



Your reference SSD 6533
Our reference: EF13/5222 – SF13/5337 – DOC15/288508-03
Our contact: Bob Marr

Mr Cameron Sargent
Acting Director Key Site Assessments
Department of Planning & Environment
23-33 Bridge St
SYDNEY NSW 2001

Attn: Michelle Nettlefold

Dear Mr Sargent

The Environment Protection Authority (EPA) refers to your letter dated 10 August 2015 seeking comment on a State Significant Development Application by Lend Lease (Millers Point) Pty Ltd (on behalf of the Barangaroo Delivery Authority) for remediation works including land within the EPA declaration area – Barangaroo Central (SSD 6533). EPA acknowledges your advice that the application was re-exhibited to clarify the description and location of the proposal. The EPA refers also to the supporting document prepared by JBA Urban Planning Consultants Pty Ltd referenced in your letter and titled "*Response to Submissions (RTS) Report State Significant Development Application (SSD 6533) Barangaroo Central Remediation of Block 5 – Part of Remediation Site 21122 Submitted to Planning and Environment On Behalf of Lend Lease*".

As you are aware, on 20 November 2014 EPA supplied comments to P&E on this proposal when the original application and EIS was exhibited. Nonetheless EPA has reviewed the Revised EIS and RTS Report and EPA's latest comments are appended in Attachment 1.

As you are aware, activities at the Barangaroo site are regulated by conditions attached to Environment Protection Licence (EPL) number 13336 which is held by the Barangaroo Delivery Authority (BDA). You may be aware also that EPL 13336 was recently varied to reflect the cessation of a number of scheduled activities at the Barangaroo site. However, it is likely that the planning approval of new projects at Barangaroo, including SSD 6533 may trigger the need for further EPL variations to add new scheduled activities and/or new conditions to the EPL. If DP&E grants approval for this development, where necessary the BDA should apply to the EPA to vary EPL number 13336. For example, in relation to site water treatment it is likely that EPA will require the installation of a water treatment plant (WTP), the development and implementation of a WTP Performance Report, a WTP Commissioning Report and a WTP Management Plan.

EPA considers that many of the short-term environmental or amenity impacts associated with this project can be readily regulated by the EPL. However, the proponent will also need to ensure that all mitigation measures outlined in the EIS, and required in DP&E's final Approval will need to be carefully implemented to ensure compliance with the EPL and other relevant environmental legislation.

If you have any queries regarding these matters please contact Bob Marr on 9995 6825.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Stuart Clark', with a long horizontal flourish extending to the right.

11/09/2015

STUART CLARK
Acting Unit Head Sydney Industry
Environment Protection Authority

ATTACHMENT 1

State Significant Development Application - remediation works including land within the EPA declaration area (Block 5) – Barangaroo Central (SSD 6533).

EPA has reviewed the Response to Submissions (RtS) report (JBA report, July 2015), and the updated EIS including the revised Air Quality Impact Assessment (AQIA) (AECOM report with revision date of 22 July 2015). EPA notes that the project has been re-exhibited and incorporates both a revised EIS, AQIA and Response to Submissions (RtS) report. ***EPA's recommendations are in bold and italics.***

AIR - HEALTH ASSESSMENT

EPA notes that the modified EIS clarifies that all waste material treatment will now occur offsite. Offsite treatment is likely to result in increases in exposure point concentrations associated with emissions generated during transport and treatment, compared to onsite treatment. Consequently offsite treatment has the potential to result in adverse offsite impacts where these emission sources are not adequately managed.

The EIS, namely the Project Health Impact Assessment (AECOM 5 March 2015) and the Air Quality Impact Assessment (AECOM 22 July 2014), do not consider in detail or properly assess offsite health impacts or risks associated with offsite treatment (or even just offsite disposal). With respect to offsite operations and activities, the EIS includes some limited general requirements for offsite transport and treatment only, as follows:

- Transport: Details of offsite transport in the EIS are generally minimal, however certain controls are mentioned as being required;
- Treatment: Details of material treatment are not presented, however the EIS states that each facility that accepts and treats waste must be appropriately licenced and have an Immobilisation Approval for the treatment of hazardous materials from Barangaroo; and
- Disposal: Details of offsite disposal are not provided in the EIS.

Recommendation: EPA recommends that DP&E should seek further advice from the proponent regarding potential offsite health risks resulting from the transport, treatment and disposal of Barangaroo waste. Additional information required of the proponent may not necessarily need to be quantitative in nature - if a qualitative assessment can address each of the above issues.

AIR - AQIA

EPA provides the following comments on the revised AQIA, followed by comments on those issues previously identified by EPA.

Summary of Advice

- The revised AQIA predicts exceedances of impact assessment criteria. Additional detail on the predicted exceedances must be presented and additional mitigation measures must also be proposed.
- The information relevant to the sensitivity analysis conducted must be included. The sensitivity analysis, as outlined in the RtS has not been included within the AQIA;
- In regards to the use of generators, it is not clear that the quantitative assessment has considered emission rates at the proposed Clean Air Regulation limit, and hence if the assessment adequately represents emissions from generator use.
- No justification for the nominated trigger levels for reactive management has been included. Trigger levels for PM₁₀ are noted to be higher than the predicted maximum TSP concentration.

