

NATIONAL POLLUTANT INVENTORY REVIEW – QUESTIONNAIRE

You are invited to comment on all or any of the following questions. Please do not feel obliged to comment on all issues or to be constrained by the space provided for your response: if the space provided is inadequate please increase the size of the space provided or added extra pages.

A summary of the goals, objective and performance indicators of NPI are included at the end of this questionnaire.

Respondent: Peter Smith
Name

NSW Minerals Council
Organisation

Goals and Objectives

Are the goals and objectives of the NPI NEPM appropriate? If not how they could be improved?

The priority of the NPI should be to improve the state of the environment, not just provide more data to the community per se.

The goals and objectives of the NPI are worthy. However, NPI's design and methodology are such that it is fundamentally limited to having only an indirect influence on the goals and objectives themselves. This is evident for the KPIs used to measure success and progress of NPI. These essentially only deal with access to data rather than anything related directly to the main goals and objectives. Industry is also particularly cautious about the quality of data in the NPI and seeks to encourage any information that is reported to be meaningful and scientifically sound.

Specific Substance List

Are there any substances which should be either added or deleted from the list? Please specify.

PM10 is a flawed "substance" for reporting purposes because of its complex nature – it is fundamentally different from other specific substances and comprises particulates of all sorts, sizes, chemistry, stability and toxicity. PM10 should be reconsidered as "substance".

Natural crustal minerals in dust (PM10) from minerals industry emissions are typically relatively large particles of fine clay material and not of toxicity concern compared to certain free metals or other metal complexes from combustion sources. The reporting of natural crustal components of Particulate Matter should be deleted since the main focus of environmental pollution and health concern relates to very fine and ultrafine particles from combustion sources. As a result, the attention to these priorities are lost in the generic and undifferentiated category of PM10 and only serve to enforce double-counting of emissions (of PM10).

What would be the resource and cost implications of adding additional substance?

No additional substances required to be reported.

Are there any changes that should be made to how substances are reported?

Refer above comments in relation to PM10 and natural crustal particulate matter.

What would be the resource and cost implications of these changes?

Minimal, especially compared with the gain in understanding on combustion-sourced finer particulates of main health concern.

Broad substance Lists

Should the NPI be modified to include any of the following:
(please bold or underline those that should be included).

- Agricultural chemicals – ***Any consideration for such additional substances to be reported must be subject to proving the demonstrated need for it, based on risk-based assessment that current emissions are significant and that current emission levels have a likelihood of significant risk of harm. Also, reporting must be on the proviso that accurate EETs can be developed.***
- Veterinary chemicals – ***Any consideration for this additional substance to be reported must be subject to proving the demonstrated need for it, based on risk-based assessment that current emissions are significant and that current emission levels have a likelihood of significant risk of harm. Also, reporting must be on the proviso that accurate EETs can be developed.***
- Construction industry emissions – ***Any consideration for reporting by this sector must be subject to proving the demonstrated need for it, based on risk-based assessment that current emissions are significant and that current emission levels have a likelihood of significant risk of harm. It is contended that combustion-related particulates and gases as well as substances in aqueous discharges should be the only emissions under consideration.***
- Non-anthropogenic sources eg biogenics – ***Any consideration for these additional substances to be reported must be subject to proving the demonstrated need for it, based on risk-based assessment that current emissions are significant and that current emission levels have a likelihood of significant risk of harm. Since biogenic substances are known to be of health concern (re asthma and COPD), biogenics should be included in the diffuse/aggregate component of the NPI. However, caution is needed to properly account for such information because of the extensive migration potential, “speciation” and seasonality of such biogenic particles. Also, any reporting must be on the proviso that accurate EETs can be developed.***
- Transfers – ***No. Transfers are inconsistent with the general intention of the NPI as an emissions reporting tool.***
- Greenhouse gases – ***No:***
 - ***Main greenhouse gases (CO₂, methane) are natural substances, not “pollutants”***
 - ***Existing reporting by industry adequately addresses reporting requirements, to be enhanced by new national reporting programs under Greenhouse Challenge Plus***
 - ***Commercial sensitivities apply to many areas of GHG reporting***
 - ***NPI must not further burden the profuse and inconsistent GHG reporting regimes already in place***
 - ***NPI reporting at entity level (as opposed to much current industry reporting at business unit level or corporate level) would present problems in interpretation. For instance, emission offsets would not be incorporated in the database.***
 - ***GHGs are a global environmental impact issue and are inconsistent with the local and regional focus of existing NPI emissions.***
 - ***Site/facility-level NPI reporting would disperse, rather than focus, the industry’s efforts at GHG mitigation approaches and would inadvertently encourage less cost-effective localised mitigation measures than would be***

