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Department of Planning and Environment
GPO Box 39
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Attention: Paul.Freeman@planning.nsw.gov.au

Dear Mr Freeman

**CENTENNIAL NORTHERN COAL LOGISTICS PROJECT SSD 5145
RECOMMENDED CONDITIONS OF APPROVAL - NOISE**

Reference is made to your email dated 14 October 2014 requesting review of SSD 5145 and Recommended Conditions of Approval.

The Environment Protection Authority (EPA) makes reference to your email and the supporting Environmental Impact Assessment titled "*Northern Coal Logistics Project Environmental Impact Statement Volume 1 – 5 Appendix N Noise and Vibration Impact Assessment*" prepared on behalf of Centennial Northern Coal Services Pty Limited by SLR Consulting Australia Pty Ltd 15 September 2014.

The EPA understands that the proposal involves:

- continuing to use and upgrading the existing coal preparation and handling infrastructure at the Newstan Colliery surface site to enable the receipt, handling and processing of up to 8 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal, sourced from the Newstan Colliery (up to 4.5 Mtpa), the Awaba Colliery (up to 0.88 Mtpa) and Mandalong Mine (up to 6 Mtpa);
- continuing to use and upgrading the coal processing facility at the Cooranbong entry site to enable the receipt and handling of up to 6 Mtpa of ROM coal from Mandalong Mine;
- increasing the tonnage of coal transported:
 - from Cooranbong entry site to Newstan Colliery surface site via truck on private haul roads from 4 Mtpa to up to 6 Mtpa;
 - from Cooranbong entry site to Eraring Power Station via the overland conveyor from 4 Mtpa to up to 6 Mtpa;
 - from Newstan Colliery surface site to Eraring Power Station via truck on private haul roads from 2 Mtpa to up to 4.5 Mtpa; and
 - from Newstan Colliery surface site to the Port of Newcastle, Port Kembla and/or Vales Point Power Station by rail from 3 Mtpa to up to 8 Mtpa;
- transporting coal rejects from Newstan Colliery surface site to the Newstan Colliery northern reject emplacement area, southern reject emplacement area and/or the Hawkmount Quarry via private haul roads;
- increasing the volume of water discharge via licensed discharge points at the Newstan Colliery surface site and Cooranbong entry site;
- employing up to 120 full-time staff; and

- operating 24 hours per day, seven days per week for up to 30 years.

The EPA provided Department of Planning and Environment (DPE) advice dated 8 October 2014 about the adequacy of the Environmental Impact Statement (EIS). In support of that advice the EPA provided DPE with recommended conditions of approval dated 10 December 2014, without the noise assessment and noise recommended conditions of approval.

Recommended Conditions of Approval - Noise

Further discussion regarding the EPA's review of noise issues with respect of the proposal is provided at Attachment 1.

If you wish to discuss this matter further please contact Natasha Ryan on 02 49086833.

Yours sincerely



17 DEC 2014

MARK HARTWELL
Head Regional Operations Unit - Hunter
Environment Protection Authority

Encl: Attachment 1: Review of EA and Recommended conditions of approval (Noise)

ATTACHMENT 1

**ENVIRONMENT PROTECTION AUTHORITY – REVIEW OF ENVIRONMENTAL ASSESSMENT AND
RECOMMENDED CONDITIONS OF APPROVAL - NOISE
SSD 5145
CENTENNIAL NORTHERN COAL LOGISTICS PROJECT**

The EPA has undertaken an assessment of the document titled “*Northern Coal Logistics Project Environmental Impact Statement Volume 1 – 5 – Appendix N Noise and Vibration Impact Assessment*” prepared on behalf of Centennial Northern Coal Services Pty Limited by SLR Consulting Australia Pty Ltd 15 September 2014 (EIS).

The following comments are provided to Department of Planning and Environment (DPE) in determination of the project with respect only to Noise issues, noting that previous correspondence was sent to DPE dated 10 December 2014 by the EPA in relation to recommended conditions of approval.

RECOMMENDED CONDITIONS OF APPROVAL - NOISE

At this stage the EPA is unable to provide DPE with recommended conditions of approval in relation to noise as the Noise and Vibration Impact Assessment is deficient in a number of areas. A discussion of these issues follows.

