Councils are Lead Liable due to Duty of Care

The Implications of Environmental Lead for Local Government

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On 20 October 1997 New South Wales commemorates its inaugural "Lead Poisoning Awareness Week". This date recognises the world's first discovery by Dr Turner (20 October 1897), that childhood fatalities in Queensland were caused by lead poisoning[1]. Lead hazards have resulted in the clinical poisoning of many hundreds of children in Australia over the last century, with scores of fatalities. Rathus (1957) has reviewed historical cases of clinical lead poisoning in Queensland from 1890-1940 and Freeman (1970) reviewed 90 cases in Sydney from 1948-1967. Both authors attribute the majority of poisonings to the ingestion of lead paint hazards (ie. paint chips or dust/soil contaminated by the removal of lead-based paint).

The adverse health effects of exposure to even low lead levels are well-known and documented[4,5,6]. Claire Patterson (1965) best summarised the adverse effects of lead when he found that:

- A single atom of lead, once in the human body, binds to a protein and induces some damage.
- The greater the exposure the more serious the effects.
- Lead has no physiological function.
- Any amount of body lead reflects environmental pollution.

Some of the more disturbing aspects of recent lead research, include studies that have linked lead exposure to anti-social behaviour, juvenile delinquency and adult criminality [8,9,10] and the association of even low lead levels in adults and hypertension[11]. One recent study conducted among 850 boys attending high school, showed that those with relatively high levels of lead in their bones were more likely to engage in aggressive acts and delinquent behaviour than boys with less lead in their bone[12]. Although none of the children in the study had ever been diagnosed with lead poisoning, a direct relationship was found between the amount of lead in their leg bones and reports by parents, teachers and children themselves of aggressive and delinquent behaviour. Even after taking into account other predictors of delinquency, such as maternal intelligence, socioeconomic status, child-rearing factors, race and history of medical problems the association of lead exposure and aggressive behaviour remained. Delinquent acts in childhood have been shown in past studies to be strong predictors of criminal behaviour later in life. This study breaks new ground, opening

the possibility that some of the violence in our society could be the result of preventable environmental pollution by lead[13].

Prevalence of Elevated Blood Lead Levels in Urban Children

A national survey of 1-4 year old children[14] found only 7.3% of children had blood lead readings above the NHMRC target level of 0.48 µmol/L (10 µg/dL) and only 1.7% above the NHMRC action level of 0.72 µmol/L (15 µg/dL). However, some researchers have questioned the statistical significance of the national survey due to the poor response rate, small population size and the lack of peer review.

A more comprehensive study conducted of 718 children in Central and Southern Sydney[15] may be a better indicator of the prevalence of children with elevated blood lead levels living in older urban areas of Australia. The study found that 16.1% of children had blood lead levels above 0.48 µmol/L and 3.9% above 0.72 µmol/L. The blood lead levels for children living in a 10 km radius of the Sydney Central Business District were 25 % above 0.48 µmol/L and 7% above 0.72 µmol/L. Corresponding findings for children living 10 km outside the radius were 9% above 0.48 µmol/L and 1.5% above 0.72 µmol/L. The primary difference between the two areas was the presence of older housing stock with lead paint within the 10 km zone of the CBD.

A survey of preschool children's blood lead levels in inner Sydney[16], where the majority of housing was built before WWII, found 50% of children above 0.48 µmol/L and 17.1% above 0.72 µmol/L. The study also found that children present during a home renovation were approximately five times more at risk of developing a blood lead level above 0.72 µmol/L.

Potential Lead Liability for Local Government

Issue 1: Liability To Persons Affected By Lead Poisoning As A Result Of Renovation/Demolition Work Carried Out On Houses Or Buildings Within Council Boundaries.

Liability depends on a Plaintiff establishing that the Council owed him or her a duty of care. The decision of the High Court in the Council of the Shire of Sutherland v Heyman (1985) 157 CLR 424 emphasised that a duty of care owed by a Council has to be determined by reference to the same principles which applied in general matters: there had to be a sufficient degree of proximity between the Council and the Plaintiff, such as to create an obligation on the Council to take reasonable action to prevent that loss or injury. Where a Council had a mere statutory power, and the negligence alleged against the Council was failure to exercise that power, then no duty of care could arise. If the Council decided to exercise the power and did so negligently, or if the Council was in fact, performing a statutory duty (as opposed to merely exercising a power), and did so negligently, then a duty of care would arise. The duty would be to act in such a way as to prevent foreseeable injury or loss.

