

# Independent Environmental Audit (IEA) Lidsdale Siding



for Ivanhoe Coal Pty Limited



Lidsdale Coal Loading Facility, Wallerawang, New South Wales 2845

**MCW Environmental**

15 December 2015  
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## Abbreviations

Abbreviation	Description
AEMR	Annual Environmental Management Report
AQGGMP	Air Quality and Greenhouse Gas Management Plan
AR	Annual Review
CCC	Community Consultation Committee
DG	Dust Deposition Gauge
DP&E	Department of Planning and Environment
DRE	NSW Department of Trade and Investment, Regional Infrastructure and Services – Division of Resources and Energy
EA	Environmental Assessment
EBAM	Environmental Beta Attenuation Monitor
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EMS	Environmental Management Strategy
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EPA	Environment Protection Authority
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
HVAS	High Volume Air Sampler
INP	Industrial Noise Policy
Ivanhoe	Ivanhoe Coal Pty Ltd (a subsidiary of Centennial Coal Pty Ltd)
LCC	Lithgow City Council
LDP	Licensed Discharge Point
Lidsdale	Lidsdale Siding
LSWS	Lidsdale Siding Weather Station
MCW Environmental Minister	MCW Environmental Consulting Pty Ltd Minister for Planning, or delegate
mm	millimetre
M	Metre
Mtpa	Million tonnes per annum
NMP	Noise Monitoring Program
NOW	NSW Office of Water
NSW	New South Wales
OEH	Office of Environment and Heritage
PAC	Planning and Assessment Commission
Project	The development as described in the EA and approved under DA 08_0223.
Proponent	Centennial Coal Company
POEO Act	<i>Protection of the Environment Operations Act 1997</i> (NSW)
ROM	Run of Mine
SCA	State Conservation Area
Site	Lands described in Schedule 1 of the Development Consents of DA 08_0223
SoC	Statement of Commitments The Proponent's commitments in Appendix A
TLO	Train Load Out
Tpa	Tonnes Per Annum
TSP	Total Suspended Particulate
TSS	Total Suspended Solids
Secretary	Secretary of Department of Planning and Infrastructure, or delegate
SCADA	Supervisory Control and Data Acquisition
WMP	Water Management Plan

## Executive Summary

MCW Environmental Pty Ltd (MCW) was engaged by Ivanhoe Coal Pty Ltd (Ivanhoe) to carry out an Independent Environmental Audit of the Lidsdale Siding Rail Loading Facility (Lidsdale), located approximately 12 kilometres (km) north-west from the city of Lithgow, in the Western Coalfields of New South Wales (NSW). Ivanhoe Coal Pty Ltd is the operator of Lidsdale Siding and is a wholly owned subsidiary of Centennial Coal Company Pty Limited. Ivanhoe Coal Pty Ltd is referred to in this report as Centennial Coal Pty Ltd. The site and its management are referred to as Lidsdale in this report.

Schedule 5, Condition 9 of the Lidsdale Siding Project Approval (PA 08\_0023) dated 3 May 2013 requires Ivanhoe to commission an Independent Environmental Audit (IEA) within 12 months of completion of the upgrade to the coal loader, and every 3 years thereafter. To meet this requirement, MCW were commissioned on 23 July 2015 to carry out an independent audit of the Lidsdale Siding Project Approval. The audit site inspection was undertaken on 31 July 2015.

The audit was completed in accordance with PA 08\_0023, Schedule 5, Condition 9, and MCW Environmental proposal to conduct the work dated 16 July 2015. This is the first IEA to be conducted under PA 08\_0023.

The audit methodology comprised the following activities:

- Initial discussions with Lidsdale management to organise the audit, including the provision of documentation, the site visit and timing;
- Discussions with NSW Department of Planning and Environment (DP&E) to discuss any concerns and areas for particular focus during the audit;
- Review of site compliance checklists and other documentation provided by Ivanhoe;
- A one-day site inspection and interviews with key site personnel, on 31 July 2015;
- Consultation with key government agencies as presented in this report;
- Review of additional documentation provided by Lidsdale after the site inspection;
- Submission of a Draft Report to Ivanhoe outlining the audit findings; and
- Finalisation of the report based on comments from Lidsdale.

The audit period has been defined as from 3 May 2013 (date of the Project Approval requiring the audit) to 31 July 2015 (date of site visit conducted by MCW Environmental). This report presents the findings of this audit.

The independent environmental audit assessed compliance with relevant approvals, licences and management plans applicable to Lidsdale Siding. Detailed compliance registers identifying audit findings, comments and recommendations are presented in **Appendix A**. Non-compliances identified against relevant approvals are identified and discussed in Section 8. Lidsdale Siding's overall compliance status is summarised in **Table ES-1**.

**Table ES-1 - Overall Compliance Assessment and Audit Score**

Relevant Approval	Percent Compliant (%)	Number of Conditions Non-compliant	Number of Conditions Not Verified
Consent DA 08_0023	90	4	2
Environmental Protection Licence 5129	95	3	3
Statement of Commitments	91	1	0

In addition the scope of the audit included a review of the adequacy of the strategies, plans and programs required under the Development Approval. The findings of the adequacy review of management plans and systems is presented in Section 7. A number of continuous improvement opportunities were identified and are presented.

A summary of recommended actions to improve environmental performance and compliance status are presented in Section 8.



# 1 Introduction

## 1.1 Background

MCW Environmental Pty Ltd (MCW) was engaged by Ivanhoe Coal Pty Ltd (Ivanhoe) to carry out an Independent Environmental Audit of the Lidsdale Siding Rail Loading Facility (Lidsdale), located approximately 12 kilometres (km) north-west from the city of Lithgow, in the Western Coalfields of New South Wales (NSW). Ivanhoe Coal Pty Ltd is the operator of Lidsdale Siding and is a wholly owned subsidiary of Centennial Coal Company Pty Limited. Ivanhoe Coal Pty Ltd is referred to in this report as Centennial Coal Pty Ltd.

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The audit was completed in accordance with PA 08\_0023, Schedule 5, Condition 9, and MCW Environmental proposal to conduct the work dated 16 July 2015. This is the first IEA to be conducted under PA 08\_0023.

The audit team was approved by DP&E in a letter dated 10 July 2015.

This report presents the findings of this audit.

## 1.2 Audit Scope

The audit was conducted in accordance with the requirements set out in the Project Approval of PA 08\_0023, Schedule 5, Condition 9 as detailed in **Table 1-1**.

**Table 1-1 - Scope of Work**

Project Approval Condition	Requirement	Where Addressed in this Report
5.9	<i>Within 12 months of completion of the upgrade to the coal loader, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:</i>	This Report
5.9(a)	<i>be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;</i>	Section 2
5.9(b)	<i>include consultation with the relevant agencies;</i>	Section 3
5.9(c)	<i>assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</i>	Section 5 & Appendix A
5.9(d)	<i>review the adequacy of strategies, plans or programs required under the abovementioned approvals; and</i>	Section 7
5.9(e)	<i>recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program</i>	Sections 4, 7 & 8 of this report

Project Approval Condition	Requirement	Where Addressed in this Report
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*required under the abovementioned approvals.*

*Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Secretary.* Section 2

### 1.2.1 Audit Methodology

This Independent Environmental Audit was undertaken in accordance with MCW Environmental Proposal (dated 16 July 2015) to meet the scope outlined above in **Table 1-1**.

Compliance checklists were developed by MCW Environmental that included a list of conditions and commitments to be assessed for compliance, including Development Consent (DA 08\_0023), Lidsdale Siding Upgrade Project Environmental Assessment Statement of Commitments and Environment Protection Licence (EPL) No.5129. These are discussed in the Compliance Review Section 6.

The audit included use of the compliance database to demonstrate compliance by viewing evidence of documents associated with each aspect of the various approvals and associated plans, programs and strategies.

The Audit was carried out in accordance with ISO 19011:2003 Guidelines for quality and/or environmental management systems auditing (ISO, 2002), which superseded the ISO 14000 series.

The audit methodology comprised the following activities:

- Initial discussions with Lidsdale management to organise the audit, including the provision of documentation, the site visit and timing;
- Discussions with NSW Department of Planning and Environment (DP&E) to discuss any concerns and areas for particular focus during the audit;
- Review of site compliance checklists and other documentation provided by Ivanhoe;
- A one-day site inspection and interviews with key site personnel, on 31 July 2015;
- Consultation with key government agencies as presented in this report;
- Review of additional documentation provided by Lidsdale after the site inspection;
- Submission of a Draft Report to Ivanhoe outlining the audit findings; and
- Finalisation of the report based on comments from Lidsdale.

This report provides a summary of findings including details of non-compliances identified in the audit, an audit score (percentage compliant), and recommended actions to improve compliance status.

This report presents a summary of findings including details of non-compliances identified in the audit, an audit score (percentage compliant) and recommended actions to improve compliance status.

### 1.3 Documents Reviewed

The following information was reviewed during the audit process:

- Development Application (DA) Consent 08\_0023;
- Environmental Protection Licence (EPL) No. 5129;
- Management Plans as provided by Ivanhoe;
- Site environmental plans, procedures and checklists;
- Selected records of competency, induction and training;
- Selected meeting minutes;
- Selected reports; and
- Evidence of selected monitoring and review.

Documents used as part of the audit are also referenced as part of the text discussing compliance status in **Appendix A**.

## 1.4 Personnel and Timing

In accordance with PA 08\_0023, Schedule 5, Condition 9 the audit was to be conducted by a qualified, experienced and independent team of specialists whose appointment has been endorsed by the Secretary. The audit team comprised of the following personnel, as approved by the Secretary (letter dated 10 July 2015 presented in **Appendix B**):

- Michael Woolley, Lead Auditor (MCW Environmental);
- Nick Ballard, Auditor (URS Australia Pty Ltd);
- Dave Davis, Noise Specialist (URS Australia Pty Ltd); and
- Stephen Bowly, Air Specialist (URS Australia Pty Ltd).

Michael Woolley and Nick Ballard are registered by Exemplar Global (formerly RABQSA) as a Certified Lead Auditors for Environmental Management, Site Contamination Assessment and Compliance Auditing. The site visit for the audit was conducted on 31 July 2015 by Michael Woolley and Nick Ballard. Dave Davis and Stephen Bowly conducted a desktop review of their respective specialist areas.

Personnel responsible for the management at Lidsdale interviewed during the site visit included the following:

- Tony Nolan, Environment and Community Coordinator;
- Graham Glazebrook, Coal Distribution Manager West;
- Anthony Brown, Superintendent; and
- Glen Anderson, Supervisor.

## 1.5 Sensitive Information

It is understood that information collected during the audit may be sensitive. All documents used during the audit to verify compliance were kept secure and not distributed outside the relevant personnel involved in the audit.

## 1.6 Format of Report

The format of this report is as follows:

- Section 1 is introductory and defines the scope and nature of the audit;
- Section 2 describes Ivanhoe's operations as observed during the site inspection;
- Section 3 summarises the consultation with key regulatory agencies;
- Section 4 provides a summary of site observations made during the site visit;
- Section 5 provides an assessment of the environmental performance of the development and its effects on the surrounding environment.
- Section 6 describes the approach to the assessment against the relevant standards, performance measures and statutory requirements.
- Section 7 presents the findings of the review of the adequacy of the Environmental Management Strategy and environmental management and monitoring plans.
- Section 8 summarises the non compliances and recommendations made throughout the report.
- Section 9 provides the limitations of the report.

**Appendix A** is a tabulated review of the results of the assessment against the CoA and Statement of Commitments (SoCs) of PA 08\_0023 and Environmental Protection Licence 5129.

## 2 Lidsdale Siding Operations

### 2.1 Site Description and History

Lidsdale Siding is train loading facility operated by Ivanhoe Coal Pty Ltd, a wholly owned subsidiary of Centennial Coal Pty Ltd. The site is located off Main Street approximately 500 metres (m) north of the township of Wallerawang, NSW (refer to **Figure 2-1**). The site is bounded by an industrial facility to the south-west and Wallerawang Power Station to the east. Lidsdale Siding joins the main western railway line on the southern side of Wallerawang Power Station.

Ivanhoe Coal Pty Ltd is the operator of Lidsdale Siding and is a wholly owned subsidiary of Centennial Coal Company Pty Limited. Ivanhoe Coal Pty Ltd is referred to in this report as Centennial Coal Pty Ltd. The site and its management are referred to as Lidsdale in this report.

The site has been continually used as a coal storage and rail loading facility since 1974 and is primarily used to export coal from Centennial's Western Region mines. Between July 2013 and August 2014 construction works were conducted at the site to upgrade the facility to a fully automated coal loading system. Plate - 1 shows the site prior to upgrade works where front-end loader were used to load rail wagons. Construction was formally completed in August 2014.

#### Plate - 1 - Historical Loading Activities



(Source: Centennial Coal)

Lidsdale Siding receives washed and Run-of-Mine (ROM) coal from Springvale Colliery via overland conveyor. Coal is mainly transported to Port Kembla and the Port of Newcastle for export.

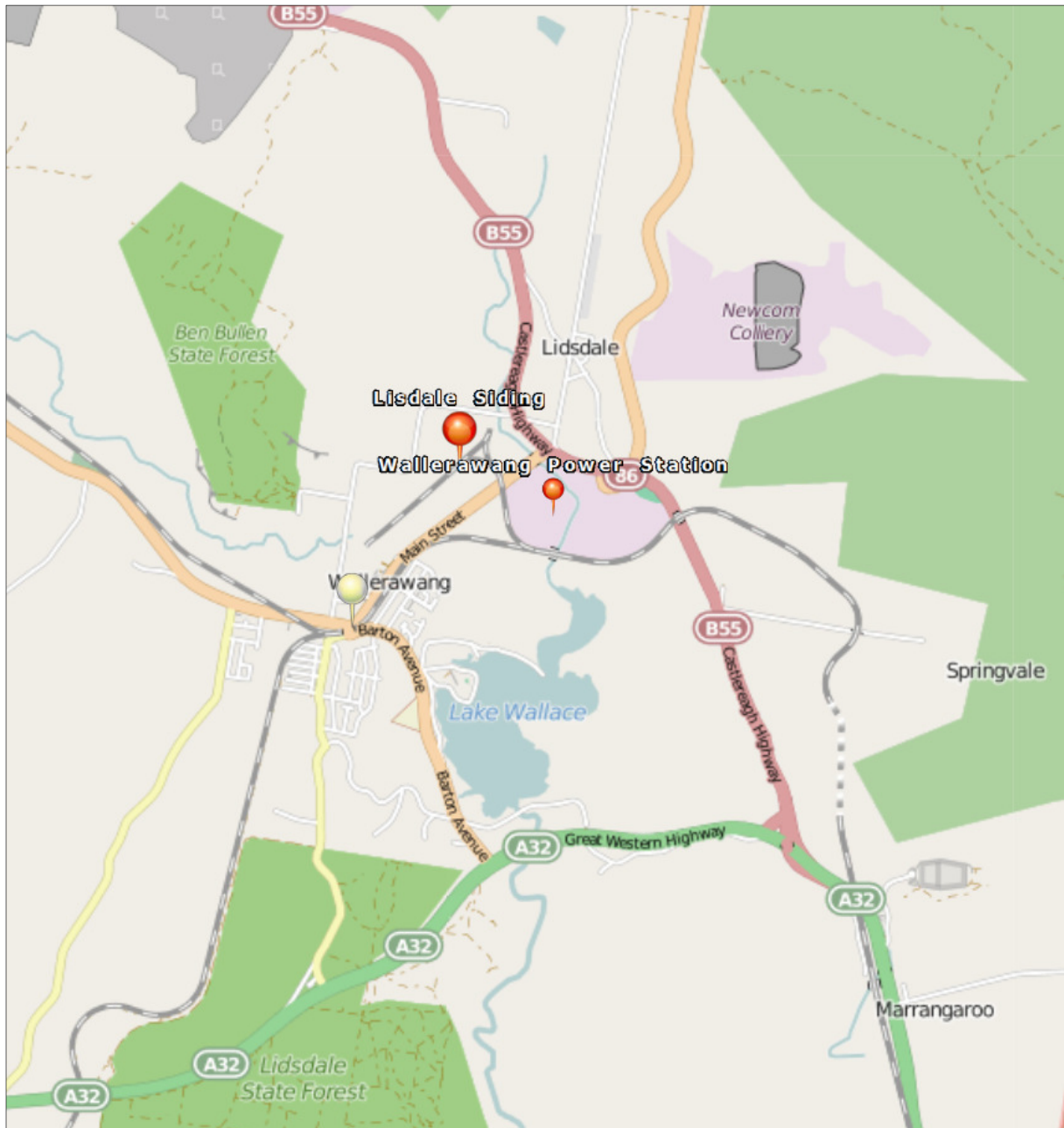
The site's load-out facility is located at a rail triangle that serves as a dedicated spur line from the Main Western Railway Line. The load-out facility consists of a stockpile area from which trains are loaded by means of an automated Train Load-out (TLO) bin. The site is effectively unmanned and operates through a fully automated Supervisory Control and Data Acquisition (SCADA) system from the control room located at the Centennial Coal Western Coal Services site located approximately 4.5 km to the north. If required equipment can be operated from the control room located on-site in the TLO bin. Practical completion of the upgrade project was 5 August 2014 with final construction completed on 22 August 2014.

