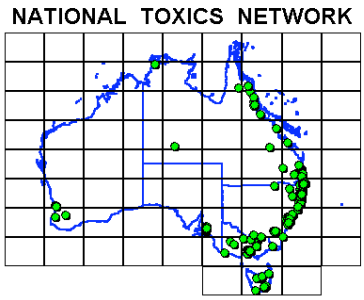

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Australia's National Pollutant Inventory
– has it served community right to know ?

ABSTRACT

In 1994, in a spirit of optimism, the now defunct Commonwealth Environment Protection Agency released a Public Discussion Paper on a proposed National Pollutant Inventory (NPI) for Australia. The discussion paper was well received and enthusiasm for such a reporting system was high. Yet by the end of the decade, civil society was left wondering, "What was all that about?" and for those closely associated with the NPI consultative process, a sense of disillusionment reigned. The subsequent NPI National Environment Protection Measure (NPI NEPM) was described by Greenpeace as a voluntary, second-rate environmental measure and a "betrayal of the Australian community's 'right to know' about pollution."

The National Toxics Network (NTN) has been involved in the development of the NPI since its inception and was a member of the Commonwealth NPI Reference Group. In 1995, on behalf of the Commonwealth Environmental Protection Agency (CEPA), members of NTN undertook the project, "Investigations and Recommendations for Community Information Needs & Delivery for the National Pollutant Inventory". This paper will review the community expectations, plus the findings and recommendations of that report in light of the current NPI and the recent changes to industry reporting requirements.

Community Right to Know

From the 1970s, unions, environment organisations and community groups as well as the minor political parties campaigned for 'community right-to-know' legislation and access to information about industries' chemical emissions, storage and pollution.[1] Community right to know had been established as Principle 10 of the Rio Declaration from the United Nations Conference on Environment and Development (UNCED). Agenda 21[2] had acknowledged that it is in the public interest for the community to be informed, to exercise their right to understand, to make informed choices and to participate in informed decision-making.[3] In 2000, community right to know was reaffirmed by the Intergovernmental Forum on Chemical Safety (IFCS), which includes Australia. The 'Bahia Declaration on Chemical Safety' 2000 [4] called on all governments to recognise the community's right-to-know about chemicals in the environment and recognise the community's right to participate meaningfully in decisions about chemical safety that affect them.

In Australia, calls for community right to know had come to a climax in August 1991 with the chemical fire at the Coode Island chemical storage facility. Coode Island was a large storage site on the Melbourne waterfront, surrounded by homes. Mass evacuations were carried out, leaving people stunned that this could happen in their suburb. The Coode Island Review panel approached a local community and environment organization (Hazardous Materials Action Group) to prepare a report on community right-to-know, "Unlocking the Factory Door".[5] The report examined access to information on the storage, use and transport of hazardous chemicals and recommended legislation to ensure greater public access to chemical information.

At the same time in rural Australia, transport related chemical spills, incidences of pesticide drift and contamination of rivers and creeks motivated regional communities to demand information on agricultural chemicals, their use, their impacts and their pollution characteristcs. In 1990, members of NTN had completed a research project developing 'community right-to-know' chemical information systems, based on Geographic Information System (GIS) technology.[6] Most regional groups consulted as part of the

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[1] Lloyd-Smith, M. 'Australia's National Pollutant Inventory, a National Environment Protection Measure', Series on Pollutant Release and Transfer Register No 1. Proceedings of OECD International Conference on Pollution Release Transfer Register (PRTRs) : National & Global Responsibility Part 2 Tokyo, 9-11 Sept.1998, Environment Directorate, OECD, Paris 1999 (ENV/JM/MONO(99)16/PART2); Lloyd-Smith, M., 'Rights and Wrongs of Knowing in Chemical Conflict.' Vol.2 No 3: March 2002 *The Drawing Board, An Australian Review of Public Affairs.*

[2] Principle 10 of the Rio Declaration from the United Nations Conference on Environment and Development

[3] Agenda 21: Programme for Action for Sustainable Development Rio Declaration on Environmental Development, United Nations Conference on Environment and Development (UNCED), 3–14 June 1992, Rio de Janeiro, Brazil.

