30 October 2020

Mr Garry Fielding
Western Regional Planning Panel
Planning Panels Secretariat
Locked Bag 5022
Paramatta NSW 2124

Attn: Kim Holt, Project Officer

Dear Mr Fielding

RE: Notice of Public Meeting – Western Region Planning Panel – 2 November 2020. Development Application DA 234/2018(1) - 129 – 131 Sale Street Orange (PANEL REFERENCE PPWES-40)

I am writing to you regarding the above Crown Development Application to Orange City Council for the proposed Category 1 remediation (asbestos); demolition of all buildings and structures, and removal of vegetation at 129 – 133 Sale Street, Orange (Former Nurses Quarters).

We thank you for the opportunity to present the application to the Panel on 2 November 2020.

The development application (DA) relates to land commonly known as the former nurses' quarters at 129 - 133 Sale Street, Orange. The divestment of these buildings form part of the funding source for 2008 NSW Government commitment to the new Orange Health Service (Orange Hospital).

Conditions 2 and 3 of the Draft Approval Notice issued by Council does not authorise any works at all (including removal of asbestos or remediation of Caldwell House) or demolition of Caldwell House. These conditions are at odds with all expert reports that HI has received that support full demolition of all buildings on site due to the heightened human health risk from the contamination of Caldwell House, as detailed below.

Panel Hearing

Representing Health Infrastructure (HI) at the Panel hearing and to respond to any public submissions made, will be:

- Rachel Mitchell, A/ Manager, Planning
- Mark Lamond, Senior Project Director
- Dr Ian Gardner, Consultant Occupational Physician (Independent specialist Occupational and Environmental Health)

The focus of our presentation will be the extent and nature of the contamination and more specifically the heightened risk to human health as a result of Council's preference to retain and remediate Caldwell House for its adaptive re-use.

Heritage

HI does not contest the local heritage significance of Caldwell House. The Heritage Impact Statements prepared by Weir Phillips Heritage has assessed the heritage significance in detail and considers demolition of Caldwell House is acceptable, concluding that:

- The long period of association of the nurses' quarters with this site, together with significant community involvement with nursing staff, means that the site has a high degree of social significance.
- Social significance, unlike other aspects of significance, does not necessarily depend on the physical retention of fabric.
- The understanding of the building's importance to past communities is now largely contained in historic records. Its high social significance will be perpetuated by a comprehensive interpretation strategy to be integrated with any proposed development at the site.
- The impact of the demolition of the nurses' quarters is acceptable considering the issues relating to its asbestos content and the invasive works required to remediate the building.

Contamination

- HI has extensive experience in the remediation of contaminated regional sites. This experience has informed the opinion that the remediation and demolition of Caldwell House is the most sustainable solution in this instance.

- It is agreed that under either scenario, i.e. Council's preference for retention and remediation for the adaptive re-use of Caldwell House, or HI's position for the demolition of all buildings (including Caldwell House) and remediation of the site; the loose-fill asbestos at the site must be safely removed, in accordance with legislative requirements.

- HI has undertaken extensive investigations into the feasibility of remediating and retaining Caldwell House v demolition and remediation of the site, and in particular the risk to the environment, human-health and economic costs. The following reports were submitted with the original DA for the demolition of Caldwell House:
  - Asbestos Removal Options, Caldwell House, 129 Sale Street Orange by Envirowest Consulting (26 June 2018)
  - Asbestos Removal Control Plan, Caldwell House and Nurses Accommodation by Envirowest Consulting (17 May 2018)
  - Hazardous Materials Survey by Envirowest Consulting (3 August 2017)
  - Preliminary Contamination Investigation by Envirowest Consulting (27 May 2016,).

