PCU52516

Our reference: EF13/8567
Contact: John Goodwin

Megan Fu
Department of Planning and Infrastructure
GPO BOX 39
SYDNEY 2001

Dear Ms Fu

SSD 6160 – PROPOSED MONA VALE COMMUNITY HEALTH CENTRE – ENVIRONMENTAL IMPACT STATEMENT (EIS)

I am writing to you in reply to your invitation to the EPA to comment on the EIS for the Mona Vale Community Health Centre.

The EPA has identified the following site specific concerns based on the information in the Environmental Impact Statement as obtained from the Department's Major Projects web site:

(a) demolition related asbestos handling and management;

(b) construction-related noise and vibration impacts (including recommended standard construction hours and intra-day respite periods for highly intrusive noise generating work);

(c) site preparation and construction phase dust control and management,

(d) site preparation and construction phase erosion and sediment control and management;

(e) operational noise and vibration impacts on noise sensitive receivers (especially surrounding residences and Mona Vale hospital) arising from operational activities such as emergency service vehicle movements, waste collection, loading dock activities, mechanical services (especially air conditioning plant) and standby generator testing and operation;

(f) feasible and reasonable operational noise mitigation and management measures, including noise barriers and location of emergency service vehicle access to minimise impacts on surrounding residents;

(g) operational assessment, storage, handling, transport and disposal of 'clinical and related wastes'; and

PO Box 668 Parramatta NSW 2124
Level 13, 10 Valentine Avenue, Parramatta NSW 2150
Tel: (02) 9995 5000 Fax: (02) 9995 6900
ABN 43 692 285 758
www..epa.nsw.gov.au

(h) requirement to obtain a radiation management licence (or vary an existing licence) under the Radiation Control Act and Regulation.

The EPA expands on its concerns in Attachment A to this letter.

Should you require clarification of any of the above please contact John Goodwin on 9995 6838.

Yours sincerely

4-4-14

FRANK GAROFALOW
Manager Metropolitan Infrastructure
Environment Protection Authority

Encl. Attachment A

ATTACHMENT A

- ENVIRONMENT PROTECTION AUTHORITY COMMENTS –

MONA VALE COMMUNITY HEALTH CENTRE (CHC)

1. General

The EPA considers that the project comprises two distinct phases (construction and operational) and has set out its comments on that basis.

The EPA understands that demolition of the existing CHC building and back-up generator enclosure may have been approved by Health Infrastructure under Part 5 of the Environmental Planning and Assessment Act 1979.

2. Construction phase

The EPA anticipates a range of environmental impacts during the construction phase of the development.

The EPA anticipates that construction and construction-related activities will be undertaken in an environmentally responsible manner with particular emphasis on –

- compliance with recommended standard construction hours,
- waste management consistent with the hierarchy of re-use, recycle and then disposal as the last resort,
- 'special waste' management (i.e. asbestos) arising from demolition of existing structures,
- feasible and reasonable noise and vibration minimisation and mitigation,
- intra-day respite periods from high noise generating construction activities (including jack hammering, rock breaking, pile boring or driving, saw cutting and vibratory rolling),
- effective dust control and management, and
- effective erosion and sediment control.

2.1 Site investigation and remediation

EIS Appendix O Preliminary Contamination Assessment undertaken by Environmental Investigation Services indicates that elevated concentrations of contaminants were not encountered in the soil samples taken during the site investigation and that the potential for widespread contamination is considered to be relatively low.

Nevertheless, the EPA supports the EIS recommendation in section 11 (p.18) of EIS Appendix O that a Phase 1 Environmental Site Assessment is undertaken in conjunction with related assessments, including –

(a) post-demolition assessment of soil contamination of existing building footprint, and

(b) any additional contamination issues that are identified.

Recommendation

Consideration be given to requiring an appropriate assessment be undertaken following demolition of the existing structures to ascertain whether any asbestos contamination has arisen in the course of that demolition.