[4] Para 11/6, Bahia Declaration on Chemical Safety, Intergovernmental Forum on Chemical safety, Brazil 15th – 20th October, 2000, (IFCS/FORUMIII/11w).

[5] Adams, P and Ruchel, M, *Unlocking the Factory Door! The Community Demands the Right-to-Know*. Report to the Coode Island Review Panel by the Hazardous Materials Action Group, March 1992.

[6] Development and Trialling of Pollution/Environmental Auditing GIS Methodology for Local Government Area, 1990-91, BioRegion Computer Mapping & Research, North Coast Environment Council. Prepared for Chemical Assessment Branch, Dept. of Environment (DASETT)

project were aware of the USA Toxics Release Inventory and its associated community right-to-know provisions.

In 1992, the Commonwealth Government announced the establishment of the National Pollutant Inventory (NPI). It was heralded as an innovative community right to know program, which would deliver information on chemical emissions to enhance environmental decision-making, facilitate waste minimisation and cleaner production and fulfil community right to know.[7] There was a spirit of optimism, when in 1994 the Commonwealth Government released its Public Discussion Paper on a proposed National Pollutant Inventory for Australia.

It was reported that the NPI, like similar schemes already implemented overseas, would see a reduction in pollution and waste generated by industry. The Toxic Release Inventory in the United States had been attributed with achieving over 40% reduction in pollution and waste with significant 'flow on' savings to industries through waste reduction and cleaner production initiatives.[8]

Members of NTN were involved in the campaigns for community right to know, improved chemical management and the subsequent development of the NPI. They were nominated as a member of the Commonwealth NPI Reference Group, a stakeholder advisory body made up of industry, union, government, community and environment organizations (NGOs). The group was charged with establishing mutually acceptable outcomes for Australia's NPI. While the subsequent Reference Group meetings were often fiery and the negotiating of an acceptable outcome for industry, community and government far from easy, general agreement was reached for most of the essential components of the NPI.

Mutually Agreed Outcomes

The NPI Reference Group agreed on an initial reporting list of around 100 chemicals, with emissions to all media to be included. There was an acknowledgement that care needed to be taken not to double count, for example in the case of trade waste. All participants agreed that emissions from diffuse sources would need to be estimated by government agencies.

It was also recommended that agricultural chemicals could be included at a later stage, in a different module or format, due to the basic differences between agricultural and industrial emissions. There had been an intense push for the inclusion of pesticides and fertilisers from regional NGOs and some rural communities. The Director of the Australian Centre for Environmental Law based at ANU [9] had also argued that

[7] Environment Protection Agency, National Pollutant Inventory Discussion Paper February 1994.
[8] US EPA Headquarters Press Release, Washington, DC, 20/5/97, "EPA's 1995 Toxics Release Data Includes First-Ever Reporting On 286 New Chemicals"
[9] Gunningham, N. & Cornwall, A., *Toxics and the Community: Legislating the Right to Know* Australian Centre for Environmental Law, Australian National University, Canberra 1994; Also see Gunningham, N. & Cornwall, A., "Legislating the Right to Know" (1994) *EPLJ* Vol.11 pp274-288

agricultural chemicals particularly pesticides needed to be included in the NPI due to the absence of any monitoring of pesticide usage in Australia.

There were disagreements over the inclusion of chemical storage in the NPI and while NGOs, community and union groups viewed this as an essential component of right to know, industry and government saw it as outside the realms of the NPI. The legal firm Minter Ellison in their final report to the Commonwealth EPA acknowledged that many community, conservation and environment groups were adamant that storage and use data should be included in the NPI while industry groups argued equally strongly that it should not.[10]

NGOs and trade unions also cited the US *Emergency Planning & Community Right-To-Know Act (EPCRA)* 1986, [11] which required facilities to report hazardous chemicals held on site. In Australia, the only databases on chemical storage were held by State Governments and access was blocked by their 'commercial in confidence' status. Subsequently, the February 2001 chemical fire at the Bellevue Hazardous Waste storage site in Perth has only served to strengthen community calls for access to data on hazardous chemicals stored near them.

