



9 August 2018

National Pollutant Inventory
Department of the Environment and Energy
Email: NPI@environment.gov.au

Dear Secretariat,

Re: Review of the National Pollutant Inventory – discussion paper

The Minerals Council of Australia (MCA) is the peak industry organisation representing Australia's exploration, mining and minerals processing industry, nationally and internationally, in its contribution to sustainable development and society. The MCA's strategic objective is to advocate public policy and operational practice for a world-class industry that is safe, profitable, innovative, environmentally and socially responsible and attuned to its communities' needs and expectations.

The minerals industry is committed to upholding high standards of environmental protection based on the use of sound science and robust risk-based approaches in the assessment and management of potential environmental impacts, including potential impacts to the environment from emissions to air, land and water.

The MCA is pleased to provide comment on the Review of the National Pollutant Inventory (NPI) – discussion paper, and responses to questions posed in the paper are provided in [Appendix A](#).

The MCA considers the NPI will only achieve its aims if it is relevant for users, contains meaningful data and provides a complete picture of material emissions/transfers. Furthermore, NPI requirements should be non-duplicative and set at the minimum effective level. If the NPI is to be effective and deliver a genuine public benefit, then each of these factors must be considered.

Thank you for the opportunity to participate in the public consultation process and to submit these comments for your consideration. The MCA would be happy to discuss this further - should you wish to do so, please contact Lorna O'Connell, on (03) 8614 1815 (lorna.o'connell@minerals.org.au) or Chris McCombe on (02) 6233 0627 (chris.mccombe@minerals.org.au).

Yours sincerely,

A handwritten signature in black ink, appearing to read "DZ", with a long horizontal stroke extending to the right.

Daniel Zavattiero
Executive Director

per Gavin Lind
Director – Workforce and HSEC

APPENDIX A:

TERMS OF REFERENCE: ITEM 1 - OUTCOMES

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.

Questions – Appropriateness of environmental outcomes

- Do the NPI NEPM outcomes remain relevant?
- If not, how might they be changed?

Page 10 of the discussion paper notes that:

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

The NPI seeks to deliver these outcomes through achieving national environment protection goals, also set down in the NPI NEPM, which are to:

- *collect a broad base of information on emissions and transfers of substances on the reporting list, and*
- *disseminate the information collected to all sectors of the community in a useful, accessible and understandable form.*

National Environment Protection (National Pollutant Inventory) Measure 1998

Page 11 states that:

the NPI's core function of collecting and providing publicly available information cannot directly maintain and improve environments, minimise environmental impacts or improve the sustainable use of resources.

The MCA agrees with the intent of the NPI's desired environmental outcomes and the associated delivery mechanism for achieving these outcomes. However the statement on page 11 should be incorporated so that the indirect nature of the NPI in contributing to environmental outcomes is clearly articulated. The delivery mechanism, as the core function, should come first, and the indirect environmental outcomes follow.

If the core function is the collection and dissemination of data, the measures of success, rather than being specific environmental outcomes, could relate to how often and how effectively NPI derived data is utilised to inform change that results in improved environmental outcomes. This could be through changes to policy, changes in industry practice, or changes in individual company operations.

Large and expensive data collection, such as the NPI, should have a specific focus to inform policy, to improve management of community exposure risks or to support Australia in meeting its international obligations. To do this requires an emphasis on data collection from non-regulated sources as well as regulated ones.

Questions – Enhancing environmental quality

- Do you think the NPI or other PRTRs enhance environmental quality?
- If so, to what extent? Can you provide any examples?

The MCA supports the overall aims of the NPI to enhance environmental quality by providing government, industry and the broader community access to relevant emissions data. However this can only be achieved if the data contained in the NPI is relevant to target users, meaningful (noting data limitations) and complete. At an operational level, NPI requirements should be non-duplicative and be set at the set at a minimum effective level. If the NPI is to deliver a genuine public benefit, then each of these factors must be considered.

An incomplete picture of national emissions

A key issue for industry's acceptance of the NPI was the segregation of industrial (largely 'point source') emissions and 'diffuse' emissions, with responsibilities for each emission 'type' lying with industry and government, respectively.