Comments on Revised AQIA

The revised AQIA incorporates additional quantitative assessment through two dispersion modelling scenarios:

- Scenario 1, incorporating activities from Block 5, Block 4, construction works associated with the C1 building, and operation of the on-site water treatment plant; and
- Scenario 2, incorporating activities from Block 5, Block 4, construction works associated with the C1 building, Crown Towers remediation and construction, and operation of the on-site water treatment plant.

The revised assessment predicts exceedances of the impact assessment criteria for 24 hour averaged PM₁₀ (cumulative concentration of 59 ug/m³ for Scenario 1, and 136 ug/m³ for Scenario 2). Additionally the assessment predicts exceedances of 1 hour NO₂ for Scenario 2 (cumulative concentration of 312 ug/m³). The assessment outlines that “*there were no additional exceedance of PM₁₀ concentrations beyond those identified in the background data*”. However no detail on the contemporaneous assessment has been included for both particulates and nitrogen dioxide. EPA advises that the predicted exceedances are not considered acceptable.

Recommendation: The proponent must provide additional information on the contemporaneous assessment including an analysis of predicted additional exceedances as per the Approved Methods. Where exceedances are predicted and are influenced by concurrent activities at Barangaroo additional mitigation measure must be proposed.

Issues Previously Raised by EPA

- **The assumptions adopted for the quantitative assessment require clarification**

The RtS and revised AQIA clarifies that the stack height was modelled at 4 m. EPA understands that final design is still to be determined. The stack should be designed to achieve good engineering practice for stack design including consideration to potential stack wake effects.

- **Potential variations in the proposed project design**

The RtS outlines that the AQIA has been updated to include additional information in the form of a sensitivity analysis in response to this comment. The RtS outlines that the AQIA has been updated to include:

- Section 6.3 – odour mitigation capture efficiency sensitivity analysis;
- Section 6.4 – excavation odour emission sensitivity analysis

EPA notes that section 6.3 of the AQIA is a limitations section, and there doesn't appear to be a section 6.4. Hence no additional information has been reviewed

Recommendation: This information needs to be included within the AQIA.

- **The assessment outlines the possible use of generators for power supply, with no supporting manufactures guarantees or assessment against the Protection of the Environment (Clean Air) Regulation 2010.**

The response to submissions states that generators would comply with *Protection of the Environment Operations (Clean Air) Regulation*, however no details, including manufacturer's guarantees are provided. The revised AQIA doesn't articulate the emission concentrations (or rates) adopted for emissions from the generators. Hence it is unclear if modelled emissions are consistent with the proposed emission performance of the generators. It is also noted that the Clean Air Regulation only prescribes the minimum performance, hence better emission performance would be expected where feasible.

Recommendation: Revise the AQIA to articulate the emission rates for the generators are at the maximum proposed.

- **The methods of dust and odour control during off-site transport are not considered best practice**

The RtS proposes the use of foam suppressant and covers during off site transport. The response outlines that foam agents have previously been used on other remediation sites as a method of suppressing odour, the example of the hunter remediation project is given. EPA notes instances of variability in foam performance (including the hunter remediation project) and hence question their viability. EPA considers that sealed containers would constitute best practice.

- **The assessment provides limited information on potential emissions from treatment works**

The response to submissions report outlines that on site treatment is not proposed, and the updated AQIA has been amended to reflect this. This comment has been adequately addressed.

- **Proposed monitoring measures require clarification, specifically a proactive approach to the management of emission controls proposed, including the management of filter bed saturation.**

The response to submissions report outlines that continuous monitoring would be carried between the carbon bed filter to manage carbon bed breakthrough. The updated AQIA has been amended to reflect this. This comment has been adequately addressed.

- **Reactive Management Procedure for total VOCs requires clarification and justification for all nominated trigger levels**

The RtS outlines previous issues with continuous monitoring of VOCs and has nominated daily PID monitoring of VOCs to inform management practices. The RtS outlines that trigger levels for VOCs have subsequently been removed. If monitoring is still proposed using daily measurements then it would be expected that trigger levels to inform operational management should be included in the final Air Quality Monitoring Program, prior to project commencement.

EPA notes that section 6.2 of the AQIA outlines a 100th percentile 1 hour TSP concentration of 109 ug/m³, for the purposes of estimating predicted impacts for particle bound compounds. EPA notes that the trigger levels proposed for PM₁₀ (1-hour average) are much higher (470 ug/m³ for action level 2 and 940 ug/m³ for action level 3). On this basis the proposed PM₁₀ trigger levels do not allow for effective reactive management.

Recommendation: The proposed trigger levels must be demonstrated (or revised) as appropriate for initiating reactive management.

- **Monitoring agenda requires clarification, specifically clarification that ambient air monitoring would be conducted throughout the remediation works.**

The RtS outlines that the amended AQIA confirms that monitoring will be undertaken during all stages through the remediation and excavation works. This comment has been adequately addressed.

NOISE

EPA notes that that the Construction Noise and Vibration Assessment appears to have mislabelled Appendix E (as discussed in Appendix A of the RTS Report) as Appendix D.

Recommendation: This mislabelling should be reviewed and amended if necessary.