



Our reference: DOC14/223986-02

Ms Kate MacDonald
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NSW Department of Planning & Environment
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SYDNEY NSW 2001

EMAIL AND STANDARD POST
15 December 2014

Dear Ms MacDonald

**Resource Recovery Facility, Kembla Grange (SSD 5300)
Exhibition of Environmental Impact Statement – Submission from NSW EPA**

I refer to your letter dated 2 October 2014 inviting the Environment Protection Authority (EPA) to comment on Bicorp Pty Ltd's proposal to expand its existing Resource Recovery Facility at Wyllie Road, Kembla Grange.

The EPA has reviewed the Environmental Impact Statement (EIS) for the proposal and has provided comments and recommended conditions of consent as attachments to this letter (Attachment A – Comments and Attachment B – recommended conditions of consent). The EPA does not object to the proposal proceeding, providing it is carried out in accordance with the recommended conditions of consent.

The EPA requests an opportunity to review the draft conditions of consent for the proposal prior to finalisation.

It is noted that the project will require a licence under the Protection of the Environment and Operations (POEO) Act 1997 to commence construction activities and to operate. The proponent will need to make a separate application to the EPA to obtain this licence once development project approval is granted.

The EPA would appreciate receiving a copy of relevant submissions received by the DP&E following exhibition of the EIS. This would assist the EPA to review the draft conditions of consent and to perform its later licensing function, if relevant.

If you have any questions in relation to this matter, please contact Nick Feneley on (02) 4224 4144.

A handwritten signature in blue ink, appearing to read 'Cate Woods'.

CATE WOODS
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**Environment Protection Authority Submission
Resource Recovery Facility, Kembla Grange (SSD 5300)**

ATTACHMENT A - Comments

AIR QUALITY AND ODOUR

Dust

In the uncontrolled emissions modelling scenario the maximum predicted incremental 24 hour average PM10 impact at a receptor is 53.3µg/m³, indicating that mitigation measures are required to ensure compliance with the EPA's 24 hour average PM10 impact assessment criterion at all sensitive receptors. This is confirmed by the second modelling scenario incorporating watering of haul roads, with no predicted incremental or cumulative exceedances of the criterion at sensitive receptors. Predicted annual average PM10, TSP, and 24 hour average and annual average PM2.5 are all below the relevant EPA impact assessment criterion and NEPM advisory standards.

Proposed mitigation measures to control dust which the proponent has included in their statement of commitments include:

- Level 2 watering of the unsealed access road and truck turning areas
- Watering of material prior to loading for haulage where appropriate
- Limiting vehicle speeds on site
- Suspension of excavation activities or use of water sprays during high speed wind events.

The EPA also notes that:

- The AQIA also recommends that truck movements be minimised during dry windy conditions;
- Reduction of emissions from crushing and processing activities through the use of wet suppression systems was not assessed and are potential additional options for additional dust mitigation.

These conditions should be specified in the air quality management plan for the facility.

Odour

The predicted peak odour impact at a sensitive receptor exceeds 2OU when emissions are not controlled, and is below 2OU for the stack discharge and stack discharge with biofilter scenarios. As such EPA notes that to achieve less than 2OU at the nearest sensitive receptors enclosure of composting activities under negative pressure and discharge of emissions via stack is required as a minimum, with biofilter treatment of emissions prior to discharge further reducing the risk of odour impacts. If these systems do not perform at the level of control assumed (in this case 90% for a biofilter) there is a risk of adverse odour impacts at nearby sensitive receptors.

The EPA notes that the proponent has included the following in their statement of commitments:

- Design and installation of an appropriate building ventilation system at negative pressure at all times during operation
- A site odour management plan to be developed prior to commissioning of the facility
- Validation sampling of odour from key discharge points after commissioning

While enclosure of composting facilities under negative pressure, with stack discharge of emissions will assist in reducing odour impacts from the expanded facility, the EPA considers it imperative that the facility

is designed and constructed so as not to preclude the retrofit of additional control measures such as a biofilter if required and this forms the basis of a condition of approval recommended for the proposal.

The EPA also recommends that the proponent considers additional odour mitigation measures relating to the leachate pond and management of organic waste and mature compost stockpiles including coverage of the latter to prevent ingress of water and minimising onsite storage times prior to processing and/or removal offsite as part of the air quality management plan for the facility.