<p><i>developed under a whole-of-corporation (possibly global) response to GHG management. It is more relevant that GHG emissions are reported in aggregate, as occurs annually in the NGGI.</i></p>
<p>What would be the resource and cost implications if your company/industry is required to report transfers and/or greenhouse gases?</p> <ul style="list-style-type: none"> • <i>Transfers and GHG reporting is emphatically rejected.</i> • <i>Direct cost would be an additional resourcing burden resulting from the need for separately derived and handled data, and the need to separate and reconfigure GHG data from that already managed under different reporting rules and methodologies.</i> • <i>Considerable indirect cost would arise from the need to ensure separate NPI data systems for GHGs. Additional cost would stem from the inefficiencies, errors and confusion associated with multiple, inconsistent internal and external reporting regimes.</i>
<p style="text-align: center;"><u>Thresholds</u></p> <p>Do you recommend that any of the threshold levels need changing? If so which and why?</p> <p><i>NO. At this time there is no case yet demonstrated by NEPC for either lifting or lowering any threshold.</i></p>
<p>What are the cost and resource implications to your company/industry of changing thresholds or methods for determining them?</p> <p><i>Costs implications uncertain – the consultation period for this questionnaire did not allow any substantive industry discussion of costs and other important issues.</i></p>
<p>How can geographically dispersed facilities be better defined for reporting purposes (eg pipelines, mines, etc)?</p> <p><i>Dispersed facilities, such as mines and (to a greater extent) pipelines, are inherently problematic in relation to NPI's basic design which is more suited for point-source secondary industry. All important planning and environmental matters for such facilities (including priority emissions) are already better addressed under existing State regulatory and reporting frameworks.</i></p> <p><i>Mines are configured in an infinite variety of ways (underground, open-cut, multi-pit, in-pit and/or remote processing, single site or joint facilities for processing/handling/transport, mining operation location statically or dynamic, etc) and are typically located in remote or rural areas. In general, the mining lease or colliery holding should be the preferred boundary definition, with only the pollution emissions sourced from the footprint of the mine's <u>DIRECT</u> disturbance and which leave the mining lease perimeter being relevant for the NPI reporting.</i></p>
<p style="text-align: center;"><u>Industry Reporting and Data Quality</u></p> <p>Is it necessary for a handbook to be produced before reporting is required?</p> <p><i>Yes – the reason for this relates to industry's fundamental concern that data quality must be of a high standard and provide for uniformity in application. A handbook does not guarantee data quality, but the lack of a handbook almost certainly does guarantee poor and inconsistent data quality in reporting.</i></p>
<p>Are there any other industries that should be reporting eg crematoria or forest operations?</p> <p><i>Significance and materiality – rather than comprehensiveness - of emissions of priority substances on a risk-based approach should be the guidance for industry inclusion in</i></p>

the NPI for reporting (subject to meeting normal thresholds). There must be a demonstrated priority in terms of volume of emissions and known environment/health risk in Australia before requiring reporting of additional substances.

How could data accuracy be improved (eg more measurement, better validation, etc)?

In relation to the minerals industry, there has been continued and widespread dissatisfaction with the EETs for dust emissions (e.g. Traffic on unpaved roads, wind erosion, etc). There is a need for a major government funded study to improve the EETs rather than rely on importation of dubiously-relevant USEPA AP-42 protocols. As previously noted, there is a valid case for excluding some aspects of crustal dust emissions and natural minerals content in aggregated particulate matter categories (e.g. PM10)

Is the current set of industry handbooks adequate or do they require improvement? If improvement is required, which handbooks and what types of improvements are required?

Refer above. There needs to be a better consideration of background concentrations of naturally-occurring minerals and metals rather than the past approach of using overseas crustal estimates, provided as tables in the industry handbooks. The retention and further development of the handbooks is essential and these should always be works in progress and open to ongoing review.

Diffuse Data Quality

Do you have any comments on the diffuse emissions in the NPI?

Contextual/aggregated/diffuse emissions information in the NPI could be improved. Problems and deficiencies in Particulate Matter issues also relate to diffuse emissions.

Implementation

Are there implementation issues that need resolution?

***Severe limitations of the NPI EET accounting methodology reduce the value and accuracy of the NPI data for cumulative and regional assessment purposes. NPI reporting provides no basis for assessing potential impacts (which require knowledge of ground level concentrations). These limitations-for-use conditions need to be clearly communicated in NPI website and information.
For example, NPI does not account for dust fallout on a mining lease, thus it fundamentally overestimates particulate emissions.
Simply, the NPI is incapable of addressing questions of local and regional impacts (ground level) for air quality.***

What improvements in reporting arrangements could be made?