The site is situated on a cleared flat land with Pipers Flat Creek flowing from west to east close to its northern boundary. The site is located upstream of the confluence of Pipers Flat Creek and Coxs River. Coxs River flows past Wallerawang Power Station into Lake Wallace approximately 700 m south of the site.

The principal components of Lidsdale Siding include a rail siding, an overland conveyor that delivers coal from the Centennial Coal Western Coal Services site, TLO bin, stockpile conveyor (CV01), 40,000 Tonne (T) coal stockpile with 12,000 T line drawdown, four reclaim feeders under the stockpile, reclaim tunnel ventilation fan, former workshop, gatehouse (including office) and pollution control dams.

The nearest privately owned residence to the siding operations is Lot 2, Main Street, Wallerawang (identified as R2 in the Lidsdale Siding Noise Management Plan), located approximately 65 m to the west of the site entrance. It is noted that Wallerawang Power Station, a potential off-site emission source located approximately 600 m to the south-east boundary of the site, ceased operations in March 2014.

Figure 2-1 - Location of Lidsdale Siding, NSW



(Source: Esri Digital Globe, GeoEye, Earthstar Geographics, CNES/Airbus DS USDA, USGS, AEX Getmapping, Aerogrid, IGN)

Lidsdale Siding operates under Environment Protection Licence (EPL) No. 5129 administered by the Environmental Protection Authority (EPA).

The NSW Department of Planning and Environment (DP&E) granted Approval 08\_0223 on 3 May 2013 for the upgrade to Lidsdale Siding. No modifications have occurred to PA 08\_0223 since 3 May 2013.



**Table 2-1** identifies the major approvals, licences in place for Lidsdale Siding and provides relevant information where applicable.

**Table 2-1 - Summary of Major Approvals and Licences**

Issuing / Responsible Authority	Type of Lease, Licence, Approval	Date Granted	Expiry
Minister for Planning (Planning and Infrastructure NSW)	Project Approval (PA 08_0223)	3 May 2015	31 December 2042
Environmental Protection Authority (EPA)	Environmental Protection Licence No. 5129	-	-
NSW Office of Water (NOW)	Bore Licence 10WA116403	1 July 2011	13 April 2025
NSW Office of Water (NOW)	Water Licence 10SL038318	March 2011	Perpetuity <sup>Note 1</sup>

<sup>Note 1</sup> The Water Licence was not renewed in the audit period.

Seven variations have been made to EPL 5129 since 2001 (many of which are administrative) pursuant to the *Protection of the Environment Operations Act 1997* (NSW). One of these variations occurred during the audit period (refer to Section 6.1 for further details).

## 2.2 Description of Site Operations

The key operational activities of Lidsdale Siding include:

- Handling of up to approximately 6.3 million tonnes of coal per annum (Mtpa);
- Coal is delivered by the existing overland conveyor system from the Centennial Coal Western Coal Services site;
- Between five and seven train movements per day;
- Blending of coal on site;
- Rail yard activities (storage, provisioning and minor maintenance of locomotives and wagons normally accessing the site for loading);
- Maintenance of on-site infrastructure and site amenities;
- Fuelling of on-site machinery (including locomotives) from mobile tankers and a self-bunded transportable fuel tank;
- Environmental management measures including the use of sprinklers for dust suppression, truck washing, monitoring activities, waste removal and noise attenuation measures; and
- Use of existing weighbridge and weighing of wagons.

During the audit period the following upgrades were completed at Lidsdale Siding:

- A new diversion chute at the end of the existing overland conveyor to load coal onto the stockpile conveyor. The chute can also divert coal to an auxiliary stockpile under unplanned stop conditions for the stockpile conveyor so that the overland system does not need to be shutdown.
- An elongated conical stockpile and associated push out area.
- An auxiliary stockpile for the diversion of coal from the conveyor system.
- An elevating stockpile conveyor and gantry to feed the existing coal stream to the elongated conical stockpile.
- An underground tunnel with reclaimers beneath the elongated conical stockpile.
- A train loading bin incorporating coal weighing.
- A conveyor from the reclaim tunnel to the train loading bin.
- A spillage reclaim pit beneath the train loading bin.
- A control room adjacent to the train loading bin.
- A track extension to the existing rail siding with additional parallel siding.

- Water supply, dust suppression, reticulation upgrade and water management structures.
- Landscaping and bunding.
- A new transformer to upgrade power supply to the site.
- Lighting for night operation and security.
- Erection of perimeter fencing and signage.
- Mobile refuelling facility and the provision of a self bunded transportable fuel storage tank.

ROM coal from Springvale Colliery travels by overland conveyor to the Centennial Coal owned Western Coal Services site and Wallerawang and Mount Piper Power Stations. Both ROM coal and product coal are transported via an overland conveyor from Western Coal Services to Lidsdale Siding. Once at Lidsdale Siding the coal is stockpiled separately and dispatched off-site by train.

**Table 2-2 - 2013 and 2014 Coal Transportation Summary**

Train Summary	2013	2014
Amount of coal transported to Lidsdale Siding (T)	1,715,052	2,551,397
Amount of coal transported from Lidsdale Siding via train (T)	1,744,869	2,555,270
Number of train movements during the period	n/a <sup>Note 1</sup>	777
Maximum number of trains leaving Lidsdale Siding in one day	n/a <sup>Note 1</sup>	4
Average number of trains leaving Lidsdale Siding per day	n/a <sup>Note 1</sup>	2

(Source: Ivanhoe Coal, 2015, Lidsdale Siding 2014 Annual Review, p.10)

<sup>Note 1</sup> Data collection commenced in 2014

### 2.3 Activities Occurring During Site Audit Inspection

No trains were being loaded on the day of the site inspection; however, the following activities were observed, as outlined below:

- Construction of new stockpile drain to Sediment Pond 1.
- Water management.

Photos of environmentally significant aspects of the operation, taken during the site inspection on 31 July 2015, are provided throughout the report.

Plans of the siding, locations of monitoring can be found in Annual Review report(s) (AR) found on the Lidsdale Siding website.



## 2.4 Sensitive Receivers

**Table 2-3** summarises the nearest sensitive receivers located around Lidsdale Siding. The sensitive receivers are affected by noise and air criteria for PA 08\_0223 and EPL 5129.

**Table 2-3 - Nearest Sensitive Receivers**

<i>Receiver ID</i>	<i>Location</i>
R1	Lot 2, Main Street Wallerawang
R2	Black Gold Cabins, Main Street, Wallerawang
R3	Killarney, Bray's Lane, Wallerawang
R4	Fairview, Bray's Lane, Wallerawang
R5	Duncan Street, Lidsdale
R6	Old Highway, Lidsdale
R7	Royal Hotel, Wallerawang
R8	Cnr Heel Street and Cripps Avenue, Wallerawang
R9	Cnr Cripps Avenue and Pindari Place, Wallerawang
R10	Brays Lane South, Wallerawang
R11	Tara, Brays Lane, Wallerawang
R12	Brays Lane Corner, Wallerawang

### 3 Consultation with Key Government Agencies

As part of the audit process, MCW Environmental contacted key government agencies to seek their views on the environmental performance of Lidsdale Siding. This section also provides feedback by agencies as provided following annual site inspections and reviews of Annual Reviews.

#### 3.1 NSW Department of Planning and Environment (DP&E)

Feedback was sought on 13 March 2015 from the NSW DP&E officer responsible for Lidsdale Siding. DP&E did not note any specific issues related to Lidsdale Siding in respect of the audit.

##### 3.1.1 2013 DP&E AR Review

Feedback for the 2013 AR from DP&E was received by Lidsdale Siding on 5 September 2015 and concerned the following:

- *“A Rehabilitation and Closure Plan was due to be completed this year in accordance with the requirements of Schedule 3, Condition 29 of PA 08\_0223”. Lidsdale Siding were asked to confirm if this had been conducted. Refer to Appendix A, Schedule 3, Condition 29 of PA 08\_0223 for further details.*
- *“Confirmation of the establishment of the Centennial Western CCC as required by Schedule 5, Condition 6 of PA 08\_0223”. Refer to Schedule 5, Condition 6 of PA 08\_0223 for further details.*
- *“Provide the reporting results in respect of Total Suspended Particulate (TSP) and Particulate Matter <10µm (PM10) as required by Condition 8, Schedule 3 of PA 08\_0223”. A letter from DP&E dated 29 October 2014 noted that the Environmental Beta Attenuation Monitor (EBAM) was still in the commissioning phase and was likely to be in operation by the end of October 2014 and that Particulate Matter <10µm (PM10) results should be included in subsequent Annual Review’s.*

Annual Review feedback from DP&E dated 29 October 2014 noted the Department was generally satisfied with the 2013 Annual Review but required that monitoring results for Total Suspended Particulate (TSP) and Particulate Matter <10µm would be required in subsequent reviews.

##### 3.1.2 2014 DP&E AR Review

A letter from DP&E dated 27 March 2015 noted the following recommendations concerning the 2014 Annual Review:

- Include in the 2015 Annual Review a Summary of Compliance section, information on notification of any incident to the Department and monitoring results (TSP and PM<sub>10</sub>) from the EBAM.

Lidsdale Siding were also required within four weeks of 27 March 2015 (i.e. 24 April 2015) to provide an update to the Department on the progress of:

- Schedule 2, Condition 9 – Surrender of Existing Development Consents
- Schedule 3, Condition 29 - Rehabilitation and Closure Plan
- Schedule 3, Condition 30 - Rehabilitation Bond
- Schedule 5, Condition 11 – Access to information

Refer to Appendix A for further details concerning these Conditions. Lidsdale responded to DP&E on 8 May 2015 and noted the following:

- The Rehabilitation Closure Plan was revised and enclosed with the letter.
- The rehabilitation bond was submitted to DP&E by 5 June 2015.

- The surrender of existing consents had commenced with the landowners. Lidsdale noted that the application to surrender the existing consents would be submitted once correspondence had been received from the landowners. This matter was still outstanding at the time of the audit.
- The auditors sighted the Lidsdale website.

### **3.2 NSW Environment Protection Authority (EPA)**

Feedback was sought by MCW Environmental on 28 July 2015 from the EPA officer responsible for Lidsdale Siding who reported the following:

- There have been no past or recent fines or notices associated with the site.
- The EPA was not aware of any community issues associated with the site at the time of the site inspection.
- The EPA Officers conducted an audit of the site on 27 May 2014. The audit focused on compliance with EPL condition O1 and O2 (refer to Section 6.1.1.1). It is noted this audit was conducted prior to the upgrade works.
- A second EPA audit was conducted on 13 May 2015. Refer to Section 6.1.1.1 for further details.

### **3.3 NSW Department of Trade and Investment, Regional Infrastructure and Services - Division of Resources and Energy (DTIRIS-DRE)**

Feedback was sought on 28 August 2015 from the DTIRIS-DRE officer responsible for Lidsdale Siding who reported that the Department does not have any direct involvement with regard to environmental issues at the site due to it not being located on a surface mining lease. DTIRIS-DRE therefore had no specific comments to provide concerning the Lidsdale Siding audit.

## 4 Site Inspection Observations

Observations from the site inspection conducted at the time of the site audit are provided in **Table 4-1**. It is noted that observations directly relating to air quality and noise management are detailed in Sections 4.1 and 4.2 of the report.

The auditors were escorted around the site by mine personnel who made themselves available for this purpose.

**Table 4-1 - Site Inspection Photographs**




Photo #	Comment	Photo
4-1.	The overland conveyor (right) and new stockpile conveyor (CV01).	
4-2.	The overland conveyor showing the chute and wall where previous operations using front end loaders would collect coal.	
4-3.	Coaly material was evident on the ground on the northern side of the rail siding.	




Photo #	Comment	Photo
4-4.	<p><u>Dirty Water Dam/Control Pond</u></p> <p>This consists of two ponds arranged side by side that become a single pond as it fills to a capacity of 4,173 m<sup>3</sup>. The Dirty Water Dam receives site run-off and recycled water from the truck wash.</p> <p>The Dirty Water Dam operates as a wet-type basin for primary sediment settling and treatment, and provides capture and retention of hydrocarbon spills.</p> <p>The dam is flocculated manually as required. Dam water was observed to be clear at the time of the site inspection. Lidsdale reported that ALS results on the 30/7/15 for the triangle dam ph 7, turbidity 7, TSS &lt;5, oil &amp; grease &lt;5.</p>	
4-5.	<p>The Dirty Water Dam has a weir structure leading to a culvert below the railway line that consists of five 900 mm diameter pipes that drain to the Triangle Pond.</p> <p>The weir is equipped with an oil/water separator with an inverted outlet to remove flows from approximately half way through the water column for discharge. Dam water was observed to be clear at the time of the site inspection.</p>	
4-6.	<p><u>Triangle Pond</u></p> <p>The Triangle Pond is a final sediment settling area. When filled by stormwater to above capacity, water will naturally discharge through LDP004. The water discharge volume and quality is monitored.</p> <p>Water can be used directly for dust suppression or wash-down, or can be used to top up the Dirty Water Dam or transfer tank as required.</p> <p>Water is diluted by clean stormwater runoff from local Catchment 1. Dam water was observed to be clear at the time of the site inspection.</p>	







Photo #	Comment	Photo
4-7.	<p><u>LDP004 at the Triangle Pond</u></p> <p>Settled and treated water is discharged under licence into Pipers Flat Creek via a stormwater drainage channel, approximately 200 m south-west of the Coxs River confluence.</p>	
4-8.	<p><u>Triangle Pond</u></p> <p>Water is pumped from the Triangle Pond through LDP004 to maintain the freeboard of the pond. Water quality is analysed prior to discharge.</p> <p>At the time of the site inspection on 31 July 2015 a hired pump was observed and the pond was essentially empty. The base of the pond was evident in places.</p>	
4-9.	<p>The Lidsdale Siding Weather Station (LSWS) was located to the east of the overland conveyor and adjacent to the mainline spur.</p>	
4-10.	<p>Stockpiles of earth were located between the northern boundary fence and the siding. Lidsdale management reported the stockpiles were due to be sampled to determine if the material will be suitable for use in the formation of levees adjacent to Pipe Flat Creek and inside the boundary fence, a requirement of the Flood Study.</p> <p>The formation of levees as required by the Flood Study remains outstanding.</p>	





Photo #	Comment	Photo
4-11.	Construction of a new drainage line to the Dirty Water Dam was observed at the time of the site inspection on 31 July 2015.	
4-12.	The new TLO bin with 'Stop' sign. Trains reverse through the TLO bin at a speed of between 0.5 km/hr – 1 km/hr up a slight incline to prevent the 'knuckling' of wagons.	
4-13.	The spill pit captures spills from the loading process. The pit is a concrete structure and is emptied by a 'Bobcat' as required.	
4-14.	<p>Water was observed to be dripping intermittently from the overhead conveyor (CV01) to the train loading bin. Pooled water had collected at the eastern base of the train loading bin and there was the potential for coal fines to flow into a clean water catchment drain adjacent to the train loading bin if the flow of water increased.</p> <p><b>REC-2015-01</b> - Repair the leak from CV01 at the TLO bin. Ensure that coal fines are prevented from entering the clean water catchment drain adjacent to the TLO bin by either regular cleaning or construction of infrastructure (e.g. concrete pad for containment).</p>	






Photo #	Comment	Photo
4-15.	Coal spill sensors were observed on the track either side of the TLO bin.	
4-16.	<p>A culvert had been constructed under the new train line. The drainage channel flows onto the site from neighbouring properties to the south, under the new train line and existing siding where it exits the site to the north flowing into Pipers Flat Creek.</p> <p>The Flood Study prepared by AURECON (2014, p.17) notes that <i>“duplication of the existing rail siding is proposed to the south-east of the existing siding. At the time of assessment, topographic data was not available for the proposed alignment and as such, developed case modelling has not been undertaken”</i>. AURECON considered that <i>“provided that locations and sizes of culverts are similar to those beneath the existing alignment and existing rail levels are maintained, flood impacts of the proposed duplication would be minimal”</i>.</p> <p><b>REC-2015-02</b> – Confirm that the increased height of the new rail line would not restrict flows and lead to possible redirection of flows onto the site in the event of the culvert being overtopped.</p>	
4-17.	<p>Evidence of rehabilitation was observed at the western end of the site. Tree saplings had been planted along the south-western boundary.</p> <p>Tree planting appeared to be in accordance with the Biodiversity Management Plan (RPS, 2013) in that it was conducted by a suitably experienced bushland regeneration contractor (NewEra Pty Ltd). Areas with scarce vegetation had been seeded with native grass and/or native shrubs and trees (NewEra, 2015-A&amp;B).</p>	







Photo #	Comment	Photo
4-18.	Mature tree screening was noted adjacent to the coal stockpile and conveyor CV01.	
4-19.	Water management chemicals were observed to be stored on sealed ground and undercover adjacent to the former workshop building.	
4-20.	A new firewater tank with a capacity of 523 kilolitres (KL) was observed on-site. The tank is topped up via a combination of bore water and the town municipal supply.	
4-21.	<p>Invasive willow trees were observed from Brays Lane in Pipers Flat Creek.</p> <p>The willow trees are due to be removed from the channel, in particular to the north-west in the bend near to the 'Railway Culvert'. The removal of invasive species will be undertaken over a five year period with the advice of and/or in collaboration with the Hawkesbury-Nepean Catchment Management Authority (HNCMA). A letter from Centennial to DP&amp;E concerning the Flood Study (including Willow tree removal) dated 1 May 2014 noted that proposed mitigation controls would be implemented by April 2016.</p> <p>The removal of the willow trees is a</p>	

Photo #	Comment	Photo
	commitment that remains outstanding.	