Finally, it should be noted that odour auditing requirements will need to be included as part of environment protection licence conditions for the facility to ensure that any potential issues from these sources are addressed as required once operations commence.

NOISE

Criteria derivation

Background noise measurement data did not appear to be excluded from calculation of the Rating Background Level during some identified periods of rainfall. The reason for this was not explained in the NA, but it may have resulted in elevated RBL results due to the inclusion of periods where rainfall affected the background noise level. For example, the following night time Assessment Background Levels (ABL) for Bardess Crescent, presented in the NA, may have been reduced if all periods of rainfall were excluded from analysis:

- Friday 21 February 2014, ABL 30.9 dBA. Non-excluded periods of rainfall LA90(15min) 31, 36 and 37 dBA (from graphed data in NA); and
- Saturday 22 February 2014, ABL 31.1 dBA. Non-excluded periods of rainfall LA90(15min) 32 and 33 dBA.

Meteorological data from Albion Park Automated Weather Station (AWS), 10km from the WRF, was used to determine whether weather conditions invalidated noise monitoring data. Weather can be geographically variable, especially in the Illawarra region where the distance between the escarpment and ocean can vary considerably. It is therefore likely that not all weather-affected data was identified from the AWS referenced, or that valid data was incorrectly identified as being weather affected.

A closer weather station should provide a better indication of the times when background noise monitoring data was affected by weather conditions, such as a weather station:

- That was co-located with the noise loggers;
- At a nearby industrial site; or
- The Office of Environment and Heritage (OEH) air quality monitoring station at Kembla Grange (no rainfall data).

The data exclusion rule from Appendix B of the INP does not appear to have been followed in the processing of background noise monitoring measurements, as RBL calculations included ABLs for periods where the number of data points excluded exceeded the number allowed by the rule. The NA did not provide any information to indicate that the excluded periods were not within the expected “quieter” times of the relevant assessment period. The RBL can be increased by the inclusion of invalid ABLs, but based on the data presented in the NA this does not appear to have occurred.

The EPA used hourly quality-controlled wind speed and sigma-theta results from the OEH air quality monitoring station at Kembla Grange for the period of 17 February 2014 to 28 February 2014, inclusive, to:

- Qualitatively compare “excluded data” periods in the NA to the wind speed reported by OEH; and
- Qualitatively compare stability category, determined using the sigma-theta method from the INP, to Assessment Background Levels (ABL) in the NA.

Similar periods (with start and finish times generally within 2 hours of the NA excluded periods) would have been excluded from RBL calculations for the daytime if the OEH wind speed data were used. However, during the evening and night time none of the excluded periods in the NA were supported by the OEH data.

The OEH data indicate that F and G class stability category conditions were present for part or all (between 22% and 100%) of every night during the monitoring. Three of the four highest measured ABLs, for 25/02/2014 to 27/02/2014, were for the only nights where OEH data indicate that F and G class stability category conditions were present for the entire night time period. This indicates that the background noise level increases during temperature inversion conditions.

As the WRF was operating during monitoring in the day time, the NA adopted the night time Rating Background Levels (RBL) for all times of day. This is an acceptable approach, except for if the operation of the WRF during the hour of 6am to 7am influenced the measured RBL. Operation between 6am and 7am is currently permitted by consent and proposed in the NA, but is unlikely to have significantly affected the RBL as the hour between 6am and 7am is usually one of the noisier hours of the night time period.

The monitoring location at 6 Bardess Crescent, Farmborough Heights, appears to be under conifers or pine trees, and attended monitoring summarised in the NA noted “some noise from the native fern nursery” which is operated at the monitoring location. The influence of nearby sources, such as the nursery, on monitoring results indicates that they may not be representative of the noise environment at other residences in Farmborough Heights.

The NA derived a night RBL at Farmborough Heights equal to 33 dBA, which was equal to the measured daytime RBL including the WMF in operation. Previous monitoring conducted in Farmborough Heights indicates the following RBLs, which were based on less than seven days of valid data:

- 32 dBA (night) and 39 dBA (day) at 85 Fairloch Crescent, as reported by Wilkinson Murray in 2008 for the Pioneer Asphalt Plant; or
- 30 dBA (night) and 33 dBA (day) at 81 Fairloch Crescent, as measured by Cardno in 2011 for the Roadworx Asphalt Plant.