Acknowledging that the NPI needed to be more than just a voluntary program, the NPI Reference Group made recommendations in regards to national legislation for the NPI, as well as a nationally consistent approach to issues such as third party rights, assessment of commercial in confidence claims, and transparency in the addition or deletion of chemicals on the NPI list.

Investigations and Recommendations for Community Information Needs and Delivery for the National Pollutant Inventory

In 1995, the North Coast Environment Council research group (BioRegion Computer Mapping & Research) comprising of members of NTN prepared a report on community information needs and delivery mechanisms for the CEPA.[12]

The aim of the study was to examine the community's information priorities and to determine the most appropriate delivery systems for the NPI. In addition it would identify appropriate access sites and community capacity building options to ensure the best use of the NPI data. The team held workshops, visited industries and spoke with a range of stakeholders and community groups. These included affected residents, industry representatives, researchers, remote aboriginal communities, local government environment managers, environment and conservation groups, unions, emergency

[10] Minter Ellison Final Report to the Environment Protection Agency; Development of Legislated Modelling For The National Pollutant Inventory and Associated Community Right To Know in Australia, Canberra 1994
[11] US *Emergency Planning & Community Right-To-Know Act (EPCRA) 1986* (42 U.S.C.11011 et seq.)
[12] BioRegion Computer Mapping & Research & the North Coast Environment Council, *Investigations and Recommendations for Community Information Needs & Delivery for the National Pollutant Inventory*, Prepared for the Commonwealth Environmental Protection Agency, April 1995.

service, State and Commonwealth agencies, students, health and safety officers and librarians.

There was strong regional support for the NPI and even remote communities recognised the relevance of the NPI to their pollution issues. Reflecting the regional focus of the study, the participants in the study identified water quality, aerial spraying of pesticides and contaminated sites as pollution priorities.

They prioritised their chemical information needs as the:

- identity of chemicals;
- location of pollutants (point and diffuse sources);
- health effects;
- environmental impacts;
- usage and storage details;
- standards/acceptable levels;
- hazard and risk assessment;
- known datagaps;
- further explanatory/contextual/education material; and
- other available aggregated data.

Importantly, in addition to their expressed desire for an interactive website and database on CDROM for the NPI, participants identified local libraries, environment centres and councils as preferred information access points. This was in part due to the strong emphasis on local and regionally based access sites where personalised help and training would be available.

The report made a number of recommendations in regards to information access and capacity building to facilitate community right to know. It recommended that a user-friendly GIS database be implemented to meet the information needs prioritised by the community. It also recommended that the NPI information system be distributed in CDROM format through regional library networks and that an advertising, promotion and training strategy be developed and implemented.

The study confirmed that fulfilling community right-to-know was not only a function of the content and format of the NPI but also the delivery mechanisms, its accessibility and access sites and the efforts directed to community capacity-building to enable the most effective and equitable use of NPI data.

National Pollutant Inventory as a National Environment Protection Measure

The final decision to develop the NPI as a National Environment Protection Measure (NEPM) under the National Environment Protection Council Act 1994 ("NEPC Act"), was criticised by unions, NGOs and legal organisations. They argued that it could not provide comprehensive or nationally consistent 'right to know' to the Australian

community.[13] The NPI's success would be reliant on the voluntary co-operation of States, which could legally withdraw at any time. As there were no means of enforcement or accountability,[14] NEPMs were viewed, at best, as a quasi legal instruments. The NEPC Corporation acknowledged this noting there was no obligation on a State to legislate to implement an NEPM, describing the requirement to implement measures as a political imperative rather than a legal one.

Further weakening the process, the Commonwealth and a number of States included in the right to disallow NEPMs in their various NEPC Acts.[15] The results of this were clearly demonstrated when the Queensland Government announced in 1997, its decision to amend the Mount Isa Mines Agreement Act. MIM would not be bound by national air quality or monitoring standards as set by the NEPMs.[16] While this exemption is soon to be revoked, some of the long-term ramifications may become apparent. Legal cases have been instigated against the company, Xstrata by local community members claiming contamination of their children and environment.

The NPI was also viewed as weak as the NEPM would disallow the use of fines or prosecution to enforce reporting compliance. Instead, compliance programs were to depend on soft options such as 'naming' those industries that do not report their emissions in State and Federal parliaments.

