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Mr Kelly McNicol
Team Leader, Industry Assessments
Department of Planning, Industry and Environment
Via email: information@planning.nsw.gov.au

Attention: Ms Susan Fox

16 August 2018

Dear Mr Nichol

Bulk Recovery Solutions Pty Ltd – Ingleburn Facility – SSD 8593
Additional comments – EPA Air and Noise Technical Advice

I refer to our letter to Mr Kelly McNicol, dated 10 July 2019, regarding the notice of exhibition for the Ingleburn Resource Recovery Facility under SSD 8593 (the Proposal).

As discussed with Ms Susan Fox, we have now received advice from both EPA Technical Advice Air and EPA Technical Advice Noise in relation to the Proposal. Please find attached the EPA's additional comments in relation to the Noise Impact Assessment and Air Quailty Impact Assessment provided by the proponent.

If you have any questions about this matter, please contact Matthew Davidson on (02) 4224 4104.

Yours sincerely

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Attachment A

Technical Advice Noise

The EPA's Technical Advice Noise Unit (TANU) has reviewed the following in relation to the Proposal:

- *Noise Impact Assessment Bulk Recovery Solutions Pty Ltd Resource Recovery Facility Ingleburn, NSW dated 23 October 2018, Muller Acoustic Consulting Pty Ltd, reference: MAC170598RP1V01 Final* (noise report)
- *Environmental Impact Statement for State Significant Development Proposed Expansion of Resource Recovery Facility 16 Kerr Road Ingleburn NSW 2655, dated 22 May 2019, KDC Pty Ltd, reference: 16183_EIS_Ingleburn_BRS_May2019* (EIS report)

Based on this review, TANU provided the following advice:

The noise report does not provide sufficient detail to allow TANU to fully evaluate the adequacy of the noise assessment. This includes inconsistencies with information presented in other parts of the application.

The following matters must be addressed on the operational, traffic and construction noise assessments before the EPA can recommend conditions for project approval.

Operational noise assessment

The noise report has not provided sufficient detail on the operational assumptions used in the noise predictions and some information appears to be inconsistent with other parts of the application. The proponent should provide more information as follows:

- Clarification of the site layout as the site plan in the noise report is currently inconsistent with the rest of the application.
- Clarification of the operational activities assessed during the day, evening and night periods and confirmation that they are consistent with planned operations.
- Location, height and operating durations of noise sources for each day, evening and night scenario.
- Clarification of the truck and concrete agitator numbers used in the noise report as they currently appear inconsistent with the rest of the application.
- Details of the assumptions regarding mobile noise sources present on the site, including light vehicles, truck movements, truck tipping/dumping, queuing and on-site speed limits.
- Details of assumptions used to calculate the breakout noise from buildings including roller doors being open or closed and assumed sound reduction of building materials.
- Validating and providing appropriate references for plant sound power levels; in particular for the truck and dog tipping which appears to be the same as the truck and dog manoeuvring.
- Noise contour maps to illustrate noise propagation from the premises at surrounding noise-sensitive receivers.
- Justification or reference for the maximum sound power level of L_{max} 102 dBA used in the sleep disturbance assessment, which is less than the $L_{eq,15min}$ level for several of the plant proposed to operate during the night.

- Details and results of the model calibration exercise.
- Details of how the existing conditions from the premises' Environment Protection Licence (No. 20797) have been considered in the noise report.
- Proposed and existing noise management measures for activities that occur during the day, evening and night period. This should include how noise emissions were considered in the building and premises layout design, consideration of tonal reversing alarms and how operations are managed adjacent to the noise wall to enable efficient operation.
- The coordinates of some receivers in Table 2 of the noise report do not match the locations shown in Figure 1.

It is also noted that predictions in the noise report are dependent on a 6.5 metre noise barrier on the southwest and southeast boundaries and a restriction on the location of the slump stands. The performance of the noise barrier is a critical component to achieve the predicted noise levels. The noise barrier should therefore form part of any approval conditions if the application is approved.

Road noise assessment

- The vehicle trip information used in the noise report is not consistent with predicted traffic numbers in the rest of the application. The proponent should review the assumptions and update the noise report accordingly.
- Light vehicles should be considered in the traffic noise assessment.
- Road traffic noise criteria should be applied according to Section 3.4.1 of the Road Noise Policy (DECCW, 2013) and the Road Noise Policy Application Notes. The assessment criteria are applicable to the total traffic noise, not just the premises contribution.

Construction noise assessment

Further information is required on the construction noise assessment as follows:

- Details of the assumptions made regarding the noise predictions, including the insertion loss of any barriers and location of sources.
- The predicted construction noise calculations appear to have underestimated the noise level at the nearest receivers. The noise report predicts a noise level of $L_{eq,15min}$ 40 dBA at R01 from a source of sound power level 108 dBA at approximately 60m. Even considering a well performing barrier, this calculation appears to be an underestimate and should be reviewed.