Australian Standard AS IEC 61672 (Standards Australia 2004) specifies tolerance limits for Class 1 SLM depending on frequency, ranging from:

- ± 1.1 dB at 1kHz through ± 2.0 dB at 31.5Hz;
- ± 2.1 dB at 5kHz through ± 2.5 dB at 20Hz;
- Minus infinity to +3.5dB at the lower limit of the defined frequency range (10Hz); and
- Minus infinity to +4.0dB at the upper limit of the defined frequency range (20kHz).

Therefore the uncertainty of an overall broadband environmental noise measurement with a Class 1 SLM is generally considered to be ± 2 dB. Therefore, the night time RBL of 33 dBA derived for Farmborough Heights may be a result of the expected range of RBLs for that locality, or may be outside that range if, for example, the expected range of RBLs was between 28 dBA and 32 dBA. It is not possible to conclusively answer either way from the small sample size of RBLs referred to here.

Maximum noise events during the night time on the plots provided in the NA (for 6 Bardess Crescent) correlate well with ARTC timetables for the branch line between Moss Vale Junction and Unanderra, indicating that rail passbys (coal, grain and minor loads) are likely to be responsible for most night time maximum noise events. However, rail passbys appear to have little impact on the LA90 level at that location, so are unlikely to be the main reason for the higher than previously measured RBL at night time.

Operational noise predictions

The NA stated that the WMF would not operate during the night time period, but stated elsewhere that it would start operation at 6am. The hour between 6am and 7am is part of the night time period defined in the INP.

The NA only appeared to consider modifying factor adjustments for intermittent noise. Possible modifying factor adjustments for low frequency noise or tonality should have also been considered, for the proposed mobile plant, crusher and screening plant. Any licence issued by the EPA will include conditions requiring the addition of modifying factors where appropriate.

Wollongong City Council have confirmed to the EPA that the “Macedonian Orthodox Church” is approved as a monastery. Therefore it typically should have been treated as a residential receiver if it was located in an appropriate zone. The INP states that the primary means for identifying the type of receiver is how the receiver area is zoned. The Wollongong City Council Planning and Constraint Map (<http://maps.wollongong.nsw.gov.au/dekhopublic/?map=4>) shows that the land the monastery is situated on is zoned RE2 Private Recreation, where residential dwellings are prohibited.

Council have advised the EPA that residential accommodation at the monastery was approved in 1997 (DA-1997/679). The approval for residential accommodation at the monastery therefore pre-dates both the adoption of the INP and the zoning of the monastery site under the Wollongong Local Environmental Plan 2009 (“the LEP”). It is not clear to what extent the potential implications of that approval on nearby industrial activities were considered at the time.

It appears that Council’s intention in the LEP was to restrict residential development and enable industrial development, by encouraging other less sensitive uses around the industrial zone such as recreation. Combined with the RE2 Private Recreation Zoning, this indicates that the “passive recreation” criterion would normally apply. However the “place of worship” criterion adopted by the NA appears to be appropriate as:

- Both criteria apply to receiver locations “when in use”; and
- The “place of worship” criterion adopted in the NA has been adjusted by +10 dBA to provide an external criterion. That criterion is equal to the “passive recreation” criterion in the INP.

The WMF was modelled using a ground absorption coefficient of 0.75. This seems high, and a lower ground absorption coefficient, for example 0.5 as commonly used in assessments provided to the EPA, would likely be more appropriate. Using a simple CadnaA model and the ISO9613 algorithms, and assuming flat ground, indicates that a ground absorption coefficient of 0.75 may underestimate the noise contribution of the WRF by up to 2 dBA at the sensitive receivers identified in the NA.

The NA stated that one typical worst case 15 minute period of operation was modelled, including a well-developed moderate ground based temperature inversion or source to receiver winds. A specific stability class, inversion or wind strength was not specified in the NA. The ISO9613 algorithms were used to model the operational noise impact of the WRF.