- The buildings on the site have been assessed by two independent registered asbestos removalists (DEMEX and Interactive Projects). HI also appointed an Independent Consultant Occupational Physician, Dr Ian Gardner (ACT expert on loose-fill asbestos) to provide an independent specialist Occupational and Environmental Health Review of the former Nurses Buildings. Dr Gardner reviewed all relevant documents, undertook a site inspection and prepared a report (refer to **Attachment 1**). Dr Gardner's report was provided to Council as part of HI's response to Council's request for further information dated 19 August 2019.

- The independent findings of specialists engaged included:
  - The distribution of asbestos pipe lagging (friable asbestos) is located throughout all areas of Caldwell House.
  - Residual asbestos is located in numerous inaccessible areas of the building (wall cavities, ceiling cavity, sub floor space on porous surfaces and in the soil).
  - If the building was to remain, an occupation certificate could not be obtained because of the residual asbestos that will remain in the inaccessible areas of the building. Noting that Dr Gardner included in his report:

    "I have also seen photographs taken in the wall cavity spaces showing 'chunks' of loose asbestos at the base of and randomly strewn throughout these cavities. This condition implies that there are almost certainly amounts of respirable asbestos fibres in the wall cavity – and that consequently, based on the example in the ACT 'loose-fill sprayed asbestos insulation' situation (Mr. Fluffy) where forensic deconstruction of a house which had already been remediated three times was undertaken, it will be impossible to effectively clear or encapsulate all the asbestos fibres from the wall cavity (even at any cost). Thus, it will be unable to be certified as 'clean'."

- Dr Gardner also concluded that:
  "*The only certain way to prevent future asbestos-related disease is to reduce airborne asbestos fibre exposures to zero, or if this is not attainable, to a level 'as low as reasonably practicable'. In this case – given the wall cavity unknown risk issues etc – this will not be possible. Taking all of the above into account, and based on my extensive asbestos contamination and remediation experience, including with Defence, COMCARE's Telstra NBN Asbestos Taskforce, the ACT's Mr. Fluffy Asbestos Taskforce and as the Commonwealth Representative on the Asbestos Safety and Eradication Council, the only viable health-based solution is to demolish all the buildings and remediate the site to the required health-based and environmental standards required for redevelopment*."

- The expert opinion expressed by GHD (dated 18 October 2018) for Council was that asbestos removal is required whether (a) the structures are to be retained and re-purposed, or (b) the structures are to be demolished. HI does not contest this.

- HI has sought a further opinion on the two options (a) and (b) above from consultants Nation Partners (**Attachment 2**), who advised that there are fundamental differences in the two options with respect to potential exposure scenarios and hence management requirements, which the GHD report does not take into account, as outlined below:

  1. *In the case of asbestos removal for demolition, exposure to friable asbestos materials in the demolition scenario is likely to be short term (ie the length of the demolition and remediation of the land process), readily controllable with standard industry practices, and readily able to support the development of a clearance certificate. Under Sections 473, 474 and 477 of the Work Health and Safety Regulations, the person commissioning asbestos removal work must ensure that a clearance inspection is performed following asbestos removal to verify that the area is safe for normal use, as captured in a clearance certificate. The certificate must only be issued if the asbestos removal area is free of visible asbestos contamination and (if air monitoring was performed) that airborne concentrations are less than 0.01 fibres/mL. The clearance certificate would typically be issued following asbestos removal, structural demolition, and remediation of any soil contamination.*

     In summary, exposure to friable asbestos materials in the demolition scenario is likely to be short-term, readily controllable via adoption of prescriptive regulatory and industry practices, and readily able to support the development of a clearance certificate.

