09187
14 August 2009

David Kitto
Director
Department of Planning
23-33 Bridge Street
SYDNEY NSW 2000

Dear David

KNAUF INSULTATION GLASS WOOL MANUFACTURING PROJECT – STEEL RIVER ESTATE

We refer to the meeting held at the Department on 24 July 2009 and your letter dated 23 July 2009 regarding the above project and the findings of PAEHolmes' independent review of the air quality assessment attached to the EAR. The purpose of this letter is to respond to PAEHolmes' findings, as well as respond to the additional issues identified by the Department , Department of Environmental and Climate Change (DECC) and Newcastle City Council (NCC) in reviewing the EAR.

Since lodgement of the EAR, further detailed design and modelling has been undertaken by the proponent and consultant team. Consequently, the exhibited air quality and noise emissions (**Attachments A** and **B**) have been revised and are attached for your reference. The air quality supplementary report also addresses greenhouse gas

1.0 AIR QUALITY

1.1 Department's Position

The Department has requested the Air Quality Assessment be revised to include the following additional information:

- Measures to prevent the facility from exceeding the regulatory air emission limits (including PM10 and metals);
- Clarification and justification of the assumptions used in the modelling and calculations, and further details of the process justifying these assumptions;
- Confirmation that the EAR includes an assessment of the worst case emissions of Type 1 and Type 2 substances;
- Revisions to the odour assessment to:
  - Reflect the appropriate odour criteria of 2OU;
  - Ensure all odour sources are included in the assessment including stack and fugitive emissions; and
  - Describe any proposed measures required to ensure compliance with this criteria.

1.2 KI's Response

URS has prepared a supplementary report to respond to and clarify comments raised by PAEHolmes in its independent review, as well as issues raised by NCC in its letter to the Department dated 10 July 2009. That report is provided at **Attachment A**.

As you may be aware KI has been in discussions with DECC regarding PM_{10} emissions, with negotiations focussing on the available options to reduce expected emissions during scheduled maintenance when the emergency stack is in use, which has been identified as 'the emergency scenario' in the originally exhibited Air Quality Assessment.

Consequently, KI has committed to:

- significantly reducing production during scheduled maintenance, thereby reducing PM_{10} emissions;
- further investigate processes to reduce PM_{10} emissions beyond the above within the first 2 years of operation; and
- in order to achieve odour concentrations within the 2 OU criteria, increasing the height of the Blowing Wool Stack by an additional 10m. It should be noted that the odour as identified in the original air report was during the Emergency Scenario. As KI has made the commitment to significantly reduce production during scheduled maintenance a conservative assumption of 10% odour emissions from the Wet EP stack has been assumed.

In summary, URS' supplementary report which is underpinned by these assumptions:

- Clarifies the methodology, justification and assumptions used for the adopted stack calculations;
- Confirms both Type 1 and Type 2 metals were modelled for the project;
- Provides further comparisons between the emergency stack emissions and the in-stack regulatory guidelines, with specific reference to particulates and metals;
- Concludes the revised ground level concentrations of odour off-site are predicted to be less than 2 OU, and that PM_{10} concentrations in ambient air surrounding the plant are unlikely to exceed the $50ug/m^3$ or result in elevated concentrations at sensitive receptors;
- Augments the proposed construction and operational mitigation measures, with specific reference to particulate matter and odour.

KI proposes to incorporate the revised stack heights, emission concentrations and mitigation measures into its Preferred Project Report (discussed in further detail below).

2.0 NOISE

2.1 Department's Position

The Department has requested:

- confirmation that the noise assessment has considered noise emissions from piling and rock breakers;
- further details of the reasonable and feasible options available to minimise the noise emission of the project.

2.2 KI's Response

We can confirm that the exhibited URS' Noise Assessment does consider noise emissions from construction machinery and activities, such as piling and rock breakers (refer Section 5.4 of the revised Noise Assessment). The initial finding that a marginal (albeit insignificant) exceedance is expected at the nearest commercial premises during construction remains unchanged.

The revised Noise Assessment (**Attachment B**) now includes an additional noise assessment by EMA Consulting Engineers. The additional assessment confirms that the overall calculated noise emissions are not expected to exceed the Steel River SIAS Environmental Envelope's day, evening or night noise allocations for the site. Notably, noise emissions will not exceed adopted limits at any of the residential receivers.

The findings are however contingent upon the acoustic design of the building. Specific wall and roof acoustic ratings have been incorporated into the revised Noise Assessment, which will be adopted in the revised Statement of Commitments to be lodged with the future Preferred Project Report.

3.0 CONTAMINATION

3.1 Department's Position

The Department has requested we confirm and/or clarify:

- the location of contaminated material which is proposed to be contained within the Tertiary Containment Cell;
- the progress of the remediation across the Steel River Estate; and
- the proposed remediation and ownership/management regime proposed on the KI site.