In 1996, the new NEPC body, unfamiliar with participatory processes, attempted to finalise the development of the NPI in isolation. It put aside many of the mutually agreed outcomes of the NPI Reference Group. As a result, in October 1997 with the release of the proposed NPI, the environmental representatives supported by a coalition of leading environmental, legal and community groups walked out of the NPI consultative process. They condemned the proposed format of the National Pollutant Inventory as a betrayal of the Australian community's 'right-to-know' about pollution.[17]

The Scope of the NPI NEPM

Probably one of the most important factors in the disillusionment surrounding the NPI NEPM was the last minute decision to exclude transfers, that is, releases of toxic chemicals to sewers, landfills and tailings dams. This occurred after intense lobbying by the mining industry and pressure from powerful States who simply refused to include transfers in their NPI. The decision to exclude transfers from the NPI flew in the face of international commitments to a Pollution Release and Transfer Register' (PRTR) as described by the OECD Council [18] and which clearly included transfers as an integral part

[13] Pitts, J. and Fowler, R., "Giving The Community Of The Right To Know: Options For Implementing a Legislated Enforceable National Pollutant Inventory" Report No. 4 prepared for Greenpeace, June 1996 at 5.
[14] Office of General Counsel, Attorney-General's Department, Legal Advice to the Department of Environment, Sport and Territories (17 January 1994).
[15] Parliament of the Commonwealth of Australia, Senate, National Environment Protection Measures (Implementation) Bill 1997, Explanatory Memorandum (Circulated by Authority of the Minister for the Environment, Senator the Hon Robert Hill), P.4 & Parts 2 and 3
[16] 'Govt. warned not to amend law for MIM' Courier Mail 1.5.97
[17] Greenpeace /NTN Media Release 13.10.97 "Final Betrayal – Green Anger at Toxic Pollution Proposal"
[18] OECD Council Recommendation on Implementing Pollution Release and Transfer Register

of a PRTR. Both the United States and Canada required the reporting of transfers.

The exclusion of these emission transfers was unexpected. At the 1994 OECD Workshop, the Business and Industry Advisory Committee (BIAC) had listed the goal of public right to know in relation to PRTRs as the provision of publicly available, readily accessible information on "chemical use, release, transfer and disposal." Similarly, the Plastics and Allied Chemical Industries Association of Australia (PACIA) committed to including amalgamated data on transfers in their own reports.[19]

In the final NPI NEPM pesticides were not included. Nor were there any commitments given to reviewing a agricultural chemical emission module at a later date, despite the repeated calls from rural communities for community right to know about agricultural releases. The final format of the NPI NEPM had also ignored the strong case made by unions, local government authorities and community groups for including information on chemical storage and emergency response plans.

The NPI NEPM failed to fulfill other community expectations, as well. The number of chemicals to be reported was significantly less than the Canadian NPRI, which required reporting on 176 substances and the US Toxics Release Inventory, which covered over 600 toxic substances. While the list has been expanded from the initial 38 substances to 96 substances, it still remains substantially less in comparison.

As the NPI NEPM was launched, Greenpeace released data provided by some companies under their voluntary Responsible Care Programs and compared it to data which would be available through the NPI. It was obvious that the NPI would not deliver adequate community right to know. A pertinent illustration was the case of one large chemical company based in Melbourne, who provided information to a 1995 Greenpeace Survey.[20] Under their Responsible Care Program, the company voluntarily reported emissions of approximately 1,236,834 million kilograms of chemical releases to air, water and landfill. Under the NPI, they were required to report only 150,000 kilograms, as the majority of their chemicals were not included on the NPI list and a significant proportion of the company's waste was 'transferred' offsite to landfill (approx. 204,434 kg).

