



MASTER BUILDERS
AUSTRALIA

Asbestos Contamination of Land – Reporting Obligations of Building Contractors

Research Paper

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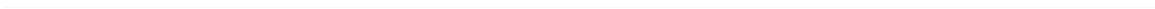


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1 Purpose and scope

This paper examines the interaction of reporting requirements for dangerous or contaminated material in the ABIC Major Works contract with statutory reporting requirements in State and Territory contaminated land legislation. In particular, this paper considers the question of whether contractors have obligations under State and Territory contaminated land legislation to report the discovery of asbestos in soil at a construction site. That investigation informs Master Builders' policy concerning asbestos and the strongly held view that more needs to be done to control the hazards that exposure to asbestos engenders.¹ The report also shows that in many instances the best method to deal with asbestos is to leave it undisturbed, which will frequently present fewer risks to human health than its disturbance or removal.

2 Background

The ABIC Major Works Contract

Clause F8 of the ABIC Major Works 2008 contract entitles a contractor to make a claim to adjust the contract in certain circumstances where the contractor discovers dangerous or contaminated material on the site. The clause is as follows:

- .1 If the contractor discovers on the site any dangerous or contaminated material, it must immediately notify any relevant authority and the architect.
- .2 The contractor must take all necessary action in accordance with an official document in relation to the dangerous or contaminated material and copy the document to the architect immediately. Clauses J5, J7 and J8 do not apply in relation to this clause F8.
- .3 The contractor is only entitled to make a claim to adjust the contract that results from complying with an official document in relation to the dangerous or contaminated material, if the presence, disturbance or release of the dangerous or contaminated material was beyond the contractor's control.
- .4 The requirements for making a claim to adjust the contract and the procedures to be followed are stated in section H. If the claim to adjust the contract is in relation to an official document, the requirements for making the claim are stated in clause J9.

For the purposes of the contract, dangerous or contaminated material is defined as "material hazardous to persons or to the environment and which is not anticipated in the contract documents, including material which is only hazardous if it is disturbed or released from its location."

Prima facie asbestos would fall within this definition of hazardous material. Bonded asbestos in good condition does not pose a risk to health, unless it is disturbed. The fact that the definition of hazardous material includes material which is only hazardous if it is disturbed or released from its location means that all asbestos, regardless of its condition, would fall within the definition. As this paper explores, that contractual condition appears to

¹ See Master Builders policy on Asbestos etc

exceed the requirements for reporting of asbestos on site via the relevant statutory schemes that deal with contaminated sites.

Model Work Health and Safety Bill and Draft Model Asbestos Codes of Practice

Under the Model Work Health and Safety Bill, a person conducting a business or undertaking will be required to report a dangerous incident to the OHS regulator. This requirement is consistent with current requirements in each State and Territory. In the Model Bill, a dangerous incident is an incident at a workplace that exposes a worker or any other person to a serious risk to a person's health or safety emanating from an immediate or imminent exposure to certain events. An uncontrolled escape, spillage or leakage of a substance is one event that would trigger reporting obligations. This could include exposure to asbestos on a site.

All jurisdictions also currently require OHS regulators to be notified where asbestos removal work is to occur, prior to the commencement of that removal work. This requirement is likely to be contained in the model OHS regulations.²

The National Code of Practice for the Safe Removal of Asbestos provides guidance on the decontamination of soil contaminated with asbestos containing material (ACM). The Code provides that if there is a risk of soil contamination the area should be visually inspected and if any ACM is detected the soil must be decontaminated³. The Code does not provide guidance as to the link with any requirements in State and Territory legislation dealing with contaminated sites.

The harmonised OHS regulations and Codes of Practice are likely to address asbestos contamination of soil from the perspective of the safe management of asbestos, including removal (where appropriate) and other site remediation strategies.

An early draft of the Model Code of Practice for the Safe Handling and Removal of Asbestos includes a chapter on site contamination. The draft chapter does not provide guidance as to when a site is considered to be contaminated by asbestos. However, it does state that the preference is to leave the ACM undisturbed or rebury it on site thus minimising the soil disturbance and removal and transport of contaminated soil and material to a landfill site.

This approach is consistent with the preferred approach to managing risks from asbestos contaminated soil outlined in the Department of Health and Ageing document *Management of asbestos in the non-occupational environment*. That document notes that removing asbestos contamination (other than asbestos cement fragments) from soil is difficult, usually impracticable and potentially very costly.⁴ If the final version of the Code maintains this approach to remediation of asbestos contaminated sites it will minimise costs for builders. Clearly, remediation strategies that do not mandate asbestos removal require careful management of information (such as site plans) to ensure that future risks do not arise.

² The draft Safe Work Australia policy paper on asbestos considered by the SIG-OHS on 16 April 2010 recommended that notification should be required.

³ Code of Practice for the Safe Removal of Asbestos, 2nd Edition, NOHSC:2002 (2005), page 35

⁴ *Management of asbestos in the non-occupational environment*, Department of Health and Ageing, 2005, page 23

Asbestos Contamination of Soil

Asbestos contamination of soil may occur in a variety of situations including:

- Industrial sites including former power stations and rail and ship yards
- Former waste disposal or dumping sites
- Land with fill or foundation material of unknown composition or origin
- Buildings constructed before asbestos was banned in the State or Territory where the buildings have been damaged by fire or have been improperly demolished or renovated, or where relevant documentation is lacking.
- Sites where buildings or structures have been constructed from asbestos containing material or where asbestos may have been used as insulation material
- Disused services with asbestos containing material piping eg water pipes, Telstra trenches or pits

Determining whether land is considered to be contaminated by asbestos is not straight forward. Contaminated land legislation is designed to prevent risks to human health and to the environment. Asbestos clearly poses a risk to human health in certain circumstances. However, determining potential human health risks relating to asbestos in soil can be highly subjective. An assessment of the likely harm will need to take into account:

- the type and amount of asbestos discovered (whether it is friable or bonded or a mixture of both),
- the condition of the asbestos,
- the size of the asbestos pieces (for asbestos containing material),
- soil type, and
- the likelihood that the asbestos will be disturbed and therefore pose a risk to human health through airborne fibres that can be inhaled ((eg because of site works (such as the asbestos being crushed by vehicles) or meteorological conditions))⁵.

The Department of Health and Ageing document *Management of asbestos in the non-occupational environment* states that “Given the nature of the asbestos material generally encountered [in the non-occupational environment], it is most unlikely that the general public would be exposed to levels much higher than background, except in a few isolated instances, for example, during poorly managed demolition or renovation activities in homes.”⁶

That document also states that short-term exposures to low concentrations of airborne asbestos are likely to be associated with very low health risks.⁷ It further quotes work by Imray and Neville which found that “Since buried asbestos (left undisturbed) does not present a risk to health there is no scientific basis for setting an ‘acceptable’ level in soil. The risks depend on potential for disturbance and generation of airborne asbestos, which may be inhaled.”⁸

⁵ The *National Environment Protection (Assessment of Site Contamination) Measure Review: Review Report, September 2006* notes that these factors make it complicated and highly subjective to assess the link between asbestos contamination in soil and the impact on human health – see page 39.