Diffuse sources such as motor vehicles, barbecues, chimney wood smoke, service stations and railways were to be the responsibility of government. Ambient impacts on air quality due to other environmental phenomenon, for example bush fires or sea salt spray, also need to be incorporated.

For the NPI to meet its stated objectives, the states and territories should be required to fulfil their commitment to regularly complete diffuse emissions data estimates for non-industrial sources and sub-threshold industry. As the discussion paper notes, the diffuse emission sources have been updated infrequently, if at all. The absence of this data negates any benefit the NPI may have and removes its status as a truly 'national' pollutant inventory.

This can create a public misunderstanding of emissions in Australia and in some cases may lead to unnecessary concern over certain types of industrial activity. This may also impact on the effectiveness of government policy, creating a perception that regulated industry is the primary driver of emissions and environmental risk, while ignoring the potentially higher risk impacts from diffuse emissions. It may also lead to poorly targeted policy responses that result in regulated industry bearing a disproportionate burden to manage environmental risks.

The NPI will only be effective if all source types are included. If Australian governments agree the NPI is both necessary and delivers an important public benefit, then the appropriate investment should be made. Anything less diminishes any value derived from the NPI and the significant costs incurred by industry.

NPI data should be meaningful

The requirement for reporters to provide detailed and accurate data is explicit. However, the use of proxy calculations, potentially insufficient sampling, and the margins of error associated with calculations and measurement methods can make emission figures meaningless. This detracts from the value of the data, and may misinform users. In a worst-case scenario, it could result in resources being allocated to solving an environmental non-problem at the expense of a real issue.

An alternative for consideration would be to apply a risk-based assessment to regions with potentially significant exposure to environmental risk, and then to conduct targeted, direct measurement programs where required. Adoption of this type of approach would require appropriate consultation with regional stakeholders.

Questions – Increasing public and industry understanding of substance emissions and transfers

- Does the NPI sufficiently raise awareness of and encourage public, industry, government and academic users to engage with and use its data to improve environmental outcomes through greater understanding? If not, why not?
- What data could be collected and published through the NPI to make it more useful for you or other users?
- Would more interpretation or analysis of the data assist users, and if so in what form?

Limited utility for the minerals sector

The NPI data itself has limited utility for the minerals industry. A survey of members in 2014 indicated that the majority undertook NPI reporting to meet regulatory and compliance requirements, rather than to inform decision making. Occasionally, members access NPI data for benchmarking purposes, both internally and externally, and some members indicated that NPI data supported internal and external sustainability reporting.

The MCA member survey reflects the statement on page 15 of the discussion paper:

Ninety-five per cent of industry respondents said the major reason for NPI use was that their facilities were required to report to the NPI. Seventeen per cent of industry respondents indicated they use the NPI to obtain information about the environmental performance of similar facilities; six per cent to obtain information about pollution in the local area, and nine per cent in non-local areas.

The need for contextual data

The industry has concerns there is public confusion and misinterpretation of NPI data. Making data available does not necessarily translate into understanding. To improve NPI data interpretation, the industry considers contextual statements should be released with the public reporting of NPI data in key air-sheds to assist interpretation. This could include, for example, a comparison of NPI emissions data with other monitoring data available for the region to understand the reporting results in line with broader trends. It is our understanding this annual analysis of data has been undertaken in the past. The publication of the real uncertainty associated with each calculation also presents an opportunity to enhance understanding of the data, including its potential limitations.

Reporting requirements should be set at the minimum effective level

Reporting to the NPI is a significant reporting burden for the minerals sector. Accordingly, reporting requirements should be set at the minimum level required to meet the aims of the NPI. Mandatory collection of further (e.g. non-emission) information would not be seen as value-adding to the Australian minerals industry, and would only add to the reporting burden that already exists.

Questions — Encouraging industry to use cleaner production techniques to reduce emissions and waste

- Does your organisation generate emissions? If so, how do you use NPI data?
- How can NPI data be more useful to you, your organisation or your industry?
- Do you/would you use the data on the emission reduction techniques facilities implement? How?