  2. In the case of asbestos removal followed by re-purposing of the structure, exposure to friable asbestos materials in the scenario of re-purposing the structures is likely to be long term, difficult to control, and may not support the development of a relevant or reliable clearance certificate, as outlined below:

  - *As per the demolition scenario, primary / initial exposure to asbestos materials would be to licensed asbestos-removal workers who would perform the removal activities under strict work methods, under the supervision of a Licensed Asbestos Assessor, with the application of appropriate PPE and with the support of air monitoring to detect respirable fibre levels.*
  - *The primary / initial period of exposure would be relatively short (potentially a small number of days) and would need to comply with the workplace atmospheric monitoring requirements in the Workplace Exposure Standards for Airborne Contaminants (Safe Work Australia, 2019).*
  - *Residual asbestos-containing materials would need to labelled, identified within an Asbestos Register and managed via an Asbestos Management Plan (AMP)* requiring the need for conditions monitoring
  - *and auditing every five (5) years. It is noted that there may be practical difficulties in identifying the presence and location of all remaining asbestos materials (particularly noting their loose-fill nature) throughout the structures.*
  - *Further exposure to residual asbestos materials (noting that it will be impractical to remove 100% of asbestos fibres / materials) may occur for future occupants of the structures. In this scenario, which differs significantly from the demolition scenario, the period of exposure may be longer term (years) and may be subject to limited control due to the reduced ability to influence the day-to-day activities within the structures, and the impracticality of enforcing PPE requirements on a long term basis or upon change*

of ownership or occupation. Nation Partners is not able to comment on the extent of exposure that may occur over this period, as it will be significantly influenced by the extent of residual asbestos and the nature of activities performed within the structures.

- *In this scenario, the person conducting the future business or undertaking (PCBU) at the site would have the same obligations as the demolition scenario in relation to worker exposure, however the obligation would exist over a much longer time period and would be applicable to the future building occupants. The PCBU would need to ensure that exposure to airborne asbestos is eliminated so far as is reasonably practicable, ensure that the occupational exposure standard for asbestos is not exceeded at the workplace (0.1 fibres / mL based on Time Weighted Average) and demonstrate the course of action taken through a documented risk assessment.*
- *The person commissioning asbestos removal work must ensure that a clearance inspection is performed and a clearance certificate is issued. While a clearance certificate could theoretically be produced for the area(s) of asbestos removal, it is uncertain whether a Licensed Asbestos Assessor would be willing to produce a certificate in this scenario, due to the likelihood that residual loose-fill materials may remain. It is also uncertain whether the certificate would remain relevant and reliable in the context of longer term occupation of the structures.*
- *Additionally, the application of warning labels for residual materials and the need to establish and maintain an Asbestos Register, Asbestos Management Plan and ongoing auditing requirements may impose onerous restrictions on building use and/or act as a significant disincentive for beneficial use of the structures into the future. These controls also require careful management upon changes of ownership or occupation arrangements.*

In summary, exposure to friable asbestos materials in the scenario of re-purposing the structures is likely to be longer term, more difficult to administer and control, and may not support the development of a relevant or reliable clearance certificate.

- Note also that it is the experience of HI that the demolition process will demonstrate that the extent of contamination is usually much greater than the detail contained within the expert reports, given that all areas of a building are not accessible when undertaking inspections.

Conclusion

There would be a long-term heightened risk of harm to human health and the environment from Council's preference to retain and remediate Caldwell House for its adaptive re-use, compared to HI's preferred position for the full and safe demolition of all buildings and remediation of the site.

HI has received several expert opinions, each with consistent advice, and in particular from Dr Ian Gardner, who is of the opinion that the only viable health-based solution is to safely demolish the buildings and remediate the site.

HI has offered to meet, with our experts, and with Council and Council's experts, to discuss the site and our findings during the course of the application. However, Council has not accepted this offer.

HI understands the communities' desire to retain the heritage building, however given the nature of contamination in Caldwell House and the real long-term health risks associated with retaining the building, the only acceptable solution for community safety is demolition of the buildings and subsequent remediation of the land. As a result, HI cannot accept conditions 2 and 3 of Council's Draft Determination Notice for DA 234/208(1).