Renovation and demolition work may require development approval and would require building approval. In considering a development application, section 90 (1) (c) of the Environment Planning and Assessment Act imposes a duty on the Council to take into consideration; "The existing and likely future amenity of the neighbourhood." Section 90 (1) requires a Council to consider "the public interest".

Section 68(1) of the Local Government Act and Regulations 12 and 13 of the Local Government Regulations create a duty on the Council to consider the "healthiness" of building when considering a building approval.

Thus, when faced with a development or building application, the Council is under a duty to consider health hazards which may be caused by the development or building work. That is, Council is exercising a statutory duty, rather than a mere power, when considering a development or building applications.

In establishing the necessary degree of proximity, reliance is an important factor. The Alec Finlayson Pty Limited v Armidale City Council (123) ALR 155, case concluded:

"Where a public authority knows, or should know, when taking some action, that it is in a distinctly superior position to appreciate or to assess a consequential threat, which is foreseeable, of injury, damage or loss, or to avoid the materialisation of injury, damage or loss, compared with the position of some individual or class of individuals, it is likely that the situation will also involve the concept of reliance, by those who may be affected, upon the public authority to take reasonable care".

With respect to lead paint on buildings, Council's are in a superior position, compared with persons who may be affected by lead poisoning, to "avoid the materialisation" of that injury by imposing conditions on any development or building work to which it gives approval. Councils have a duty to control development and building work in such a way as to safeguard the health of persons who might be adversely affected by that work. Councils are aware of the prevalence on lead paint in pre 1970 buildings and the danger created by any deterioration or disturbance of lead paint by work carried out on those houses or buildings. Councils are therefore in a far superior position, as a result of its knowledge and its ability to control development and building work, to safeguard the health of persons who might be adversely affected by that work, than the persons themselves. The persons to whom duty is owed include the owners of the properties, the workers who will carry out the work on the properties and, in the case of dust or airborne contamination could also include immediate neighbours of the properties. Each of those persons stands in a sufficient degree of proximity to the Council to impose on the Council a duty of care. When assessing a development or building application Council should ensure that conditions are imposed on the approval to prevent those persons potentially suffering lead poisoning.

Issue 2: Liability To Persons Affected By Lead Poisoning As A Result Of Exposure From Their Presence On Premises Owned Or Operated By The Council.

The law of occupier's liability has been well established for many years. There is little doubt that a person attending a child care centre, a baby health clinic, or any other premises owned or occupied by the Council and open to the public, would stand in a sufficiently proximate relationship to the Council to be owed a duty of care by the Council as an occupier of those premises. As a result of the knowledge of lead paint hazards (potentially present in all buildings constructed before 1970) held by Council, lead poisoning would be a foreseeable injury to any visitor who attends these premises and is exposed to lead. Under these circumstances, Council has a legal duty to take whatever steps are necessary to prevent visitors from being exposed to lead.

Developing A Local Government Lead Management Plan[17]

The NSW Lead Reference Centre (LRC) are developing a Local Government Lead Strategy with the assistance of peak local government groups. They have prepared a preliminary document to assist Council's in dealing with lead issues. The document incorporates health issues, sources and pathways of lead exposure, and the relevant legislation relating to local government and lead (however, this legislation is still under review). The document also outlines steps that local government can take to develop lead management plans (copies are available from the LRC). They include:

Identify Council owned or occupied buildings and develop lead management plans for those with lead hazards.

Identify council management, technical, maintenance staff and others, assess their need for training and train them.

Determine whether council procedures for managing lead hazards are adequate, especially for development and building approvals.

There are at least two NSW Councils who have already taken initiatives to increase community awareness about lead hazards and to reduce emissions to the environment and exposure to humans. Ashfield Municipal and Tweed Shire Councils have developed community information sheets that are widely distributed to residents and displayed at Council's offices. Both Councils have also commenced inspecting Council owned properties used by sensitive populations for lead hazards. Tweed Shire Council is also providing free lead paint testing services.

