account of air pollution levels in Australia, in real time.

**Recommendation 5:** NPI reporting requirements must be expanded to capture critical pollution sources that are currently exempted from reporting. The number of pollutants reported on must also be increased to provide a more accurate view of air pollution and bring Australia in line with international best-practice.

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Thank you for considering ACF's submission. For further information or correspondence on this submission please contact:

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