The NPI does not drive industry behaviour.

The Australian minerals industry is committed to upholding high standards of environmental protection based on the use of sound science and robust risk-based approaches in the assessment and management of potential environmental impacts. As part of its commitment to responsible

environmental management, the sector actively minimises risks to occupational, community and environmental health through emission, transmission and exposure management to land, air and water.

MCA member companies are signatories to *Enduring Value – the Australian Minerals Industry Framework for Sustainable Development*. Principle 6 of Enduring Value requires members to seek continual improvement in environmental performance. Principle 8 requires members to facilitate and encourage responsible product design, use, re-use, recycling and disposal of products.

As provided earlier, most companies undertake NPI reporting solely to meet regulatory and compliance requirements, rather than to inform decision making. Occasionally, companies access NPI data for benchmarking purposes, both internally and externally, and some use NPI data to support internal and external sustainability reporting.

With respect to tracking performance and driving improvements, state licences, environmental protection policies, operating conditions, and airshed requirements, are considered more useful than NPI.

The case studies highlighted in the discussion paper, including Port Pirie and Gidji, illustrate how NPI reporting can highlight improved emissions performance. However, the investment decisions made by companies resulting in reduced emissions are influenced by multiple factors (e.g. company policy, workforce and community health concerns, international commitments, aging infrastructure etc.). Although the NPI provides a transparent view of the “before and after” emissions profile, in the case of the minerals industry, it is highly unlikely to be the primary reason for investing in solutions that result in improved emissions/pollution performance.

Questions — Tracking Environmental Progress

- Is the NPI a useful resource for tracking environmental progress?
- How can the data it collects or the way the data is presented be more useful for tracking environmental progress?

NPI data is not used to track facility/corporate level environmental performance

The MCA supports the collection of data to track environmental progress over time. This can be done at a corporate or government level.

However, the MCA is not aware of a case within the Australian mining industry where mandatory NPI data reporting has been the sole or significant reason for the identification of an environmental issue or for its ongoing reporting. Instead, all operating sites have conditions within their environmental licenses, authorities and permits which specify threshold levels for emissions to air, land and water, and requirements for reporting any breaches. Company-specific data is the primary source of information used to manage emissions and to identify and promote benefits of process improvements.

Questions — Meeting community right-to-know obligations

- Do you think the community expects to have emissions and transfer data for potentially harmful substances publicly available?
- How can the NPI better satisfy community expectations in this area?

Community understanding requires both context and a complete picture

The MCA recognises the need for transparency to provide the community with confidence emissions are understood and managed. The NPI is a potentially useful tool for making such information available. However, the industry has concerns there is public confusion and misinterpretation of NPI data.

Provision of complete, accurate and timely data from diffuse sources in addition to that provided by regulated industries, including mining, is essential to ensure that a complete emissions profile is represented.

Any known inaccuracies, for example those derived from the emission estimation techniques or other estimation calculations and methodologies should be made transparent so that meaningful conclusions can be made from the data provided.

Without this additional information, the community accessing NPI information is provided with a skewed perspective of the health of the environment and those impacting on it and this may have negative implications for individual companies operating in particular locations.

Questions — Assisting government in identifying priorities for environmental decision making

- Does your Government agency use the NPI in program and policy development?
- How can the NPI be more useful in identifying priorities for environmental decision making?

Environmental decision making requires a complete emissions picture

The Black carbon inventory case study provided on page 28 of the discussion paper illustrates how the Canadian government used data from their National Pollutant Release Inventory (NPRI) to develop a black carbon inventory. However, a partial emissions profile will not provide the Australian government with the necessary information to develop a similar inventory. For Australia to undertake similar assessments, the data from diffuse/non-regulated sources must be adequately reported to the NPI.

Questions — Environmental outcomes section

- On balance, to what extent do you think the NPI contributes, and what is its potential to contribute, to achievement of its desired environmental outcomes?