## 4.1 Air Quality Management

This section of the report details the findings of the review of air quality management at Lidsdale Siding as assessed by the approved air quality specialist, Stephen Bowly. This section also has input from the auditors for discussion of environmental monitoring. It is noted that the air quality specialist did not attend the site audit inspection. This approach was agreed with DP&E as part of consultation for the audit.

### 4.1.1 Air Quality Management Overview

Historically, air quality monitoring focused on dust emissions and included the operation of dust deposition gauges on site to assist in dust emission management. As part of the site infrastructure upgrade, an Environmental Assessment<sup>1</sup> (EA) was prepared by RPS Australia East Pty Ltd (RPS, 2012), for the Lidsdale Siding Extension Project. The EA noted that particulate matter impacts may potentially approach regulatory criteria and therefore recommended additional monitoring measures comprising continuous PM<sub>10</sub> monitoring. Upon completion of the EA, an Air Quality and Greenhouse Gas Management Plan (AQGGMP) was prepared by SLR Consulting Australia Pty Ltd (SLR, 2013) to manage potential dust issues arising from the upgraded operations. The plan was developed in accordance with Condition 10, Schedule 3 of PA 08\_0223.

Air Quality monitoring for Lidsdale Siding is operated in accordance with the AQGGMP<sup>2</sup> (SLR, 2013). The monitoring was designed to inform site operations of potential adverse impacts on surrounding areas and receptors. The EA (RPS, 2012) notes the following areas and receptors surrounding Lidsdale Siding:

- North – cleared lands, grazing, scattered residences;
- South - light industrial area immediately south and Wallerawang residential area;
- West – cleared lands, grazing, scattered residences; and
- East – Wallerawang Power Station (currently not operational).

It is noted that Wallerawang Power Station is identified as an off-site receptor as well as potential off-site emission source. Current sensitive receivers as identified in the AQGGMP are shown in **Table 2-3**.

In July 2013, construction activities commenced on-site to upgrade the site and automate operations. During the construction period (July 2013 to June 2014), four dust deposition gauges (DG1, DG6, DG7 and DG8) were used to monitor dust impacts from the sites operations.

Subsequent to the completion of the site upgrade construction works (August 2014 to 31 July 2015), additional dust deposition gauges (DG9, DG10, DG11), a continuous PM<sub>10</sub> monitor and an automatic

<sup>1</sup> RPS Australia East Pty Ltd (2012), Lidsdale Siding Upgrade Project Environmental Assessment, August 2012, Ref: PR110912

<sup>2</sup> SLR Consulting Australia Pty Ltd (2013), Lidsdale Siding Air Quality & Greenhouse Gas Management Plan, 13 November 2013, Ref: 630.10123.0205-R2.

weather station were installed. The current Lidsdale Siding air quality monitoring network is presented in **Table 4-2**.

**Table 4-2 - Lidsdale Siding Air Monitoring Network (from SLR, 2013)**

Site ID	Frequency	Instrument	Parameter	Purpose
DG1	Monthly	DG	Dust Deposition as insoluble solids according to AS 3580.10.1-1991, comprising combustible matter and ash. Commenced April 2012 with DG1 commencing January 2013	EPL – Inside Site
DG6	Monthly	DG		EPL - External to Site
DG7	Monthly	DG		EPL - Inside Site
DG8	Monthly	DG		EPL – Inside Site
DG9	Monthly	DG		EPL - Residential
DG10	Monthly	DG		EPL – Residential
DG11	Monthly	DG		Internal use - Background
EBAM	Continuous	HVAS		PM <sub>10</sub> and TSP* Commenced February 2015
LSWS	Continuous	Weather Station	Wind Speed, Wind Direction, Temperature at 2 m and 10 m, Rainfall and Relative Humidity Commenced February 2015	EPL - Proactive

Note:

\* = TSP estimated from PM<sub>10</sub> concentration

DG = Dust Deposition Gauge

EPL = monitoring condition in Environment Protection Licence 5129

HVAS = High Volume Air Sampler

Further discussion of the dust monitoring measurements during and after the site upgrade as well as discussion of specific dust fractions are presented below.

#### 4.1.1.1 Operations During the Site Upgrade

Between July 2013 and June 2014, upgrade works were undertaken on site (refer to Section 2). During construction, the four on-site dust deposition gauges continued to be operated. A chart showing the monthly values and average results for (DG1, DG6, DG7 and DG8) between 2012 and 2015, including the construction period, is presented in **Figure 4-1**.

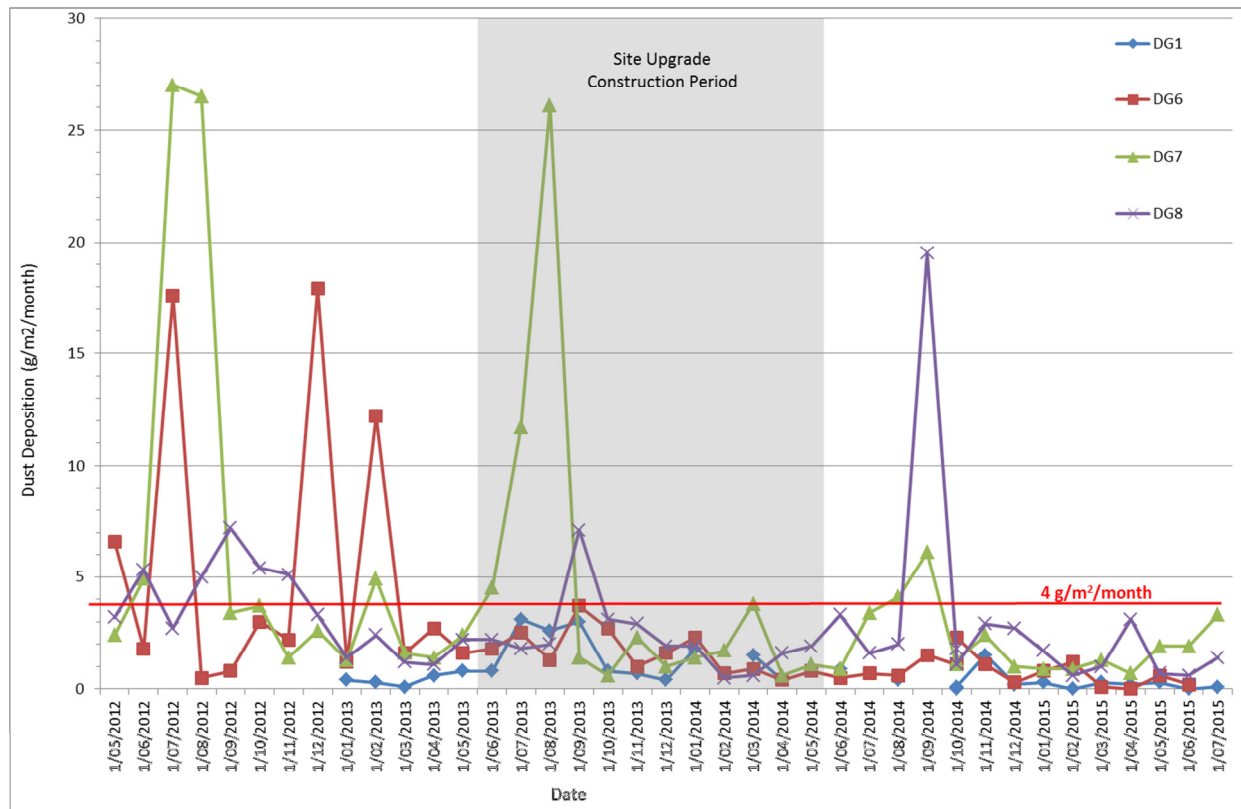
Dust deposition gauge locations demonstrated compliance with the criteria of 4 g/m<sup>2</sup>/month (12 month annual average) with the exception of DG6 and DG7, located south and adjacent to the main stockpile respectively. The 12 month average dust deposition at DG6 and DG7 were shown to exceed in the period July 2012 to July 2013 due to historical activities prior to the Audit period, as shown in the 2012 Annual Return. Subsequent 12 monthly averages in July 2013 to 2014 and 2014 to 2015 for both DG6 and DG7 showed dust deposition levels to be below criteria.

During the audit period, two individual monthly measurements at DG7 (July and August 2013) were recorded to be significantly higher than the average at that location and were subsequently sent for further analysis. The results indicated:

- The July 2013 sample comprised 30% mineral (soil or rock) dust, 30% polysaccharide slime, 30% insect debris and 10% copper sludge;
- The August 2013 sample comprised 70% mineral (soil or rock) dust and 30% plant debris;

The specialist auditor considers these samples to be indicative of dust samples associated with construction works; with insect and plant debris likely to be contributing to at least 30% of the total dust deposition rates at DG7.

Figure 4-1 - Dust Deposition Rates between 2013 and 2015 (DG1, DG6, DG7 and DG8)



Annual Average dust deposition rates (g/m<sup>2</sup>/month)

	Mid July 12 – Mid July 13	Mid July 13 – Mid July 14	Mid July 14 – Mid July 15
DG1	NA	1.3	0.3
DG6	4.1	1.5	0.8
DG7	5.5	3.7	2.1
DG8	3.2	2.4	3.0

4.1.1.2 Operations Post Upgrade

In August 2014 construction of the site upgrade was completed. The operations that were occurring on-site at the time of the site inspection that may have given rise to dust emissions included:

- Site receipt of coal. Coal is received on site from the Springvale mine washery, originating from Centennials western region mines (RPS, 2012). Coal is received on-site via a covered conveyor, thus limiting dust emissions.
- Coal transfer on site. Coal from the conveyor is stored in the main stockpile on-site. The main stockpile is gravity fed to another site conveyor (CV01), which stores the coal into the TLO bin for train loading (coal transfer point). Whilst the incoming coal and the main stockpile are considered dust emission sources, the TLO bin is fitted with water sprays for dust suppression.

As noted in the site Environmental Management Strategy (Centennial, 2014, p.21), the dust management strategy for the site comprises:



*“Dust monitoring will be conducted in accordance with the requirements of Schedule 3 Condition 8 of PA08\_0223 and in line with the Air Quality and Greenhouse Gas Management Plan. In summary, the air quality monitoring program consists of the following:*

- *Three EPL compliance depositional dust gauges (DDGs) located within the Project site (DG6, DG7, DG8);*
- *One internal use DDG located within the Project site (DG1);*
- *Two DDGs to be representative of sensitive receptor locations to measure overall compliance of the Project with the PA and the relevant criterion (DG9 and DG10);*
- *One DDG representative of the background air quality environment (DG11);*
- *One beta attenuation monitor (BAM) to measure real-time continuous PM<sub>10</sub>;*
- *The Lidsdale Siding weather station to measure real-time meteorological parameters; and*
- *A real-time system to view online meteorological data from the Lidsdale Siding meteorological station.*

*As a condition of the EPL, monitoring records are kept for at least four years. Section 5.5 of the Air Quality and Greenhouse Gas Management Plan outlines the air quality criteria for particulate matter and depositional dust.”*

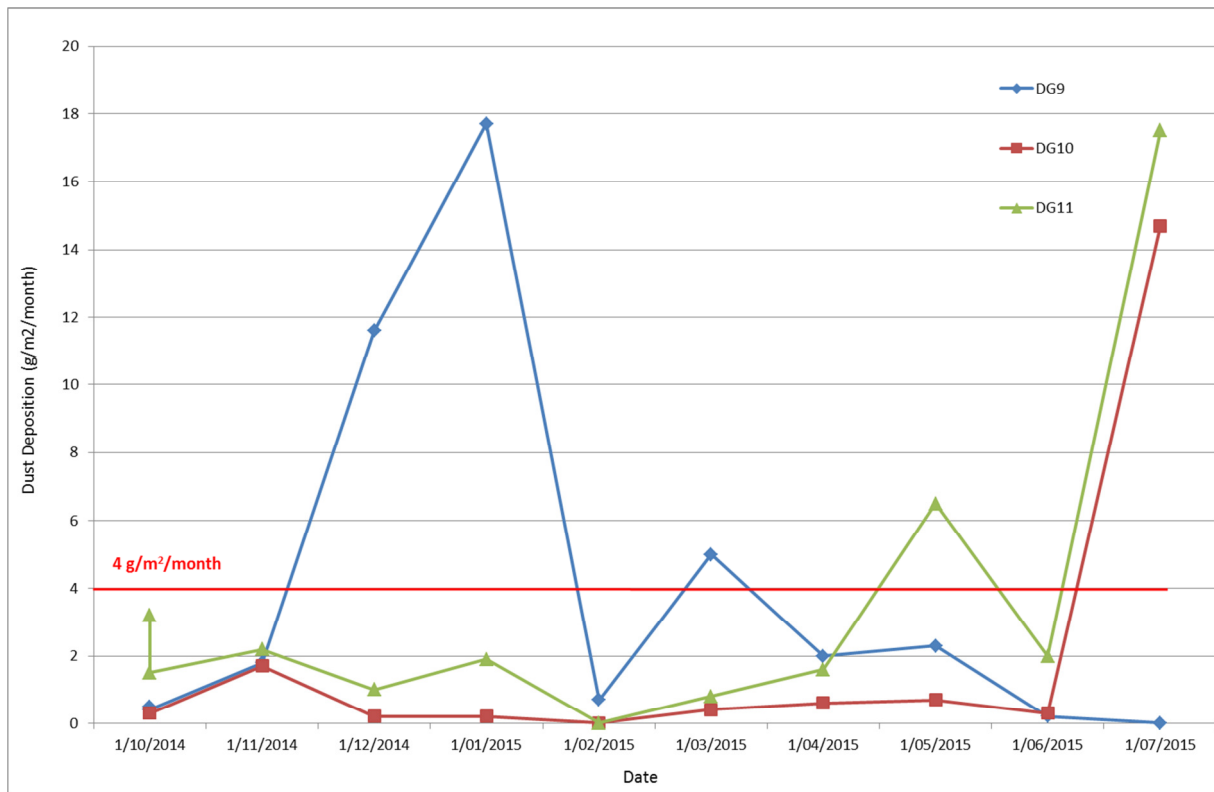
It is noted that the meteorological station previously operated on-site was re-located in 2014 to its current location and commenced operation with the EBAM in February 2015.

As shown in **Figure 4-1**, coal dust emissions appear to have reduced after the upgrade was completed, due to the use of covered conveyors and automated train loading facilities; operations which were implemented as part of the site upgrade. Previously front-end loaders were used to transfer coal on-site.

Also presented in **Figure 4-1** is one monthly measurement post site upgrade that appears to be elevated at DG8 in September 2014. Whilst the monthly dust deposition rate at DG8 appears to have been consistently below the guideline, the September 2014 sample showed a measurement of 19.5 g/m<sup>2</sup>/month. Further analysis of this sample suggested only 20% of the sample was coal dust, with 70% attributed to mineral dust (soil or rock) and 10% to plant debris. Similar to exceedances at DG7, these results do not suggest that coal dust emission on-site is the source, rather potentially another source in the area.

As per the AQGGMP, additional dust deposition locations (DG9, DG10 and DG11) were commissioned post upgrade (September 2014). The measurements for these three dust deposition stations are presented in **Figure 4-2**.

Figure 4-2 - Dust Deposition Rates between 2014 and 2015 (DG9, DG10, DG11)



Whilst the average measurements of DG9, DG10 and DG11, presented in in **Figure 4-2** appear to be close to the 4 g/m<sup>2</sup>/month, none of the new stations have been operating for 12 months, consequently it cannot yet be established if the measurements exceed the relevant guidelines.

As noted above, the strategy for dust monitoring is focused on dust deposition and continuous PM<sub>10</sub> monitoring. This strategy has been designed to provide information on deposited dust, PM<sub>10</sub> as well as Total Suspended Particulate (TSP). Further discussion on these three dust fractions is provided below.

4.1.1.3 Deposited Dust

As previously presented in **Figure 4-1**, historical dust deposition gauges (DG1 and DG8) were below the guidelines during the audit period, while DG6 and DG7 exceeded the average value of 4 g/m<sup>2</sup>/month only during the annual average period July 2012 to July 2013 (overlapping the Audit period by 2 months); however, these values are likely to be overstated due to the presence of plant and insect debris.

Condition M2.2 of the EPL requires that particulate matter (deposited dust) must conform to Australian Standard 3580.10.1-2003. Given the site observations and laboratory certificates<sup>3</sup> it is considered that the sampling during the audit period complies with the EPL requirements.

