



Your reference: SSD 7545
Our reference: EF16/2938, DOC16/357316-02
Contact: John Goodwin

Mr Brent Devine
Department of Planning and Environment
GPO BOX 39
SYDNEY 2001

Dear Mr Devine

SSD 7545 – FORENSIC PATHOLOGY AND CORONER'S COURT – EIS

I am writing to you in reply to your invitation to the EPA to provide a submission in respect of the project EIS.

The EPA requests that the following advice be considered together with its letter dated 24 March 2016 concerning the draft SEARs for the project.

The EPA emphasises that it does not review or endorse environmental management plans or the like for reasons of maintaining regulatory 'arms length'. And, has not reviewed the environmental management plans forming part of or referred to in the EIS.

The EPA notes that the project is to be located off Main Avenue and directly opposite (to the south of) the 'Botanica' residential estate. And, that vehicular access (including 'after hours' access) to forensic pathology is proposed via a controlled drive from Weeroona Road. The EPA understands that mortuary attendants, funeral directors and Police are likely to access forensic pathology 24 hours per day.

The EPA further notes that for security reasons detailed floor plans were not made available to it for assessing impacts of the proposed 'back of house' forensic pathology activities on the development site.

Separate assessment process (site establishment and demolition)

The EPA understands that existing structures on the site may be demolished under a separate planning assessment process and thus the demolition of those structures is considered to be a separate activity to the SSD 7545 project.

Nevertheless, the EPA strongly recommends that appropriate measures are adopted to ensure a seamless transition of environmental impact mitigation measures between demolition, site preparation and bulk excavation, and construction stages of the project, particularly if different contractors are to be engaged for two or more stages.

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) the need for further detailed assessment of potential site contamination following demolition of existing structures;
- (b) development of a procedure for dealing with unexpected finds of contamination including asbestos and lead-based paint encountered during bulk earthworks, construction and construction-related work;
- (c) bulk earthworks, construction and construction-related noise and vibration impacts (including recommended standard construction hours and intra-day respite periods for highly intrusive noise generating work);
- (d) bulk earthworks, construction and construction-related dust control and management;
- (e) bulk earthworks, construction and construction-related erosion and sediment control and management;
- (f) the need to minimise operational noise impacts on noise sensitive receivers (especially residences in the nearby 'Botanica' residential estate) arising from mechanical plant and services, standby generator testing and operation, media outdoor broadcasting van operations (especially at night and during Sundays and public holidays) and 'out of hours' access to back of house facilities;
- (fi) the need to minimise noise on surrounding residences, especially at night and other times outside normal court sitting hours, through appropriate design and operation of vehicular access and parking arrangements servicing 'back of house' activities;
- (g) the need to vary the existing radiation management licence held by NSW Health Pathology under the Radiation Control Act and Regulation;
- (h) operational storage, handling, transport and disposal of 'clinical and related wastes';
- (i) confirmation of whether the 'back of house' facilities will be served by a back-up generator and of how any associated Underground Petroleum Storage System (UPSS) would satisfy the requirements of the Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2014 (including a properly designed and installed secondary leak detection system, loss detection procedures, environment protection plan documentation and incident log);
- (j) operational air quality impacts (especially potential odour impacts) that may arise from ventilation serving 'back of house' facilities;
- (k) practical opportunities to implement water sensitive urban design principles, including stormwater collection, storage, treatment and re-use for non-potable purposes; and
- (h) practical opportunities to implement energy conservation including minimisation (across the NSW Health Lidcombe campus) of the consumption of energy from non-renewable sources.

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



18.8.16

MIKE SHARPIN
Acting Manager Metropolitan Infrastructure
Environment Protection Authority
Attachment A

ATTACHMENT A

- ENVIRONMENT PROTECTION AUTHORITY COMMENTS -

SSD 7545 FORENSIC PATHOLOGY AND CORONERS COURT

1. General

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

2. Construction phase

The EPA anticipates a range of environmental impacts during the construction phase of the development which should be comprehensively addressed in detail by the environmental assessment. And, notes the proximity of surrounding residences.

