

SITE: Middle Road, Paxton NSW 2325 Australia
POSTAL: PO Box 806 Cessnock NSW 2325 Australia
PHONE: +61 2 4993 7200
FAX: +61 2 4993 7326
WEBSITE: www.austarcoalmine.com.au
ABN 67 111 910 822

27 February 2018

Ms Ann Hagerthy
Department of Planning and Environment - Compliance
PO Box 3145
SINGLETON NSW 2330

Dear Ann,

INDEPENDENT ENVIRONMENTAL AUDIT 2017

Austar Coal Mine Pty Ltd (Austar) commissioned and paid the full cost of an Independent Environmental Audit of the Austar Mine Complex prior to 31 December 2017 in accordance with Schedule 5, Condition 6 of DA 29/95 and Schedule 7, Condition 7 of Project Approval 08_0111.

The Independent Environmental Audit for Austar was led by SLR Consulting Australia Pty Ltd during November 2017, with final audit report completed 27 February 2018 (the Audit Report). The Independent Environmental Audit indicates Austar Coal operations have generally demonstrated a high degree of compliance with Development Consent DA29/95, Project Approval 08_0111, Environment Protection Licence No. 416, and mining lease conditions.

In accordance with Schedule 5, Condition 7 of DA 29/95 and Schedule 7, Condition 8 of Project Approval 08_0111, please find **enclosed** a copy of the Audit Report and also Austar's responses to recommendations in the Audit Report (Attachment 1).

In accordance with Schedule 5, Condition 12 of DA29/95 and Schedule 7, Condition 9 of Project Approval 08_0111, a copy of the Audit Report and the responses to recommendations in the Audit Report will be placed on the Austar Coal Mine website (www.austarcoalmine.com.au). In accordance with the requirements of the Independent Audit Guidelines a copy of the Audit Report will be forwarded to relevant agencies and Cessnock City Council. In accordance with the CCC Guidelines, a copy of the Audit Report will be forwarded to our Community Consultative Committee members.

If you have any queries in relation to this matter, please do not hesitate to contact me on (02) 4993 7334.

Yours faithfully,



Gary Mulhearn
Environment & Community Manager

Austar Coal Mine

Encl: Attachment 1 - Austar Responses to 2017 Independent Environmental Audit Recommendations
Independent Environmental Audit Report (SLR Consulting Australia Pty Ltd, 27 February 2018)

Attachment 1

Austar Responses to 2017 Independent Environmental Audit Recommendations

No	Independent Environmental Audit Recommendations	Austar Coal Mine Responses
1	Continue to download meteorological data on a fortnightly basis.	Austar implemented fortnightly download of the meteorological station using a work order system since 1 March 2017. This was considered appropriate by the auditors. No further action is required.
2	Review and if possible reduce the 'leak detection ' level for pipelines with the aim of minimising volume that could potentially leak without triggering alarms and the automatic shut down.	Austar note that there are existing leak detection systems on the pipelines which will shut down the pumping system in the event of a major leak. In addition, a three times per week physical pipeline inspection is used to monitor pipeline condition as a maintenance exercise, which is scheduled on a work order system. In response to this audit recommendation, Austar will undertake a review of the existing leak detection levels. This requires careful consideration of normal pipeline operation including start-up and shutdown flow data by the engineering team to determine if a reduction is possible. This review will be completed within 3 months of the Audit Report date.
3	<ul style="list-style-type: none"> • SLR recommends renaming the document an Annual Review and completing it in accordance with the Annual Review Guidelines; • Future Annual Reviews should compare results against EA predictions and assess trends in data (eg. over a five year period); • It is suggested that tilt and strain profiles be provided in the Annual Review reports and a subsection provided in the text that compares the measured v. predicted values and discusses whether the overburden is behaving as expected or otherwise. Curvatures may be then able to be estimated from the strain profiles through a locally derived ratio between maximum strain and peak curvatures (excluding disturbed survey pegs). The main purpose of this exercise would be to provide technical information to stakeholders that do not have access to the DRG portal; • The amount of rehabilitation and disturbance undertaken during the reporting period vs that included in the MOP should be included in future Annual Reviews; • Future Annual Reviews should report compliance with the MOP; and • Future Annual Reviews should report progress in respect of rehabilitation completion criteria. 	<ul style="list-style-type: none"> • Comment on changes to the report naming is noted, and will be adopted for the next Annual Review Report. The Annual Review Report is still intended to meet both the development consent reporting requirements and the mining lease reporting requirements, and so necessarily departs from being done in accordance with only the Annual Review Guidelines. • Comment on improved review against EA predictions is noted, and extended period for trends of data will be incorporated into the next Annual Review Report. • Additional information on subsidence parameters will be included in the next Annual Review Report. • Comments on improved reporting against MOP (rehabilitation and disturbance, compliance with MOP, progress with rehabilitation completion criteria) are noted and will be incorporated into future Annual Review Reports.