Other weaknesses of the NPI NEPM, which were forecasted in the 1994 Minter Ellison report [21] included the issue of accidental releases or 'peak' releases. Minter Ellison had argued for unforeseen releases to be included as a separate category. The NPI reporting of emissions made it very difficult to assess whether emissions had occurred once or gradually over a year. This was of great importance to local communities concerned about the impacts and risks of neighbouring companies' toxic releases. The need for such data is still evident in the long running campaign by the Geelong Community for Good Life for access to information on emissions from incidents and accidents at Shell Geelong

[19] "Reducing Waste, Report on Waste Survey 1996", PACIA, Plastics and Allied Chemical Industries Association.
[20] Greenpeace Pollution Inventory and Database, May 1995, compiled from the results of the Greenpeace Survey of Chemical Companies with database development by BioRegion Computer Mapping and Research
[21] Minter Ellison op cit

Refinery.[22] The Geelong community group argue convincingly that they require access to the documents describing incidents and accidents to determine the impact of emissions from the Shell Geelong refinery, as well as the refinery's compliance with its licence, clean up notices and statutory requirements. They also argue that it is impossible to calculate the actual level of emissions from the refinery without access to emissions resulting from incidents and accidents.

In the community's attempts to access NPI data for the refinery, a search for the facility using the terms 'Shell Refining (Australia) Pty Ltd', 'Shell Geelong Refinery', 'Shell Refinery' provided the response; "there were no reporting facilities in Victoria which met your selection criteria." Yet, a search via the Australian and New Zealand Standard Industrial Classification (ANZSIC) for Petroleum Refining and Petroleum Fuel Manufacturing, does finally provide data on the Geelong Refinery. With each search taking considerable time it is little wonder that the lay community continues not to use NPI data to its best effect.

Does the current NPI fulfil Community Right to Know ?

The current NPI fulfils community right to know only partially. Recent changes to industry reporting to the NPI, although very slow in coming have provided additional information. However, many of the concerns of affected communities, NGOs and unions have still not been addressed.

The well-supported recommendations of the Technical Advisory Panel 2006 report [23] have been only partially been adopted. The failure to adopt the full raft of changes to reporting transfers has again limited the scope of the NPI NEPM and the chance to rebuild some of its damaged reputation. While the inclusion of transfers was welcomed, the voluntary nature of much of the reporting fails the community's right to know test. Facilities are required to report transfers including to tailings storage facilities, sewerage system, underground injection or waste for destruction. Yet, important community issues, for example those regarding the burning of toxic waste for energy recovery and the reuse of wastes as 'soil improvers' have not been addressed. It is not mandatory to report these transfers and therefore they remain outside the remit of the NPI and community right to know.

NTN's March 2007 submission to the draft variation of the NPI NEPM had highlighted the growing concerns and problems associated with reuse of industrial waste particular land application.[24] The submission noted that the introduction of waste materials such as flyash to bricks and cement, alumina waste to farms, sewage sludge to agricultural land in

[22] Witness Statement of Suzanne Deidre McLean, Geelong Community for Good Life Inc., 25 March 2008. In The Victorian Civil And Administrative Tribunal At Melbourne And In The Matter Of The Freedom Of Information Act 1982 VCAT reference: G528/2006

[23] *National Environment Protection (National Pollutant Inventory) Measure,* Technical Advisory Panel Final Report to the National Environment Protection Council March 2006

[24] National Toxics Network (NTN) Submission to NEPC on Draft NEPM Variation for the National Pollutant Inventory, March 2007

Australia is subject to varying and often inadequate regulatory regimes at a state level. While mandatory reporting to the NPI would have provided a pathway to greater awareness and regulation of reuse activities, instead the commonly expressed view of industrial waste generators was accepted. They argued that mandatory reporting had,

'the potential to hinder growth of the industry for these environmentally-preferred practices and stifle legitimate resource efficiency projects, due to the highlighting of 'pollutant' levels in the applied materials'

that is, it is preferable to keep the public in the dark about practices, which have a significant potential to contaminate the food supply and potentially increase public levels of exposure to pollutants. As it stands, the data characterising both the type and fate of these wastes will be voluntary and represents a significant lost opportunity to meet community right to know expectations and to document the transfer of potentially hazardous and contaminating substances to the Australian environment.