<sup>3</sup> AMCP Laboratory Test Report, 22 July 2013, DG7, AMCP Laboratory Test Report, 20 September 2013, DG8, AMCP Laboratory Test Report, 2 September 2013, DG7, AMCP Laboratory Test Report, 29 September 2013, DG7 & DG8, AMCP Laboratory Test Report, 25 August 2014, DG7, AMCP Laboratory Test Report, 18 March 2015, DG9, AMCP Laboratory Test Report, 1 April 2015, DG9

The measurements of the three new dust deposition locations (DG9, DG10 and DG11) are presented in **Figure 4-2**. Due to the short operating time, compliance against guidelines for the DG9 and DG10 cannot be established. It is also noted that DG11 is an internal dust deposition gauge, installed to be representative of background concentrations, consequently is not considered for compliance purposes as it is not listed as a monitoring point under Condition P1.1 of EPL 5129.

#### 4.1.1.4 Particulate Matter (PM<sub>10</sub>)

The continuous PM<sub>10</sub> monitor (EBAM) commenced operation in February 2015. PM<sub>10</sub> results since February 2015 indicate the following:

- The maximum 24 hour PM<sub>10</sub> results were 41.8 µg/m<sup>3</sup>, below the guideline of 50 µg/m<sup>3</sup>.
- The annual average results are based on 165 days, therefore, compliance to the annual average cannot yet be established. However; at the time of the site inspection on 31 July 2015 the rolling average PM<sub>10</sub> value was 22.6 µg/m<sup>3</sup>, below the annual average guideline of 30 µg/m<sup>3</sup>.

Condition M2.2 of EPL 5129 requires that PM<sub>10</sub> measurements must confirm to Australian Standard 3580.9.11 - 2008. Given the site observations and supplied data (10 second average dated 5 February to 21 July 2015<sup>4</sup>) it is considered that PM<sub>10</sub> sampling complies with the EPL and AQGGMP requirements.

A summary of the PM<sub>10</sub> compliance information is provided in **Table 4-3**.

**Table 4-3 - Summary of Measured PM<sub>10</sub> Concentration Results – EBAM (from SLR 2015)**

Parameter	Units	Averaging Period	Measured Concentration	100% Concentration Limit	Compliance
PM <sub>10</sub> (Average)	µg/m <sup>3</sup>	Annual	22.6	30	Not yet established
PM <sub>10</sub> (Maximum)	µg/m <sup>3</sup>	24-hr	41.8	50	Yes

Note: Based on 165 days of measurement.

#### 4.1.1.5 Total Suspended Particulates (TSP)

As per Section 8.1.4<sup>5</sup> of the AQGGMP, the concentration of TSP has been estimated based on the concentration of PM<sub>10</sub>. As noted above, the continuous PM<sub>10</sub> monitor commenced operation in February 2015, consequently no TSP results exist prior to that time. Data from February 2015 through to 31 July 2015<sup>4</sup> indicates that there was no exceedances of TSP criteria. It is noted that the annual average results are based on 165 days, therefore, adherence to the annual average cannot yet be established.

As stated in the AQGGMP, compliance is against NSW EPA TSP criteria. A summary of the TSP compliance information is provided in **Table 4-4**.

<sup>4</sup> Centennial (2015), Dust Data to date.csv

<sup>5</sup> PM<sub>10</sub>/TSP ratio assumed to be 0.4

**Table 4-4 - Summary of Estimated TSP Concentration Results (from SLR 2015)**

Parameter	Units	Averaging Period	Measured Concentration	100% Concentration Limit	Compliance
TSP	µg/m <sup>3</sup>	Annual	56.4	90	Yes

#### 4.1.1.6 Weather Station

Condition M4.2 of EPL 5129 requires that the meteorological weather station must measure several parameters, as presented in **Table 4-6**.

Based on site location and online weather data (<https://portal.alsglobal.com/web.htm>), it is considered that the LSWS has been installed correctly and was operating correctly. A Certificate of Conformance<sup>6</sup> dated 27 July 2015 was available for review.

**Table 4-5 - Summary of LSWS Weather Station Parameters Measured**

Parameter	Unit of Measure	Frequency	Averaging Period	Sampling Method
Air temperature	Degrees Celsius	Continuous	1 hour	NA
Wind direction	Degrees	Continuous	15 minute	AM-2 & AM-4
Wind speed	Metres per second	Continuous	15 minute	AM-2 & AM-4
Temperature lapse rate	Degrees	Continuous	15 minute	Part E2 & E4 of the NSW Industrial noise Policy
Rainfall	Millimetres	Continuous	24 hour	AM-4
Relative Humidity	Percent	Continuous	1 hour	AM-4

#### 4.1.1.7 Complaints

It is noted that no dust complaints were received during the audit period.

#### 4.1.1.8 Site Observations related to air quality



Photographs of the site's air quality monitoring equipment and the TLO bin emission point are shown in **Table 4-6**.

Ambient air monitoring sites collect samples for dust analysis including deposited dust (insoluble solids, combustible matter, ash, insects, ash, bird droppings, algae, organic matter and water) and PM<sub>10</sub>.

<sup>6</sup> ALS Installation Report Certificate of Conformance, 27 July 2015, Ref: LSAWS001\_270715



**Table 4-6 - Air Management Site Inspection Photographs**

Photo #	Comment	Photo
4-22.	<p>The LSWS with High Volume Air Sampler (HVAS) to measure real-time continuous PM<sub>10</sub>.</p>	
4-23.	<p>Water sprays were observed in the loading area. Lidsdale management reported that sprays are not routinely used during loading operations.</p> <p>Section 7.1.1 (p.12) of the Air Quality Management Plan<sup>7</sup> states that “At the request of the DP&amp;I and in support of the Project’s Environmental Impact Statement (EIS), a study was performed to quantify the effects of methods used to control dust lift off from coal wagons leaving the site. The results of this study indicated that coal dust is likely to be emitted when the Washed Coal product has a moisture content of approximately 5%(w/w) or less, and that emissions of dust from loaded rail wagons during transport are low and are in line with emissions calculated as part of the EIS.</p> <p><i>Given the moisture content of the Washed Coal product is typically 8% (w/w), the study concludes that significant emissions of dust will not be generated during coal handling, loading or storage of coal on the site”.</i></p>	

<sup>7</sup> SLR Consulting Australia Pty Ltd (2013), Lidsdale Siding Air Quality & Greenhouse Gas Management Plan, Rev3, dated 13 November 2013 (ref: 630.10123.0205-R2).

Photo #	Comment	Photo
4-24.	Deposition Dust Gauge 1 (DG1) located in the south-west corner of the site adjacent to the boundary fence.	

### 4.1.2 Air Quality Monitoring

**Table 4-7** summarises the exceedances of EPL criteria during the audit period.

**Table 4-7 - EPL Criteria Exceedance During the Audit Period**

Date	Location	Result	Project Approval Limit (mg/L)	Comment
July 2012 to July 2013	DG7	Dust deposition (12 month average) result above 4 g/m <sup>2</sup> /month	Total of 4 g/m <sup>2</sup> /month and incremental of 2 g/m <sup>2</sup> /month	Two elevated results appear to have inflated this average value. These results also show the presence of insect and plant debris, whilst only trace quantities of coal dust, suggesting transient construction activities are likely to have impacted these results.
July 2012 to July 2013	DG6	Dust deposition (12 month average) result above 4 g/m <sup>2</sup> /month	Total of 4 g/m <sup>2</sup> /month and incremental of 2 g/m <sup>2</sup> /month	Historical results (2012) appear to have inflated the rolling average value. The composition of the dust from elevated results in 2012 was not sighted by the auditors. The 12 month have, however, been below the guideline value since July 2013.

### 4.1.3 Adequacy Assessment and Observations

- A summary of the dust monitoring network and exceedances and comments are provided in **Table 4-8**.

**Table 4-8 - Air Quality Monitoring Program**

Parameter	Location	Frequency	Exceedances and Comment
Dust Deposition	DG1 DG6 DG7 DG8 DG9 DG10 DG11	Monthly	Rolling 12 month average to July 2015: DG1 and DG8 dust deposition compliance stations compliant. Exceedance limited to DG6 and DG7 during construction period. DG9 and DG10 have not been operating 12 months to establish compliance. DG11 is not a compliance station i.e. Excluded from EPL.
PM <sub>10</sub> (24 hr avg.)	EBAM	Continuous	Compliance currently established.
PM <sub>10</sub> (ann. avg.)	EBAM	Continuous	Compliance not yet established.
TSP (annual avg.)	EBAM	Continuous	Compliance not yet established.
Weather parameters	LSWS	Continuous	Compliance currently established.

Generally, dust impacts from site operations appear to be compliant with the EPL and AQGGMP, prepared to address Condition 10, of Schedule 3 of PA 08\_0223. It is noted that the Wallerawang Power Station is referenced in the AQGGMP as a potential off-site emission source. The power station ceased operations during the audit period, consequently, may not represent an active emission source. Additional recommendations follow.

#### Recommendations

- **REC-2015-03** – Real time measurements coupled with additional composition analysis may be required to establish the likely source should consistent elevated results at DG9, DG10 and DG11 show a 12 month rolling average above the guideline.
- **REC-2015-04** – Review monitoring data and consider relocating DG11 to a location more representative of background conditions at the site. Current results at DG11 are above results close to the source areas (e.g. the stockpile), where higher measurements would be expected.

Given no dust complaints received, the increased number of dust deposition gauges, continuous dust monitor and general compliance with dust guidelines, no further monitoring above what is currently performed is considered to be required.

Compliance against specific PA 08\_0223 and EPL 5129 conditions are described in **Appendix A**. As indicated, compliance has been achieved post construction. The above recommendations are seen as performance improvements beyond compliance; and also further reduce the risk of potential future non-compliances.

## 4.2 Noise Management

This section of the report details the findings of the review of noise management at Lidsdale Siding as assessed by the approved noise specialist Dave Davis with input from auditors for discussion of environmental monitoring. It is noted that the noise specialist did not attend the site audit inspection. This approach was agreed with DP&E as part of consultation for the audit.

### 4.2.1 Noise Management Overview

#### **Noise Management Plan (2013)**

Condition 7, Schedule 3 of PA 08\_0223 requires that a Noise Management Plan (NMP) be prepared within 6 months of the approval date (3 May 2013). The NMP was approved by the Secretary on 15 November 2013.

The NMP recommended the following noise mitigation measures be implemented (italicised text reflects auditor observations for each measure):

- Transfer chutes on conveyor systems will be provided with curved deflector plates, made of dampened steel, to reduce noise from impact of coal – *Observed during the site inspection on 31 July 2015.*
- Conveyors will be fitted with super low noise idlers – *Lidsdale management reported these had been fitted to CV01 only (i.e. the new conveyor).*
- Conveyor drives will have specified sound levels. CV01 drive will be fitted with partial enclosures (or shrouds) to achieve noise emission levels of 60 dBA at a distance of 1 m *Observed during the site inspection on 31 July 2015.*
- Conveyor CV01 will be covered on the eastern side - *Observed during the site inspection on 31 July 2015.*
- Conveyor CV02 will have a roof and side panels on the eastern side made from “Hushclad” steel sheeting - *Roof and side panels were observed on the eastern side during the site inspection on 31 July 2015. The use of Hushclad could not be verified.*
- The loading bin (a batch weigh system provided by Kanawha Scales and Systems) will have steel cladding along the conical sides of the bin to reduce noise associated with impact of coal - *Observed during the site inspection on 31 July 2015.*
- Noise barriers from ground level to the underside of the bin loading floor will be constructed on both sides of the train - *Observed during the site inspection on 31 July 2015.*
- The arrangement of the rail track will be such that the train is loaded while travelling up a slight incline to the south. Loading will occur by pushing loaded wagons up a 0.5% grade – *No trains were present on-site during the site inspection, however, the incline was observed during the site inspection on 31 July 2015.*
- The stockpile dozer has a specified sound power level of no greater than 105 dBA – *The sound power level of no greater than 105 dBA could not be verified during the site inspection on 31 July 2015.*


The NMP also recommended the following noise management measures be implemented:

- The coal bin will be operated such that it will not be empty before being refilled to minimise noise emission from coal falling into an empty bin and impacting on the lower metal conical section – *Approximately 8% of coal was noted to be in the coal bin at the time of the site inspection on 31 July 2015 from the screen readout in the control room. Lidsdale management reported that at times the coal bin may need to be emptied depending on the type of coal to be loaded.*
- A training program will be undertaken with the relevant train operators for all drivers attending the Project site – *A training program for relevant train operators could not be verified.*
- If a locomotive is positioned at the southern end of the site it will not operate while on the Project site. Rather, the locomotives positioned at the northern end of the train will push the

wagons while loading is occurring – *No trains were present on-site during the site inspection on 31 July 2015; however; Lidsdale management confirmed this measure is implemented.*

- Sound power level testing be undertaken for noise sources on site to confirm that noise emissions do not exceed the sound power levels in the Environmental Assessment (EA) (refer NMP section 8.2). If sound power levels of noise sources are found to exceed the expected values by more than 2 dB then further investigation should be carried out – *Lidsdale management reported that sound power testing had been conducted for conveyor drives but not all plant and machinery. Testing was reported to be planned for August 2015.*

**Table 4-9 - Noise Management Site Inspection Photographs**

Photo #	Comment	Photo
4-25.	The LSWS with near-field noise monitoring for determining operational sound power levels of acoustically significant plant and equipment.	

#### 4.2.2 Noise Monitoring

The site conducts monthly attended noise monitoring in accordance with PA 08\_0223 and EPL 5129 requirements. As required by PA 08\_0223 Condition 7, monitoring was required to be conducted monthly following completion of the construction of the upgrade of the coal loader. Construction was completed in early August 2014 and monitoring had already commenced in July 2014. Monthly attended noise monitoring is conducted by Global Acoustics Pty Ltd and commenced in July 2014 prior to completion of the construction phase.

Noise emissions from the site are managed by the following documents:

- Environment Protection Licence 5129;
- PA 08\_0223, Schedule 3 – Conditions 2, 3, 4, 5, 6, 7; and
- Lidsdale Siding Noise Management Plan (SLR, 12 November 2013).

#### **Environmental Protection Licence Requirements**

The noise limits provided in the EPL 5129 are reproduced below:

**Table 4-10 - Nearest Sensitive Receivers Noise Criteria**

Receiver ID	Day	Evening	Night	Night
	LAeq(15 minute)	LAeq(15 minute)	LAeq(15 minute)	LA1(1 minute)
1. Lot 2 Main St, Wallerawang	50	50	50	55
2. Black Gold Cabins, Main St	46	46	46	59
3. "Killarney", Brays Lane	47	47	47	56
4. "Fairview", Brays Lane	43	43	43	54
5. Duncan Street, Lidsdale	46	46	46	57
6. Old Castlereagh Highway, Lidsdale	43	43	43	56
7. Royal Hotel, Main St, Wallerawang	41	41	41	49
8. Corner Heel St & Cripps Ave, Wallerawang	40	40	40	45
9. Corner of Cripps Ave & Pindari Place, Wallerawang	39	39	39	45
10. Brays Lane South, Wallerawang	45	45	45	50
11. "Tara", Brays Lane, Wallerawang	45	45	45	51
12. Brays Lane Corner, Wallerawang	43	43	43	51

**Project Approval 08\_0223 Requirements**

The PA 08\_0223 provides environmental noise performance conditions concerning:

- Condition 2, Schedule 3 - Noise Impact Assessment Criteria;
- Condition 3, Schedule 3 - Additional Noise Mitigation on Request;
- Condition 4, Schedule 3 - Operating Conditions;
- Condition 5, Schedule 3 - Independent Noise Audit;
- Condition 6, Schedule 3 - Construction Noise; and
- Condition 7, Schedule 3 - Noise Management Plan.

In accordance with Chapter 11 of the EPA Industrial Noise Policy<sup>8</sup> a development or project will be deemed to be in non-compliance with a noise consent or licence condition if the monitored noise level

<sup>8</sup> Environment Protection Agency (2000), NSW Industrial Noise Policy, January 2000, EPA00/1.



is more than 2 dB(A) above the statutory noise limit (EPA, 2000, p.52). These conditions are considered reportable exceedances against EPL 5129. Where an exceedance of a noise consent or licence condition is less than 2 dB(A) above the statutory noise limit this is considered to be an exceedance of criteria only.

The following exceedances greater than EPL and PA criteria but within INP guidelines were noted:

- An exceedance of 1 dB was measured at R3 during the day period of the 13 August 2014. Attributed to Loader engine noise and reverse alarms from Lidsdale Siding.
- An exceedance of 2 dB was measured at R8 during the evening period of the 22 September 2014. Attributed to Lidsdale Siding conveyor and train loading.
- An exceedance of 1 dB was measured at R8 during the night period of 15/16 October 2014. Attributed to Lidsdale Siding and alarms.
- An exceedance of 1 dB was measured at R9 during the night period of 15/16 October 2014. Attributed to Lidsdale Siding continuum and alarms.
- An exceedance of 2 dB was measured at R3 during the evening period of 10 November 2014. Attributed to Lidsdale Siding and train loading.
- An exceedance of 1 dB was measured at R8 during the night period of 17 March 2015. Attributed to Lidsdale siding conveyor.
- An exceedance of 2 dB was measured at R3 during the evening period of 28 April 2015. Attributed to Lidsdale Siding and train loading.