Yours sincerely

Amanda Bock

A/ Executive Director Rural & Regional

Attachment 1 – Dr Ian Gardner's Report and CV

Attachment 2 – Nation Partners Letter (29/10/2020)

Dr Ian Robert Gardner

Dr Ian Gardner is an Australian medical specialist with more than forty years global experience in Occupational, Environmental and Public Health Medicine and Toxicology. He has a special interest and expertise in Asbestos issues.

He holds degrees in Medicine and Surgery as well as a Masters Degree in Public Health and professional Fellowships from Australia, the UK and the USA. He holds an academic appointment as Adjunct Professor in Occupational & Environmental Medicine at the University of Queensland. He has also been a visiting professor and external examiner in Occupational Medicine at the National University of Singapore and the Chinese University of Hong Kong in Shatin, HK.

From 2015 until mid-2019, Ian was Chief Health Officer, Department of Veterans' Affairs. From 2001 until 2015, Ian was the Senior Physician in Occupational and Environmental Medicine, at the Defence Centre for Occupational Health and Safety, Canberra.

In this Defence role, at the SES Band 2 level, he was responsible for the occupational health side of the Defence Asbestos Exposure Assessment Scheme (DAEAS); large numbers of asbestos presentations to Defence employees, Contractors and Community Groups, as well as specialist advice to CEO, COMCARE on the national Telstra/NBN Asbestos Pits issues; Chief Medical Adviser to the "Mr Fluffy Asbestos Taskforce" in Canberra which resulted in the compulsory acquisition and demolition of more than 1000 loose-fill asbestos-contaminated homes; and many Asbestos exposure issues in multiple Local Authority jurisdictions in the ACT, Victoria, NSW and the Northern Territory. He was also the ministerially appointed Commonwealth representative on the Asbestos Safety and Eradication Agency Council from 2012 until 2015.

Prior to his Defence appointment, Ian worked for IBM Asia Pacific for thirteen years culminating in appointment as Program Director, Health Safety and Environment Management, IBM Asia Pacific, Japan. Previous occupational health jobs were with IBM Australia, ICI Australia and Alcoa of Australia.

Ian has twice been elected as President of the Australasian Faculty of Occupational and Environmental Medicine of the Royal Australasian College of Physicians. He is a joint editor of the textbook, "International Occupational & Environmental Medicine". He was the government-appointed medical member of the New South Wales "Workers Compensation and Occupational Health and Safety Council until 2012, and still chairs the NSW Public Service Commission's Health Review Committee. He has also been a ministerially appointed member of the Specialist Medical Review Council.

Ian is a Fellow of the Australasian Faculty of Occupational and Environmental Medicine, a Fellow of the American College of Occupational and Environmental Medicine, a Fellow of the Royal Society of Medicine, and a Member of the International Commission on Occupational Health. In 2003, he was awarded the College Medal by the Royal Australasian College of Physicians.

March 2019

Dr Ian R GARDNER MBBS MPH FAFOEM FRSM

CONSULTANT OCCUPATIONAL PHYSICIAN

Mr. Lawrence Nethery
Senior Project Director
Health Infrastructure

By email to: Lawrence.Nethery@health.nsw.gov.au

Re: Independent specialist Occupational and Environmental Health Review of Asbestos-contaminated buildings in Orange

Dear Lawrence,

This report responds to a request from Health Infrastructure seeking an independent expert health opinion in relation to the asbestos contamination in the former Nurses Accommodation Buildings in Sale Street, Orange, particularly the building known as Caldwell House.

By way of short background and context, I have previously been instructed in a similar capacity by the ACT, Commonwealth and Local Government in other similar circumstances.

In particular of note :-

- Instructed by the ACT Government to provide expert health advice in relation to the health risks of the 'Mr Fluffy' Loose Fill Asbestos Contamination that led to the buy-back and subsequent demolition of more than 1000 houses in Canberra.
- Instructed by the Commonwealth Department of Defence in relation to some 20,000 asbestos-contaminated buildings on the Defence estate, and numerous cases involving hazardous exposure to airborne asbestos fibres affecting Defence members, Defence civilian employees, Defence Cadets, contractors and the public.
- Instructed by the Orange City Council in relation to possible asbestos exposures to Council employees as a result of unauthorised repairs undertaken on a building at Cook Park.