Noise and Vibration Impact Assessment

The EPA advises DPE that the Noise and Vibration Impact Assessment (NVIA) did not consider the acceptability of impacts above the Project Specific Noise Levels (PSNL) in accordance with chapters 8 and 9 of the EPA's *Industrial Noise Policy* (INP). An assessment of the acceptability of impacts in accordance with chapters 8 and 9 of the INP needs to be provided. The EPA advise DPE that EPA can provide an Environment Protection Licence (EPL) and noise limits if noise levels are not more than 5dB above the PSNLs, if DPE determines that the noise impact of the project is acceptable and once the proponent provides additional information that includes:

1. An assessment of impacts during the “shoulder period” against Rating Background Levels (RBL) and PSNLs determined in accordance with the INP. The EPA advise that because of the relatively small sample size of background noise measurements during the shoulder period, it is inappropriate to calculate a shoulder RBL directly from those measurements. Following the approach in the INP, the EPA nominates alternate PSNLs for the morning shoulder as shown below in Table 1;

Table 1 - Morning shoulder PSNLs suggested by NVIA and EPA (dBA).

Receiver Location	Nominated in NVIA	Nominated by EPA
NC1 and NC2 ($L_{Aeq(15min)}$)	46	39
NC3 to NC5 ($L_{Aeq(15min)}$)	45	40

2. Model results for comparison against PSNLs for the nearest residential sensitive receiver in the vicinity of receiver NC6 (a primary school). From the information in the NVIA, the EPA expects that the PSNLs for receiver locations NC3 and NC5 may also be suitable for the residential receiver locations near NC6; and
3. For any noise impacts above the relevant PSNLs, justification that:
 - a. The noise levels predicted are those that result after the implementation of all feasible and reasonable noise mitigation measures; and
 - b. The noise mitigation measures committed to the project are all that are feasible and reasonable for it to implement.

The EPA expects, based on the information presented in the NVIA for scenarios 1 to 4, that the project will exceed night time PSNLs by up to 1dBA at receiver location NC4, up to 5dBA at receiver location NC3, and by up to 7 dBA at residential receiver locations near NC6 during the morning shoulder period. If the new coal processing and preparation plant (CPP) is built using noise attenuating cladding, the EPA expects PSNLs will still be exceeded by up to 2 dBA during the night time at receiver location NC3, and by up to 4 dBA at residential receivers near NC6.

The EPA advises DPE that this information is required by the EPA before the EPA can recommend noise limits and other related conditions of approval. The EPA however do recommend to DPE that a condition of approval should be to require the use of only best practice rolling stock for rail transport resulting from the proposal. This would include only locomotives which have obtained EPA approval to operate on the NSW rail network. This is consistent with conditions contained in Australian Rail and Track Corporation EPL 3142 and Sydney Trains EPL 12208 which are the railway system operators.

General Comments

In general review of the NVIA the EPA offers the following summary;

- Project Specific Noise Levels (PSNL) were derived in the NVIA based on previous monitoring for the Cooranbong Entry Site (Mandalong Colliery), Newstan Colliery and Awaba Colliery. The NVIA identified Rating Background Levels (RBL) and resulting PSNLs for the "Morning Shoulder" period (6am to 7am) at two monitoring locations based on unattended continuous noise monitoring of that period for nine days.
- The "Morning Shoulder" PSNLs adopted in the NVIA were $L_{Aeq(15min)}$ 46 dBA and 45 dBA, for receivers NC1 and NC2, and NC3 to NC5, respectively. These levels are higher than the daytime PSNLs.
- The *New South Wales Industrial Noise Policy* (INP, EPA 2000) suggests that due to the smaller sample size of the Shoulder Period compared to other times of day, the RBL should not be directly calculated from measurements during the shoulder period. The INP suggests that an acceptable shoulder period RBL may be the mid-point (arithmetic average) of the day time and night time RBLs. Following the approach in the INP, the following PSNLs should be nominated by the EPA. These are shown in **Table 2** for the project.

Table 2 – PSNLs (dBA) from NVIA with modified "Morning Shoulder" PSNL.

Receiver Location	Morning Shoulder	Day	Evening	Night
NC1 and NC2 ($L_{Aeq(15min)}$)	39 ^a	41 ^b	41 ^b	36 ^b
NC3 to NC5 ($L_{Aeq(15min)}$)	40 ^a	44 ^b	44 ^b	35 ^b
NC6 (school, when in use)	$L_{Aeq(1hour)}$ 35 (internal); $L_{Aeq(when\ in\ use)}$ 55 (external) ^b			
22, 23, 26, 28, 30 to 33, and 35 ($L_{Aeq(15min)}$)	Included in night time.	42	42	41
NC7 to NC11 ($L_{Aeq(15min)}$)	Included in night time.	38 ^b	38 ^b	36 ^b

Notes:

- The integer midpoint of the Day and Night PSNL;
- As adopted by the NVIA.