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

- detailed site contamination investigation and remediation,
- 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),
- 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

Section 11 to EIS Appendix H states that the consultant considers that the site will be suitable for the proposed development subject to specified provisos and recommendations. And, EIS section 9.2 (Table 9.1, p.89) commits the proponent to adopting those recommendations.

The EPA notes several structures are located on the development site, including dilapidated residences and a chemical/flammable goods store. And, given the age of the residences, anticipates that asbestos containing materials and lead-based paint are likely to be encountered in the course of demolition of those residences. The EPA further notes the EIS Appendix H Figure 3 indicates a fragment of bonded asbestos material near one residence and lead detections in soils surrounding 3 residences.

The EPA understands that soil sampling during the stage 2 site investigation was undertaken in the vicinity of the existing structures but would not have extended to those areas of the site beneath the footprint of those structures. Thus, the proponent should undertake further assessment following demolition of those structures and prior to any earthworks (including investigation of potential pesticides contamination within the footprint

of demolished residences and localised chemical contamination within the footprint of the 'flammable goods' store).

Recommendation

The proponent be required to undertake further assessment of soil contamination following demolition of existing structures and prior to undertaking any earthworks.

Recommendation

The proponent be required prior to commencing any work (including demolition) to prepare and implement an appropriate procedure for identifying and dealing with unexpected finds of site contamination, including asbestos containing materials and lead-based paint, particularly in respect of the existing buildings and their curtilage.

Recommendation

The proponent be required to satisfy the requirements of the *Protection of the Environment Operations (Waste) Regulation 2014* with particular reference to Part 7 'asbestos wastes'.

Note: The EPA provides additional guidance material at its web-site

<http://www.environment.nsw.gov.au/waste/asbestos/index.htm>.

Recommendation

The proponent be required to consult with Safework NSW concerning the handling of any asbestos waste that may be encountered during the course of the project.

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 be required to ensure 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.

2.2.1 Waste control and management (concrete and concrete rinse water)

The EPA anticipates that during the course of the project concrete deliveries and pumping are likely to generate significant volumes of concrete waste and rinse water. The proponent should ensure that concrete waste and rinse water is not disposed of on the project site and instead that –

- (a) waste concrete is either returned in the agitator trucks to the supplier or directed to a dedicated watertight skip protected from the entry of precipitation, and
- (b) concrete rinse water is directed to a dedicated watertight skip protected from the entry of precipitation or a suitable water treatment plant.

Recommendation

The proponent be required to ensure that concrete waste and rinse water are not disposed of on the development site.

2.3 Dust control and management

The EPA considers dust control and management to be an important air quality issue during site preparation, bulk earthworks 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 be required to:

- (a) minimising dust emissions on the site, and
- (b) preventing dust emissions from the site.

2.4 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.

2.5 Noise and vibration

The EPA notes the proximity of residences in the 'Botanica' estate on the northern side of Main Avenue and the Carnarvon Golf Club on the western side of Joseph Street.

The EPA considers that the project is likely to generate significant noise impacts on surrounding residences and potentially on patrons of the golf course during demolition, site preparation, bulk earthworks and construction. The EPA acknowledges the proposal in the EIS to obtain construction vehicle access direct from Joseph Street.

The EPA provides the following guidance material for the assessment of noise and vibration impacts –

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

The proponent may download a copy of the above mentioned guidance material via the following link –

<http://www.epa.nsw.gov.au/noise/>

The EPA notes that section 7.1 to EIS Appendix N 'Noise and Vibration Impact Assessment' indicates that the proposed construction hours for the project mirror the standard construction hours recommended in Table 1 to the Interim Construction Noise Guidelines (ICNG).

2.5.1 *Construction hours (including respite periods)*

ICNG section 4.5 specifies construction activities proven to be particularly annoying and intrusive to nearby residents and which are considered at least as annoying to the nearby private hospital and schools. 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 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) scheduled intra-day 'respite periods' for construction activities identified in the Interim Construction Noise Guideline as being particularly annoying to surrounding residents and other noise sensitive receivers.