Please see attached my CV for further information about my experience and background.

I have been provided with and read all the supplied correspondence, including the various independent reports and the submissions made by interested parties to Orange City Council in relation to Health Infrastructure NSW's proposal to demolish these derelict buildings.

I have been asked to confine my specialist opinion **only** to occupational and environmental health issues in relation to the ability of any future building owner to safely, comprehensively and permanently remediate the extensive asbestos contamination on site, so as to ensure that there will be no ongoing exposure from occupants, tradespersons or the surrounding environment from airborne asbestos fibres above background environmental levels.

I will therefore not comment on any of the financial cost issues.

My only comment in the context of the heritage concerns are in relation to whether it would ever be feasible to maintain the façade as part of an effective site remediation plan and adaptive reuse development option.

I have been made aware of concerns in submissions to Council in relation to the claimed heritage values of the 1937 building and its façade.

I would like to preempt my findings below by stating that whilst the buildings are clearly contaminated, the protective measures in place *(at the time of my inspection),* together with what I understand have been the air monitoring and area protection measures put in place at the site, mean the situation doesn't represent a health risk to the community or to people like passersby, neighbours, security guards etc, whilst the current protective measures which I saw in place, are retained.

If further disturbed however, I recommend that the site conditions and protective measures should be assessed again immediately.

The specialist assessments provided to me, in particular the forty-page Asbestos Audit Report dated 7th May 2019 by Dr Greg Madafiglio of Envirowest Consulting and the DRAFT Report to Council by Peter Basha dated 28th March 2019 are comprehensive and authoritative. From an Occupational and Environmental Health perspective, there is nothing in these specialist reports with which I disagree.

I have also carried out a thorough building inspection of the **interior** of the two buildings on Wednesday 10th July 2019, accompanied by Rob Dickson from SpectrumPP (as Project Manager acting on behalf of HI NSW), Dr Greg Madafiglio of Envirowest Consulting Pty Ltd and Duncan Blair of Incline Constructions.

I had also previously visited, externally inspected and photographed both buildings (by myself) on the afternoon of Tuesday 9th July 2019.

Despite what I am advised were previous attempts to partially clean up the interior of the building with the installation of black plastic sheeting and frequent air locks, there was evidence of gross asbestos contamination throughout the building. The asbestos inspected was friable and in a hazardous state. Loose asbestos was noted in all the hallways, cupboard, closets, roof spaces, wall spaces, the boiler room and wherever asbestos-lagged copper pipe had been ripped from the building by vandals.

Of particular note was that the ventilation holes in the cavity brick wall at the Sale Street frontage of the building were patent and that some air was moving through them.

I have also seen photographs taken in the wall cavity spaces showing 'chunks' of loose asbestos at the base of and randomly strewn throughout these cavities.

This condition implies that there are almost certainly amounts of respirable asbestos fibres in the wall cavity – and that consequently, based on the example in the ACT 'loose-fill sprayed asbestos insulation' situation (Mr. Fluffy) where forensic deconstruction of a house which had already been remediated three times was undertaken, it **will be impossible** to effectively clear or encapsulate all the asbestos fibres from the wall cavity (even at any cost). Thus, it will be unable to be certified as 'clean'.

Although the level of asbestos health risk post-remediation will be low, it will not be zero and cannot be guaranteed to be so. This is particularly true of health risks in relation to Mesothelioma and Lung Cancer, where the hazardous airborne asbestos exposure levels can be extremely low and where the latency period from exposure to development of disease can be many decades. And for young people, in particular children, the 'safe' exposure levels are even more uncertain.

The only certain way to prevent future asbestos-related disease is to reduce airborne asbestos fibre exposures to zero, or if this is not attainable, to a level 'as low as reasonably practicable'.