Regarding the above exceedances, SLR (2015, p.12) confirmed that in accordance with the NSW Industrial Noise Policy (EPA, 2000) “*exceedances of the intrusive  $L_{Aeq(15minute)}$  noise criteria were not greater than 2 dB and therefore the LSUP is deemed to be compliant with the relevant intrusive  $L_{Aeq(15minute)}$  noise limits*”.

The monthly and annual noise monitoring reports for the site were reviewed and identified the following noise non-compliances (reportable exceedances):

- One non-compliance (exceedance greater than 2dB(A) above limit) in February 2015 at residence R8. (14 dB exceedance of the night  $L_{A1(1\ minute)}$  criterion; and 5 dB exceedance of the night  $L_{Aeq}$  criterion after low-frequency penalty). Attributed to an alarm which was subsequently rectified by removal of the audible component of the alarm.
- The following non-compliances (exceedance greater than 2dB(A) above limit) on 25 June 2015. Attributed to conveyor operation and train loading
  - One exceedance of the day  $L_{Aeq}$  criterion at location R12. (4 dB exceedance after low-frequency penalty)
  - One exceedance of the evening  $L_{Aeq}$  criterion at location R3 on Braze Lane. (8 dB exceedance after low-frequency penalty)
  - One exceedance of the night  $L_{Aeq}$  criterion (4 dB exceedance) and one exceedance of the  $L_{A1(1minute)}$  criterion (6 dB exceedance) at Location R8 on Braze Lane.

Centennial issued a letter to the landowner at receivers R3, R8 and R12 on 30 July 2015 notifying the resident of the exceedance on 25 June 2015.

### **Environmental Protection Licence**

The Environmental Protection Licence (Condition L4.5) stipulates that in order to determine compliance, the measurements of  $L_{Aeq(15 \text{ minute})}$  and  $L_{A1(1 \text{ minute})}$  are required to be taken at certain distances or range of distances from receptor facades. However, non-compliance can occur when noise in excess of the limits is measured anywhere at a receptor location, i.e. not necessarily within certain distances (Condition L4.6).

Therefore, measurements of  $L_{Aeq(15 \text{ minute})}$  taken at distances other than as stated in Condition L4.5 (a) i) and ii) cannot be used to verify compliance. Similarly, measurements of  $L_{A1(1 \text{ minute})}$  taken at distances other than as stated in Condition L4.5 (b) cannot be used to verify compliance.

It is not clear from the published monthly or annual noise monitoring reports or from the INA (SLR, 2015) if the noise monitoring has been undertaken in accordance with the distances stipulated EPL Condition L4.5.

#### **4.2.3 Independent Noise Audit**

PA 08\_0223 required that an Independent Noise Audit (INA) to be undertaken within 12 months of completion of the upgrade of the coal loader (Schedule 3, Condition 5). The upgrade of the coal loader was in August 2014 and a draft INA<sup>9</sup> (SLR, 2015) was issued on 26 June 2015 that addressed the period from 3 May 2013 to 30 May 2015.

The draft INA (SLR, 2015) assessed compliance with each noise related condition of PA 08\_0223 and identified the following:

- PA Schedule 3 Condition 6 – Construction Noise:
  - *“It is considered that construction noise monitoring has not been undertaken sufficiently in accordance with the noise monitoring program and the required Australian Standards and that the implementation of the CNMP Section 9 is non-compliant. Noise monitoring reports present no assessment of compliance, conclusions or recommendations and therefore compliance with the construction noise criteria cannot be determined”* (SLR, 2015, p.9). The MCW Environmental noise specialist was unable to verify compliance with construction activities and concur with the findings of the draft INA. Lidsdale management reported that environmental issues were managed by the Principal Contractor during the construction phase of the project.
- PA Schedule 3 Condition 7 – Noise Management Plan and SOC Commitment 6:
  - The sound power level testing required by Schedule 3, Condition 7(d), SOC Commitment 6 and NMP Section 8.2.
  - The SWL measurements required under SoC Condition 6, to determine compliance with the above commitments had not been conducted.
- PA Schedule 3 Condition 5(c) – Noise Management Plan and SoC Commitment 6. The draft INA made the following general comments:
  - *“The NMP is effectively implemented with operator attended noise monitoring conducted in accordance with the noise monitoring program on a monthly basis.*
  - *Noise emissions from the Lidsdale Siding Upgrade Project are generally compliant with the relevant noise criteria at all the nearest residential receiver locations.*

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<sup>9</sup> SLR Australia Pty Ltd (2015), Draft Lidsdale Upgrade Project Independent Noise Audit, 26 June 2015, Draft 1.



- *Where a non-compliance has been measured, appropriate investigation and reactive noise management measures were taken to remove the identified source of the non-compliance” (SLR, 2015, p.12).*

SLR (2015, p.12) stated that *“In general the following is noted with regard to LSUP<sup>10</sup> noise emissions:*

- *The NMP is effectively implemented with operator attended noise monitoring conducted in accordance with the noise monitoring program on a monthly basis.*
- *Noise emissions from the LSUP are generally compliant with the relevant noise criteria at all the nearest residential receiver locations.*
- *Where a non-compliance has been measured, appropriate investigation and reactive noise management measures were taken to remove the identified source of the non-compliance”.*

Key findings from the draft INA (SLR, 2015) are summarised below:

- Exceedances of EPL noise criteria were measured during the monthly attended monitoring for: August 2014, September 2014, October 2014, November 2014, March 2015 and April 2015; however, these exceedances were not considered significant in accordance with Chapter 11 of the EPA Industrial Noise Policy<sup>11</sup> that deems a development to be in non-compliance only when *“the monitored noise level is more than 2 dB above the statutory noise limit specified in the consent or licence condition”* (EPA, 2000,p.52).
- One noise non-compliance (i.e. the monitored noise was more than 2 dB above the statutory noise limit specified in the consent and/or licence condition) was recorded in February 2015. The cause of the non-compliance was attributed to an alarm.
- The sound power level testing required by PA Schedule 3 Condition 7(d), SoC Commitment 6 and NMP Section 8.2 had not been undertaken and should be completed.
- A review of on-site alarms be undertaken; and
- The noise monitoring reports should include a summary of the Lidsdale Siding operation log. The log should identify when monitoring has coincided with train loading activities to allow tracking of the actual noise performance of the site.

The INA (SLR, 2015) verified some of the above mitigation and management measures via a site inspection and interviews with Lidsdale staff.

The INA made several recommendations for improving the level of compliance with the EPL, the NMP and PA 08\_0223, and recommended the following draft action plan to implement the recommendations that have been presented in **Table 4-11** (SLR, 2015, p.14). A Final SLR INA Report was sighted dated 13 November 2015. This has a similar action plan as the Draft INA.

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<sup>10</sup> Lidsdale Siding Upgrade Project.

<sup>11</sup> Environment Protection Agency (2000), NSW Industrial Noise Policy, January 2000, EPA00/1.

**Table 4-11 - Draft Action Plan from Independent Noise Audit (SLR, 2015)**

<i>Action Plan to Implement the Recommendations of the Noise Audit</i>	
<i>Recommendation</i>	<i>Timing</i>
<i>Update the NMP to include EPL 5219 noise limits</i>	<i>T.B.C</i>
<i>Operator attended noise monitoring to include summary of Lidsdale Siding Operations during noise measurements.</i>	<i>Next monthly noise monitoring report.</i>
<i>Utilise Lidsdale Siding Weather station for analysing noise monitoring results.</i>	<i>Next monthly noise monitoring report.</i>
<i>SWL measurements of the plant and equipment to be undertaken and compared to the benchmark levels in the EA in accordance with Section 8.2 of the NMP and SoC Commitment 6.</i>	<i>T.B.C</i>
<i>Undertake a review of on-site alarm systems.</i>	<i>T.B.C</i>

#### 4.2.4 Adequacy Assessment and Observations

##### **Noise Management Plan**

According to the Lidsdale Siding Annual Report – Environmental Noise Monitoring 2014/2015 (Global Acoustics, Report reference 15202.R02, 13 July 2015), regular attended noise monitoring may no longer be required at sites R1 and R6 because R1 is ‘acquisition upon request’ and Lidsdale Siding noise is generally inaudible at R6. Therefore the Director-General may give approval to remove the requirement for future regular noise monitoring at these sites and if so the NMP could be updated accordingly. MCW Environmental did not consider this beyond presenting what was reported on in the Annual Report.

**Table 7-1** provides recommendations concerning the Noise Management Plan.

##### **Future Noise Monitoring**

- **REC-2015-05** - Future monthly and annual noise monitoring reports require the inclusion of a statement of verification with EPL Condition L4.5 with supporting information i.e. the correct distances from the most exposed façade of receptor buildings where noise monitoring was undertaken.

##### **Independent Noise Audit (SLR, 2015)**

- **REC-2015-06** - It is recommended that the Draft Action Plan provided in the Independent Noise Audit (SLR, 2015) be implemented.
- **REC-2015-07** - Sound Power testing of the stockpile dozer should be undertaken to confirm the sound power level is not greater than 105dB(A).

## 5 Environmental Performance

This Section addresses the requirement of the scope of works to “*assess the environmental performance of the development*” by providing an overview of the compliance status for Lidsdale Siding; listing the environmental management and monitoring plans used by Lidsdale Siding to manage and assess environmental performance and discusses complaints received by the mine and incidents reported during mining activities as further indicators for environmental performance. Compliance with Approvals and Licences is also a key indicator of environmental performance and is discussed in Section 6.

### 5.1 Monitoring Plans

Lidsdale Siding has developed the following management / monitoring plans and programs to monitor the environmental performance of the project and mitigate its effects on the surrounding environment:

- Environmental Management Strategy.
- Water Management Plan, Lidsdale Siding.
- Water Management Plan.
- Noise Management Plan.
- Air Quality and Greenhouse Gas Management Plan.
- Biodiversity Management Plan.
- Heritage Management Plan.
- Conceptual Rehabilitation Closure Plan.

The auditors based the assessment of the environmental performance of the Project on the assessment of implementation of the above management and monitoring plans as well as the assessment of compliance with the CoA, SoC and EPL. The findings of this assessment are provided in the Compliance Matrix presented in **Appendix A** with the identified non-compliances and associated recommendations summarised in Section 8.

The adequacy of the above management plans has been assessed in Section 7 of this report.

In addition, to further evaluate the Project’s environmental performance, the auditors reviewed the environmental incidents and complaints recorded during the audit period. The discussion of incidents and complaints is provided below.

### 5.2 Incident Management

Centennial Management Standard 012 – External Environmental Reporting (EER Standard) provides standardised procedures to follow in the event of an environmental incident. The EER Standard states that Centennial sites, including Lidsdale Siding, are to follow the environmental incident reporting procedures provided in the EER. Environmental incidents are categorised according to the severity of the incident, the remediation actions required, and the extent of regulatory action (if any). Categories are numbered from 1 to 5, as shown below:

Figure 5-1 - Categories of Environmental Incidents

Category and Definition		
1	<b>Prosecution (Major)</b>	<ul style="list-style-type: none"> <li>▪ major actual or potential material harm to the environment; and</li> <li>▪ major remediation required; or</li> <li>▪ the company has been convicted of the offence in a court of law</li> </ul>
2	<b>Offence (Significant)</b>	<ul style="list-style-type: none"> <li>▪ significant potential or actual material harm to the environment; and</li> <li>▪ significant remediation required; or</li> <li>▪ a penalty notice has been received</li> </ul>
3	<b>Reportable (Moderate)</b>	<ul style="list-style-type: none"> <li>▪ reportable incident to government agency as a condition of approval/licence or as required by legislation; and</li> <li>▪ environmental harm has occurred (either on or off site) or is likely to occur (either on or off site) (using process described in Attachment 2); or</li> <li>▪ incident outside predictions; or</li> <li>▪ incident or complaint exceeds controls identified in management systems (including management plans, procedures and monitoring programs)</li> </ul>
4	<b>Technical (Minor)</b>	<ul style="list-style-type: none"> <li>▪ licence/approval/standard exceedance or non-compliance; and</li> <li>▪ no environmental harm (using process described in Attachment 2); and</li> <li>▪ incident or complaint that exceeds controls identified in management systems (including management plans, procedures and monitoring programs) that is not a Category 3 incident, ie has not caused harm or is not outside predictions.</li> </ul>
5	<b>Incident (Low)</b>	<ul style="list-style-type: none"> <li>▪ Incident or complaint – on site only within limits of the approved management plan or monitoring program; and</li> <li>▪ No environmental harm with no need for remediation</li> </ul>

The EER identifies the recent amendment to the *Protection of the Environment Operations Act 1997*, (POEO Act) requiring the EPA to be notified immediately after a person carrying out an activity becomes aware of a pollution incident that causes or threatens material harm to the environment. Once immediately reported to the EPA (and/or other relevant authorities, as required), the site must undertake an internal investigation to assess whether environmental harm has occurred or is likely to occur and the materiality of such harm. The EER provides guidance in the identification of environmental harm and materiality. Also included in the EER is a document to guide reporting of an environmental incident to the EPA Environment Hotline, and a template written report, to provide the EPA (and/or relevant authority) written notification of the incident, in accordance with Part 5.7 of the POEO Act and condition R2.2 of the site's EPL.

The Environmental Co-ordinator is responsible for reviewing the outcomes of the environmental incident investigation process, closing out the incident once the investigation has been completed, reporting the incident to appropriate regulatory authorities as per the EER and coordinating any corrective or preventative actions to be instigated. The outcomes of the incident investigation and any corrective or preventative actions is discussed with staff at the daily management meeting and be made available to the workforce if approved by the Mine Manager as a "HSEC alert" via email. Lidsdale Siding maintains electronically a record of environmental incidents in the ECD and a hardcopy of the Lidsdale Siding "Incident/Accident Form" retaining the details of environmental incidents, investigations and any corrective or preventative actions.

The site's Pollution Incident Response Management Plan (PIRMP) contains details of how employees should respond to an environmental incident. Appendix 2 contains a copy of the Duty Card (T001) – Incident Report and Detail Form, Record of Pollution Compliant and Site Location and Catchment Plan.

**Table 5-1** summarises the number of incidents recorded by category.

**Table 5-1 - Summary of Incidents Recorded by Category Period 25 June 2015 – 16 October 2013**

Category	No. of Incidents
1: Prosecution (Major)	0
2. Offence (Significant)	0
3. Reportable (Moderate)	0
4. Technical (Minor)	5
5. Incident (Low)	1

As shown in **Table 5-1** Lidsdale Siding did not record any major (Category 1 - Prosecution), significant (Category 2 – Offence) or moderate (Category 3 – Reportable) incidents during the audit period (3 May 2013 to 31 July 2015).

**Table 5-2** summarises the Category 4 and 5 incidents for the audit period.

**Table 5-2 - Summary of Incidents Recorded for the Audit Period**

Issue	Category	Date	Nature of Incident
Noise	5	17 – 18 May 2015	Noise complaints from same complainant
Noise	4	25 June 2015	Noise compliant at location R3
Noise	4	23 March 2015	Noise complaint from conveyor OL1
Water	4	8 January 2015	Oil and Grease exceedance during LDP004 discharge
Noise	4	17 November 2014	Noise complaint of alarm sounding over weekend
Noise	4	16 October 2013	Noise compliant local resident. Three large “booms”

The above incidents were observed to be logged in the Centennial ECD Lotus Notes database, each with a unique reference number.

### 5.2.1 Reported Incidents

The site maintains a Pollution Incident Response Management Plan (PIRMP) as well as CIMOS – External Incident Reporting process that describes the requirements and processes in relation to the external reporting of environmental incidents requiring external notification under legislation/approval conditions.

## 5.3 Complaint Management

A Community information and complaints line (02 6355 9500) is maintained by Lidsdale Siding. The number reports to the Western Coal Services control room that is manned 24 hrs a day. The caller's details are recorded and passed on to the relevant Centennial member of staff. It was not clear if the Record of Pollution Complaint as provided in the Environmental Strategy is completed during the call or following the call. Records of complaints forms dated 03/08/2015, 20/05/2014, 17/11/2014, 30/10/2013 were available for review as well as an Incident Report form concerning the shunting of coal wagons on 16 October 2013.

Complaints are logged by the Environmental Co-ordinator within Lotus Notes (using the ECD system). The log includes the following information: reference number, complainant details, complaint type,



date and time of occurrence, complaint details, investigation / cause, remediation details, implementation process, implementation date and details of consultation.

A screen-shot summary of complaints for the audit period in the Lidsdale Siding ECD was provided, which numbered five in total for the audit period. Four were categorised as Category 4 (Minor) Environmental Incidents, one was categorised and Category 5 (Low).

A presentation to the Western Coal Community Consultative Community (CCC) for April 2015 identified that complaints were included as an agenda item; however, the minutes for the April 2015 meeting did not include details of complaints discussed. It is noted that the CCC includes surrounding Centennial sites.

## 5.4 Compliance Management

Centennial has developed a compliance database to assist sites meet requirements of Project Approvals and associated plans, programs and strategies. The database allows conditions to be entered and actions to be automatically generated when a trigger is met. The full capability of the database was not observed during the audit; however, the database was used to demonstrate how compliance with various approvals or the EPL is managed by viewing evidence of documents attached to the relevant section of each condition.