The Department has also requested:
A Site Auditor endorsement of:

- the proposed location of the Tertiary Containment Cell;
- the proposed engineering methods for piling through the Primary Containment Cell; and
- the Operational and Long Term Environmental Management Plan for the Tertiary Containment Cell.

3.2 KI's Position

We can confirm that arisings excavated during development of other lots and construction of roads within the Steel River Estate, are currently stockpiled on the KI site. KI proposes to place the stockpiled materials along with materials arising from the plant construction into the Tertiary Containment Cell.

The proposed chronology of events can be summarised as:

- Relocation of the existing stockpiled arisings within the site to suitable locations away from the proposed plant location;
- Stockpiling of new arisings resulting from excavation with the existing stockpiles;
- Bunding and treatment of new stockpiles in accordance with the Steel River Construction Guidelines;
- Construction of the Tertiary Containment Cell;
- Placement of arisings into the Tertiary Containment Cell, which will be sized to a volume capable of holding all arisings on the KI site;
- Capping and covering of the Tertiary Containment Cell with hardstand or other approved materials, thereby requiring future arisings from elsewhere in the Estate to be relocated off site entirely.

The site, including the Primary and Tertiary Containment Cells, will be owned by KI. BHPB as the original polluter will continue to be responsible for the ongoing ground water monitoring in accordance with the voluntary remediation agreement with DECC.

KI's Preferred Project Report will include a Site Auditor Statement and Operational Long Term Environmental Management Plan, both of which will address the full range of matters identified by the Department.

4.0 GREENHOUSE GAS EMISSIONS

4.1 Department's Position

Comparative industry data has been requested. It has also been pointed out to us that there are slight differences in the management measures in JBA' s EAR and URS's Greenhouse Gas Report at Appendix M of the exhibited EAR.

Further details of energy saving measures and a comparison of best practice have been requested.

4.2 KI's Response

Section 7 of URS's supplementary Air Quality Report has addressed the matters collectively identified by the Department, PAEHolmes and DECC.

5.0 STORMWATER

5.1 Department's Position

Stormwater harvesting and reuse beyond the proposed 220KI rainwater harvesting has been suggested.

5.2 KI's Response

KI has explored stormwater harvesting and reuse as suggested by the Department, however preliminary findings have concluded the rainwater system would provide an unviable 2 -3 days worth of water based on the proposed storage and rainwater contribution. KI's rational for forming this view is set out below.

The median annual rainfall is 1063.5 mm with an average of 8 rain days per month of rainfall greater than 1mm and 2 to 3 days of rainfall greater than 10mm. Monthly median rainfall ranges from a low of 57.4 mm (September) to a high of 102.2 mm (May). Assuming the above conditions, the plant roof's 22,500m^2 area could capture between 1,294 -2,300 kL of rainwater per month (equating to 15,528-27,600kL per annum).

The plant requires approximately 480kL of process water per day to operate the cooling tower and undertake the wash water process (equating to 14,637 kL per month). The water quality targets and requirements for the cooling tower and wash water processes are extremely high and accordingly roof water must be subjected to a stringent treatment process prior to use. The net harvest following first flush and treatment water rejection is in the order of 28% which results in an additional harvest of only 644-931 kL per month.

The initiative is therefore clearly economically and environmentally unfeasible.

6.0 TRAFFIC

6.1 Department's Position

We have been requested to amend traffic assessment to include details of:

- The proposed pedestrian/cycle access;
- Provision for public transport/alternative transport modes; and

- A sustainable travel plan that could be implemented.

6.2 KI's Response

The pedestrian / cycle access for the site is to be via the existing footpaths and cycle ways provided within the public road reserves both within the Steel River Estate and beyond. Our exhibited EAR identified that the cycle way could be extended to the River foreshore (refer Figure 25 of the exhibited EAR). The KI plant will include bicycle racks, showers and change rooms for staff who chose to walk, run or cycle to work.

We note that there are no current bus routes within the Steel River Estate. KI would encourage the use of public transport to work in the event that a bus provider introduced a route within the Steel River Estate.

7.0 PROGRESS AND NEXT STEPS

We note that the public exhibition of the project concludes on 17 August 2009 and understand the Department will forward us copies of all public and agency submissions shortly thereafter. KI is committed to preparing a Preferred Project Report that will not only consider and respond to all public and agency submissions, but will also confirm the proposed range of design, operational and construction amendments as outlined above.

The Preferred Project Report will also document the outcomes of the second community consultation meeting that KI facilitated on 10 August 2009. The meeting was well attended by community, Council and Steel River Estate representatives, most of which indicated general support for the project. Key issues raised at the meeting and KI's response to them will be fully detailed in the Preferred Project Report.

Should you have any queries about this matter, please do not hesitate to contact me on (02) 9409 4957 or sballango@jbaplanning.com.au.

Yours faithfully

Stephanie Ballango
Principal Planner