Data collection should be linked to specific objectives

As stated above, the MCA agrees with the statement on page 11 of the discussion paper:

the NPI's core function of collecting and providing publicly available information cannot directly maintain and improve environments, minimise environmental impacts or improve the sustainable use of resources.

Large and expensive data collection, such as that undertaken by the NPI, should have a specific focus to inform policy, to improve management of community exposure risks or to meet Australia's international obligations. To do this effectively will require an emphasis on data collection from non-regulated sources as well as regulated ones.

TERMS OF REFERENCE: ITEM 2 - PERFORMANCE

The scope for improving the performance of the National Pollutant Inventory, considering:

- user experience, international benchmarks and use of data to meet international reporting needs
- accuracy of reporting by industry, including any need for strengthened compliance and enforcement measures
- interaction with other government programs, particularly those that monitor or manage emissions, wastes and hazardous substances
- potential costs and benefits of alternative delivery models (including alternative legislative frameworks).

Questions — Substance list

- Are there any substances you would like to see on the NPI substance list?
- Are there any current substances you would like to see removed?
- Do you think a TAP should be formed to re-examine the substance list?
- To what extent do you agree the NPI substance list should be further harmonised with international lists, for example through the OECD's recommended harmonisation processes?
- Should the NPI substance list be able to be changed more easily than having to change the NPI NEPM legislative instrument?

As a general principle, a review of the substance list should be undertaken so that any substances included are representative of current Australian conditions. Substances should be removed if the significance, policy relevance and/or quality of available data is low or immaterial.

While harmonisation with international lists may be useful, only those substances relevant in the Australian context should be reported.

Questions — User experience

- Have you used the NPI public website, ORS or data.gov.au web pages? How would you describe your experience?
- What opportunities are there for the NPI to improve the user experience for the public, industry and government users?
- Would you use an NPI app if developed?
- Would the users of the NPI website benefit from a greater understanding of the distinction between the NPI and the State and Territory environmental regulatory measures?
- Do you think public awareness of the NPI should be increased? If so, how? Would you support greater promotional activities including new measures to promote interesting uses of NPI data?
- Is transfer data providing sufficient value to stakeholders? How can its usefulness be improved?
- Do you report to the NPI? How could your overall user experience be improved?
- How can NPI data be made more useful for State and Territory environmental regulators? Are

there any opportunities to reduce duplications of effort in data collection?

- What additional supporting information if any would you like to see the NPI collect?

Opportunities to enhance user's experience

The MCA agrees with the discussion paper's comments on reporter user experience (page 38), specifically noting that the primary reason for undertaking reporting stems from regulatory compliance, and that reporting places a burden on business.

Our members have indicated that overall user experience could be improved. Opportunities to enhance user experience include employment of GIS techniques when displaying data; provision of reports in a variety of download formats (e.g. excel in addition to pdfs); and incorporation of historical trends. The ability to report/extract data at a company level in addition to a facility level is also considered advantageous. Presentation of online data can cause confusion and could be improved. For example, when searching for PM10 in Queensland, a data set for national facilities appears – the user must drill down to individual tables to access state-based data.

In terms of the emissions estimation techniques (EET) manuals and excel tools, member experiences vary. For some, the complexity of tools and developing emissions calculations drives use of external consultants. Others indicate that a rationalisation of user manuals and information would be beneficial, as would provision of a summary which references where to find specific estimation techniques, particularly for those new to NPI reporting. Also noted was the need to address ambiguity wherever possible, for example where guidance is provided in multiple manuals, the information should be consistent. Additional explanations could be incorporated into the excel tools to aid ease of use. Further opportunities to support positive interactions could include training days, online training modules or a dedicated support hotline.

There is no indication that the industry would utilise a specific NPI app if developed.

Questions — Reporter and thresholds

- Is there a sufficient basis to form a TAP to investigate ANZSIC industry sector inclusion codes and reporting thresholds?
- What changes could be made to the substance reporting threshold regime? Why?
- What changes could be made to the ANSZIC industry sectors required to report or be excluded from reporting? Why?
- Could NPI data from industry sectors containing smaller facilities be collected through industry associations?
- Do you support the current approach to allowing reporting outside the financial year reporting periods? Are there any changes to reporting periods you would recommend?
- Are you a reporter to the NPI? What are your experiences with the ORS? Are there any improvements to the NPI reporting process you would suggest?