The EPA obtained hourly quality-controlled wind speed and sigma-theta results from the OEH air quality monitoring station at Kembla Grange for the period of 28 February 2013 to 28 February 2014. Using that data and the methods in the INP we determined the meteorological conditions which should have been included in operational noise modelling for the WMF during night time:

- F and G class stability category conditions; and
- Winds from the North-western quadrant up to 3m/s.

The predicted operational noise levels do not appear to account for north-westerly winds in combination with F class stability category, which according to Appendix D of the INP is likely to increase the proposal’s noise level contributions at Ian McLennan Park by 2 dBA, and Kingston Town by 3 dBA. The noise level contribution of the WRF is not likely to be significantly increased above the level predicted in the NA for any other receiver under those conditions. Therefore the EPA conservatively estimates that the LAeq(15min) contribution of the proposal during a 30C/100m inversion with 2m/s north-westerly wind will be up to:

- 33 dBA at the monastery (12 dBA below the LAeq(when in use) PSNL);

- 35 dBA at Fairloch Avenue (3 dBA below the PSNL);
- 39 dBA at Kingston Town (equal to the PSNL); and
- 40 dBA at Ian McLennan Park (19 dBA below the LAeq(when in use) PSNL).

Adjusting the above predictions to a ground absorption coefficient of 0.5 provides the following results as the EPA's best estimate of the actual worst-case LAeq(15min) contribution of the WRF:

- 35 dBA at the monastery (10 dBA below the LAeq(when in use) PSNL);
- 37 dBA at Fairloch Avenue (1 dBA below the PSNL);
- 41 dBA at Kingston Town (2 dBA above the PSNL); and
- 42 dBA at Ian McLennan Park (18 dBA below the LAeq(when in use) PSNL).

No operational noise mitigation measures were proposed, as the modelled impact of the WRF as presented in the NA complied with PSNLs. The EPA estimates indicates that the proposal will contribute up to 2 dBA above the adopted PSNL at Kingston Town, but the PSNL was based on background noise measurements between the WRF and monastery. The PSNL for Kingston Town, if it were actually measured at Kingston Town, is likely to be higher due to proximity to the Princes Motorway (M1).

Whilst some issues discussed above remain outstanding and may need to be addressed for any further development of the site in the future, the issues do not significantly affect the outcomes of this assessment.

The EPA's recommended conditions of consent for noise include noise limits that apply at all times at the identified noise sensitive receivers. The limits have been based on the predicted noise levels contained within the EIS and modified for meteorological conditions and ground absorption as detailed above.

Monitoring and reporting conditions (M8.1 and R4) can be varied and should be negotiated with the proponent and EPA by DPE before being finalised in any project approval.

WASTE

General comments.

The EIS contains conflicting information about how some wastes are proposed to be handled at the site. For example, information on stockpile storage limits and process locations for organic wastes provided in the Waste Management Plan prepared by Benviron conflicts with information contained in the Air Quality Impact Assessment (AQIA) and Noise Assessment (NIA) prepared by GHD.

The modelling undertaken for the AQIA and NIA was based on assumptions of certain types and quantities of waste being received, processed and stored at the site. To ensure impacts are limited to those modelled in the EIS, it is important that the type and quantity of wastes approved to be received and processed at the facility are limited to those modelled in these assessments.

Outputs

The EPA understands that the Proponent intends on recovering much of the waste received at the facility and using it to make products that will be sold to consumers for various uses.

The Proponent must comply with The Protection of the Environment Operations (Waste) Regulation 2014. This regulation replaces The Protection of the Environment Operations (Waste) Regulation 2005 and sets out the obligations of generators, processors and consumers who supply or receive waste intended to be beneficially applied to land, reused as fuel or reused in connection with a process of thermal treatment.

Under these new provisions, the EPA now issue two separate documents; a Resource Recovery Order and a Resource Recovery Exemption, to replace each current general or specific exemption.

Resource Recovery Orders include conditions which generators and processors of waste must meet to supply the waste for land application, use as fuel or in connection with a process of thermal treatment. They may include specifications, record keeping, reporting and other requirements. All Resource Recovery Orders are made under clause 93 of the Waste Regulation.

Resource Recovery Exemptions contain the conditions which consumers must meet to apply waste to land, or use the waste as fuel or in connection with a process of thermal treatment outside of certain requirements of the waste regulatory framework. They may include specifications, requirements on how to re-use or apply the waste, record keeping, reporting and other requirements. All Resource Recovery Exemptions are made under clause 92 of the Waste Regulation.