No	Independent Environmental Audit Recommendations	Austar Coal Mine Responses
4	Updates to management plans - All relevant Management Plans are to be updated to meet this timing, including updating the Plans with any recommendations from this audit.	Management Plans were reviewed and submitted to DPE in April 2017. Management plans have been reviewed again in response to the DA29/95 MOD7 approval and are in process of being updated, including consultation requirements of the management plan condition. It is anticipated this will be completed by end March 2018.
5	Groundwater monitoring - Provide a comparison of measured and predicted impacts in future Annual Reviews.	This has previously been provided in Annual Environmental Management Reports. Measured impacts are presented in every review report. An improved reporting to include comparison of measured and predicted impacts will be included in future Annual Review Reports.
6	Continue program to reduce noise. Complete sound power level testing of equipment in isolation in an attempt to reduce noise levels.	Noise Reduction Program has continued during 2017. Sound power / received noise level investigation of equipment in isolation was completed in August and September 2017. Next steps of this program include a noise reduction options assessment using the data captured (including reasonable / feasible test). This is scheduled to be completed by Q2 2018.
7	All Management Plans are to be updated to meet this timing, including updating the Plans with any recommendations from this audit.	Management Plans were reviewed and submitted to DPE in April 2017. Management plans have been reviewed again in response to the DA29/95 MOD7 approval and are in process of being updated, including consultation requirements of the management plan condition. It is anticipated this will be completed by end March 2018.
8	Add an additional column to record the time of the complaint. Sometimes the time of the complaint is not known. Where this is the case, this should be recorded.	This has been completed.
9	Continue to investigate noise mitigation measures, including additional sound power level testing.	See response to Recommendation 6.
10	Ensure Exploration Reports are dated and sent to the DRG within 28 days of the anniversary date.	Exploration reports were submitted within one calendar month of the anniversary date of the indexing title (DSL89) anniversary date. Future reporting will be scheduled to meet the 28 day period.
11	Demolition/Hazardous Substances - Complete the 'Progress Assessments for demolition of existing structures and foundations at Bellbird, Pelton & Cessnock No 1 shaft. This should include a review of historical heritage significance as well as hazardous substances.	Currently these structures are fenced off until the assessment work can be progressed. This is a rehabilitation commitment to be completed prior to lease relinquishment, complicated by the heritage status of these collieries. This assessment works is budgeted to be progressed after Q2 2018.
12	<p>Erosion and Sediment Control</p> <ul style="list-style-type: none"> • Remove sediment collected in sediment fence to the north of the Surface Infrastructure Site (SIS); • Perimeter fence along the northern boundary of the SIS is being underscoured by a drainage channel. Maintenance required; • Water management required in laydown area 1 at the pit top. There was evidence of coal material leaving the disturbance footprint of the site (remains within site boundaries). Clean up this area; 	<ul style="list-style-type: none"> • Kitchener SIS actions noted and are scheduled to be completed March 2018. • Pit top area coal material was cleaned up, and additional action added to the routine weekly Pit Top work order to remove any built up coal material from this area. • CHPP actions – the comments relate to internal site components located wholly within the dirty water management are of the CHPP. For operational reasons, the rail spur will be maintained to minimise scour/erosion. Periodic maintenance of internal