Materiality of data collected

A critical issue for the mining industry is the materiality of data requiring collection. Reporting thresholds should be revised to ensure that only what is important is measured and reported. Furthermore, the NPI substance list and ANZSIC industry sector codes should be reviewed to ensure any inclusions reflect contemporary industry and government policy.

It is not the role of industry associations to fulfil the role of data collectors. This should remain a government function.

Questions — Interaction with other government programs

- Does your government program interact with the NPI? Could the NPI be changed to improve the usefulness of these interactions? How?
- How would the performance of the NPI's activities be affected if reporting under the NPI was centralised?
- Is there merit in examining ways in which the NPI could be made more relevant for State and Territory and National air quality measures? How might the NPI's relevance be enhanced?

Reporting should be non-duplicative

The MCA supports the statement on page 49 of the discussion paper noting that improved linkages between government organisations could enhance the NPI.

Streamlining and/or aligning NPI requirements with other reporting regimes would be highly beneficial. Australian examples include the National Greenhouse and Energy Reporting Scheme (NGERS), annual environmental reports for state/territory regulators and various Australian Bureau of Statistics surveys. The MCA recommends government undertake an audit of related Commonwealth and state/territory reporting requirements to identify opportunities for streamlining.

Improved interactions between governments may address the provision of timely and accurate information on diffuse emissions, which may, in turn, provide a complete emissions profile. This would benefit the public, industry and the various government departments involved in decision-making on emissions, pollution and air quality issues. In addition, facilitation of interactions that result in reporters needing to report once to one agency, rather than multiple times in different formats to multiple different agencies on different time frames would be supported.

Questions — Accuracy of reporting/compliance and validation

- How accurate and reliable do you expect NPI data to be? What processes should be improved or introduced to make NPI data more reliable?
- Would data accuracy be helped or hindered through methods to more explicitly place the onus on reporters? Such methods may include having reporters publicly release yet-to-be validated data or changing the relevant reporting clauses in the NPI NEPM.
- Have you found the NPI Emission Estimation Technique (EET) manuals difficult to use or producing inaccurate, unreliable or variable estimates? Are there any in particular needing urgent attention?
- What measures are most effective to ensure compliance with NPI reporting legislative framework? Could enforcement of non-reporting and false reporting to the NPI be more effective? How?
- Should regulatory penalties for facilities not reporting or providing poor quality data to the NPI be standardised across Australia? Why?
- Is the diffuse source data (or aggregated emissions data) sufficiently accurate and current to be reliable? Could it potentially be more so? Should improving the quality of such data through for example, more regularly updated studies, be given a higher priority? Why?

Data accuracy should be understood

The mining industry aims to report data accurately and reliably. However, the effort required to provide accurate input data is not always consistent with the accuracy of the outputs NPI generates. A high level of accuracy is required for input data (e.g. fuel use, materials handled, distance travelled), but the algorithms contain averages, default emission factors and at times coarse factors. These data limitations may not be well understood by the public when using NPI data to form a particular view.

Placing additional onus on reporters to increase accuracy when the algorithms themselves negate this level of precision is not an appropriate response. Reporting yet-to-be validated data might cause more confusion if data changes once validated. Industry strenuously opposes the reporting of invalidated data.

EET Manuals

When considering any changes to the NPI or its associated methodologies, it is important to understand the additional workload this may place on reporting entities. Options to reduce reporting requirements when emissions have been shown to be negligible would be beneficial.

As noted above, member experiences vary when using the EET Manuals and excel tools. For some, the complexity of tools and developing emissions calculations drives use of external consultants. Others indicate that a rationalisation of user manuals and information would be beneficial, as would provision of a summary which references where to find specific estimation techniques, particularly for those new to NPI reporting. Also noted was the need to address ambiguity wherever possible, for example where guidance is provided in multiple manuals, the information should be consistent. Additional explanations could be incorporated into the excel tools to aid ease of use. Further opportunities to support positive interactions could include training days, online training modules or a dedicated support hotline.