⁶ *Management of asbestos in the non-occupational environment*, Department of Health and Ageing, 2005, page 6

⁷ *Ibid*, page 7

⁸ *Ibid*, page 9

National Environment Protection Measure

The *National Environment Protection (Assessment of Site Contamination) Measure 1999* (NEPM) establishes Health Investigation Levels for specified contaminants. The NEPM was approved by the National Environment Protection Council (NEPC)⁹ on 10 December 1999 and is made under the *National Environment Protection Council Act, 1994 (Cth)*. The contaminated land reporting obligations in several jurisdictions (South Australia, New South Wales, Victoria, NT and Queensland) are triggered when the contaminant exceeds the Health Investigation Level specified in the NEPM.

The *Guideline on Investigation Levels for Soil and Groundwater* (Schedule B(1) to the NEPM) does not specify a numeric Health Investigation Level for asbestos in soils because it is difficult to establish a relationship between soil levels and airborne levels of asbestos. However, Schedule (7a) of the NEPM, which provides information on the derivation of the Health Investigation Levels, concludes that for asbestos “appropriate site-specific measures at a site are warranted if there are sufficient concerns based on site conditions and the nature of the asbestos.”¹⁰

A review of the NEPM commenced in 2004 and a review report¹¹ was issued in September 2006. The review found that this is a complex issue but one which organisations making submissions to the review considered to be of high priority. As the review pointed out, currently small amounts of asbestos can have significant and potentially unjustified impacts on the costs of remediation projects. The current costs of unnecessary asbestos remediation arise from a combination of poor risk communication and evolving legal precedent dealing with asbestos contamination.

The Review Report makes the following recommendations in relation to asbestos:¹²

- The NEPM be revised to provide more information relating to the investigation and assessment of asbestos issues;
- The NEPM be revised to provide information based on existing documentation relating to the investigation and assessment of various forms of asbestos such as the Western Australian guidelines and the document ‘Management of asbestos in the non-occupational environment’¹³; and
- NEPC undertake discussions with relevant stakeholders to determine appropriate strategies to communicate risk regarding asbestos to the public.

The Review Report stopped short of recommending that the NEPM be revised to include guidance for quantitative assessment of asbestos, including a Health Investigation Level because of the lack of consensus on the technical aspects of sampling and analysis. The revised NEPM is likely to provide clearer information and therefore scope for increased consistency in the obligations in relation to soil contaminated by asbestos.

⁹ The NEPC comprises environment ministers from the Australian Government and each state and territory. NEPC was an outcome of an [Intergovernmental Agreement on the Environment \(IGAE\)](#), which was reached at a Special Premiers Conference in October 1990 and came into effect in May 1992. Decisions by the NEPC require a 2/3 majority

¹⁰ Health-based Soil Investigation Levels, Paula Imray and Andrew Langley, National Environment Health Forum Monograph, Soil Series No 1, 3rd Edition, Revised July 1999, page 24

¹¹ *National Environment Protection (Assessment of Site Contamination) Measure Review: Review Report*, September 2006

¹² *Ibid*, pages 39-40

¹³ Management of asbestos in the non-occupational environment, Department of Health and Ageing, 2005

However, given the recommendations in the review report, the obligations in relation to asbestos contamination of soil may still have to be determined on a case by case basis.

In June 2007, NEPC agreed to initiate a process to vary the NEPM based on recommendations made in the review. The revised NEPM is expected to be released for public comment after the September 2010 NEPC meeting with the final document to be released in the first half of 2011.

3 State and Territory Contaminated Land Legislation and Guidance

Of the States and Territories, Western Australia has the most recent and most comprehensive guidance on asbestos-contaminated sites. This guidance establishes quantitative assessment of asbestos contamination - the only jurisdiction to do so. However, the Queensland Government has advised (orally) that the same quantitative assessment methodology should be used to determine whether a site is contaminated by asbestos for the purposes of the Queensland legislation (this requirement is not reflected in legislation or in written guidance).

Five jurisdictions (South Australia, New South Wales, Victoria, NT and Queensland) use the Health Investigation Levels specified in the NEPM to at least some extent to determine whether or not a site is considered to be contaminated and hence whether reporting and remediation requirements apply. As there is no numeric Health Investigation Level for asbestos, the obligation to report asbestos contamination in these jurisdictions has to be decided on a case by case basis, taking into account the type and amount of asbestos and the other factors mentioned on page 3 of this paper.

The other States and Territories (ACT and Tasmania), frame their contaminated site legislation around whether or not the contaminant causes material or significant environmental harm (including harm to human health). Material or significant environmental harm must be also assessed on a case by case basis.

Most jurisdictional contaminated sites legislation (WA, SA, NSW, Tasmania and ACT) provides that land is only contaminated where a substance is present at a concentration above the normal concentration in the same locality.¹⁴ Asbestos is a naturally occurring substance found in association with a number of different rock types and occurs in every State. In eastern Australia, the most common occurrence of asbestos is in serpentinite belts, generally associated with fault zones.¹⁵ If naturally occurring asbestos is not disturbed and fibres are not released into the air then it is not a health risk.

¹⁴ It should be noted that the Victorian legislation relies on a duty not to pollute and the NT requires reporting of an incident which gives rise to pollution. The presence of naturally occurring asbestos on a site would not be pollution.

¹⁵ The Geological Society of Australia Inc, Newsletter Number 141, December 2006, page 26

Western Australia

What is site contamination?

In relation to land, water or a site, the *Contaminated Sites Act 2003* defines¹⁶ 'contaminated' as:

"having a substance present in or on that land, water or site at above background concentrations that presents, or has the potential to present, a risk of harm to human health, the environment or any environmental value."

Regulation 5 of the *Contaminated Sites Regulations 2006 (WA)* contains exemptions from the definition of "contaminated" in the Act. Among other things, regulation 5 provides that land, water or a site is not contaminated where the only substance that is present in or on that land, water or site at above background concentrations that presents, or has the potential to present a risk of harm to human health, the environment or any environmental value is part of a building or other structure or wholly contained within a building. The *Identifying possibly contaminated sites fact sheet*¹⁷ makes clear that asbestos within asbestos cement sheeting/tiling/insulation within a building is not considered to be contamination under the Contaminated Sites Act.

Western Australia has very detailed guidelines for asbestos contaminated sites – the *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*.¹⁸ The guidelines provide a quantitative measure for determining whether soil is considered to be contaminated by asbestos. Asbestos concentrations above the levels outlined below trigger an expectation that contamination management action would be taken:¹⁹

Amount of asbestos

0.0001% w/w* asbestos for fibrous and asbestos fines²⁰

0.01% w/w asbestos for ACM²¹

0.04% w/w asbestos for ACM

0.02% w/w asbestos for ACM

0.05% w/w asbestos for ACM

*weight for weight

Site use

All site uses

Residential use, day care centres, preschools

Residential, minimal soil access

Parks, public open spaces, playing fields

Commercial/industrial

The Guidelines provide that the percentage of soil asbestos is calculated using the following formula:

$$\% \text{ soil asbestos} = \frac{\% \text{ asbestos content} \times (\text{ACM}) \text{ kg}}{\text{Soil volume (L)} \times \text{soil density (kg/L)}}$$

¹⁶ Section 4

¹⁷ Identifying possibly contaminated sites, Contaminated sites fact sheet 7, Department of Environment and Conservation, accessed from <http://www.dec.wa.gov.au/content/view/2873/2061/> on 22 April 2010.