Attachment B

Technical Advice Air

The EPA's Technical Advice Air (TA-Air) reviewed the following in relation to the Proposal:

- *Todoroski Air Sciences Air Quality Impact Assessment (AQIA)*

Based on this review, TA-Air have identified the following inadequacies and information deficiencies with the odour assessment undertaken in the AQIA and provided the following recommendations:

Potential for odour not adequately assessed

i. The only potential odour sources, identified in the AQIA for the proposal, are from the stockpiling of foundry sand from the dissolved air floatation (DAF) treatment of liquid waste and the DAF system. It is proposed to process waste types that may have odour generating potential such as sewage sludge, grease trap oil, industrial waste water and waste oil and these waste types should be considered in the assessment. Adequate justification for omitting all odour sources except for DAF and foundry sand has not been provided.

ii. Mitigation measures proposed to minimise the generation of odour from the identified odour sources include blending of foundry sand with other materials to dilute the material and the use of charcoal filters within the DAF process. However, the AQIA is lacking:

   - Plans, process flow diagrams and descriptions that clearly identify and explain all pollution control equipment and techniques for all processes on the premises
   - A description of all aspects of the air emission control system, with particular regard to any fugitive emission capture systems (e.g. hooding, ducting), treatment systems (e.g. scrubbers, bag filters) and discharge systems (e.g. stacks)
   - The operational parameters of all emission sources, including likely operational variability
   - It has not been established how the proposed mitigation measure will be used to effectively minimise emissions from all potential odour sources at the premises

iii. Adequate justification for the adopted odour emission rates has not been provided. The odour concentration and emission rates adopted in the AQIA have been sourced from existing reports and publicly available data. It has not been adequately established how the odour emission data adopted in the AQIA is relevant to this project. Where emission data is sourced from publicly available literature (including previous assessments), the data must be adequately justified, including reference to the original test data and provision of the original test data report.

iv. It has not been established if the adopted odour emission rates represent a reasonable worst case, and account for expected emission rate variability. The odour emission rate should reflect reasonable worst case and account for foreseeable variability in process. Additionally, the AQIA should include:

   - A detailed discussion of the methodology used to calculate the odour emission rates
   - Detailed calculations of pollutant emission rates for each source
   - All release parameters of stack and fugitive sources

Recommendation: TA-Air recommend the AQIA be revised to address the identified inadequacies i to iv listed above.

Emissions from solid waste processing

The solid waste processing at the project involves the crushing, screening and blending of materials to generate desired products. It is proposed that solid waste processing and raw material stockpiling is to occur within an enclosed space with water misting sprays applied to supress dust within the building.

Only finished products are proposed to be stockpiled in outdoor areas in external storage bays. Water will be used to mitigate dust emissions and minimise wind generated dust emissions from this source.

Stockpiling of waste and processed material will occur on the south eastern area of the building in designated bays. It is intended that trucks will tip the waste at the 'receivals area' for distribution by front end loader to the stockpile bays. Smaller stockpile areas are located internally at the crushing plant and undercover at the screening plant.

Waste material arriving and being processed on site will comprise of a variety of waste types including building and demolition waste, foundry sand, reclaimed asphalt, hazardous soils, slag and fly ash. These waste types may contain non-trivial levels of contaminants materials including but not limited to Type 1 and Type 2 Substances (metals). However, the assessment has only considered dust emissions from the premises.

The AQIA should consider the potential for any air pollutants likely to be emitted from the various materials that will be delivered, stored and processed at the facility.

Recommendation: TA-Air recommend the AQIA be revised to include assessment of all air pollutants, including slag and fly ash (constituents), emitted from each source at the premises.

Maximum Daily Production Rates

The proposed masonry facility is assumed to operate 24 hours, 365 days per year and this has been reflected in the dispersion model. The emission rates adopted in the AQIA are based on emission factors referenced from emission estimation technique manuals and production throughputs.

However, it has not been described how the production throughput has been averaged. As such, it is unclear if the emission rates adopted in the AQIA reflect maximum daily activity rates and hence peak emission rates.

As detailed in the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (Approved Methods), a detailed discussion of the methodology used to calculate the expected pollutant emission rates for each source should be provided.

Additionally, if no data is available to describe the distribution of emission rates, the maximum measured or calculated emission rate should be used. Maximum daily rates should be calculated based on the maximum achievable daily processing rate for the facility, opposed to a daily average rate.

Recommendation: TA-Air recommend the AQIA be revised based on maximum proposed daily processing rates based on the facilities design. A detailed discussion of the method used to calculate the emission rates should also be provided.