Mining Manual

The Mining Manual provides emission factors for a number of activities to be considered in NPI reporting. NPI should consider referencing the source from which the emission factors are derived. There are key activities that contribute to air emissions identified for reporting in the NPI where the source has not been referenced, including loading stockpiles, unloading from stockpiles and loading to trains. The Mining Manual should be updated to reflect the source of these emissions factors.

The industry holds concerns that many of the emission factors in the manual are not reflective of contemporary practice or Australian conditions. Accordingly, the industry is investing in research to improve the accuracy of some of these factors.

Port activities

The NPI should consider the provision of further advice or an EET Manual for ports to enable operators to fulfil their NPI requirements. Operators currently rely heavily on the Mining Manual to guide data collection and reporting in the absence of an industry-specific EET Manual for ports undertaking activities or handling product that have the potential to generate air emissions. The consistency in the approach by which air emissions are estimated at ports can vary between operators, having regard to the activities considered to accurately capture operations, emission factors for a number of activities and potential products handled, and the control efficiency standards adopted.

Diffuse emissions

The MCA would welcome attention on improving the timeliness and accuracy of diffuse source reporting rather than a specific focus on regulated sector compliance and/or enforcement measures and regulatory penalties associated with the scheme.

As already stated in this submission, a key issue for industry's acceptance of the NPI was the segregation of industrial emissions and diffuse emissions, with responsibilities for each emission 'type' lying with industry and government, respectively. Some of the air inventories have not been updated for 15 years. Given the significant effort by industry to update its data annually, it is important that diffuse data is updated more regularly to better inform policy makers of trends and identify management priorities, as well as fulfilling the aim of the NPI which is to accurately report emissions to the community.

For the NPI to meet its stated objectives, all states and territories should be required to fulfil their commitment to regularly complete diffuse emissions data estimates for non-industrial sources and sub-threshold industry. The absence of this data negates any benefit the NPI may have and removes its status as a 'National' pollutant inventory. This can create a public misunderstanding of emissions in Australia, and raises the serious question as to why industry is incurring significant costs to report to an incomplete database.

TERMS OF REFERENCE: ITEM 4 – RESOURCING MODELS

Consideration of sustainable resourcing models for the effective operation of the National Pollutant Inventory, including options for cost recovery.

Questions — Current funding model

- Do you think more or less public funds should be spent on the NPI?
- What areas would more funds deliver more value for NPI users and stakeholders in your opinion?
- What areas of the NPI could be discontinued or allocated reduced funding?

The MCA understands that the operation of the NPI has been underfunded. If it is funding that is contributing to the lack of current data from diffuse sources, then additional funding to address this issue is considered essential. If Australian governments consider the NPI is delivering a public benefit, then it is imperative those governments make the appropriate investment to ensure the NPI is both complete and relevant for users. Additional value may also be extracted by ensuring consistency of approach across jurisdictions and consistency and appropriateness of guidance and tools.

Questions — Sustainable resourcing models

- Should NPI facility reporters and/or NPI data users be asked to contribute to improvements to the NPI through a cost recovery model?
- If a user pays system were introduced, would you still access the data? Why/why not?
- Would the centralisation of data collection activities currently performed by the States and Territories result in the NPI delivering program efficiencies? Or false economies? Are there any costs or benefits not listed?

The MCA does not support asking reporters to contribute to improvements to the NPI through a cost recovery model. Our members already incur substantial costs through participation in the program (for example ensuring internal systems and processes are current, undertaking data collection, conducting data validation and submitting information for formal reporting). One member indicated their costs of compliance can exceed \$250,000 per annum.

Centralisation of data collection activities might deliver program efficiencies and may improve consistency in provision of advice. However, an evaluation of what each jurisdiction does well, and analysis of regionally specific requirements should be conducted as part of any investigation into alternative arrangements. The overall need (or not) for a centralised platform should also be considered.