Recommendation

The proponent should commit to satisfying the requirements of the Protection of the Environment Operations ('Waste Regulation) 2005 with particular reference to 'special wastes'. The EPA provides additional guidance material at its web-site http://www.environment.nsw.gov.au/waste/asbestos/index.htm.

Recommendation

The proponent should commit to consulting with Workcover NSW concerning the handling of any asbestos waste.

2.2 Waste control and management (general)

The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:

Avoidance including action to reduce the amount of waste generated by households, industry and all levels of government

Resource recovery including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources

Disposal including management of all disposal options in the most environmentally responsible manner.

All wastes generated during the project must be properly assessed, classified and managed in accordance with the EPA's guidelines to ensure proper treatment, transport and disposal at a landfill legally able to accept those wastes.

The EPA further anticipates that, without proper site controls and management, mud and waste may be tracked off the site during the course of the project.

Recommendation

The proponent should commit to ensuring that :

(1) all waste generated during the project is assessed, classified and managed in accordance with the "*Waste Classification Guidelines Part 1: Classifying Waste*" (Department of Environment Climate Change and Water, December 2009);

(2) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and

(3) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site, is removed before the vehicle, trailer or motorised plant leaves the premises.

2.4 Dust control and management

The EPA considers dust control and management to be an important air quality issue during site clearance and preparation, and subsequent construction. Bulk earthworks inevitably generate dust as a result of –

(a) the excavation, processing and handling of excavation spoil,

(b) wind action on spoil stock piles, and

(c) wind action on and plant movement across areas bare of vegetation or other cover.

Recommendation

The proponent should commit to:

(a) minimising dust emissions on the site, and

(b) preventing dust emissions from the site.

2.5 Erosion and sediment control

The Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called 'Blue Book') provides guidance material for achieving effective erosion and sediment control on construction sites.

The EPA emphasises the importance of –

(a) not commencing earthmoving or vegetation removal until appropriate erosion and sediment controls are in place, and

(b) daily inspection of erosion and sediment controls which is fundamental to ensuring timely maintenance and repair of those controls.

2.6 noise and vibration

The EPA considers that the project is likely to generate significant noise and vibration impacts on surrounding residences, the adjoining high school and other noise sensitive land uses during construction. The EPA provides guidance material available on its web site and including downloadable copies of –

- the Interim Construction Noise Guideline (2009), and
- Assessing Vibration: a technical guideline (2006).

Recommendation

The proponent be required to undertake a comprehensive noise and vibration impact assessment of construction activities, especially any such activities -

(i) likely to generate noise with annoying or intrusive characteristics, or

(ii) proposed to be undertaken outside the recommended standard hours discussed in Table 1 to the *Interim Construction Noise Guideline.*

2.6.1 construction hours (including respite periods)

Whilst ICNG recommended standard hours for construction (outside of which long experience shows increasing levels of community concern about construction noise impacts) the EPA accepts that certain emergency work may need to be undertaken urgently (other than during the standard recommended hours) in order to avoid –

- loss of life,
- damage to property, or
- environmental harm.

ICNG section 4.5 specifies construction activities proven to be particularly annoying and intrusive to nearby residents and school students. The EPA anticipates that those activities generating noise with particularly annoying or intrusive characteristics would be subject to a regime of intra-day respite periods where –

(a) they are only undertaken over continuous periods not exceeding 3 hours with at least a 1 hour respite every three hours, and.

(b) 'continuous' means any period during which there is less than an uninterrupted 60 minute respite between temporarily halting and recommencing any of the work referred to in ICNG section 4.5

Recommendation

The proponent should be required to :

(a) comply with the standard construction hours as recommended in Table 1 Chapter 2 of the Interim Construction Noise Guideline, July 2009;

(b) schedule intra-day 'respite periods' for construction activities identified in the Interim Construction Noise Guideline as being particularly annoying to surrounding residents (and Mona Vale Hospital patients); and

(c) adopt special arrangements in negotiation with Mona Vale Hospital administration.