Residue waste exemptions previously issued under Part 5, clause 44 of the former Protection of the Environment Operations (Waste) Regulation 2005 have been revoked and transferred into the Resource Recovery Exemption framework.

Garden Waste

The EPA understands that proponent intends on receiving 30,000 tonnes of non-putrescible organic waste at the premises each year. Of this, the proponent intends on composting only 6,300 tonnes. It is proposed that the remainder be mulched for direct sale or sold as fire wood.

It is important to note that, in order to comply with the Protection of the Environment Operations (Waste) Regulation 2014, any garden waste received at the facility will need to be composted in accordance with the "Compost Order 2014".

The AQIA assumes that only 6,300 tonnes of organic waste will be composted at the facility each year. For this reason, the quantity of garden waste received at the facility each year should not exceed 6,300 tonnes.

Further, if the proponent intends on producing raw mulch at the facility in accordance with the Raw Mulch Order 2014, it must only contain:

- (a) horticultural barks, leaf mulch and wood chip mulch produced from forestry and sawmill residues, and urban wood residues; and/or
- (b) branches, tree stumps and bark that are absent of leaves, flowers, fruit and plant propagules.

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ATTACHMENT B – Recommended Conditions of Approval

Waste Limits

1. The proponent must not cause, permit or allow any waste to be received at the premises, except the wastes expressly referred to in the column titled “Waste” and meeting the definition in the column titled “Description” in the table below. Any waste received at the premises is subject to those limits or conditions, if any, referred to in relation to that waste contained in the column titled “Other Limits”.

Waste	Description	Activity	Other Limits
General solid waste (non-putrescible)	As defined in Schedule 1 of the Protection of the Environment Operations Act 1997, <u>but excluding</u> Biosolids and waste collected in kerbside recycling bins.	Resource Recovery, Waste Storage, Composting	<ul style="list-style-type: none"> • No more than 40,000 tonnes of bricks and concrete (in total) per annum • No more than 2,500 tonnes of glass per annum • No more than 2,500 tonnes of plastic per annum • No more than 1,000 tonnes of ceramics per annum • No more than 5,000 tonnes of paper/cardboard per annum • No more than 20,000 tonnes of Virgin Excavated Natural Material (VENM) per annum • No more than 50,000 tonnes of soil (other than VENM) per annum • No more than 10,000 tonnes of metal per annum • No more than 5,000 tonnes of asphalt waste and railway ballast per annum • No more than 1,000 tonnes of plasterboard per annum • No than 30,000 tonnes of organic waste per annum, of which no more than 6,300 tonnes is to be composted or to comprise Garden Waste.

Notwithstanding the limits outlined in the above table, no more than:

- 230,000 tonnes of waste (in total) is permitted to be received at the premises in any twelve (12) month period.
- 45,000 tonnes of waste (in total) is to be on the site at any one time.
- 2500 m³ of organic waste is to be on site at any one time. Of that 2500 m³, no more than 500 m³ is to comprise compost product.

Note: for the purpose of this condition, 1 cubic metre of compost or organic waste is taken to weigh 0.5 tonnes.

Waste Receipt

2. The Proponent shall prepare and implement a Waste Receipt and Vehicle Flow Control Plan to the satisfaction of the EPA. The plan must be submitted to the EPA for approval prior to construction, and include details of the infrastructure, and the systems and procedures, that will be used to ensure compliance with the requirements Part 3 of the Protection of the Environment Operations (Waste) Regulation 2014. The plan must also show all vehicle entry and exit points, including emergency exits, where waste is transported into and out of the premises.
3. The Proponent shall:
 - a) Implement suitable procedures to:
 - Ensure that the site does not accept wastes that are prohibited; and
 - Screen incoming waste loads; and
 - b) Ensure that:
 - Staff receive adequate training in order to be able to recognise and handle any hazardous or other unapproved waste.