In this case – given the wall cavity unknown risk issues etc – this will not be possible.

Taking all of the above into account, and based on my extensive asbestos contamination and remediation experience, including with Defence, COMCARE's Telstra NBN Asbestos Taskforce, the ACT's Mr. Fluffy Asbestos Taskforce and as the Commonwealth Representative on the Asbestos Safety and Eradication Council, the only viable health-based solution is to demolish all the buildings and remediate the site to the required health-based and environmental standards required for redevelopment.

In summary, on Occupational and Environmental Health grounds, for any future precinct development in this area of Orange, I recommend the planned, safe demolition of the buildings and comprehensive site remediation.

Yours sincerely

Dr Ian R Gardner
Director, Dr Ian R Gardner Pty Ltd

26 July 2019

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nation partners

29 October 2020

Rachel Mitchell
A/Manager Planning
NSW Health Infrastructure
By email

Re: Contamination issues at Orange Nurses Quarters

Dear Rachel

Thank you for your email of 27 October 2020 in relation to contamination issues at Orange Nurses Quarters and Caldwell House, located at 125 to 133 Sale Street, Orange NSW.

As requested, Nation Partners is pleased to provide advice to NSW Health Infrastructure (NSW HI) in relation to the potential exposure scenarios that may be encountered for loose fill asbestos in the context of structural demolition or refurbishment of the buildings on the site.

The advice provided in this letter is based solely on our review of the following documentation:

- Preliminary Contamination Investigation, 125-133 Sale Street, Orange NSW (Envirowest Consulting, 2016)
- Contamination Technical Advice, Former Orange Hospital (Caldwell House and Nurses Quarters) Development Application (GHD, 2018)
- Independent specialist occupational and environmental health review of asbestos-contaminated buildings in Orange (Dr Ian Gardner, 2019)
- Council Assessment Report, DA 234/2018(1) (Orange City Council, 2020)

We confirm that Nation Partners has not inspected the property, performed any assessment of the nature or extent of asbestos within the structures, nor validated the content of the abovementioned documents. In addition, we have not sought to differentiate between the asbestos issues and building conditions present at the Nurses Quarters and at Caldwell House.

Our advice is provided to assist NSW HI with its strategic management of the site and the Development Application (DA) lodged with Orange City Council, and does not constitute legal advice. NSW Health Infrastructure should consider seeking legal advice in relation to legal liabilities and impacts on property transactions.

1.0 SITE CONDITIONS

Based on the documentation reviewed, we confirm our understanding of the site contamination conditions as follows:

- Buildings on the site contain widespread asbestos materials, including friable / loose fill asbestos within wall cavities.
- The Preliminary Contamination Investigation (Envirowest, 2016) did not identify the presence of any notable contamination within surface soils to a depth of 0.1m (the limit of investigation), however no sampling/analysis was performed in relation to asbestos in soils.
- The Contamination Technical Advice (GHD, 2018) stated, amongst other things, that the cost differential between asbestos removal for demolition, versus asbestos removal

for building reuse, has not been appropriately evaluated within the DA. The advice stated that it does not appear to have been recognised that asbestos removal is required under either scenario. Additionally, the advice stated that a Site Management Plan (SMP) would be required to manage areas where asbestos remains encapsulated.

- The Independent Specialist Health Review (Gardner, 2019) stated, amongst other things, that based on photographic evidence, bundles of loose asbestos are present at the base of, and randomly strewn throughout wall cavities. Dr Gardner interpreted this to imply that there are almost certainly respirable fibres within wall cavities. The review stated that it will be "impossible" to effectively clear or encapsulate all asbestos fibres, even at any cost; and that the only viable health-based solution was to demolish the buildings and remediate the site.

2.0 OCCUPATIONAL EXPOSURE SCENARIOS

It is Nation Partners opinion that asbestos removal from the structures will be required whether the structures are demolished, or whether the structures are to be retained and re-purposed.