¹⁸ *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, Western Australian Department of Health, May 2009, page 17

¹⁹ Ibid page 14

²⁰ For the purposes of the guidelines, fibrous asbestos encompasses friable asbestos material, such as severely weathered ACM, and asbestos in the form of loose fibrous material such as insulation products. Asbestos fines are defined in the Guidelines to include free fibres of asbestos, small fibre bundles and also ACM fragments that pass through a 7mm by 7mm sieve – page

²¹ ACM is asbestos bound in a matrix (such as asbestos fencing or vinyl tiles) in sound condition. The ACM must not be able to pass through a 7mm by 7mm sieve – page 12 of the Guidelines

For ACM, the asbestos content is assumed to be 15% and the soil density for Perth soils is 1.65 kg/L. This is a very conservative approach because it assumes that all fibres within the asbestos cement fragment will become released as respirable fibres.

Determining whether the amount of asbestos on a site exceeds the levels specified in the guidelines is a complex and potentially costly exercise. If asbestos is found on a site or is suspected of being present (for example because the site has fill from an unknown source) an expert would be needed to conduct sampling to determine if the trigger levels are exceeded.

The Guidelines provide for a more qualitative approach to small low-risk sites such as single residential lots with ACM contamination as a result of on-site demolition or dumping. Such sites should be assessed and managed by Local Government Environmental Health Officers in conjunction with the Department of Health so that more formal and demanding processes associated with the Contaminated Sites Act 2003 may not be necessary.²²

Reporting asbestos contamination

The *Contaminated Sites Act 2003 (WA)* requires that sites known to be contaminated must be reported to the Department of Environment and Conservation within 21 days after the day that the person first knew the site was contaminated.²³ Where contamination is suspected (rather than known) the suspected contamination must be reported as soon as reasonably practicable to do so. There must be reasonable grounds for reporting the contamination or suspected contamination.²⁴

Reporting obligations fall on an owner or occupier of the site, a person who knows or suspects that they have caused or contributed to the contamination or an auditor engaged to provide a report that is required for the purposes of the Act in respect of the site.²⁵

There are substantial fines for failure to report – up to \$250 000, with a daily penalty of \$50 000 for each day beyond the 21 day limit.²⁶

The *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*²⁷ state that reporting possible asbestos contamination would be expected if:

- There is fibrous asbestos or asbestos fines associated with a site's soil, based on analytical evidence or visual examination by someone with asbestos knowledge;
- Asbestos-containing material (ACM) is present on site and is likely to penetrate below the soil surface, as identified by analysis or by someone with asbestos knowledge.

Who is responsible for site remediation?

The *Contaminated Sites Act 2003 (WA)* provides for a hierarchy of responsibility for site remediation where a site is considered to be contaminated. That hierarchy is as follows:

- The person who caused or contributed to the contamination;

²² Ibid, page 14

²³ Section 11(3) of the Contaminated Sites Act 2003 (WA)

²⁴ Section 11(9)

²⁵ Section 11(4)

²⁶ Section 11(3)

²⁷ *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia*, Western Australian Department of Health, May 2009, page 17

- The owner or occupier of the site who has changed the use of the land to the extent that the remediation is required because of the changed use of the land (for example, a former industrial site changed to residential use);
- The owner of the site, to the extent that there is not another person responsible for the remediation, including where that other person is unable to be found or is insolvent.

Remediation options include management in situ, treatment on-site and removal off-site. There is no presumption in favour of one method over another.

Conclusion

Western Australia has the clearest asbestos contamination framework and reporting requirements. While the quantitative measure contained in the *Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia* provides the industry with certainty as to when land is considered to be contaminated (and conversely no longer contaminated following remediation), it can only be determined through expert sampling and analysis.

South Australia

What is site contamination?

Section 5B of the *Environment Protection Act 1993* (SA) defines site contamination as follows:

- (1) For the purposes of this Act, **site contamination** exists at a site if—
- (a) chemical substances are present on or below the surface of the site in concentrations above the background concentrations (if any); and
 - (b) the chemical substances have, at least in part, come to be present there as a result of an activity at the site or elsewhere; and
 - (c) the presence of the chemical substances in those concentrations has resulted in—
 - (i) actual or potential harm to the health or safety of human beings that is not trivial, taking into account current or proposed land uses; or
 - (ii) actual or potential harm to water that is not trivial; or
 - (iii) other actual or potential environmental harm that is not trivial, taking into account current or proposed land uses.
- (2) For the purposes of this Act, environmental harm is caused by the presence of chemical substances—
- (a) whether the harm is a direct or indirect result of the presence of the chemical substances; and
 - (b) whether the harm results from the presence of the chemical substances alone or the combined effects of the presence of the chemical substances and other factors.

The EPA Guideline *Site contamination - what is site contamination?*²⁸ notes that a range of factors will need to be considered in determining whether or not the actual or potential harm that might result from the presence of a chemical substance, is trivial. Among other things, the EPA takes into account:

- the toxicity of the substance
- the persistence of the substance (ie how long it remains in the environment)

²⁸ EPA South Australia - *Site contamination - what is site contamination?* EPA 830/09, January 2009

- the concentration of the substance (above background concentration)
- the quantity of the substance introduced
- the nature and quality of the receiving environment
- the use(s) of the receiving environment (both current and potential future use)
- whether the substance is on land or in water
- the extent of the impact
- the effort required to remediate the substance
- whether or not the substance presents an actual or potential risk to human health
- exposure pathways to humans and the environment

The Guideline further provides that for soils, where the chemical substance is present at a concentration that is less than the Health Investigation Level specified for the contaminant in the *National Environment Protection (Assessment of Site Contamination) Measure 1999*²⁹ (NEPM), the EPA will consider the circumstances to be trivial. As noted elsewhere in this paper, the NEPM does not include a Health Investigation Level for asbestos in soil.

In the absence of a Health Investigation Level for asbestos, the assessment of whether the presence of asbestos in soil on a site would constitute site contamination for the purposes of section 5B of the SA Act would have to be made using the factors outlined in the guidelines, as set out above. The amount and type of asbestos are relevant to this consideration, but in particular an assessment would have to be made as to the risk of the asbestos fibres becoming airborne and therefore respirable (the only exposure pathway to humans that can cause a risk to health).