2.6.2 reversing and movement alarms

The EPA has identified the noise from 'beeper' type plant movement alarms to be particularly intrusive and is aware of feasible and reasonable alternatives. Transport for NSW (nee Transport Construction Authority), Barangaroo Delivery Authority/Lend Lease and Leighton Contractors (M2 Upgrade project) have undertaken safety risk assessments of alternatives to the traditional 'beeper' alarms. Each determined that adoption of 'quacker' type movement/reversing alarms instead of traditional beepers on all plant and vehicles would not only maintain a safe workplace but also deliver improved outcomes of reduced noise impacts on surrounding residents.

Interim Construction Noise Guideline Appendix C provides additional background material on this issue.

Recommendation

The proponent should commit to undertaking a safety risk assessment of construction activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety.

3. Operational phase

The CHC will represent a significant long-term infrastructure investment with concomitantly long-term environmental impacts.

The EPA considers that environmental impacts that arise once the new facilities commence operation can largely be averted by responsible environmental management practices, particularly with regard to:

(a) feasible and reasonable noise avoidance and minimisation.

(b) proper assessment, storage, handling, transport and disposal of wastes, especially clinical and cytotoxic waste;

(c) management and use of regulated material under the Radiation Control Act 1990; and

(d) energy and water conservation;

3.1 Noise and vibration impacts

EPA is aware from long experience that significant risks of unacceptable noise impact arise from inadequate noise management and mitigation measures. The EPA has been obliged to undertake extensive investigation of ongoing complaints about noise from air conditioning plant associated with newly commissioned hospital buildings; most recently Royal North Shore Hospital acute services building.

The EPA anticipates that the proposed facilities may change the character of noise impacts for surrounding noise sensitive receivers (example: residences and Mona Vale Hospital, including the palliative care building). However, the EPA is not satisfied that background noise levels outlined in EIS Appendix M *Noise and Vibration Impact Assessment* provide an adequate basis for determining the design noise criteria required to assess predicted operational noise impacts.

Appendix M section 5.0 *Operational Noise* :

(a) proposes a relaxation of the 'intrusiveness criterion' for the emergency back-up generator. However, the EPA is unclear why appropriate feasible and reasonable noise mitigation could not be implemented to ensure the intrusiveness criterion is not exceeded during blackouts and other emergency situations;

(b) section 5.3.2 proposes to assess the noise impact of plant (including the emergency back-up generator) during the detailed design stage;

(c) section 5.3.1 (p.33) proposes that noise mitigation measures "... are to be investigated during the detailed design stage of the project." and thus impact predictions have not been provided; and

(d) section 5.5 acknowledges the need to mitigate vibration (human comfort) and ground borne noise impacts but dismisses the risk even though –

(i) indicates that the CHC building will be excavated into the sandstone bedrock,

(ii) section 5.3.1 (3rd para, p.33) indicates that the mechanical ventilation plant will be installed on the lower ground floor, and

(iii) the palliative care building will be 9 metres and nearest residences 35 metres away.

Accordingly, the EPA is unable to determine the extent of the operational noise and vibration impacts of the proposal.

Recommendation

That consideration be given to requiring the proponent to undertake a comprehensive assessment of noise and vibration impacts associated with operation of the CHC together identifying mitigation and management measures, including but not limited to:

(a) potential sleep disturbance impacts (including ground-borne noise impacts on surrounding residences and the hospital;

(b) tonal noise emissions which may be associated with plant and equipment for which 'modifying factors' (see INP chapter 4) may need to be applied to noise monitoring data and associated noise impact assessment;

(c) mitigating against noise and vibration (human comfort) impacts from mechanical plant;

(d) design of loading docks and waste collection areas to –

(i) avoid or minimise the activation of vehicle reversing alarms during use of those facilities, or

(ii) adequate noise shielding of surrounding noise sensitive receivers, especially residences and the hospital, from noise generated during activities associated with those facilities;

(e) adequate design, selection and maintenance of noise generating mechanical services (especially air handling plant and equipment and automated valves) and associated rooms and enclosures;

(f) limiting the hours of operation of loading dock and waste collection activities to 'day-time' hours, being 7.00 am to 6.00 pm Monday to Saturday and 8.00 am to 6.00 pm Sundays and public holidays); and