- The NVIA found from historic data measured at Cooranbong by the Bureau of Meteorology (BOM), that source to receiver winds between 0.5m/s and 3m/s did not occur for greater than 30% of the time during any time of day in any season. Wind effects were therefore not considered further. From the same BOM station, stability category data were obtained and used to determine that F class stability category conditions should be considered in modelling the project.
- Six operational scenarios were modelled in the NVIA, to assess the effectiveness of existing and proposed mitigation measures. The modelling indicated that the project would comply with PSNLs at all but two identified receiver locations: NC3 by between 1 and 5 dBA during the night time and

NC4 by up to 1 dBA during the night time. NC3 and NC4 are at the edge of residential areas so it is likely that a number of residential receivers will be affected by the project to a similar extent. The maximum L_{eq} levels of the project provided by the NVIA is summarised in **Table 3**.

Table 3 – NVIA maximum predicted operational noise levels of the project (dBA).

Receiver Location	Morning Shoulder	Day	Evening	Night
NC1 and NC2 ($L_{Aeq(15min)}$)	37	<35	<35	35
NC3 to NC5 ($L_{Aeq(15min)}$)	40	37	37	40 ^a
NC6 (school, when in use)	$L_{Aeq(1hour)}$ 35 (internal); $L_{Aeq(when\ in\ use)}$ 39 (external)			
22, 23, 26, 28, 30 to 33, and 35 ($L_{Aeq(15min)}$)	37	<35	<35	37
NC7 to NC11 ($L_{Aeq(15min)}$)	<35	<35	<35	<35

Notes:

- a. Exceeds the PSNL at NC4 by up to 1 dBA, and at NC3 by up to 5 dBA.
- Modelled noise levels as a result of the project at residential sensitive receivers near NC6 (a school) were not presented in the NVIA. Daytime $L_{eq(1hour)}$ predictions in the NVIA for receiver NC6 were typically 2 dBA above the corresponding $L_{eq(15min)}$ predictions for receiver NC3, which is located in a similar location relative to the project. This indicates that residential receivers near receiver NC6 may be impacted by the project by between 3 and 7 dBA above PSNLs.
 - Predicted PSNL exceedences appear to be due to operations at the Newstan Colliery surface site, particularly the existing and proposed Coal Preparation Plants (CPP). The NVIA listed mitigation measures which had already been committed to in previous development applications for the existing CPP, but did not identify whether all further feasible and reasonable mitigation measures had been considered for the project, particularly the CPPs.
 - Cladding of the proposed new CPP in noise-attenuating material (NVIA scenarios 5 and 6) resulted in predicted noise levels at sensitive receivers NC1 to NC6 up to 3 dBA lower than with standard steel cladding, indicating that the PSNLs at receiver location NC4 could be complied with, and PSNL exceedance at receiver location NC3 reduced to 2 dBA during the night time only. This indicates, using the relationship described above, that residential receiver locations near NC6 may still be impacted by the project during scenarios 5 and 6 by up to 4 dBA above the night time PSNL.
 - No new mitigation measures were identified in the NVIA for the existing CPP. The implementation of a real-time monitoring system is also not a new mitigation measure, as it was proposed for the Newstan Colliery Main West Mining Project.
 - The NVIA did not demonstrate that impacts predicted above the PSNL were acceptable in accordance with Chapters 8 and 9 of the INP, or that all feasible and reasonable mitigation measures had been committed to for the project.
 - Road traffic and construction noise impacts were assessed in the NVIA and found to meet relevant criteria from the *NSW Road Noise Policy* (DECCW 2011) and *Interim Construction Noise Guideline* (DECC 2009).
 - Existing rail traffic noise levels exceed criteria from the *Rail Infrastructure Noise Guideline* (EPA 2013) at 25m from the rail line during the daytime and up to 100m from the rail line during the night time. The NVIA determined that the project will not noticeably increase rail noise levels (less than 2 dBA increase to each of the $L_{Aeq(day)}$ and $L_{Aeq(night)}$).