Reporting obligations

Under section 83A of the *Environment Protection Act*, a person must notify the EPA of site contamination that affects or threatens water occurring naturally under the ground or introduced to an aquifer or other area under the ground. This would not apply to asbestos which does not have the capacity to contaminate water.³⁰

There are also broader reporting obligations in relation to serious or material environmental harm from pollution. Under section 83 of the SA Act, if serious or material environmental harm from pollution is caused or threatened in the course of an activity undertaken by a person, the person must, as soon as reasonably practicable after becoming aware of the harm or threatened harm, notify the EPA of the harm or threatened harm, its nature, the circumstances in which it occurred and the action taken to deal with it. Penalties for failure to notify the EPA are high - \$250,000 for a body corporate and \$150,000 for a natural person.

The terms 'serious environmental harm' and 'material environmental harm' are defined in section 5 of the Act. Among other things, actual or potential harm to humans that is not trivial would be considered to be material environmental harm. Actual or potential harm to the health or safety of human beings that is of a high impact or on a wide scale would be considered to be serious environment harm.

²⁹ Refer to the discussion on the NSW legislation for further information about the HIL values for asbestos in this Measure.

³⁰ This view was confirmed by Andrew Prouszinski from the EPA South Australia in a telephone conversation on 27 April 2010.

The EPA South Australia has advised³¹ that the SA legislation has not been tested in relation to site contamination by asbestos. The EPA was not able to provide definitive advice as to whether the discovery of asbestos on a site would trigger reporting obligations under section 83 of the SA Act as this would depend on the circumstances of each case. Essentially this would require an assessment of the risk of the asbestos fibres becoming airborne and therefore respirable. The factors outlined on page 4 of this paper are relevant to this assessment.

The EPA also advised that asbestos within a building is not necessarily out of the scope of the reporting obligations, particularly if the asbestos has the potential to cause environmental harm (for example, where people have the potential to be exposed to asbestos fibres through significantly degraded ACM or during a demolition process). In both of these scenarios the building owner and/or employer would also have obligations under occupational health and safety legislation.

Who is responsible for site assessment and remediation?

Where the EPA is satisfied that site contamination exists or suspects that site contamination exists, the EPA can issue site contamination assessment orders or a site contamination remediation order to an appropriate person. The Act is based on the principle that the polluter should be responsible for the pollution. Site contamination orders are therefore issued to the person who caused the contamination where reasonably practicable.³² However, where it is not reasonably practicable to issue the order to the person who caused the contamination (for example because they have died, cannot be identified or located or would be unable to carry out the order),³³ the order will be issued to the site owner.

It is possible for site contamination to be addressed by voluntary assessment proposals and voluntary site remediation proposals.³⁴

Conclusion

The discovery of asbestos on a site of itself does not make the site a contaminated site or trigger reporting requirements under the *Environment Protection Act 1993* (SA). If the asbestos can be managed without causing potential harm to persons (eg covered with soil, removed in accordance with asbestos removal codes of practice) then it is unlikely that the asbestos would have to be reported. However, if the asbestos is unable to be managed in a way that prevents potential harm to persons, the asbestos contamination may need to be reported.

New South Wales

NSW has a two tiered contaminated land management framework. The Department of Environment and Climate Change and Water (DECCW) uses its powers under the *Contaminated Land Management Act 1997* (NSW) to deal with sites where the contamination is significant enough to warrant regulation (ie poses an unacceptable risk to human health or the environment, given the site's current or approved use and needs to be addressed immediately). Local councils deal with other contamination under the

³¹ Andrew Prouszinski, EPA South Australia in a telephone conversation on 27 April 2010.

³² Section 103(C)(1) of the Environment Protection Act 1993

³³ Section 103(C)(3)

³⁴ Sections 103(I) and 103(K) of the Act respectively

planning and development framework for sites, which although contaminated, do not pose an unacceptable risk under its current or approved use.

What is contamination?

Section 5 of the *Contaminated Land Management Act 1997 (NSW)* defines contamination as follows:

Contamination of land, for the purposes of this Act, means the presence in, on or under the land of a substance at a concentration above the concentration at which the substance is normally present in, on or under (respectively) land in the same locality, being a presence that presents a risk of harm to human health or any other aspect of the environment.

The presence of asbestos on or in soil does not of itself lead to a risk of harm to human health. However, if the asbestos is likely to be disturbed and result in airborne asbestos fibres, then such a risk will exist. An assessment of the likely risks will need to be made on a case by case basis taking into account the amount and type of asbestos and its location.

Reporting obligations

Under section 60 of the NSW Act, a person whose activities have contaminated land, or the owner of land that has been contaminated (whether before or during their ownership) must report the contamination to the Environment Protection Authority³⁵ (EPA). The notification must be made as soon as practicable after the person becomes aware of the contamination. A person is taken to be aware of contamination if the person ought reasonably to have been aware of the contamination, including by seeking advice.

There are substantial fines for failure to report contamination - \$165,000 for corporations or \$77,000 for individuals plus a daily penalty (\$77,000 for corporations or \$33,000 for an individual).

Under section 60(3) of the NSW Act, the obligation to report contamination is only triggered:

(a) if each of the following are true:

- (i) the substance contaminating the land (the "contaminant") or any by-product of the contaminant has entered or will foreseeably enter neighbouring land, the atmosphere, groundwater or surface water, and
- (ii) the regulations prescribe for the purposes of this subparagraph, or the guidelines specify, a level of the contaminant or by-product in the neighbouring land, atmosphere, groundwater or surface water, and
- (iii) the level of the contaminant or by-product after that entry is, or will foreseeably be, above the level prescribed or specified and will foreseeably continue to remain above that level, or

(b) a guideline specifies a level of the contaminant in soils with respect to a current or approved use of the land and the level of the contaminant on or in any part of the soil on that land is equal to or above that specified in the guideline and a person has been, or foreseeably will be, exposed to the contaminant or any by-product of the contaminant, or

(c) the contamination meets any other criteria that may be prescribed by the regulations.

³⁵ The Department of Environment, Climate Change and Water acts under the powers of the statutory Environment Protection Agency – from the about us section of the DECCW web site <http://www.environment.nsw.gov.au/aboutdecc.htm> accessed 21 April 2010

The *Contaminated Land Management Regulation 2008* does not specify any levels of contaminants – rather these are contained in guidelines issued by DECCW.

The *Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997*³⁶ provide that the relevant levels which trigger reporting requirements under both section 60(3)(a) and 60(3)(b) are the Health Investigation Levels specified for the contaminant in the *National Environment Protection (Assessment of Site Contamination) Measure 1999*.³⁷ As noted elsewhere in this paper, the NEPM does not specify a Health Investigation Level for asbestos.

In circumstances where there are no levels specified for any particular contaminants, the Guidelines provide that other reputable regulatory criteria may be used as a reference or alternatively, a site specific risk assessment should be considered.³⁸ The extent to which other regulatory criteria may be utilised (for example the Western Australian criteria referred to earlier) is subject to the notion that they must be “reputable.” This is an amorphous criterion. The Macquarie dictionary defines “reputable” to be “held in good repute; honourable; respectable; estimable.” Accordingly it would be open to rely on criteria that were in the public domain and that met these broad characterisations.