## 6 Compliance with Statutory Requirements

This Section fulfils the requirement to assess whether the project is complying with the relevant requirements in its Project Approval and EPL.

### 6.1 Key Statutory Approvals

**Table 6-1** identifies the major approvals, licences in place for the Lidsdale Siding and provides relevant information where applicable.

**Table 6-1 - List of Approvals, Licences and Leases**

Issuing / Responsible Authority	Type of Lease, Licence, Approval	Date Granted / Varied / Modified	Expiry
NSW DP&E	PA 08_0223	3 May 2013	31 December 2042
Environment Protection Authority (EPA)	Environment Protection Licence No. 5129	2 August 2001	Renewed Annually
		1 August 2005	
		11 July 2007	
		6 August 2007	
		27 February 2008	
		9 August 2012	
		4 August 2014	
NSW DP&E	Statement of Commitments (PA 08_0223)	May 2013	-
NSW Office of Water (NOW)	Bore Licence 10WA116403	1 July 2011	13 April 2025
	Water Licence (10SL038318)	March 2011	Perpetuity <sup>Note 1</sup>

<sup>Note 1</sup> The Water Licence was not renewed in the audit period.

#### 6.1.1 Environmental Protection Licence 5129

The following variations were made to EPL 5129 during the audit period (August 2014):

- Updating the mailing address for the premises;
- Changing the activity scale to >2 - 5,000,000 tonnes handled (condition A1.1);
- Updating Lot and DPs under Premises Details (condition A2.1);
- Insertion of a reference to the Project Approval (condition A3.2);
- Changes to location description for EPA identification points 1-4 (conditions P1.1 and P1.3)
- Addition of EPA identification points 5-9 (condition P1.1);
- Addition of extreme rainfall event conditions (condition L2.5);
- Updating of waste condition (condition L3);
- Inclusion of noise limits and supporting conditions (conditions L4.1 - L4.7);
- Modification of dust conditions (conditions O3.1 and O3.2);
- Addition of conditions relating to sediment structure maintenance (conditions O4.1 - O4.3);
- Modification of air monitoring requirements (condition M2.2);
- Modification of surface water monitoring requirements (condition M2.3);
- Inclusion of weather monitoring requirements (conditions M4.1 and M4.2); and
- The inclusion of a Pollution Reduction Program for the remediation and monitoring of site contamination (condition U1).

### 6.1.1.1 EPA Compliance Audit Report 2014

An EPA compliance audit<sup>12</sup> was conducted at the Lidsdale Siding by EPA officers on 27 May 2014, prior to the upgrade of the site being undertaken.

The site was audited as part of an EPA compliance audit program on coal train loading and unloading facilities. The audit focused on management methods and procedures in place to prevent or minimise the loss of coal (in the form of leaks, spills and dust emissions) during rail transport. The audit was conducted in accordance with the EPA Compliance Audit Handbook (DEC 2006). The main objectives of the audit were to assess compliance with EPL 5129 operating conditions O1 and O2 and to develop an action program to be implemented by Lidsdale Siding to address any non-compliance(s) identified during the audit. A summary of the EPA findings against EPL 5129 Conditions O1 and O2 is provided in **Table 6-2**.

**Table 6-2 - Summary of EPA Compliance Findings**

Assessment		Number of Assessments
Yes (Compliant)		3
No (Not Compliant)	Code Red	0
	Code Orange	2
	Code Yellow	2
	Code Blue	0
Not Determined		3
Not Applicable		4
<b>Total</b>		<b>14</b>

*EPA Risk Definitions:*

**Code Red** = the non-compliance is of considerable environmental significance and therefore must be dealt with as a matter of priority.

**Code Orange** = the non-compliance is of environmental significance however; remedying the non-compliance can be given a lower priority than a red risk assessment.

**Code Yellow** = the non-compliance could receive a lower priority than a red or orange risk code, but the non-compliance is still important and must be addressed.

**Code Blue** = licence conditions that do not have a direct environmental significance, but are still important to the integrity of the regulatory system. These conditions relate to administrative, monitoring and reporting requirements. Non-compliance of these conditions is given a code blue risk assessment.

Centennial responded to the EPA in a letter dated 3 September 2014 noting that 'the new coal load-out facility implements a number of operational capabilities that will significantly improve the performance of Lidsdale Siding'. A copy of Centennial's full response is appended to the EPA audit report available on the EPA's website<sup>13</sup>. This audit has assessed whether recommendations made by the EPA in 2014 have been carried out in the period since the audit and make the following comments in **Table 6-3**.

<sup>12</sup> Environment Protection Authority (2014), Loss of Coal During Rail Transport Compliance Audit Program, Final, Lidsdale Coal Loading Facility Compliance Audit Report, December 2014

<sup>13</sup>

<http://www.epa.nsw.gov.au/prpoeoapp/Detail.aspx?instid=5129&id=1527407&&status=Complete&option=audit&range=POEO licence&searchrange=audit>

Table 6-3 - Status of EPA Audit Findings

EPL Condition	EPA Code	EPA Comment / Finding	Action Required by EPA	2015 Update – Assessment by MCW Environmental	EPA Status 2015 (see below)
Item 1 - O1.1(a)	Orange	The licensee is not carrying out train loading activities in a manner which minimises or prevents coal spills and dust emissions from the top of wagons during rail transport.	The licensee must ensure that train loading activities are carried out in a manner which minimises or prevents coal spills and dust emissions from the tops of wagons during rail transport. <b>Target Date 30 June 2015</b>	Trains are no longer loaded by front-end loaders. The coal loading operation is fully automated. Coal is delivered into the rail wagons via a computer operated coal chute at the TLO Bin that delivers the coal in a controlled manner and flattens the coal as the wagon passes under the chute. A video of coal loading operations was observed by the auditors during the site inspection. Coal spillage was not observed during the viewing of the video. No evidence of significant spills were noted at the TLO bin. No damage or impacts to the rail wagons was observed. Water sprays were observed at the TLO Bin. Construction of the automated system finished in August 2014, automated operations commenced soon after.	Improvement but Ongoing
Item 2 - O1.1(a)	Yellow	The licensee is not carrying out train loading activities in a manner which minimises or prevents the deposition of coal on the exterior of wagons (referred to as 'parasitic coal').	The licensee must ensure that train loading activities are carried out in a manner which minimises or prevents coal deposition on the exterior of wagons. <b>Target Date 31 March 2015</b>		Closed
Item 3 - O2.1(a)	Yellow	The licensee was not maintaining monitoring equipment at the load-out facility in a proper and efficient condition.	The licensee must ensure that maintenance of monitoring equipment is undertaken in a proper and efficient manner. <b>Target Date Immediate and Ongoing</b>	CCTV cameras were observed in the Western Coal Services control room where loading operations are managed. A recording of a recent train loading operation was shown to the auditors indicating CCTV cameras were in an operational condition.	Closed
Item 4 - O2.1(a)	Orange	The wagons, including the wagon doors, observed on the day of the audit inspection are not being maintained in a proper and efficient manner.	The licensee must ensure that maintenance of wagons is undertaken in a proper and efficient manner. <b>Target Date Immediate and Ongoing</b>	Rail wagons were not scheduled to be on-site at the time of the site inspection on the 31 July 2015 therefore MCW Environmental is unable to comment on the condition of rail wagons.	Ongoing

The EPA wrote to Centennial on 13 August 2015<sup>14</sup> noting that a follow inspection of Lidsdale Siding was conducted on 13 May 2015 to assess the implementation status of corrective actions in relation to the findings of the May 2014 audit. The EPA noted that “the licensee has implemented a variety of controls as part of its Train Load Out (TLO) Automation Project to demonstrate compliance with the Action Program and Environmental Protection Licence No.5129”. Furthermore the EPA noted that “The EPA considers that the actions taken satisfy the required corrective actions for items 2 and 3 contained in the Action Program. With regards to actions items 1 and 4, the EPA encourages the licensee to consider EPA’s comments in determining how the licensee intends to satisfy the required actions and comply with the licence”.

## 6.2 Key Strategies, Plans & Programs

It is noted that not all Approvals and licences were considered in the audit. The audit assessed compliance with the following:

- Project Approval 08\_0223 and Statement of Commitments; and
- Environmental Protection Licence (EPL) 5129.

A summary of the strategies, plans and programs required by PA 08\_0023 is provided in **Table 6-4**.

**Table 6-4 - List of Strategies, Plans and Programs Reviewed for Adequacy**

Strategy / Plan / Program	Date Prepared / Revised	Approval Date
Environmental Management Strategy	February 2015	2 March 2015
Construction Environmental Management Plans:		28 May 2013
<ul style="list-style-type: none"> <li>- Construction Noise Management Plan</li> <li>- Construction Traffic Management Plan</li> <li>- Construction Erosion and Sediment</li> </ul>		
Noise Management Plan	12 November 2013	15 November 2013
Air Quality and Greenhouse Gas Management Plan	13 November 2013	15 November 2013
Water Management Plan	14 November 2013 (in place and assessed at time of audit)	15 November 2013
	Updated on 24 September 2014	No approval sighted

<sup>14</sup> EPA (2015), EPA Loss of Coal Compliance Audit Program, : Audit Follow Up Inspection Ivanhoe Coal Pty Ltd (Lidsdale Siding Coal Loading facility – Licence No, 5129), dated 13 August 2015, Ref: DOC15/287847



Strategy / Plan / Program	Date Prepared / Revised	Approval Date
Biodiversity Management Plan	October 2013	15 November 2013
Heritage Management Plan	November 2013	15 November 2013
Conceptual Rehabilitation Closure Plan		Lidsdale Siding have consulted with numerous stakeholders regarding this plan (including DP&E).  Centennial is currently awaiting feedback from John Holland Group (owner of the site) regarding the Rehabilitation and Closure Plan.
Pollution Incident Response Management Plan	December 2014	-

The status of Lidsdale Siding's performance during the audit, in respect of each condition of the DA, EPL and ML is presented in **Appendix A**. Conditions considered to be not complied with, or not able to be verified, have been listed in Section 8 of this report.

Performance categories in respect of compliance are defined as follows.

**Table 6-1 - Performance Category**

Performance Category	Definition
Compliant	Currently in compliance. Sufficient verifiable evidence was available to demonstrate that the intent and all elements of the requirement of the regulatory instrument had been complied with within the scope of the audit.
Non-compliant	Currently not in compliance. Sufficient verifiable evidence was available to demonstrate that the intent of one or more specific elements of the regulatory instrument have not been complied with within the scope of the audit.
Administrative Non-compliance	A technical non-compliance with a condition of the consent that would not impact on performance and that is considered minor in nature (e.g. report submitted but not on the due date, failed monitor or late monitoring session). This would not apply to performance related aspects (e.g. exceedance of a noise limit) or where a condition had not been met at all (e.g. noise management plan not prepared and submitted for approval).
Not Activated	Condition not applicable at time of audit or had not been triggered
Not Verified	It has not been possible to determine whether compliance exists. Sufficient verifiable evidence to demonstrate that the intent and all elements of the requirement of the regulatory instrument have been complied with within the scope of the audit was not available.
Not Assessed	the condition has not been assessed as part of the scope of this audit

Auditor's comments are provided next to each condition to explain evidence sighted relevant to each condition. Where considered relevant, observations have been made regarding specific compliance issues.

Conditions considered Non-compliant are presented in **Table 8-1** (Section 8) of this report. The table includes a discussion of the compliance status and recommendations for improvement where appropriate.

Where conditions are considered compliant; however it is considered a continuous improvement opportunity exist to improve the compliance status or to improve environmental performance at the site, a recommendation has been made in the compliance table. A summary of these recommendations is provided in **Table 8-2** (Section 8) of this report.

The auditors have not undertaken a rigorous or technical assessment of the documents required by the Development Consent or EPL, particularly where these documents have been signed off and/or approved by relevant regulatory authorities (for example, DP&E). A high level review of adequacy of some documents is provided in Section 7 of this report.

## 7 Review of Environmental Management System

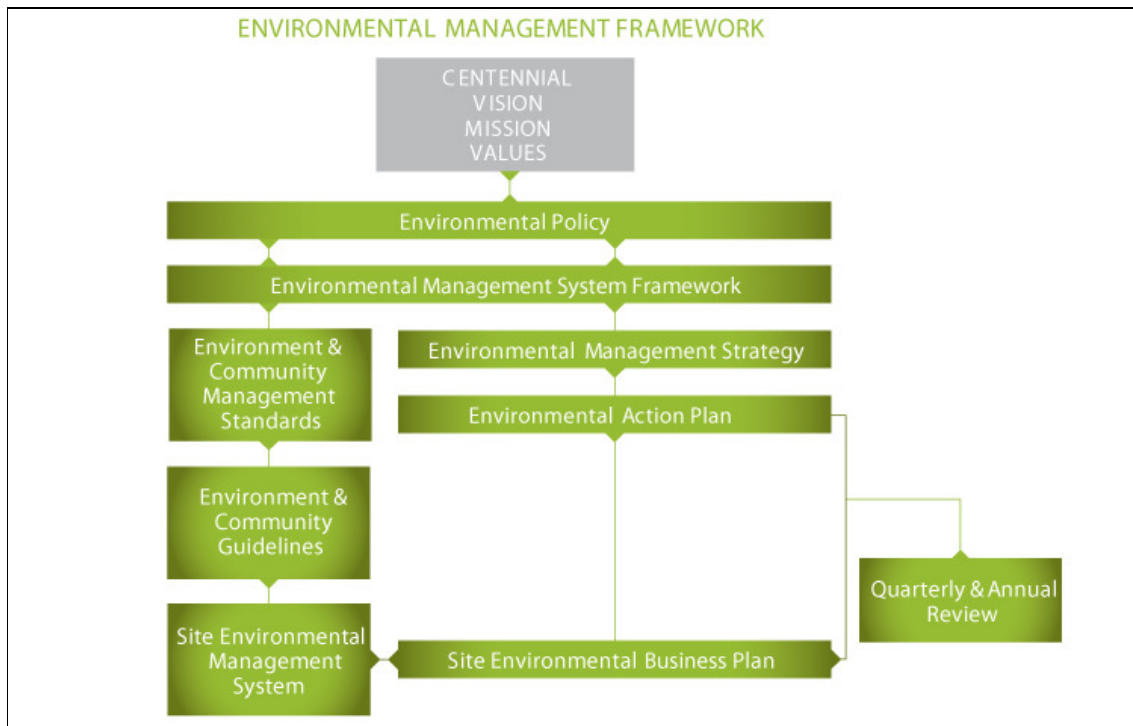
This Section fulfils the requirement to assess the adequacy of strategies, plans or programs required under the Project Approval. The implementation of the management plans / programs is discussed in **Appendix A**.

### 7.1 Centennial Environmental Management Overview

Centennial Coal has established an Environmental Policy and Environmental Management System (EMS) Framework, as well as a number of Environment and Community Standards. The policy, EMS framework and associated procedure provide guidance to Centennial's sites, such as Lidsdale Siding, on the development of their own Environmental Management plans.

Lidsdale Siding has developed an Environmental Management Strategy and a number of supporting environmental management plans to manage environmental aspects and impacts of operational activities. Lidsdale Siding's Environmental Strategy (the Strategy) operates under the overarching Centennial Coal Environmental Policy and EMS Framework. Centennial's Environmental Management Framework is depicted in **Figure 7-1** below.

**Figure 7-1 - Centennial Environmental Management Framework**



Centennial Coal has developed an Environmental Management System Framework Document (EMS Framework) incorporating the following four components:

- EMS Framework Document (Volume 1)
- EMS Procedures (Volume 2)
- Environment and Community Management Standards (Volume 3)
- Environment and Community Management Plans (Volume 4)

The Centennial EMS Framework has been developed to be consistent with the International Standard for Environmental Management Systems ISO 14001. The EMS Framework outlines the following elements:

- Commitment and policy;
- Identification of aspects and impacts;
- Legal and other requirements;
- Objectives and targets;
- Management plans;
- Responsibility for implementing the EMS;
- Training, awareness and competence;
- Communication;
- Documentation and document control;
- Operational control;
- Emergency preparedness and response;
- Measurement and evaluation; and
- Management review.

The EMS Framework is applicable to all activities and areas managed by Centennial. The purpose of the EMS Framework is to provide an effective management tool, which will foster sound environmental management of all EMS Framework that each Business Unit, such as Lidsdale Siding, develop an Environmental Management Strategy, consistent with the EMS Framework objectives.

The detail of the Centennial Coal EMS Framework and the site implementation of these documents were not assessed in detail during the audit.

Lidsdale Siding has adopted the following Centennial Coal Standards:

- Environmental Risk Assessment Protocol (ECMG 02)
- Environmental Incident Reporting (ECMG 03)
- Minimum Standards Newsletter (ECMS 05)
- Audit and Inspection (ECMG 06)
- Site Environment Induction Employees and Contractors (ECMS 09)
- Site Environment Induction Visitors (ECMS 10)
- Site Environment Induction New Staff (ECMS 11)
- Site Environment Induction New Mineworker (ECMS 12)
- Environmental Assessment Standard (ECMS 14)

Lidsdale Siding has developed an Environmental Management Strategy, an Environmental Management System and a number of environmental management plans and monitoring programs. These are discussed in more detail in Sections 7.2, 7.3 and 7.4 below. A detailed review of the site's implementation of the above Standards and the Environmental Management System (EMS) was not included in the scope of this audit.