Waste Storage and Stockpile Management

4. Any unprocessed garden waste, finished compost or mulch products stored outside of buildings must be covered with a tarpaulin or other suitable cover to minimise odours and prevent the generation of leachate.
5. Any paper, cardboard or plastic that is recovered from the waste stream must not be stored outside of a building unless it is contained within a compacted bale or in a covered bin.
6. Stockpiles of organic waste must not exceed 3 metres in height.
7. Stockpiles of inorganic waste must not exceed 5 metres in height.
8. The quantity of mulch product stored outside for sale must not exceed 500 tonnes at any one time.
9. The quantity of firewood product stored outside for sale must not exceed 300 tonnes at any one time.

Litter control

10. The Proponent shall:
 - a) Implement suitable measures to prevent the proliferation of litter both on and off the site; and
 - b) Inspect and clear the site (and if necessary, surrounding area) of litter on a daily basis.

Composting

11. All composting processes on the premises are to be carried out inside a fully enclosed building operated with a negative pressure atmosphere at all times.

Odour Control System

12. The facility must be designed and constructed so as not to preclude the retrofit of additional odour control systems if required.

Air Quality Management Plan

13. The proponent must prepare an air quality management plan covering all dust and odour emission sources at the site. The plan must include, but not be limited to:

- Key performance indicator(s);
- Monitoring method(s);
- Location, frequency and duration of monitoring;
- Record keeping;
- Response mechanisms; and
- Compliance reporting.

The air quality management plan must be submitted to and approved by the EPA prior to the commencement of any dust and/or odour generating activities at the site.

Water & Leachate

14. Surface water must be controlled so that it does not mix with the waste received and processed or stored at the premises.
15. There must be no discharge from the shredding area pond unless more than 256mm of rain falls on the premises in a 24 hour time period (i.e. 1:10 year, 24 hours, average recurrence interval rainfall event).
16. There must be no discharge of leachate to waters.
17. Except as may be expressly provided by a licence under the Protection of the Environment Operations Act 1997, section 120 of the Protection of the Environment Operations Act 1997 must be complied with in and in connection with the carrying out of the development.

Water Monitoring Program

18. A Water Monitoring Program must be developed prior to construction. The program must be prepared in consultation with the EPA by a suitably qualified and experienced expert and include, but not be limited to:
 - a) Details on how impacts on surface water and groundwater will be monitored and reported on; and
 - b) Details on the number, type and location of monitoring points, the frequency at which they will be monitored, and the parameters that will be monitored.

Fire Management

19. The proponent shall:

- a) Implement suitable measures to minimise the risk of fire on the site;
- b) Extinguish any fires on site promptly; and
- c) Maintain adequate fire-fighting capacity onsite at all times.

Noise Limits

20. Noise generated at the premises must not exceed the noise limits in the table below.

		NOISE LIMITS dB(A)			
Locality	Location	Day	Evening	Night	
		L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{Aeq} (15 minute)	L _{A1} (1 minute)
<i>St Petka Monastery</i>	<i>The residence on Lot 11 DP878167</i>	35	35	35	45
<i>Farmborough Heights</i>	<i>Any residence in the Locality of Farmborough Heights</i>	37	37	37	47
<i>Kingston Town</i>	<i>Any residence on Kingston Town Drive, Manikato Place, Pharlapp Avenue or Trifecta Place, Kembla Grange</i>	41	41	41	51

Note: for the purpose of this condition;

- Day is defined as the period from 7am to 6pm Monday to Saturday and 8am to 6pm Sunday and Public Holidays.
- Evening is defined as the period 6pm to 10pm.
- Night is defined as the period from 10pm to 7am Monday to Saturday and 10pm to 8am Sunday and Public Holidays.

21. The noise limits set out in condition 20 apply under all meteorological conditions except for the following:

- a) Wind speeds greater than 3 metres/second at 10 metres above ground level; or
- b) Stability category F temperature inversion conditions and wind speeds greater than 2 metres/second at 10 metres above ground level; or
- c) Stability category G temperature inversion conditions.

22. To determine compliance:

- a) with the $L_{eq(15 \text{ minute})}$ noise limits in condition 20, the noise measurement equipment must be located:
 - approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or
 - within 30 metres of a dwelling façade, but not closer than 3m, where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises; or, where applicable
 - within approximately 50 metres of the boundary of a National Park or a Nature Reserve.
- b) with the $L_{A1(1 \text{ minute})}$ noise limits in condition 20, the noise measurement equipment must be located within 1 metre of a dwelling façade.
- c) with the noise limits in condition 20, the noise measurement equipment must be located:
 - at the most affected point at a location where there is no dwelling at the location; or
 - at the most affected point within an area at a location prescribed by conditions 22(a) or 22(b).