In 2007 some substances[25] such as acrolein and polychlorinated biphenyls (PCBs) were included in the NPI list due to their toxicity, however, the delay in doing so does not go well for the future of the NPI. The very toxic chemical acrolein had been added to the Canadian NPRI in 2000. The process for inclusion of acrolein also highlighted other issues such as the refusal of regulatory bodies to provide information to the NPI TAP about the production of NPI chemicals due to commercial confidentiality. The TAP noted that the Australian Pesticides and Veterinary Medicines Authority (APVMA) Pubcris database stated that acrolein had been registered for use in Australia since 1970. The APVMA was contacted to establish if any data on manufacture or import volumes for acrolein as a pesticide was available to help identify it for inclusion on the NPI reporting list. APVMA declined to provide the information on the basis of 'commercial-in-confidence' protection.

In 2006, the TAP also recommended that priority chemicals such as phthalates and polybrominated flame retardants be considered for inclusion in the NPI list. Currently, only one phthalate, (di(2-ethylhexyl) phthalate (DEHP)) is listed and no polybrominated diphenyl ethers (PBDEs) are included. These are serious omissions when government reports[26] have demonstrated Australians have some of the world's highest levels of PBDEs in their blood and breastmilk, with toddlers having the highest levels in the population. These facts have received considerable publicity; yet again no commitments have been given to consider their inclusion on the NPI list.

Other chemicals of community concern have not been included. For example, nonylphenol and its ethoxylates are not on the list despite their inclusion in the Canadian NPRI, their use in Australia and international concern over their endocrine disruption potential. Despite the TAP 2006 recommendation for consideration of the inclusion of methyl bromide in the reporting list if its use continues, this has not happened either.

[25] National Pollutant Inventory Guide, December 2007 Version 4.0, ISBN: 8 642 54690 8 Commonwealth of Australia 2007

[26] The PBDE reports can be downloaded at Department of Environment and Heritage website_at http://www.environment.gov.au/settlements/chemicals/bfrs/index.html

Most importantly, the widely used perfluorochemicals (eg, perfluorocarboxylic acids (PFCAs) and their precursors) are not included by the NPI. Australians are exposed to some of the highest levels of perfluorochemicals in the developed world as evident by their body burden.[27]

These omissions inevitably raise the issue of including releases from products, particularly for those chemicals, which are largely emitted through the product stage of their life cycle. The OECD has acknowledged that some PRTRs include estimates of releases from the end use of products.

Finally, since the TAP 2005 Report the need for an agricultural chemical module, which would include all forms of agricultural chemical releases (eg, cropping, aquaculture, non agricultural uses of pesticides) has simply fallen off the agenda. Early initiatives to develop a pesticide usage database have not eventuated.

Conclusion

The NPI NEPM in its current form is both a vehicle for community right to know and a frustration to many attempting to use it for that purpose. The difficulties with the searching database itself require immediate attention as does the failure to provide adequate capacity building to assist the lay community in utilizing it. For many, the chemical list is simply too limited and fails to include those chemical releases of greatest concern. Most worrying, is the use of voluntary reporting for much of the transfer data. Not only does it limit the NPI's scope, it also severely limits the faith communities have in what was to be an effective and comprehensive tool to provide community right to know.

"The Alliance for a Clean Environment regularly has to interact with resident groups and other bodies who are dealing with industrial pollution problems in Western Australia. One of the methods by which we obtain data to assess the environmental performance of individual facilities is to direct members to the National Pollutant Inventory website and suggest they conduct a facility search. Unfortunately many people complain that the website is very indirect and confusing in its layout. Many people have a great deal of difficulty locating facilities and assessing their emissions. As professional researchers we have also experienced problems regularly when using the site. Searches often freeze or time out or link to parts of the website that are not related directly to facility emissions. Most members of the public never bother to try again after having a couple of negative experiences in using the website.

In our view more needs to be done to simplify the search functions of the website and make it more accessible to public users. Many of our members are still concerned that transfers of waste to incinerators or cement kilns for 'waste to energy' and other 'recycling' purposes must be brought in to a mandatory NPI reporting regime. The voluntary arrangements currently in place are not effective and disguise significant environmental impacts of companies and facilities without justification."

- Jane Bremmer ACE

[27] Anna Kärrman, Jochen F Mueller, Fiona Harden, Leisa-Maree L Toms, Bert van Bavel, Gunilla Lindström. Perfluorinated compounds in serum from Australian urban and rural regions. *EMG - Fluorinated Compounds* 2005