

The Greens NSW submission to NICNAS regulatory consultation on Proposal for Regulatory Reform of Industrial Nanomaterials



From: Lee Rhiannon, Greens NSW MP
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Executive Summary

Nanotechnology is a powerful new technology that is already appearing in products on our supermarket shelves, in food, cosmetics and clothes. Because of their very small size and higher chemical reactivity, nanomaterials can be more toxic than the same materials in bulk form. They are more readily inhaled than larger particles, can be ingested, and may even be absorbed through the skin. Test tube studies have shown that nanomaterials can be toxic to human tissues and cells, resulting in DNA mutation and even cell death.

Thus there are serious question marks about the health and environmental impacts of this technology – it has been dubbed the asbestos of the 21st century – yet it is being developed and commercialised in a regulatory vacuum.

The Greens NSW believe that in terms of new technologies a precautionary approach needs to be taken, rather than a gung-ho approach where the government lets industry gallop ahead of regulation.

The NSW Government has been in negotiations with the Federal government for over a year to develop a National Nanotechnology Strategy. The Greens NSW believe a protracted talk-fest is not good enough when these products are already on our shelves unlabelled. If NSW wants to avoid a repeat of the asbestos tragedy, urgent action is required before industrial use of nanomaterials expands.

In 2009, Greens NSW MP and science and technology spokesperson Lee Rhiannon has called for better protection for workers in contact with nanoparticles and the implementation of nano-specific safety assessment processes to protect workers and the environment from unsafe exposure.

In the same year, Ms Rhiannon was unsuccessful in her attempt to obtain, through Freedom of Information laws, the public release of information from the Therapeutic Goods Administration regarding which sunscreens and cosmetics using sunscreens contained nanoparticles.

In 2008, Greens NSW MP and science and technology spokesperson Lee Rhiannon organised a public forum on the risks of nanotechnology at NSW Parliament House, calling on the then Iemma government to place a moratorium on the sale of all consumer items containing nanotech materials until a proper regulatory scheme was in place in NSW.

The Greens NSW have given notice of a private members bill that:

- calls for an immediate moratorium on the sale of consumer products using nanotechnology and on the handling of nanomaterials in the workplace.
- lays the basis for a comprehensive regulatory framework that will enshrine public participation in decision-making on nanotechnology and will assess the health and environmental risks of nanomaterials.

The Greens NSW response to the *Have Your Say* Questionnaire:

1. What is the significance and/or consequence of this working definition for ‘industrial nanomaterials’?

The Greens NSW believe that the working definition for industrial nanomaterials is inadequate and if accepted in its present form will lead to serious environmental risks.

The Greens NSW believe that the proposed definition of <100nm is too narrow a definition which will exclude potentially hazardous nanoparticles. According to Nanotoxicologist Professor Ken Donaldson “there is no toxicological basis whatsoever” for limiting the definition of nanoparticles to <100nm.

The Greens NSW believe that nanoparticles should be defined as neither biopersistent nor insoluble. Both biopersistence and nano-solubility are multifaceted areas of which we do not yet have full comprehension. Moreover, nanoparticles being both partially and wholly water-soluble have been shown to be toxic; as have, in the short term, particles not displaying significant biopersistence.

The Greens NSW believe that nanomaterials should be defined as “particles having one or more external dimensions, or comparable internal structures, measuring approximately 0.3 nanometres (nm) to 300 nm.” Further, clumps of nanoparticles (known as aggregates and agglomerates) whose primary particles are nanoscale should additionally be considered nanomaterials and assessed accordingly.

7. What are your views on the impact of the proposal for mandatory once-off, use specific reporting for nanoforms of ‘existing chemicals’? Can you identify additional advantages or disadvantages?

The Greens NSW believe that NICNAS should pursue the mandatory regulation of nanomaterials, and that transparency and mandatory reporting in the regulation of nanomaterials are essential.

The Greens NSW understand that voluntary reporting initiatives in relation to the reporting of nanomaterials have failed in the United Kingdom, the United States and Australia.

The Greens NSW believe that public interest management of nanomaterials, including the public's "right to know", takes precedence over any burden industry may occur as a result of mandatory reporting.

8. Explain how you think the potential burden of once-off, use specific reporting could or could not balance community expectations in relation to health and environmental standards?

The Greens NSW believe that mandatory once-off specific reporting, while being a small burden to industry, is fully in line with community expectations in relation to health and environmental standards.

The Greens NSW believe that public interest management of nanomaterials, including the public's "right to know", takes precedence over any burden industry may occur as a result of mandatory reporting.

9. What are your views on making the information gathered through streams 1A and 1B publicly available?

The Greens NSW believe that all information related to the use of nanomaterials should be made publicly and freely available. This includes product labeling of the use of nanomaterials in particular products and industrial chemicals, and information on the types and quantities of nanomaterials used.

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10. What are the advantages and disadvantages of the introduction of a system that required a mandatory notification and assessment program for all nano-forms of existing chemicals? What are the reasons for this answer?

The Greens NSW believe there are only advantages of the introduction of such a system.

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The Greens NSW believe that all information related to the use of nanomaterials should be made publicly and freely available. This includes product labeling of the use of nanomaterials in particular products and industrial chemicals, and information on the types and quantities of nanomaterials used.

12. What are your views on making the information gathered from assessments of nanoforms of existing chemicals publicly available?

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