Responsibility for site assessment and remediation

Where land is reported to the DECCW as being contaminated, the Department must determine whether the contamination is significant enough to warrant regulation. This is determined on a case by case basis using the criteria in section 12 of the *Contaminated Land Management Act 1997 (NSW)*. Those criteria are as follows

- (a) whether the substances have already caused harm;
- (b) whether the substances are toxic, persistent or bioaccumulative or are present in large quantities or high concentrations or occur in combinations;
- (c) whether there are routes by which the substances may proceed from the source of the contamination to human beings or other aspects of the environment;
- (d) whether the uses to which the land and land adjoining it are currently being put are such as to increase the risk of harm from the substances;
- (e) whether the approved uses of the land and land adjoining it are such as to increase the risk of harm from the substances;
- (f) whether the substances have migrated or are likely to migrate from the land (whether because of the nature of the substances or the nature of the land).

There are a range of options for addressing the contaminated land, including management orders issued by DECCW to require site assessment, remediation and/or monitoring and approval of voluntary management proposals.

Responsibility for site assessment, remediation and/or monitoring rests with the following people, in order of preference:

- the person responsible for the contamination

³⁶ Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997, Department of Environment and Climate Change and Water New South Wales, June 2009, page 6

³⁷ This Measure was approved by the National Environment Protection Council on 10 December 1999 and is made under the *National Environment Protection Council Act 1994*. It was also approved under the *National Environment Protection Council (New South Wales) Act 1995 (NSW)*.

³⁸ DECCW Guidelines, op cit, page 12

- the owner of the land (whether or not they are responsible for the contamination); or
- the notional owner of the land (the notional owner is a person who is a mortgagee in possession of the land or who has a vested interest with respect to the land).

Conclusion

As in South Australia, there is no hard and fast answer to the question of whether asbestos contamination on a site would have to be reported to the EPA. The mere existence of asbestos does not trigger a reporting obligation under the *Contaminated Land Management Act 1997 (NSW)*. Whether or not asbestos contamination would need to be reported must be decided on a case by case basis, in particular taking into consideration the risk that the asbestos could be disturbed and therefore become a risk to human health through respirable fibres. Given the very high fines for not reporting contamination of soil, a presumption in favour of reporting would be prudent.

Queensland

Reporting obligations

Part 8 of Chapter 7 of the *Environmental Protection Act 1994 (Qld)* requires the owner or occupier of land to notify the Department of Environment and Resource Management within 22 days of becoming aware that a notifiable activity is being carried out on the land or of becoming aware that the land has been contaminated by a contaminant that the owner knows is a hazardous contaminant.

Notifiable activities are listed in Schedule 3 of the Act and include asbestos manufacture, disposing of unbonded asbestos and disposing of more than 5 tonnes of bonded asbestos – the duty to report these notifiable activities would rest with owner or occupier carrying out these activities (for example, a land fill site operator that accepts asbestos waste).

A hazardous contaminant is defined in the Dictionary at Schedule 4 of the Queensland Act as:

a contaminant, other than an item of explosive ordnance, that, if improperly treated, stored, disposed of or otherwise managed, is likely to cause serious or material environmental harm because of—

(a) its quantity, concentration, acute or chronic toxic effects, carcinogenicity, teratogenicity, mutagenicity, corrosiveness, explosiveness, radioactivity or flammability; or

(b) its physical, chemical or infectious characteristics.

Material environmental harm (the lesser of the two tests for the purpose of the definition of hazardous contaminant) includes environmental harm that is not trivial or negligible in nature, extent or context. Harm to humans can fall within these definitions (the definition of environment includes ecosystems and their constituent parts, including people and communities).

The penalties for failure to notify in accordance with these requirements are considerably less than in other jurisdictions: \$5,000 (for notifiable activities) and \$10,000 (for contaminates).

The *Draft Guidelines for the Assessment & Management of Contaminated Land in Queensland*³⁹ provide guidance on site assessments (including preliminary site assessments) to determine if land is contaminated by hazardous substances. The Guideline provides that the assessment of contaminated sites is to follow the human health and environmental risk-based approach – essentially the approach outlined in the NEPM.⁴⁰

Advice from the Department of Environment and Resource Management has confirmed that reporting requirements would be site specific and would depend on the amount of asbestos present and in the case of ACM, the size of the asbestos pieces. The Department has advised orally that the trigger levels contained in the Western Australian Guidelines (see page 10) should be used as guidance as to whether or not reporting of asbestos in soil is required.⁴¹

The Department of Environment and Resource Management has also advised that asbestos within a building does not have to be reported under the Queensland Act. Asbestos containing material in good condition that is on a site would not have to be reported.⁴²

Who is responsible for site investigations and remediation?

Where the Department of Environment and Resource Management is notified about contaminated land, the Department needs to make a decision as to whether the land is included on the environmental management register (low risk sites) or contaminated land register (risk sites).

The Department of Environment and Resource Management has a range of options available, including issuing notices requiring a site investigation to be undertaken (section 376(2)). Where the person who released the contaminant is known and can be found, that person is responsible for the site investigation. If that person cannot be found, the relevant local government (in certain circumstances) or the owner of the land must undertake the site investigation.

Responsibility for remediation of contaminated land rests with the same persons, in the same order of responsibility.⁴³ Voluntary remediation can also be undertaken, with the owner's consent.⁴⁴

Conclusion

Asbestos contamination should be reported where there are sufficient concerns based on site conditions and the nature of the asbestos. As advised by the Department of Environment and Resource Management, the trigger levels contained in the Western Australian Guidelines should be used as guidance as to whether or not reporting of asbestos contamination of soil is required.

³⁹ Draft Guidelines for the Assessment & Management of Contaminated Land in Queensland, Department of Environment, May 1998.

⁴⁰ *ibid*, page 18

⁴¹ Greg O'Brien, Project Officer, Contaminated Land Unit, Department of Environment and Resource Management in a telephone conversation on 14 May 2010. The Department has not responded to an email request to confirm this advice in writing.

⁴² Note that an email to confirm this conversation was sent to Greg O'Brien on 21 May 2010. As at the date of this paper no response has been received.

⁴³ Section 391 of the Qld Act

⁴⁴ Section 390

Victoria

The requirements in relation to contaminated land in Victoria are governed by the *Environment Protection Act 1970* and the *State Environment Protection Policy (Prevention and Management of Contamination of Land)*⁴⁵ made under that Act.

What is contamination?

The *Environment Protection Act 1970* includes a number of duties relevant to builders, including the duties not to pollute land, water and air during construction activities. Section 45 of the Act relates to pollution of land and is as follows:

- (1) *A person shall not pollute land so that the condition of the land is so changed as to make or be reasonably expected to make the land or the produce of the land—*
- (a) *noxious or poisonous;*
 - (b) *harmful or potentially harmful to the health or welfare of human beings;*
 - (c) *poisonous, harmful or potentially harmful to animals, birds or wildlife;*
 - (d) *poisonous, harmful or potentially harmful to plants or vegetation;*
 - (e) *obnoxious or unduly offensive to the senses of human beings; or*
 - (f) *detrimental to any beneficial use made of the land.*

A breach of the duty not to pollute land attracts substantial penalties⁴⁶ The EPA also has the capacity to issue a pollution abatement notice⁴⁷ where a process or activity at a premises has caused or is likely to cause pollution or has caused or is likely to cause a failure to comply with, inter alia, the requirements contained in an environment protection policy.