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	<ul style="list-style-type: none"> Erosion and sediment control areas around rail spur of the CHPP. Steep sides, highly erodible. Based on site discussions Douglas Partners have been engaged to assist; and Some sections of the dirty water drain at the CHPP (internal through site) have been eroded. Maintenance required. 	<p>drains is undertaken to maintain general operational integrity.</p> <p>Refer to response to internal CHPP site components on previous page.</p>
13	Water quality testing – Recommend testing a greater suite of analytes when sampling discharge events from LDP001.	Austar’s Environment Protection Licence 416 requires recording of flow and specific parameters whenever there is a discharge from Licenced Discharge Point 1. Austar will continue to comply with the requirements of Environment Protection Licence in relation to Licenced Discharge Point 1.
14	Water Spreadsheet - Austar to liaise with CITEC to ensure LDP001 is added as a line item in the 'Site Water Monthly Data' spreadsheet. Discharges rarely occur from this location, however it should be recorded in this spreadsheet.	This has been completed.
15	Noise Monitoring - Continue to implement actions to reduce noise. As discussed at the audit, complete additional sound power level testing program around the CHPP.	See response to Recommendation 6.
16	Spontaneous Combustion Management Plan - Update Spontaneous Combustion Management Plan with details regarding monthly pushing of material to reduce spontaneous combustion risks	An update to the reject emplacement procedure is nearing completion and this recommendation has been included in the updated procedure. This will be completed by end of March 2018.
17	<p>General Management Plans –</p> <ul style="list-style-type: none"> Update figures in management plan, to include more up-to-date aerial photos, including those that are in the 2017 version of the Site Water Management Plan; Recommend continued liaison with the DPE regarding the approval of the revised management plans; All management plans are to be updated to meet this timing (as per S5 C8 of DA29/95), including updating with any recommendations from this audit; and Although it has been noted that consultation has been completed, some plans provide little detail regarding consultation dates and outcomes. Include additional detail including dates for consultation, outcomes and where it has been covered within the management plans. 	Management Plans were reviewed and submitted to DPE in April 2017. Management plans have been reviewed again in response to the DA29/95 MOD7 approval and are in process of being updated, including consultation requirements of the management plan condition. It is anticipated this will be completed by end March 2018.
18	<ul style="list-style-type: none"> Groundwater Reporting - Recommend to remove data from when a logger was pulled out, which is evident on the graphs with large ‘reverse or downward’ spikes from the lines; 	<ul style="list-style-type: none"> Comments regarding data removal are noted and will be considered, or alternatively will be annotated in future reporting. Trend review/discussion has typically included

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	<ul style="list-style-type: none"> In AEMR - comments regarding trends are generally limited to the 12 month reporting period only. Suggest longer term discussion is included future reviews; and In AEMR - no comparison to predicted results or discussion comparing model estimates to actual readings. 	<p>discussion of the previous year's data. Review of additional period data will be included in the next Annual Review Report.</p> <ul style="list-style-type: none"> Improved comparisons of the measured versus predicted results will be included in the next Annual Review Report.
19	Kitchener SIS/Lighting - If there are changes to the site such as finalising works at the Kitchener SIS then a lighting assessment should be completed to determine compliance with the Australian Standard AS4282 (INT) 1995.	Action noted – not triggered at this time.
20	<ul style="list-style-type: none"> Waste Minimisation - Waste bins at the pit top need to be labelled, to ensure waste is sorted into the right containers; Compare waste volumes in the AEMR across the previous AEMR periods; and Provide additional detail in the AEMRs regarding waste minimisation and management. 	<ul style="list-style-type: none"> Waste bin labelling will be improved prior to end of Annual Review period. The AEMR includes comparison of mining waste streams against previous reporting period. Future Annual Review Reports will address the comment on reporting general waste streams, and waste minimisation and management.
21	Subsidence - It is suggested that tilt and strain profiles be provided in the Annual Review reports and a sub-section provided in the text that compares the measured v. predicted values and discusses whether the overburden is behaving as expected or otherwise. Curvatures may be then able to be estimated from the strain profiles through a locally derived ratio between maximum strain and peak curvatures (excluding disturbed survey pegs).	The additional subsidence parameter information will be included in future Annual Review Reports.
22	Photographic Monitoring – Creek Surveys - There is no discussion within the Photographic Survey Reports prepared by Carbon Based relating to creek stability. A conclusion should be added within these reports outlining if there were any creek stability issues.	The creek survey report format has been updated to include observations regarding creek stability.
23	Ecological Monitoring - Outline fauna work in 2017-2018 AEMR; Send Ecological Monitoring report to OEH; and Based on site communications Austar are planning to cease ecological monitoring in Stage 2 as it's been 5 years since monitoring. Undertake consultation with OEH to obtain approval to cease this monitoring.	Ecological monitoring is reported in the Annual Review Reports. Austar will be engaging with OEH regarding the completion of ecological monitoring in the Stage 2 area (including the report for 2017) as the required period of monitoring has been completed, which has demonstrated nil impacts from the Stage 2 mining.
24	Reject Emplacement Area Capping - Recommend formal trials for capping the REA are undertaken. Justify capping depth and obtain approval from the DRG.	A study to confirm capping thickness was engaged in 2017 and is in progress. This is a commitment of the current Mining Operations Plan in relation to capping at the Aberdare Emplacement Area in consultation with the DRG.
25	Rehabilitation Phasing - Update with the correct rehabilitation phasing in MOP Plans in the next MOP.	The MOP is scheduled to be updated by Q2 2018, this item will be updated at that time.