23. A non-compliance of condition 20 will still occur where noise generated from the premises in excess of the appropriate limit is measured:

- at a location other than an area prescribed by conditions 22(a) and 22(b); and/or
- at a point other than the most affected point at a location.

24. For the purposes of determining the noise generated at the premises the modification factors in Section 4 of the NSW Industrial Noise Policy must be applied, as appropriate, to the noise levels measured by the noise monitoring equipment.

Noise Monitoring Conditions

25. A meteorological weather station must be installed and maintained at the premises so as to be capable of continuously monitoring the parameters specified in condition 26.
26. For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.

Parameter	Units of Measure	Frequency	Averaging Period	Sampling Method
Air temperature	°C	Continuous	1 hour	AM-4
Wind direction	°	Continuous	15 minute	AM-2 & AM-4
Wind speed	m/s	Continuous	15 minute	AM-2 & AM-4
Sigma theta	°	Continuous	15 minute	AM-2 & AM-4
Rainfall	mm	Continuous	15 minute	AM-4
Relative humidity	%	Continuous	1 hour	AM-4
Solar Radiation	W/m ²	Continuous	15 minute	AM-4

Additional requirements				
- Siting				AM-1 & AM-4
- Measurement				AM-2 & AM-4

[THIS CONDITION (27) CAN BE VARIED AND MUST BE NEGOTIATED WITH THE PROPONENT BEFORE BEING FINALISED IN ANY PROJECT APPROVAL]

27. To assess compliance with Condition 20, attended noise monitoring must be undertaken in accordance with Condition 22 and:
- a) at a representative location for each one of the locations listed in Condition 20;
 - b) occur bi-annually in a reporting period;
 - c) occur during each day, evening and night period as defined in the NSW Industrial Noise Policy for a minimum of:
 - 1.5 hours during the day;
 - 30 minutes during the evening; and
 - 1 hour during the night.
 - d) occur for three consecutive operating days.

Noise Monitoring Report

[THIS CONDITION (28) CAN BE VARIED AND MUST BE NEGOTIATED WITH THE PROPONENT BEFORE BEING FINALISED IN ANY PROJECT APPROVAL]

28. A noise compliance assessment report must be submitted to the EPA within 30 days of the completion of each monitoring round. The assessment must be prepared by a suitably qualified and experienced acoustical consultant and include:
- a) an assessment of compliance with noise limits presented in Condition 20; and
 - b) an outline of any management actions taken within the monitoring period to address any exceedances of the limits contained in Condition 20.

Dust and Odour Audit

[THIS CONDITION (29) CAN EITHER BE INCLUDED AS A CONDITION OF CONSENT AND/OR INCLUDED AS A CONDITION OF THE ENVIRONMENT PROTECTION LICENCE]

29. Within 12 months of the commencement of operations, the proponent must submit a dust and odour audit report to the EPA.

The dust and odour audit report must address the following:

- a) A summary of any dust and/or odour complaints received and actions taken to reduce dust and/or odour emissions where complaints are verified;
- b) Benchmark the design and management practices at the facility against industry best practice for minimising dust and/or odour emissions. This should include, but not be limited to, the use

of onsite meteorological monitoring data to inform dust management practices, stockpile management and watering regimes.

- c) Using the results of (a) and (b), if it is identified that the facility requires additional dust and/or odour mitigation measures the report must include:
- Proposed mitigation works and/or management practices to ensure that odour and/or dust is minimised as far as is practicable; and
 - A timetable for the implementation of these works.

Construction Hours

30. Construction work at the premises must only be conducted between 7am and 6pm Monday to Friday and 8am to 1pm on Saturdays. No Construction work is to be carried out on Sundays or Public Holidays.

Operating Hours

31. Operational activities may only be conducted between the hours of 6am and 6pm on Mondays to Saturdays; and 8am to 4pm on Sundays. No work is to take place on Public Holidays.
32. Notwithstanding the limits to operating hours made in Condition 32, machinery is not to be used and deliveries are not to occur between the hours of 6am and 7am, Monday to Saturday.