Environment protection policies are made under section 16(1) of the *Environment Protection Act 1970* which provides as follows:

- (1) *For the purposes of this Act the Governor in Council may, on the recommendation of the Authority, by Order published in the Government Gazette declare the environment protection policy to be observed with respect to the environment generally or in any portion or portions of Victoria or with respect to any element or elements or segment or segments of the environment.*

State Environment Protection Policies provide the framework for the application of the Act, guiding the EPA's decisions and providing a basis for issue of works approvals and licenses. Amongst other things, the policies define the uses of the environment that the community desires to be protected (i.e. beneficial uses). Policies typically set quantitative and ambient standards and also specify measures that must be implemented to minimise the risk of activities causing their ambient standards to be exceeded.

The *State Environment Protection Policy (Prevention and Management of Contamination of Land)* (the Policy) establishes the most detailed and directly relevant requirements in relation to contamination of land.

⁴⁵ This instrument is made under section 16(1) and section 17A of the *Environment Protection Act 1970* and was gazetted on 4 June 2002.

⁴⁶ Subsection 45(3) of the Act provides for penalties of up to 2400 penalty units plus 1200 penalty units for each day the offence continues after conviction or after service by the Authority of a contravention of section 45. This equates to a penalty of \$280,308 and \$140,184 respectively (each penalty unit is \$116.82).

⁴⁷ *Environment Protection Act 1970*, section 31A.

As well as being a potential trigger for issuing a pollution abatement notice under section 31A of the Act, under section 44 of the Act, the discharge or deposit of waste onto land must be in accordance with the Policy and any separate waste management policy.⁴⁸ The Policy also provides guidance in relation to the beneficial use of land for the purposes of section 45 of the Act.

Turning to relevant detail of the Policy itself, clause 8 establishes the broad policy intent. It provides:

All occupiers will give effect to their duty to prevent contamination of land which they occupy. Without derogating any responsibility incurred by the polluter, occupiers will clean-up or manage pollution of the site for which they are the occupier (or ensure the pollution is cleaned-up or managed). These actions will ensure that the site is suitable for its current use and that other elements and segments of the environment are protected. Occupiers will also use the site and manage any contamination in a manner which takes account of any relevant statement of environmental audit that may have been issued for the site.

Any pollution of land will be cleaned-up or otherwise managed to protect the beneficial uses of the land and to ensure the condition of the land does not cause detriment to the beneficial uses of other elements at the site or off-site.

The beneficial uses of land protected by the Policy are specified in clause 10(1) of the Policy. There are five beneficial uses of land specified, including human health.⁴⁹

Clause 11 provides that the EPA will have regard to specified indicators and objectives⁵⁰ to determine whether the level of any contaminant at any site poses an unacceptable risk to protected beneficial uses of the land. In relation to human health, the specified indicators and objectives are as follows:

Beneficial Use	Indicators	Objectives
Human Health	Chemical substances or wastes identified through the application of the <i>National Environment Protection (Assessment of Site Contamination) Measure</i> (Schedule B(2), Appendix 1) or any other chemical substance or waste.	Contamination must not cause an adverse effect on human health and the level of any indicator must not be greater than – (a) the investigation level specified for human health in the <i>National Environment Protection (Assessment of Site Contamination) Measure</i> , or (b) levels derived using a risk assessment methodology described in the <i>National Environment Protection (Assessment of Site Contamination) Measure</i> , or (c) levels approved by the Authority.

⁴⁸ There are 8 waste management policies – see the EPA web site for further information http://www.epa.vic.gov.au/about_us/legislation/iwmpps.asp#acid

⁴⁹ The other beneficial uses specified in this clause of the Policy are maintenance of natural ecosystems, modified ecosystems and highly modified ecosystems; buildings and structures, aesthetics; and production of food, flora and fibre.

⁵⁰ Refer to Table 2 on page 6 of the *State Environment Protection Policy (Prevention and Management of Contamination of Land)*

As the NEPM does not have a health investigation level for asbestos, an alternative method is required. This is confirmed by the *Industry Standard - Contaminated Construction Sites* issued by Worksafe Victoria which provides that where a contaminant in soil does not have a health investigation level a person conducting a site assessment should develop other 'acceptance criteria' for that site⁵¹. This would have to be done by a person with relevant expertise - the risk assessment methodology described in the NEPM (the second method of determining acceptable contamination levels in the table above) is complex and requires data collection and evaluation of the chemical condition of the site; toxicity assessment of contaminants; exposure assessment for the population on or near the site; and risk characterisation. The outcome of the methodology depends on the particular circumstances of the case.

Reporting obligations

Unlike other jurisdictions, the reporting obligations in relation to contaminated land are unclear. The *Environment Protection Act 1970 (Vic)* is framed around positive duties to prevent pollution and contamination and the proper management of industrial waste.

Dealing with contamination

Under clause 21 of the Policy, where contamination at a site is of a level which precludes a protected beneficial use of the relevant land, a state of pollution exists and the land must be cleaned up and/or managed so that:

- There is no immediate threat to human health on site or off site;
- Contamination does not preclude protected beneficial uses of the relevant land use; and
- The risk of the site adversely impacting any protected beneficial use of land off site is reduced to a level acceptable to the Authority.

Under section 62A of the EPA Act, the EPA can issue a notice directing one of the following persons to take clean up and ongoing management measures:

- the occupier of the premises upon or from which pollution has occurred or been permitted to occur;
- the person who caused or permitted the pollution to occur
- the person who appears to have abandoned or dumped industrial waste or potentially hazardous substance
- any person who is handling industrial waste or a potentially hazardous substance in a manner which is likely to cause an environmental hazard.

Section 4 of the EPA Act defines the occupier as including a person who is in occupation or control of the premises whether or not that person is the owner of the premises and in relation to premises different parts of which are occupied by different persons means the respective persons in occupation or control of each part. This could mean that the responsibility for remediation rests with the builder rather than with the owner of the premises. This is a different approach to a number of other jurisdictions, where responsibility for investigation and remediation of contamination rests with the person who was responsible for the contamination, or if that person cannot be found, the owner of the premises.

⁵¹ Industry Standard - Contaminated Construction Sites, First Edition, June 2005, EPA Victoria and WorkSafe Victoria, page 9

Conclusion

As with other jurisdictions where assessments of contamination are underpinned by the NEPM, it is not possible to draw a definitive conclusion as to whether land that has asbestos contamination would be considered to be polluted. This would depend on the circumstances of the case and would need to be determined on a case by case basis. .