We note however, that there are fundamental differences in these two scenarios with respect to:

- The extent of asbestos removal required in the short-term;
- The potential for long-term exposure by future occupants;
- The long-term management obligations imposed on future owners and occupiers; and
- The ability to obtain a reliable clearance certificate following asbestos removal.

These aspects are further described in Sections 2.1 and 2.2.

2.1 DEMOLITION SCENARIO

The asbestos removal requirements and occupational exposure scenarios in the case of structural demolition are likely to involve the following:

- Initial removal of asbestos-containing materials would take place only to the extent required to enable bulk demolition to progress safely (with consideration of the exposure controls described below).
- There may be potential in the demolition scenario to perform temporary stabilisation of asbestos within some building components that are difficult or impractical to deconstruct, allowing for safer bulk removal and disposal as asbestos waste. Depending on the location and condition of the asbestos, different binding compounds or sealants may be applicable. Further detailed assessment of these approaches would be required, which may be supported by the decision tree presented in *A Review of Asbestos Stabilisation and Containment Practices* (ASEA, 2017).
- Primary exposure to asbestos materials would be to licensed asbestos-removal contractors, who would perform the removal activities prior to bulk demolition under strict work methods to mitigate occupational exposure (i.e. Health and Safety Plans, Asbestos Removal Control Plans etc), under the supervision of a Licensed Asbestos Assessor, with the application of appropriate personal protective equipment (PPE) and with the support of air monitoring to detect respirable fibre levels.
- The primary period of exposure during the removal work would be relatively short (potentially a small number of days) and the workplace atmospheric monitoring requirements would need to comply with those for respirable fibres of asbestos as mandated in the *Workplace Exposure Standards for Airborne Contaminants* (Safe Work Australia, 2019).

- Noting that it will be impractical to remove 100% of asbestos fibres / materials, further exposure to residual asbestos materials may occur for construction workers involved in the bulk demolition activities. Again, this period of exposure would be relatively short (potentially several weeks) and may be controlled through appropriate work methods to mitigate the exposure such as, supervision by a Licensed Asbestos Assessor, adoption of PPE and air monitoring for respirable fibres levels.
- In the demolition scenario, the person conducting the business or undertaking (PCBU) would need to ensure that worker exposure to airborne asbestos is eliminated so far as is reasonably practicable, as per Section 420 of the *Work Health and Safety Regulations 2017* (WHS Regulations 2017) and undertake a risk assessment to support the risk controls adopted. The PCBU must also ensure that the occupational exposure standard for asbestos is not exceeded at the workplace (0.1 fibres / mL based on Time Weighted Average).
- These standards are likely to be readily achievable based on the short period of exposure and the application of strict control measures by licenced asbestos removal contractors.
- Under Sections 473, 474 and 477 of the *WHS Regulations 2017*, the person commissioning the asbestos removal work must ensure that a clearance inspection is performed following asbestos removal to verify that the area is safe for normal use, as captured in a clearance certificate. The certificate must only be issued if the asbestos removal area is free of visible asbestos contamination and (if air monitoring was performed) that airborne concentrations are less than 0.01 fibres/mL. The clearance certificate would typically be issued following asbestos removal, structural demolition, and remediation of any soil contamination.

In summary, exposure to friable asbestos materials in the demolition scenario is likely to be short-term, readily controllable via adoption of prescriptive regulatory and industry practices, and readily able to support the development of a clearance certificate.