## 7.2 Environmental Management Strategy

The Lidsdale Siding Environmental Management Strategy (the 'Strategy') was prepared in February 2014 to satisfy the requirements of PA 08\_0223. The Environmental Management Strategy was submitted for approval by the Director-General on 4 February 2014. The Director-General approved the Strategy on 2 March 2015.

The Project Approval (Schedule 5, Condition 1 of PA 08\_0223) requires the following:

*The Applicant shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:*

- a) *be submitted to the Director-General within 9 months of the date of this approval;*
- b) *provide the strategic framework for environmental management of the project;*
- c) *identify the statutory approvals that apply to the development;*
- d) *describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;*
- e) *describe the procedures that would be implemented to:*
  - *keep the local community and relevant agencies informed about the operation and environmental performance of the project;*
  - *receive, handle, respond to, and record complaints;*
  - *resolve any disputes that may arise during the course of the project;*
  - *respond to any non-compliance;*
  - *respond to emergencies; and*
- f) *include:*
  - *copies of any strategies, plans and programs approved under the conditions of this consent; and*
  - *a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.*

The Strategy provides the strategic and policy framework for the management of environmental issues at Lidsdale Siding, including defining key regulatory and other requirements. The Strategy also contains procedures applicable to CoA Schedule 5, Condition 1, including:

- Section 1 of the Strategy provided the strategic framework and included an overview of the Environmental System, Environmental Management Plans. The Strategy included, but was not limited to sections addressing environmental inspections, roles, responsibilities, resources, training, communication, community and complaints and handling dispute resolution. URS consider these topics to generally provide the strategic framework for the environmental management of Lidsdale Siding.
- Section 3 sets out the statutory requirements of the project in accordance with Condition 5.1(c).
- Section 5.1 sets out resources, roles, responsibilities, authority and accountabilities for environmental management of the project.
- Sections 5.3 described the process for managing community issues and information;
  - section 5.3.3 described how to manage complaints and dispute resolution process
  - section 6.5 addressed non-compliances and referenced Centennial Standards to be used in the process
  - section 5.7 referenced the Pollution Incident Response Management Plan (PIRMP) as the principal document for managing environmental incidents.
- Sections 5.4.1 and 6.3 12. No other plans or programs were included in the Strategy. Reference to plans required by PA 162\_91 was made in Section 2.2 (p.6).
- Appendix 1 included Plans (i.e. Figures) of environmental monitoring locations for the project. Section 6.3 addressed environmental monitoring.



## 7.3 Management Programs and Plans

The following documents were reviewed for adequacy by the auditors:

- Environmental Management Strategy
- Water Management Plan
- Noise Management Plan
- Air Quality and Greenhouse Gas Management Plan
- Biodiversity Management Plan
- Heritage Management Plan
- Pollution Incident Response Management Plan

### 7.3.1 General Summary of Management Plan Adequacy Review

The following general comments are made regarding the adequacy of the management plans and monitoring programs:

- The use of Trigger Action Response Plans (TARPS) in the Water Management Plan provide clear and concise instructions and actions for anticipated issues, such as EPL discharge exceedances or site groundwater monitoring.
- Plans such as the Air Quality and Noise Management Plans referred to the Project in the future tense (e.g. “*will be brought...*” or “*Two (2) additional DDGs are proposed for air quality monitoring...*”) making it difficult to understand what activities and/or actions relate to current operations.
- Document control was evident and had been implemented making it easy for the auditors to determine when plans had been updated.
- The structure of current plans and programs are not very user friendly. Several consultancies had written the plans resulting in inconsistent layouts and approaches. The requirements and mitigation measures are often embedded or lost in text making the plans difficult to implement and audit. The usability of the plans and programs could be greatly enhanced by having a table listing required management/mitigation measures. This could then be the basis of site's internal and external audit/review process for implementation of the plans/programs.
- Roles and responsibilities were not clear within the Noise Management Plan and Air Quality Management Plan
- There is limited integration between the management plans, the Strategy and the Centennial EMS. The EMS, the Strategy and the management plans do not reinforce the link to one another, causing a lack of information in some respects or a double up of information in others. For example the Environmental Strategy is the only document that refers to the Centennial EMS and Standards.

None of the management plans referred to the Strategy as the key environmental document for the site or referenced it for roles and responsibilities for implementation. For example the current Noise Management Plan, Heritage Management Plan and Air Quality Management Plan do not note that any exceedances or incidents are to be entered in to the Centennial ECD Lotus Notes database. The Air Quality Management Plan notes that “*A full and complete record of the incident, actions and sign-off by an authorised person will be recorded in a log book*” (p.18).

### Overarching Recommendations Relating to Management Plans:

The following provides a summary of overarching recommendations relating to Management Plans in general at Lidsdale Siding. These recommendations vary in their level of risk and significance. Many continuous improvement recommendations are not at a level of risk or significance that warrant an immediate review of the Plan or update; however could be made during the next update of the Plan.

- **REC-2015-08** - *That the structure of current management plans be improved so as to highlight management actions and mitigation measures that can be easily identified, implemented and audited against. This could include having a table or Section listing all of the management / mitigation measures required as part of the plan (similar to the TARPs in the Water management Plan).*
- **REC-2015-09** - *That integration between the EMS, the Strategy and the management plans is improved. Each plan should outline its strategic context in line with Lidsdale Siding's EMS, the Strategy and Centennial Coal's Standards.*

It is noted that these comments are continuous improvement opportunities and would not required to be completed immediately – it is suggested they are considered in the next scheduled update of the management plans.

The findings of the review of the adequacy of the management plans/monitoring programs and subsequent recommendations are provided in **Table 7-1**. It is noted many of the comments are made on the basis of identifying continuous improvement opportunities within the Plans.

Table 7-1 - Adequacy Review of Management Plans / Monitoring Programs

Management Plan / Monitoring Program	Adequacy Review and Recommendations
<b>Water Management Plan Lidsdale Siding (2014)</b>	<p>The Water Management Plan (WMP) was prepared to address Conditions 15, 16, 17, and 21 of Schedule 3 of the DA 08_0223. The WMP includes a Site Water Balance, Surface Water Management Plan, Groundwater Monitoring Program, Surface and Ground Water Response Plan as required by the Condition 21, Schedule 3 of PA 08_0223.</p> <p>The following observations are noted:</p> <ul style="list-style-type: none"> <li>• The plan does not include variations to EPL 5129 since 2014. For example the addition of extreme rainfall event conditions (condition L2.5).</li> <li>• The WMP refers to 'proposed' activities in a number of sections. For example Table 5.3 states "<i>Proposed Site Water Use Hierarchy</i>", Section 5.7 (p.16) refers to "<i>the entrance level to the proposed underground conveyor and reclaim tunnel should be at least 500mm above the 100 year flood level of RL 880.5 (RL 881.0)</i>" and Section 10.2 (p.29) "<i>The proposed trigger levels are provided on Tables 10.1 and 10.2</i>".</li> <li>• Production Bore PB1 was removed during the audit period.</li> <li>• A new Production Bore (10WA116403) was installed during the audit period.</li> <li>• Water Licence 10SL038318 was not renewed during the audit period.</li> <li>• Section 3.1.2, Rainfall (p.6) does not reference EPL 5129 Condition L2.5 that allows the discharge through LDP004 when a total of 56 mm of rainfall occurs over any consecutive five day period.</li> <li>• There is no reference to pumping out of the Triangle Dam and the need to have the water sampled and confirmed as suitable for discharge.</li> <li>• Section 3.1.1, Onsite Weather Station (p.6) refers to the location of the former on-site weather station.</li> <li>• Section 3.7, Contamination (p.9) does not include references to the most recent contamination assessments at the site.</li> <li>• The Truck Wash is no longer used but is referenced as a source of recycled/used water (Table 5-1, p.12 and Figure 5 – Average Annual Water Balance).</li> <li>• The 523 KL firewater tank is not mentioned in the Plan.</li> </ul> <p><b>Recommendations</b></p> <ul style="list-style-type: none"> <li>• <b>REC -2015-10</b> - <i>Update the 2014 Surface Water Management Plan to reflect current EPL 5129 requirements.</i></li> <li>• <b>REC -2015-11</b> – <i>Update the Surface Water Management Plan to refer to actions and activities that are currently undertaken at the site rather than those that were 'proposed' and to address the above comments. This update should include defining timeframes or an action plan for mitigation measures in Section 10.4.2 to be completed.</i></li> </ul>

## Management Plan / Monitoring Program

## Adequacy Review and Recommendations

### Noise Management Plan (2013)

The Noise Management Plan (NMP) was prepared to address Condition 7, of Schedule 3 of the DA 08\_0223. The NMP was prepared by SLR Australia Pty Ltd.

The following observations are noted:

- The NMP did not include the requirements of EPL 5129, Conditions L4.1 to L4.7. Of note was the absence of the requirements of EPL Condition L4.5 that specifies distances for monitoring.
- Section 8.3 of the NMP noted the possibility of reducing the frequency of operator-attended noise monitoring after 12 months following completion of the construction of the upgraded coal loader, at the discretion of the Director-General.
- Section 7 (Noise Mitigation Measures) notes that a training program will be implemented for relevant train operators. Whilst it is acknowledged that the site may not have control over third parties training programs Lidsdale management was unable to confirm what training, if any had been undertaken.

#### Recommendations

- **REC-2015-12** - *The Noise Management Plan should be updated to include:*
  - *The noise limits given in the EPL condition L4.1*
  - *Additional detailed instructions for the noise monitoring program that specifies the exact location where noise monitoring is to be undertaken to ensure compliance with EPL Condition L4.5 and supporting figure(s) showing monitoring locations at each receptor.*
- **REC-2015-13** - *It is not recommended that the frequency of noise monitoring be reduced based on the number of incidents of exceedances of the noise limits in 2014 and 2015.*
- **REC-2015-14** - *Confirm if a training program for relevant train operators has been implemented. If not, implement a training program in accordance with the requirements of the NMP.*

### Air Quality and Greenhouse Gas Management Plan (2013)

The Air Quality and Greenhouse Management Plan was prepared to address Condition 10, of Schedule 3 of the DA 08\_0223. The Air Quality and Greenhouse Management Plan was prepared by RPS Australia East Pty Ltd.

The following observations are noted:

- Wallerawang power station is referenced as a potential off-site emission source. The power station ceased operations during the audit period.
- The location of the Lidsdale Siding Weather Station or PM<sub>10</sub> continuous monitor is not referenced.

#### Recommendations

- **REC -2015-15** - *Update the Air Quality and Greenhouse Management Plan and remove references to Wallerawang Power Station as an off-site emission source.*
- **REC -2015-16** - *Update the Air Quality and Greenhouse Management Plan to include the location of the Lidsdale Siding Weather Station, including PM<sub>10</sub> continuous monitor.*

**Management Plan /  
Monitoring Program****Adequacy Review and Recommendations****Biodiversity Management  
Plan (2013)**

The Biodiversity Management Plan (BMP) was prepared to address Condition 22, of Schedule 3 of the DA 08\_0223. The BMP was prepared by RPS Australia East Pty Ltd and includes a detailed description of measures that would be implemented over the life of the project to protect and conserve biodiversity. The BMP includes a Fire Management Section (Section 4.7).

The following observations are noted:

- Actions concerning monitoring activities and timing for monitoring activities are difficult to identify as they are embedded or lost in text making the BMP difficult to implement and audit.
- The BMP included a Conclusion (Section 6.0). Management plans generally do not have a conclusion as they are documents used for the implementation of actions to mitigate identified aspects and impacts.

**Recommendations**

- Refer to **REC -2015-35**
-

## Management Plan / Monitoring Program

## Adequacy Review and Recommendations

### Heritage Management Plan (2013)

The Heritage Management Plan (HMP) dated November 2013 was prepared to address Condition 23, Schedule 3 of DA 08\_0223. The Plan was prepared by Kayandel Archaeological Services Pty Ltd on behalf of Ivanhoe and was approved by the Secretary on 23 October 2014. The Plan includes the procedures to be followed for the identification, protection (including monitoring) and management of environmental (Aboriginal cultural heritage) impacts during the normal operations of the Lidsdale Siding.

The following observations are noted:

- The HMP does not include operational level roles and responsibilities and is difficult to understand the individual roles responsible for implementation identified actions and mitigation measures. The HMP includes overarching roles and responsibilities such as the Regulator, the Proponent, the Principal Operator and Heritage Consultant/Archaeologist and Registered Aboriginal Parties.
- The HMP refers to the 'Study Area' but does not clearly define how this or identified artefacts relate to the 'Operational Area'. The Operational Area is only referred to on Figure 2 – General Arrangement. A simple table listing artefacts, where they are located (i.e. inside operational area) and any applicable mitigation measures would provide a succinct summary of heritage items at Lidsdale Siding.
- Specific controls (Section 5.11) are provided as general text making it difficult to understand the actions and mitigation measures for an individual artefact. A simple table listing artefacts, where they are located (i.e. inside operational area) and any applicable mitigation measures would provide a succinct summary of heritage items at Lidsdale Siding.
- The HMP refers to 'proposed' activities in a number of sections. For example Section 2.2 (p.6) states "*Given the location of the known proposed infrastructure, construction works should avoid impacts to known Registered Aboriginal sites*" and Section 5.1.1 (p.14) states "*As works are not proposed in the vicinity and management controls are proposed to be implemented*". Construction works have been completed.

No significant indigenous or non-indigenous heritage items were identified during the audit period.

### Recommendations

- **REC -2015-17** - Update the HMP to refer to actions and activities that are currently undertaken at the site rather than those that were 'proposed'.
- **REC -2015-18** – Update the HMP to include operational specific roles and responsibilities (i.e. site manager).
- **REC -2015-19** – Update the HMP to clearly define the extent of the Operational Area, the heritage artefacts located inside the Operational Area and applicable controls and mitigation measures.



## Management Plan / Monitoring Program

## Adequacy Review and Recommendations

### Pollution Incident Response Management Plan (2014)

The Pollution Incident Response Management Plan (PIRMP) updated in December 2014 and prepared in July 2012 was developed in response to a requirement by the *Protection of the Environment Legislation Amendment Act 2011*, now covered under section 153A of the POEO Act.

The PIRMP defines how external pollution reporting is to be undertaken in accordance with Centennial Coal's Management Standard-012 - External Environmental Reporting.

The Auditors undertook a high-level, summary assessment of adequacy against the content of the PIRMP, as outlined at *Clause 98C of the Protection of the Environment (General) Regulation 2009*. A high level of compliance was noted against the requirements identified in the Regulation.

The PIRMP was last tested in December 2014. The simulation concerned an elevated dust incident at the extended rail line. Records for the simulation were sighted dated 11 November 2014.

The following observations were made:

- The PIRMP did not reflect current operations and activities. The PIRMP referred to previous activities and operations whereby coal was moved by front end loader from the conveyor and truck stockpiles to the train loading stockpile. Section 1.2 (p.1) states "*If Lidsdale Siding is upgraded this PIRMP will be reviewed and updated*". Table 4 – Centennial Contact Details (p.9) were included for the control room operator only even though the positions of the Site Manager and Environment and Community Coordinator were provided.
- Figures provided in the PIRMP did not clearly show the location of potential pollutants on the premises as required by Condition 98C(1)(k) (i.e. as detailed in Table 1 of the PIRMP). Table 1 also referred to Figures 1 and 2; however, the Figures in Appendix 5 were numbered Figure 3, Figure 9 and Figure 4.

#### Recommendations

- **REC-2015-20** – Update the PIRMP to reflect current operations and activities.
- **REC-2015-21** – Update contact details in the PIRMP to reflect current roles and responsibilities.
- **REC-2015-23** - Update the Plans / Figures appended to the PIRMP to clearly and legibly show the location of potential pollutants on the premises. Ensure the cross referencing of Figures correlates with those included in the PIRMP.

It is suggested that the recommendations provided in **Table 7-1** be addressed at the next scheduled review date for each of the management plans.

## 8 Summary of Non Compliances and Recommendations

Some non-compliances have been identified with the Development Consent Conditions, EPL conditions and Mining Lease conditions. These non-compliances as well as the requirements assessed as indeterminate and the associated recommendations have been consolidated and are summarised in **Table 8-1** below.

For a number of requirements that were assessed as compliant or not applicable, recommendations were made where continuous improvements were identified. These requirements and recommendations are summarised in **Table 8-2**.

Recommendations relating to observations of general environmental management, the adequacy of the various plans / programs are provided in Section 7.