Council Powers and Obligations[17]

"Protection of the Environment Operations Bill

This bill proposes a larger role for Local Government as a regulator of activities that can cause pollution of land, air and water by materials containing lead".

"Building and Demolition Approvals[17]

Wherever an approval is necessary under clause 24 of the LGA, Councils can ensure the safe renovation of private buildings by imposing appropriate conditions.

When determining an application for approval under s89 of the LGA, Councils must take into consideration the requirements of any relevant regulations and criteria in a local approval policy that has been adopted.

When considering an application for demolition approval, Councils must comply with clause 65 of the Local Government (Approvals) Regulation 1993, which refers to Australian Standard AS2601-1991 *The Demolition of Structures*. Councils could include criteria relating to lead management in their local approvals policy. This policy could include criteria relating to demolition, provided it is not more onerous than the regulation.

If a Council does not have a local approval policy (and there is no applicable regulation), under Section 89 (2) it must seek to give effect to the applicant's objectives to the extent to which they are compatible with the public interest. The public interest includes protection of public health, safety and convenience".

Please note there are scheduled reforms to the NSW planning and environmental legislation.

Orders

Councils can also use powers under s124 of the LGA where applicable. Order 21 can be used to ensure that land or premises are placed or kept in a safe and health condition.

Limiting Lead Liability for Local Government

As outlined earlier in the paper it is crucial for Councils to discharge their legal duty relating to potential lead poisoning claims made by visitors to Council owned properties. This can only be achieved by identifying and managing any identified lead hazards in properties owned by Council and used by sensitive populations (preschool children and pregnant women).

Comprehensive assessment of lead paint hazards (includes lead paint, lead-contaminated soils and dusts) can be achieved by using three methods: chemical spot tests, laboratory analysis and new X-ray fluorescence spectrum analysers (NITON XL-309).

Table 1 outlines the advantages and limitations of three methods used to test lead paint.

Table 1 Comparison of Three Lead Paint Testing Methods

Destructive
Yes
Yes
No
Creates dust during collection
Yes
Yes
No
Need to re-seal sample area
Yes
Yes
No
Availability of results
30-90 sec.
3-14 days
5-20 sec.
Accurate and precise
No
Yes
Yes
Quantitative
No
Yes
Yes
US EPA & HUD approved
No
Yes
Yes
Cost per test (excluding labour)
20¢ to $8
$20-60
$3-6
Cost-effective
Yes
No
Yes

Chemical spot tests are cost-effective but unreliable. Many studies have shown unacceptable levels of false positives and false negatives [18,19]. Users of chemical spot test kits may recommend the costly remediation of non-lead painted surfaces or worse, fail to detect lead painted surfaces placing children at undue health risk. Professional consultants, environmental health officers, property managers, builders and painters place themselves at risk of costly litigation using chemical spot tests.

Laboratory chemical methods provide the most accurate and precise method for estimating lead content in paint. However, laboratory analysis of paint for total lead is very expensive and it can be weeks before you receive your results. Sample collection is also difficult, especially for intact lead paint, and issues of sample contamination and traceability during subsequent handling can arise.

The NITON XL-309 is the first portable XRF spectrum analyser to be used in Australia for testing lead paint. The primary advantage is speed, quantitative accurate (0.1 mg/cm^2) and precise (±0.15 mg/cm^2) results available instantly. Approximately 100 tests can be taken in one hour. The depth index determines where lead is located, on the surface or buried under several coats on non-lead paint. The instrument stores 3000 readings which can be down loaded to computer. The XL-309 also comes with lead in soil and dust capabilities that have been shown to produce results as good as any NATA registered laboratory[20]. Labour costs are also cheaper using the non-destructive XL-309, as there is no time spent collecting paint chips and re-sealing damaged surfaces. The disadvantages are the initial cost (although the XL-309 is now available for lease) and a low dose radiation source (Cd^{109} 307 Mbq) is used requiring an Environmental Protection Authority radiation license.

On completion of the assessment, a lead hazard control plan can be developed for each property. It is beyond the scope of this paper to outline the details of a lead hazard control plan. However, JBS Environmental has spent several months studying new innovative remediation techniques in the United States and it is our opinion that, except in extraordinary cases, lead safe renovations should cost no more than 10-20% above normal maintenance costs.

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