2.2 REFURBISHMENT SCENARIO

The asbestos removal requirements and occupational exposure scenarios in the case of refurbishing / re-purposing the structures are likely to involve the following:

- To enable re-purposing of the structures, removal of asbestos-containing materials would need to be performed to the extent practicable (being a greater extent than in the demolition scenario), noting the potential for long-term exposure as described below. Nation Partners is not able to comment on the extent to which asbestos materials can be removed with or without the removal of significant building fabrics and/or partial demolition. NSW HI may wish to seek advice from a structural engineer to determine structural integrity issues.
- As per the demolition scenario, primary / initial exposure to asbestos materials would be to licensed asbestos-removal workers who would perform the removal activities under strict work methods, under the supervision of a Licensed Asbestos Assessor, with the application of appropriate PPE and with the support of air monitoring to detect respirable fibre levels.
- The primary / initial period of exposure would be relatively short (potentially a small number of days) and would need to comply with the workplace atmospheric monitoring requirements in the *Workplace Exposure Standards for Airborne Contaminants* (Safe Work Australia, 2019).

- Residual asbestos-containing materials that remain within the structures, if readily identifiable, would need to labelled, identified within an Asbestos Register and managed via an Asbestos Management Plan (AMP) requiring the need for conditions monitoring and auditing every five (5) years. It is noted that there may be practical difficulties in identifying the presence and location of all remaining asbestos materials (particularly noting their loose-fill nature) throughout the structures.
- Further exposure to residual asbestos materials (noting that it will be impractical to remove 100% of asbestos fibres / materials) may occur for future occupants of the structures. In this scenario, which differs significantly from the demolition scenario, the period of exposure may be longer term (years) and may be subject to limited control due to the reduced ability to influence the day-to-day activities within the structures, and the impracticality of enforcing PPE requirements on a long term basis or upon change of ownership or occupation. Nation Partners is not able to comment on the extent of exposure that may occur over this period, as it will be significantly influenced by the extent of residual asbestos and the nature of activities performed within the structures.
- In this scenario, the person conducting the future business or undertaking (PCBU) at the site would have the same obligations as the demolition scenario in relation to worker exposure, however the obligation would exist over a much longer time period and would be applicable to the future building occupants. The PCBU would need to ensure that exposure to airborne asbestos is eliminated so far as is reasonably practicable, ensure that the occupational exposure standard for asbestos is not exceeded at the workplace (0.1 fibres / mL based on Time Weighted Average) and demonstrate the course of action taken through a documented risk assessment.
- The person commissioning asbestos removal work must ensure that a clearance inspection is performed and a clearance certificate is issued. While a clearance certificate could theoretically be produced for the area(s) of asbestos removal, it is uncertain whether a Licensed Asbestos Assessor would be willing to produce a certificate in this scenario, due to the likelihood that residual loose-fill materials may remain. It is also uncertain whether the certificate would remain relevant and reliable in the context of longer term occupation of the structures.
- Additionally, the application of warning labels for residual materials and the need to establish and maintain an Asbestos Register, Asbestos Management Plan and ongoing auditing requirements may impose onerous restrictions on building use and/or act as a significant disincentive for beneficial use of the structures into the future. These controls also require careful management upon changes of ownership or occupation arrangements.

In summary, exposure to friable asbestos materials in the scenario of re-purposing the structures is likely to be longer term, more difficult to administer and control, and may not support the development of a relevant or reliable clearance certificate.

3.0 SUMMARY

On the basis of the information presented above, we concur with the findings of the independent specialist occupational and environmental health review (Gardner, 2019), in that the preferred health-based solution, which provides sufficient assurance regarding the effective mitigation of long term exposure to asbestos, is to demolish the buildings. In making this statement, we have not applied any judgement regarding the relative value or importance of the heritage significance of the structures.

The demolition approach is consistent with that taken on the Loose Fill Asbestos Insulation Eradication Scheme in NSW and ACT, which commenced in 2014, also noting that the removal of loose-fill asbestos from the multi-story structure on the site would likely be more difficult than removal from single-level residential dwellings that largely comprise that program.

Please contact the undersigned at lspeechley@nationpartners.com.au with any queries regarding this advice.

Sincerely,

Luke Speechley
Senior Principal Consultant

Doris Pallozzi
Technical Director
EPA – accredited Industrial Facilities Auditor

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