Tasmania

Part 5A of the *Environmental Management and Pollution Control Act 1994* (Tas) legislates for contaminated sites. Section 74A of the Act provides that an area of land is a contaminated site if –

- (a) *there is in, on or under that area of land a pollutant in a concentration that –*
 - (i) *is above the background concentration; and*
 - (ii) *is causing or is likely to be causing serious or material environmental harm or environmental nuisance, or is likely to cause serious or material environmental harm or environmental nuisance in the future if not appropriately managed; or*
- (b) *a site management notice is registered on the land and shown on the relevant folio in the register of title of land kept under the Land Titles Act 1980 (Tas).*

The definition of pollutant in section 3 of the Tasmanian Act is largely the same as that for contaminant in the Queensland legislation:

- "pollutant" includes –
- (a) a gas, liquid or solid; or
 - (b) an odour; or
 - (c) an organism (whether alive or dead), including a virus; or
 - (d) energy, including noise, radioactivity and electromagnetic radiation; or
 - (e) a combination of pollutants –
that may cause environmental harm.

Reporting contamination

The reporting obligations for contaminated sites are established by section 74B of the Act. That section requires the owner or occupier of the land to notify the EPA⁵² of the details, if known, of the pollutant concerned, the circumstances in which the pollutant escaped or was discharged, emitted or released and any action that has been or is being taken to remedy the pollution.

Notification must be made within 24 hours after the owner or occupier becomes aware, first reasonably believes or should first reasonably believe that the area of land is likely to be a contaminated site, if he or she became aware, first reasonably believed or should first reasonably have believed that the area of land is, or is likely to be, a contaminated site.

The penalties for failure to notify in accordance with these requirements are large – up to \$144,000 for a body corporate and \$72,000 for a natural person.

Does asbestos contamination have to be reported?

Whether or not an asbestos-contaminated site has to be reported under section 74B of the Tasmanian Act depends on whether the asbestos could be considered to be causing, likely to cause serious or material environmental harm or environmental nuisance, or likely

⁵² This is a division of the Department of Primary Industries, Parks, Water and Environment.

to cause serious or material environmental harm or environmental nuisance in the future if not appropriately managed.

These terms are defined in section 5 of the Tasmanian legislation. Environmental harm is material environment harm if, among other things, it involves an actual adverse effect on the health or safety of human beings that is not negligible. Environmental harm is serious environmental harm if, among other things, it involves an actual adverse effect on the health or safety of human beings that is of a high impact or on a wide scale.

These definitions are different to those applying in South Australia where actual or *potential* harm to humans can constitute material or serious environmental harm.⁵³

So, in order to determine whether asbestos is reportable, it is necessary to determine whether, at a minimum, it is likely to cause an actual adverse effect on the health or safety of human beings which is not negligible.

While there is no doubt that asbestos contamination in soil can cause potential harm to humans if it is disturbed, the fact that the legislation uses a test of 'actual adverse effect on the health of human beings' makes the reporting obligations in relation to asbestos contamination unclear. The existence of asbestos in soil in itself does not have an actual adverse effect on the health and safety of human beings. However, asbestos could have an actual adverse effect if not managed appropriately – potentially this triggers the reporting requirements in section 74B.

EPA Tasmania has advised that they are not aware of any instances where asbestos contamination has been reported to the EPA. As at the date of this paper, EPA Tasmania has not responded to requests for advice as to whether or not asbestos contamination has to be reported under the *Environmental Management and Pollution Control Act 1994*.

Site investigation, remediation and management

Following notification of a contaminated site, the EPA has a range of options, including issuing an investigation notice, a remediation notice or a site management notice.

There are substantial penalties for failure to comply with a notice – up to \$120,000 for a body corporate and \$60,000 for a natural person.

Northern Territory

The assessment and management of contaminated land in the Northern Territory is implemented through the auditing and pollution control provisions of the *Waste Management and Pollution Control Act 1998*.

Under section 14 of the *Waste Management and Pollution Control Act 1998* (NT) where an incident occurs in the conduct of an activity and the incident causes, or is threatening, or may threaten to cause, pollution resulting in material environmental harm or serious environmental harm, the person conducting the activity must notify the Department of Natural Resources, Environment, the Arts and Sport as soon as practicable after (and in any case within 24 hours after) first becoming aware of the incident or the time he or she ought reasonably be expected to have become aware of the incident.

⁵³ This view is reinforced in the light of *Jones v Glenorchy City Council* [2006] TASSC 27 (24 April 2006) see esp para 38 where the distinction between actual and potential harm in other contexts of the statute is discussed

There are significant penalties for failure to comply with these reporting obligations – up to \$250,000 for a body corporate and \$50,000 for an individual.⁵⁴

In summary, for reporting obligations under section 14 of the NT Act to apply:

1. there must be an incident;
2. that incident must cause or threaten to cause pollution. Pollution is defined as a contaminant or waste that is emitted, discharged, deposited or disturbed or that escapes; or a contaminant or waste, effect or phenomenon, that is present in the environment as a consequence of an emission, discharge, deposition, escape or disturbance of a contaminant or waste;
3. the pollution would result in environmental harm – this encompasses harm or potential harm to the well-being of humans; and
4. the environmental harm must, at a minimum, be material (not trivial or negligible in nature).

Subsection 14(5) of the NT Act defines an incident in inclusive terms as follows:

*For the purposes of this section, **incident** includes:*

- (a) *an accident, emergency or malfunction; and*
- (b) *a deliberate action, whether or not that action was taken by the person conducting the activity in the course of which the incident occurred.*

These reporting requirements could apply where asbestos is disturbed on a construction site because of the potential for harm to humans from asbestos exposure. However, the list of notifiable incidents in the Northern Territory in the last 7 years (available through the web site of the Department of Resources, Environment, the Arts and Sport <http://www.nt.gov.au/nreta/environment/waste/register/incidents.html>) primarily lists incidents involving the spilling of liquid contaminants such as fuel, cyanide and bitumen primer.

An Environment Protection Objective (EPO) for the management of site contamination in the Northern Territory is currently being developed.⁵⁵ EPOs are made under section 23 of the *Waste Management and Pollution Control Act 1998 (NT)* and establish the principles on which environmental quality is to be maintained, enhanced, managed or protected; pollution, or environmental harm resulting from pollution, is to be assessed, prevented, reduced, controlled, rectified or cleaned up; and effective waste management is to be implemented or evaluated.

The proposed EPO on site contamination will cover specific requirements for site contamination assessment, management and verification. The proposed assessment component of the EPO will implement the requirements of the National Environment Protection (Assessment of Site Contamination) Measure and stakeholders are advised to follow the processes described in the NEPM. This is confirmed by the Fact Sheet *Site Contamination: Attention Landowners and Developers!*⁵⁶ which provides that preliminary investigations of potentially contaminated sites should be undertaken in accordance with the NEPM.

⁵⁴ The penalties are spelt out in the *Environmental Offences and Penalties Act 1996*

⁵⁵ See the NT Department of Resources, Environment, the Arts and Sport web site <http://www.nt.gov.au/nreta/environment/waste/contaminated.html#>

⁵⁶ Department of Natural Resources, Environment, the Arts and Sport, *Site Contamination: Attention Landowners and Developers!*, Fact Sheet, undated, page 2 - <http://www.nt.gov.au/nreta/environment/waste/factsheets/index.html>

As in other jurisdictions which rely on the NEPM to determine whether or not a site is contaminated, the assessment would need to be undertaken on a case by case basis, taking into account the range of factors outlined on page 3 of this paper.