2.5.2 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.

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.

2.5.3 Queuing and idling construction vehicles and vessels

The EPA is aware from previous major infrastructure projects that community concerns are likely to arise from noise impacts associated with the early arrival and idling of construction vehicles (including concrete agitator trucks) at the development site and in the residential precincts surrounding that site.

Recommendation

The proponent be required to ensure construction vehicles (including concrete agitator trucks) involved in construction and construction-related activities do not arrive at the project site or in surrounding residential precincts outside approved construction hours.

3. Operational phase

The project represents a significant long-term infrastructure investment with concomitantly long-term environmental impacts.

The EPA considers that environmental impacts that arise once the Forensic Pathology and Coroners Court complex commences 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) radiation control; and
- (d) energy and water conservation.

3.1 Noise and vibration impacts

The EPA is aware from long experience that significant risks of unacceptable noise impact arise from inadequate noise management and mitigation measures.

The EPA anticipates that the proposed facilities are likely to change the nature and intensity of noise impacts on surrounding noise sensitive receivers (example: residences, private hospital and schools). And, that noise impacts are likely to include noise emitted from amongst other things:

- mechanical plant and equipment (including ventilation and odour control equipment and elevator plant);
- activation of reversing beepers fitted to mortuary, funeral director and Police vehicles (particularly at night and other hours outside the normal sitting hours of the Coroners Court); and
- waste collection services including truck movements that activate reversing beepers.

The *NSW Industrial Noise Policy, January 2000* (INP) provides guidance material on noise impact assessment and anticipates feasible and reasonable noise mitigation and management measures.

The EPA emphasises that properly establishing background noise levels in accordance with guidance material in the New South Wales Industrial Noise Policy (INP) is fundamental to a consistent approach to the quantitative assessment of noise impacts of development.

The EPA is concerned that monitoring to establish background noise levels was undertaken inconsistent with the guidance material provided in the INP, in particular –

- (a) monitoring was not undertaken at the most affected noise sensitive receiver (with measured noise levels potentially influenced by mechanical ventilation plant and equipment fitted to existing facilities within the Precinct, especially during night-time);
- (b) only average weekday and weekend monitoring data graphs rather than daily monitoring data graphs have been submitted with EIS Appendix N;
- (c) Section A1.1 (p.A1) of the 'Environmental Noise Survey' appended to EIS Appendix N in acknowledging the INP guidance on adverse weather, states that "No measured data was removed as there was no influence of any adverse weather conditions ..." yet -
 - (i) observations at the Bureau of Meteorology Bankstown automatic weather station indicates rain was recorded on 9, 10, 16 and 17 December 2015 and afternoon wind speeds of 5 metres per second (18 kilometres per hour) or greater recorded on 10, 11, 12, 13, 15 and 17 December 2015, and

- (ii) observations at the Bureau of Meteorology Olympic Park automatic weather station indicates rain was recorded on 9, 10, 16 and 17 December 2015 and wind speeds of 5 metres per second (18 kilometres per hour) or greater recorded on 10, 11, 12, 14 and 17 December 2015.

Recommendation

The proponent be required to:

- (a) provide a quantitative assessment of the background noise level (day, evening and night time) in accordance with the guidance material provided in the New South Wales Industrial Noise Policy;
- (b) undertake quantitative assessment of predicted noise impacts of the operational phase of the proposed development on surrounding residences, including impacts arising from access to 'back of house' facilities, especially during night-time and other hours outside the normal sitting hours of the Coroner's Court;
- (c) undertake noise compliance monitoring of mechanical plant noise during commissioning so as to ensure avoidance of unintended and unacceptable noise impacts on surrounding residences; and
- (d) adequate design, selection and maintenance of noise generating mechanical services (especially air handling plant and equipment, odour control plant and equipment, elevator plant and automated valves) and associated rooms and enclosures.