Nationally consistent accessibility to on-line reporting systems should be available.

Are the reporting timeframes adequate?

These appear to be adequate, but the short time frame for responding to this questionnaire did not allow useful industry consideration of this matter..

Data Access and Use

Is the NPI database being used within your organization/industry? Please give examples.

Minimal use of NPI data is undertaken on an industry basis because of the poor data quality and severe limitations on NPI data use for local/regional and cumulative impact assessment purposes.

Mining industry operations vary constantly according to production stages, market responses, geological and locational factors, etc. Mining (and its emissions) are strongly influenced by wind and weather (e.g droughts/wet periods affecting site water balance). Hence the NPI emissions record is a poor indicator of site environmental performance in eco-efficiency and cleaner production terms.

What are the impediments to its use and how could these be reduced?

The NPI should neither try to be nor purport to be a surrogate for proper planning and risk-based management by companies/operations and regulatory processes in State jurisdictions.

Community and stakeholder engagement as well as accurate and meaningful (quantitative and qualitative) information dissemination are currently well developed in the minerals industry.

Is the contextual information adequate and how could it be improved?

Common to other deficiencies in the NPI, improved accuracy and explanation of data use limitations are required.

Contextual information needs to be more visible given its relevance to the emission numbers being reported. As an example, if an emission number reflects metal potentially available to biota (as distinct from the total amount of metal present) this number should be referenced as acceptable regarding risk under the NPI.

Has the NPI influenced cleaner production decisions within your organization/industry? Please give examples.

NPI provides relatively minor incentive or direction for cleaner production decisions compared with more substantive industry initiatives such as Codes of Practice and industry co-ordinated eco-efficiency and materials stewardship policies.

Are there any other benefits to your organization/industry from the NPI?

No.

Other Resource Issues

What staff and financial resources have been devoted to the NPI? (Specify time period and expenditure over that period).

N/A – the very limited consultation period for this questionnaire did not permit effective industry consultation on this matter. Individual companies have been encouraged to make separate submissions.

Do you have any suggestions on how costs could be decreased and benefits increased?

While important benefits and improvements could only arise from major modifications to the NPI design and methodology, it is unlikely that this would be a priority for industry and regulators given the superior instruments and management initiatives that already exist at the site, local and State level for land use planning/approvals, emissions regulation, community and stakeholder engagement. It is these measures that provide a context where proper consideration of sustainable development principles and implications can be intelligently balanced.

Are there any other comments you would like to make about the NPI?

The NPI should NOT be further expanded, and emphatically NOT expanded to incorporate GHG emissions or transfers.

For the minerals industry case, other reporting and regulatory/non-regulatory initiatives already better deal with aspects that the NPI aspires to encourage or address, such as cleaner production, cost-effective and risk-based approaches to environmental emissions, GHG mitigation responses, materials stewardship (including waste management), stakeholder engagement, impact assessment, industrial ecology opportunities, and proper consideration of sustainable development issues.

The NSW Minerals Council also wishes to express its concern regarding:

- the impossibly short timeframe for this consultation process
- the inherent character of this questionnaire demonstrates a *fait accompli* tone to this consultation exercise and reveals a predisposed intention for change to the NPI irrespective of the outcome of this consultation exercise.

Please return the completed questionnaire to environment.link@bigpond.com by 31 March 2005

Thank you for your comments.

NPI - Goals and Objectives

These have been paraphrased from the NEPM

Desired Environmental Outcome (Clause 5)

Maintenance and improvement of ambient air quality

Maintenance and improvement of ambient water quality

Minimisation of the environmental impacts of hazardous wastes

An expansion in the use and recycling of used materials

National Environment Protection Goals (Clause 6)

Assist in reducing existing and potential impacts of emissions

Assist in achieving the desired environmental outcome by:

- collection of a broad base of information on emissions
- dissemination of the information in a useful, accessible and understandable form.

Objectives (Clause 7)

Establish NPI database to provide information to:

- enhance and facilitate policy formulation and environmental decision making
 - about specified emissions to the environment including those of a hazardous nature or involving significant environmental impact in a publicly accessible form and on a geographic basis
 - promote, assist with, and facilitate, waste minimisation and cleaner production programmes
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NPI Performance Indicators

These are derived from the NEPC 2003-2004 report on the NPI NEPM implementation.

- Number of hits on the database
- Number of facility reports on the database
- Feedback/data from industry as to whether the NPI has led to increased consideration of waste minimisation and cleaner production
- Feedback from users of the database on its usability and on the relevance of the information for their needs
- Increasing trend in the number of reporters
- Range of industry sectors reporting
- Number of new reporters
- New industry sectors reporting