ACT

What is contamination?

Section 4 of the *Environment Protection Act 1997* (ACT) defines contaminated in relation to land as follows:

contaminated, in relation to land, means the presence in, on or under the land, or a building or structure on the land, of a substance at a concentration above the concentration at which the substance is normally present in, on or under land, or a building or structure on land, in the same locality, if the presence causes, or is likely to cause either or both of the following:

- (a) a risk of harm to human health;
- (b) a risk of environmental harm.

The presence of asbestos in soil does not of itself lead to risk of harm to human health. However, if the asbestos is likely to be disturbed and fibres become airborne, then such a risk will exist. If the asbestos is on a part of a building site that will be disturbed then the land is likely to fall within the definition in section 4 of the ACT legislation.

The ACT legislation is different to all other State or territory legislation in that it specifically encompasses buildings on land. Potentially, asbestos contained within a building could result in the land on which the building stands to be contaminated where the presence of the asbestos causes, or is likely to cause, a risk of harm to human health or a risk of environmental harm.

Reporting requirements

Section 23A of the ACT Act establishes the reporting requirements in relation to contaminated land.

- (1) A lessee or occupier of land must notify the authority in writing as soon as practicable after becoming aware that land of which he or she is the lessee or occupier is contaminated in such a way as to present, or to be likely to present—
- (a) a significant risk of harm to human health; or
 - (b) a risk of material environmental harm or serious environmental harm.

Section 23 of the ACT Act also requires a person to notify the EPA if the person conducting an activity becomes aware that the activity has caused, is causing or is likely to cause serious or material environmental harm from pollution.

The maximum penalty for failure to report in accordance with the requirements of section 23 or 23A is 50 penalty units (\$27,500 for a corporation or \$5,500 for an individual).

For the purposes of the Act, pollutant includes a gas, liquid or solid which when discharged, emitted, deposited or disturbed, may cause environmental harm. Environmental harm means any impact on the environment as a result of human activity that has the effect of degrading the environment (whether temporarily or permanently). Environment is broadly defined and includes ecosystems and their constituent parts, including people and communities.

Further clarification about how the risk of harm to human health or environmental harm in relation to contaminated land is assessed by the authority is established by section 91B of the Act. It states as follows:

For this division, to assess whether land is contaminated with 1 or more substances in such a way as to present, or to be likely to present a significant risk of harm to human health, or a risk of material environmental harm or serious environmental harm, the authority must include a consideration of all of the following matters in the assessment:

- (a) whether the contamination of the land has already caused harm;*
- (b) whether the substances are toxic, persistent or bioaccumulative or are present in large quantities or high concentrations or occur in combinations;*
- (c) whether there are routes by which the substances may proceed from the source of the contamination to human beings or other aspects of the environment;*
- (d) whether the uses to which the land and land adjoining it are currently being put are such as to increase the risk of harm;*
- (e) whether the use of the land and land adjoining it, being a use permitted by the lease to which the land is subject, is such as to increase the risk of harm;*
- (f) whether the substances have migrated or are likely to migrate from the land (whether because of the nature of the substances or the nature of the land);*
- (g) any environment protection policy made by the authority on contamination and remediation;*
- (h) any relevant national environment protection measure.*

Does asbestos contamination need to be reported?

Using the criteria in section 91 of the ACT Act, it is possible that soil which contains asbestos could be considered to be contaminated in certain circumstances, such as where there is a large amount of asbestos that could be disturbed, resulting in airborne asbestos particles.

Further guidance on contaminated sites is provided in the Contaminated Sites Environment Protection Policy issued by the Environment Protection Authority under section 4 of the ACT Act. That Policy states that for the purposes of the Act, land would not be considered contaminated merely due to the presence of hazardous substances in, on or under the land. The Policy gives an example of a landfill site which may have hazardous substances above those normally found and concludes that if these substances are managed in an appropriate manner the site would not pose a significant risk of harm to human health or the environment.⁵⁷

Using the same logic in relation to asbestos on, in or under soil, if the asbestos will not be disturbed or if the asbestos can be removed in accordance with asbestos removal codes of practice, it is possible that the land would not be considered to be contaminated. However, the Policy does not specifically deal with asbestos, other than to note that

⁵⁷ The *Contaminated Sites Environment Protection Policy*, Environment Protection Authority, November 2009 makes it clear that where substances can be managed in an appropriate manner sites would not pose a significant risk of harm to human health or the environment and therefore not be considered to be contaminated – refer to page 9 of the policy.

previous uses of land associated with contamination include asbestos production and disposal.

4 Conclusion

Application of State and Territory contaminated site legislation to asbestos contamination is problematic. Reliance in most jurisdictions on the Health Investigation Levels in the National Environment Protection Measure to trigger site contamination obligations means that there is considerable uncertainty about if and when asbestos needs to be reported and sites remediated.

Other than in Western Australia (and potentially Queensland if the oral advice provided by the EPA is sound if the matter is tested before the courts), the absence of a Health Investigation Level means that an assessment of potential contamination needs to be made on a case by case basis. The assessment of asbestos contaminated sites is complicated by uncertainties such as the condition of asbestos containing material (ACM) products, mixtures of asbestos types and products, soil types and meteorological conditions. The assessment of risk for asbestos is also inextricably linked to the consideration of acceptable management options.⁵⁸

This level of uncertainty is of concern, particularly in those jurisdictions such as New South Wales, where the penalties for failure to comply with contaminated sites reporting obligations are very high.

While the need for greater certainty is beyond doubt, if the revised NEPM is based on existing available documents such as the Western Australian guidelines it is likely to involve significant costs to industry. Soil sampling and analysis to determine the extent of contamination can only be done by an expert and can be expensive.

As noted earlier in this paper, the approach in the Western Australia guidelines is also very conservative because it assumes that all fibres within an asbestos cement fragment will become released as respirable fibres. Management solutions implemented by jurisdictions, including through the harmonised OHS framework, are therefore of crucial importance. The proposed management solutions need to both effectively reduce the risk, not result in other risks (such as to workers transporting and dealing with contaminated soil removed from a site) and be cost effective (removing soil, for example, is prohibitively expensive).

Master Builders therefore recommends that where the presence of asbestos in soil is established, the application of a suitable management program be permitted as a solution to the problem. As indicated at the commencement of this paper, it can be appropriate to leave the discovered asbestos on site, provided that suitable arrangements are put into place to ensure that the asbestos is not disturbed (such as isolation from construction work and/or burial of the asbestos at a suitable depth) and there is careful management of information (such as site plans) to ensure that future risks do not arise. Laws which ignore that option will only exacerbate the problem of the appropriate reporting of asbestos on a site and its management in a way that does not exacerbate the problem of exposure.

⁵⁸ *National Environment Protection (Assessment of Site Contamination) Measure Review: Review Report*, September 2006, Page 39