Recommendation

The proponent be required to ensure that the 'back of house' security compound is designed, constructed and operated such that vehicles (including Police, mortuary and funeral director vehicles) entering, leaving and parking are able to do so in a forward direction so as to avoid the need to activate reversing beepers, especially at night and other hours outside the normal sitting hours of the Coroner's Court.

Recommendation

The proponent be required to –

- (a) design waste collection areas to avoid or minimise the activation of vehicle reversing alarms during use of those facilities; and
- (b) restrict waste collection services and standby emergency generator testing activities to 'day-time' as defined in the NSW Industrial Noise Policy, January 2000

3.2 Clinical and related waste

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 waste means any waste resulting from medical, nursing, dental, pharmaceutical, skin penetration or other related clinical activity, being waste that has the potential to cause injury, infection or offence, and includes waste containing any of the following:

- (a) human tissue (other than hair, teeth and nails),*
- (b) bulk body fluids or blood,*
- (c) visibly blood-stained body fluids, materials or equipment,*
- (d) laboratory specimens or cultures,*
- (e) animal tissue, carcasses or other waste from animals used for medical research,*

but does not include any such waste that has been treated by a method approved in writing by the Director-General of the Department of Health."

The occupier of any premises comprising a hospital, day procedure centre, pathology laboratory, mortuary or medical research facility where clinical and related waste is generated, must ensure that there is a waste management plan, in respect of that waste, for the premises. And, should prepare that plan with due regard to the relevant provisions of clause 113 of the *Protection of the Environment Operations (Waste) Regulation 2014*.

The existing 'waste management plan' for the Glebe facility should be modified as necessary in accordance with the Waste Management Guidelines for Health Care Facilities (meaning the publication *'Waste Management Guidelines for Health Care Facilities'* issued by NSW Health in August 1998)

3.3 Radiation Control Act and Regulation

The EPA administers the *Radiation Control Act 1990* (and *Radiation Control Regulation 2013*) and anticipates that 'regulated material' will be stored and possessed on the university campus. '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 university campus.

A natural person who uses regulated material at the university campus 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 apply for and obtain any necessary amendment to the 'radiation management licence' currently held under the name of NSW Health Pathology in respect of regulated material at the new facilities and the management and handling of any waste containing radioactive material.

3.4 Back-up Generator and Underground Petroleum Storage System

The EPA is aware that the government precinct between Weeroona Road and Main Avenue drains to an open concrete-lined drainage channel which commences at the rear of Office of Environment and Heritage Building 2 and drains west to a box culvert under Joseph Street and thence into Carnarvon Golf Club via a concrete lined inlet structure.

The EPA anticipates that the 'back of house' facilities are likely to be served by a back-up generator served in turn by an Underground Petroleum Storage System (UPSS).

The proponent may only use a UPSS in accordance with the requirements of the *Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2014*. And, any such UPSS must be designed, installed and operated with regard to Guidelines issued by the EPA.

Recommendation

The proponent be required to confirm whether the development will be served by a back-up generator and associated underground petroleum storage system

Recommendation

The proponent be required to design, install and operate any underground petroleum storage system in accordance with the requirements of the *Protection of the Environment Operations (Underground Petroleum Storage System) Regulation 2014*

3.5 Odour control

The EPA anticipates that ventilation serving 'back of house' facilities is likely to emit offensive odours in the absence of effective odour control and management measures.

Recommendation

The proponent be required to undertake a detailed air quality impact assessment of the nature and scope of any offensive odour impacts on surrounding premises (residential, recreational and government) and the measures required to prevent those impacts.

Recommendation

The proponent be required to design and implement effective control and management measures to prevent the emission of offensive odours from the development site.

3.6 Energy and Water Conservation

The EPA notes that EIS Appendix M outlines a sustainable design approach to implementing practicable energy and water efficiency and conservation measures.

Recommendation

The proponent be required to implement water sensitive urban design principles in conjunction with the operation of the project including the collection, treatment and re-use of stormwater for non-potable consumption such as landscaping and grounds maintenance and toilet flushing.