(g) negotiating with residents and the hospital the times at which fire alarms and standby emergency generators are tested

Recommendation

That consideration be given to requiring the proponent to undertake the following:

(a) a noise compliance assessment -

(i) during commissioning of the CHC, and

(ii) at set periods following commencement of operation of the CHC; and

(b) reporting the results of the compliance assessment monitoring referred to in (a) to confirm that noise levels do not exceed levels predicted in the noise and vibration impact assessment and acceptable noise criteria identified in the NSW Industrial Noise Policy, January 2000.

3.2 Clinical and related waste

EIS section 3.6 refers to Appendix T which comprises the waste management and resource recovery plan adopted by the Northern Sydney Local Health District.

The EPA anticipates that the proposed facilities will generate 'clinical and related waste' which are defined under the Protection of the Environment Operations Act 1997. Clinical and related waste includes clinical waste; cytotoxic waste; pharmaceutical, drug or medicine waste; and sharps waste.

Clinical and related waste have been pre-classified as a 'special waste'. This allows the EPA to set more stringent and specific requirements for the transport and management of the waste to minimise the risk to the environment and human health. Clause 43 to the Protection of the Environment Operations (Waste) Regulation 2005 prescribes requirements for managing certain clinical and related waste.

Waste managers/operators who transport, store, treat or dispose of clinical and related waste should check the details of the Protection of the Environment Operations Act and the Protection of the Environment Operations (Waste) Regulation 2005 for licensing and generic requirements in relation to clinical waste.

3.3 Radiation Control Act and Regulation

The EPA administers the Radiation Control Act 1990 (and Radiation Control Regulation 2013). However, the EPA is unclear whether 'regulated material' will be stored and possessed at the CHC. 'Regulated material' means -

(a) radioactive substances,

(b) ionising radiation apparatus,

(c) non-ionising radiation apparatus of a kind prescribed by the regulations, and

(d) sealed source devices.

A 'person responsible' within the meaning of section 6 of the Radiation Control Act 1990 is obliged to hold an appropriate 'radiation management licence' in respect of regulated material at the hospital campus. And, the existing management licence held by the Northern Sydney Local Health District will require amendment in respect of any such material at the CHC.

A natural person who uses regulated material at the CHC must hold a 'radiation user licence' and must comply with any conditions to which the licence is subject.

Frequently asked questions about radiation management licences is available via the following link

http://www.epa.nsw.gov.au/radiation/management/faq.htm

Recommendation

The proponent be required to consult with the Environment Protection Authority in regard to any necessary amendment to the Northern Sydney Local Health District 'radiation management licence' in respect of regulated material at the CHC and the management and handling of waste containing radioactive material.

3.4 Energy and Water Conservation

Health facilities are typically heavy users of electricity which in NSW is for the most part generated by burning non-renewable fossil fuel resources.

Health facilities are also typically heavy consumers of potable water which is expensive and energy intensive to deliver on demand at a quality consistent with NHMRC Drinking Water Quality Guidelines.

Energy and water conservation and efficiency are essential components of ecologically sustainable development particularly pursuant to the principle of inter-generational equity.

EIS Sections 3.4 and 3.5 refer to water cycle management and utility services respectively but appear to be mute on energy and water conservation and efficiency. At the same time, EIS section 3.1.2 under the sub-heading 'Ecologically Sustainable Design' outlines a number of proposed energy and water conservation and efficiency measures. Appendix F and G are unclear as to whether stormwater detained on site will be stored for re-use (examples: grounds maintenance, landscape irrigation, toilet flushing).

The EPA considers the design stage of the project to be the optimum time to integrate measures to achieve -

- energy efficiency (with resultant running cost savings),
- water conservation through stormwater collection, treatment and re-use for non-potable purposes such as grounds maintenance, and
- water efficiency

Recommendation

Consideration be given to requiring the proponent to identify, evaluate and implement additional practical measures to minimise energy and water use and to integrate those measures into the design of the CHC.