Table 8-1 - Non-Compliant and Not Verified Conditions

Condition Number	Condition	Comments and Evidence Sighted for Audit Period	Compliance Status (C/O/NC/NA) and Recommendation
DA 08_0223 C2.9	<p><b>Surrender of Existing Development Consents</b></p> <p>Within 12 months of the date of this approval, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents for the site in accordance with Section 104A of the EP&amp;A Act.</p> <p><i>Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&amp;A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.</i></p>	<p>Lidsdale management advised that they were consulting with landowners to surrender the previous consent and advise them of the new consent. Letters had been drafted but had not been issued to the landowners at the time of the audit.</p>	Not Verified
DA 08_0223 C3.2	<p><b>NOISE</b></p> <p><b>Noise Impact Assessment Criteria</b></p> <p>The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 1.</p> <p><i>Appendix 4 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.</i></p> <p><i>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</i></p>	<p>The following noise exceedances were noted during the audit period:</p> <ul style="list-style-type: none"> <li>Exceedance &gt;2dB(A) above limit in February 2015 at residence R8. Attributed to an alarm which was subsequently rectified by removal of the audible component of the alarm.</li> <li>Exceedance &gt;2dB(A) above limit in 25 June 2015. Attributed to conveyor operation, evening and night criteria and low frequency criteria. Two residences on Braze Lane and R12. A letter from Centennial to the landowner R12 was sighted notifying the resident of the exceedance.</li> </ul> <p>Global Acoustics undertake current monthly attended monitoring. Lidsdale management noted that root cause analysis of noise exceedances is not yet undertaken at the site.</p> <p>Detailed noise monitoring started July 2014 during commissioning of the new plant and equipment. Construction noise monitoring was conducted by the construction contractor. SLR (2015, p.9) noted that <i>"It is considered that construction noise monitoring has not been undertaken sufficiently in accordance with the noise monitoring program and the required Australian Standards and that the implementation of the CNMP Section 9 is non-compliant. Noise monitoring reports present no assessment of compliance, conclusions or recommendations and therefore compliance with the construction noise criteria cannot be determined"</i>.</p> <p>One complaint was recorded during the construction phase. The complaint concerned noise associated with the 'bunching' of rail wagons during loading operations and is therefore not considered a construction related complaint.</p> <p>Given the two noise exceedances during the audit period and the Draft Independent Noise Audit (SLR, 2015) identified a non-compliance with construction noise monitoring this condition is considered non-compliant.</p> <p>The continual noise logger was observed at the Lidsdale Siding Weather Station (LSWS) site. The LSWS is located in a triangle of rail tracks and adjacent to the overland conveyor. Lidsdale management noted they were considering relocating the continual noise logger to an off-site location. Auditors concur with the proposed relocation and recommend that the continual noise logger be located closer to a sensitive receiver in order to better track and trend noise issues at the site.</p>	<p>Non-compliant</p> <p><b>Recommendations</b></p> <p><b>REC-2015-25</b> – Refer to Section 4.2.4 of the Main Report for noise recommendations.</p> <p><b>REC-2015-26</b> – Relocate the continual noise logger to a more suitable location (i.e. closer to sensitive receivers).</p>

Condition Number	Condition	Comments and Evidence Sighted for Audit Period	Compliance Status (C/O/NC/NA) and Recommendation
DA 08_0223	<b>Level Crossings, Main Street and Brays Lane, Wallerawang</b>	<p>The auditors sighted the following documents:</p> <ul style="list-style-type: none"> <li>• Site Investigation of LCC86170A - Active Public Vehicle Level Crossing, Main Street Wallerawang, dated 4 September 2013.</li> <li>• Survey of LCC86173A - Public Vehicle Level Crossing Bray Lane, Wallerawang Colliery, dated 4 September 2013.</li> </ul> <p>A letter of completion dated 10 March 2014 was available for review from Laing O'Rourke that stated:  <i>"... that the following work on the Main St Level Crossing at Wallerawang has been completed in accordance with John Holland/Country Regional Network recommendations;</i></p> <ul style="list-style-type: none"> <li>• <i>East Approach</i> <ul style="list-style-type: none"> <li>- <i>Re-marked rail X pavement marking</i></li> <li>- <i>Installed W7-4 sign</i></li> <li>- <i>Barrier line to extended past furthest W7-4 sign</i></li> <li>- <i>Assembled RX-5 sign to include W7-2-1 sign</i></li> <li>- <i>Re-marked stop line</i></li> </ul> </li> <li>• <i>West Approach</i></li> <li>• <i>Installed W7-4 sign on existing post</i></li> <li>• <i>Extended barrier line to furthest W7-4 sign</i></li> <li>• <i>Re-marked rail X pavement marking</i></li> <li>• <i>Re-marked stop line</i></li> <li>• <i>Replaced two off W7-4 sign with reflective</i></li> <li>• <i>Assembled RX-5 sign to include W7-2-1 sign".</i></li> </ul> <p>John Holland (2013) concluded that <i>"LCC86173A complies with our interpretation of the above standard* in regard to the sighting distance provision of the railway crossing protected by stop signs for a train speed of 20km/hr and a semi-trailer design vehicle".</i></p> <p>No evidence was available to confirm that the design and construction of the works at Main Street Wallerawang had been undertaken in consultation with, and to the satisfaction of Lithgow City Council and the relevant rail authority and/or its agent therefore this condition has been deemed Not Verified.</p> <p><i>*Manual of Uniform Traffic Control Devices Part 7: Railway Crossings AS1742.7-2007. Railway Crossing with Straight Approach Controlled by Stop Signs (Passive Control).</i></p>	<p>Not Verified</p> <p><b>Recommendation</b></p> <p><b>REC-2015-31</b> - Confirm the works at the Main Street Wallerawang level crossing have been undertaken in consultation with, and to the satisfaction of Lithgow City Council and the relevant rail authority and/or its agent.</p>
C3.14	<p>Within 6 months of the date of this approval, the Proponent shall upgrade the rail level crossings of Main Street and Brays Lane, Wallerawang, unless the Director-General directs otherwise, by:</p> <p>a) Installing additional signage and line marking on Main Street Wallerawang;  b) Installing upgraded safety measures at the Brays Lane level crossing in accordance with the relevant Australian standard.</p> <p>The design and construction of these works must be undertaken in consultation with, and to the satisfaction of LCC and the relevant rail authority and/or its agent.</p>		

Condition Number	Condition	Comments and Evidence Sighted for Audit Period	Compliance Status (C/O/NC/NA) and Recommendation
DA 08_0223 C3.17	<p><b>Surface Water Discharges</b></p> <p>The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.</p>	<p>The site has a staged surface water catchment, containment and passive treatment process.</p> <p>Storm water runoff at the site flows in a north-easterly direction to the Dirty Water Dam. Water is pumped to second dam where it is either discharged via natural flow or pumped following testing by ALS.</p> <p>Concentration limits specified under condition L2.4 for LDP04 do not apply when rainfall exceeds 56 mm over any consecutive five day period.</p> <p>The following discharge results were noted during the audit period:</p> <ul style="list-style-type: none"> <li>A pH result of 6.41 was recorded at LDP004 on 9 December 2014. The EPL pH range limit is 6.5 to 8.5. Data supplied from the Springvale Colliery Weather Station (Spring Vale Weather Station 001.csv) noted that in excess of 56 mm of rainfall was recorded over a five day period prior to discharge.</li> <li>A TSS result of 42 mg/L was recorded at LDP004 on 9 December 2014. The EPL TSS limit is 30 mg/L. The January 2015 Centennial Environmental Monitoring Report (p.3) noted that there was an average rainfall of 124.2 mm for January 2015.</li> <li>An Oil and Grease result of 37 mg/L was recorded on 8 January 2015. The EPL Oil and Grease limit is 10 mg/L. The January 2015 Centennial Environmental Monitoring Report (p.4) noted that <i>“an exceedance was recorded for the concentration of oil and grease at LDP04 despite no visual indication of oil and grease in the water at the time of sampling. A duplicate sample will be taken in the future to allow retesting of the sample if required”</i>.</li> <li>A TSS result of 127 mg/L was recorded at LDP004 on 21 April 2015. The EPL TSS limit is 30 mg/L. The April 2015 Centennial Environmental Monitoring Report noted the <i>“Rainfall exemption criteria triggered as defined in the EPL 5129”</i>. Data from 2 April to 1 May 2015 from the LSWS indicated that in excess of 56 mm of rainfall was recorded over a five day period prior to discharge.</li> </ul> <p>EPL 5129 requires the monitoring frequency at LDP004 to be monthly during discharge. Environmental monitoring data dated from 24 January 2013 to 23 June 2015 indicated that monitoring occurred at LDP004 on average of every 18 days which was compliant with this requirement.</p> <p>From the above, the Oil and Grease exceedance of 37 mg/L recorded on 8 January 2015 was non-compliant with the EPL. Based on this Non Compliance, this condition was found to be non-compliant.</p>	<p>Non-compliant (based on oil &amp; grease exceedance)</p> <p><b>Recommendation</b></p> <p>Refer to <b>REC-2015-34</b></p>

Condition Number	Condition	Comments and Evidence Sighted for Audit Period	Compliance Status (C/O/NC/NA) and Recommendation
DA 08_0223 C3.18	<p><b>Remediation of Soil Contamination</b></p> <p>Within 6 months of the date of this approval, unless otherwise agreed by the Director-General, the Proponent shall undertake a Phase 2 Contamination Assessment for the site and implement any necessary remediation within 18 months of this approval in accordance with the requirements of the <i>Contaminated Land Management Act 1997</i>, to the satisfaction of the EPA.</p>	<p>The following timeline is noted:</p> <ul style="list-style-type: none"> <li>• 2013           <ul style="list-style-type: none"> <li>- A Phase 2 Contamination Assessment was completed by AECOM Pty Ltd in October 2013, within 6 months of the date of approval.</li> </ul> <p>The report identified that the site was considered suitable for the proposed industrial/commercial development. The report identified the possibility for off-site migration of hydrocarbon impacted groundwater, with this likely to be attributed to an ongoing source of hydrocarbon contamination. AECOM (2013) noted that the soils in the vicinity of the former Above Ground Storage Tank (AST) were considered likely to be the source of impacts to groundwater.</p> <li>- A letter from Centennial to the DP&amp;E dated 29 October 2013 was available for review. The letter notes that "a draft Phase 2 Contamination Assessment was sent to the Environment Protection Authority for consultation purposes, as required by the Project Approval. The Environment Protection Authority responded with no comments".</li> <li>- The auditors sighted an email from the Centennial Environmental Coordinator to the EPA dated 9 December 2013. The email included two attachments (Lidsdale Siding Phase 2 Contamination Assessment 2013-10-25 and Lidsdale Siding Phase 2 EPA Submission Letter).</li> </li></ul> <ul style="list-style-type: none"> <li>• 2014           <ul style="list-style-type: none"> <li>- In July 2014, SLR Consulting Pty Ltd (SLR) completed a Supplementary Contamination Delineation Assessment and Remediation Action Plan (2014-B) for the historical diesel AST spill. A diesel spill (understood to be approximately 20,000L in size) reportedly occurred from a former AST on the site during the 1970's. Lidsdale management reported that some surficial remedial works were undertaken after the spill in the 1970s; however, recent site investigation work (i.e. AECOM, 2013) suggests residual petroleum hydrocarbon impacts are present in soils and groundwater underlying the site.</li> <li>- In October 2014 SLR provided a Supplementary Contamination Delineation Assessment and Remedial Action Plan (2014-A) to Centennial. The objectives of this report were to assess the horizontal and vertical extent of petroleum hydrocarbon impact in soil around the former above ground storage tank at the site and prepare a remedial action plan to address the identified petroleum hydrocarbon impact in soil around the former above ground storage tank at the site.</li> <li>- In November 2014 SLR (2014-C) provided a Preliminary Indicative Remediation Estimate Advice - Historical Diesel AST Spill. The objective of the report was to provide preliminary indicative estimates for implementation of three remedial options, to inform Centennial's decision making process on a preferred remedial strategy.</li> </ul> </li> </ul> <p>Given remedial works have not been completed within 18 months of this approval in accordance with the requirements of the <i>Contaminated Land Management Act 1997</i>, to the satisfaction of the EPA this condition could not be verified. However, it is acknowledged that Lidsdale undertook a Phase 2 Contamination Assessment within six months of the date of PA 08_0223 (3 May 2013) and that having undertaken further assessments during the audit period Lidsdale is currently awaiting confirmation from the EPA concerning potential options that will be used at the site to remediate the identified impacts.</p>	<p>Not Verified</p> <p><b>Recommendation</b></p> <p><b>REC-2015-32</b> - Confirm with the EPA the preferred remedial strategy for the site and implement the strategy</p>
DA 08_0223 C3.30	<p><b>Rehabilitation Bond</b></p> <p>Within 12 months of the date of this approval, the Proponent shall lodge a rehabilitation bond for the project with the Director-General. The sum of the bond shall be calculated in accordance with the current publicly-available version of methodology and calculation spreadsheets utilised by DRE for the purpose of determining rehabilitation liabilities for mine sites, to the satisfaction of the Director-General. The Proponent shall pay the Department's reasonable costs in engaging experts to review the adequacy of the calculated sum of the bond.</p> <p>If the rehabilitation and revegetation works are completed to the satisfaction of the Director-General, the Director-General will release the rehabilitation bond.</p> <p>If the rehabilitation and revegetation works are not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works.</p>	<p>The auditors sighted a letter from DP&amp;E dated 25 May 2015 confirming receipt on 22 May 2015 of the Rehabilitation Bond. This date was greater than 12 months from the date of the approval).</p> <p>Rehabilitation measures relate to final closure of the site.</p> <p>As the bond was not paid within 12 month period specified this condition was found to be an Administrative Non-compliance.</p>	<p>Administrative Non-compliance</p>



Condition Number	Condition	Comments and Evidence Sighted for Audit Period	Compliance Status (C/O/NC/NA) and Recommendation
EPL 5129 L2.1	<p><b>Concentration Limits</b></p> <p>For each monitoring/discharge point or utilisation area specified in the table below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.</p>	<p>Water monitoring data was observed for LDP004 (Point 4) for the period 23 May 2013 through to 23 June 2015.</p> <p>There were 21 occasions where water was discharged through LDP004 during the audit period. ALS Laboratories conduct water sampling and analysis on behalf of Lidsdale.</p> <p>Lidsdale management reported that oil and grease results are not received in time before the water can be pumped out. This is demonstrated with an oil and grease exceedance on 8 January 2015. No documented evidence of visual inspections of water prior to discharge was available for review.</p> <p>The following discharge results were noted during the audit period:</p> <ul style="list-style-type: none"> <li>A pH result of 6.41 was recorded at LDP004 on 9 December 2014. The EPL pH range limit is 6.5 to 8.5.</li> <li>A TSS result of 42 mg/L was recorded at LDP004 on 9 December 2014. The EPL TSS limit is 30 mg/L.</li> </ul> <p>The December 2014 Centennial Environmental Monitoring Report noted that the Lidsdale weather station recorded 59.4 mm of rainfall over a five day period at the time of sampling on 9 December 2014. The ALS online portal allows Lidsdale management to view 'live' data concerning LDP004 as well as rainfall data. The LSWS was not commissioned at in December 2014 therefore Lidsdale used the nearby Springvale Colliery weather station data (Spring Vale Weather Station 001.csv). Data from the portal for Springvale Colliery weather station shows that there was rainfall in excess of 56 mm over a five day consecutive period before discharge.</p> <ul style="list-style-type: none"> <li>An Oil and Grease result of 37 mg/L was recorded on 8 January 2015. The EPL Oil and Grease limit is 10 mg/L.</li> </ul> <p>The January 2015 Centennial Environmental Monitoring Report (p.4) noted that <i>"an exceedance was recorded for the concentration of oil and grease at LDP04 despite no visual indication of oil and grease in the water at the time of sampling. A duplicate sample will be taken in the future to allow retesting of the sample if required"</i>. Lidsdale management reported no sheen was visible on the water at the time of discharge. No documentation was available to confirm this. Lidsdale Siding Inspection Reports were sighted for 30 July and 5 and 12 August 2015. The documents required inspections and notes of the Main Sediment Dam, Pond 4 and LDP004. The Inspection Report did not include a requirement to document any visual observations of dam water, such as a visible sheen. Conductivity, pH, Turbidity, Discharge, spillway and wall defects and boom condition are required to be recorded on the Inspection Reports. It is noted that the Inspection Reports were typed (soft copies). The name of the individual conducting the inspection was noted on the document; however, the document was not signed. Centennial Standard Work Procedure TO15 did not include a requirement to document any visual observations of dam water.</p> <ul style="list-style-type: none"> <li>A TSS result of 127 mg/L was recorded at LDP004 on 21 April 2015. The EPL TSS limit is 30 mg/L.</li> </ul> <p>The April 2015 Centennial Environmental Monitoring Report noted the <i>"Rainfall exemption criteria triggered as defined in the EPL 5129"</i>. Rainfall of 73 mm was recorded at LSWS over five consecutive days prior to discharge on 21 April 2015.</p> <p>Based on the above exceedance of L1.1 (Oil and Grease exceedance of 37 mg/L was recorded on 8 January 2015) this condition is considered non-compliant.</p>	<p>Non-compliant</p> <p><b>Recommendation</b></p> <p>Refer to <b>REC-2015-34</b> (Appendix A, DA 08_0223)</p>

Condition Number	Condition	Comments and Evidence Sighted for Audit Period	Compliance Status (C/O/NC/NA) and Recommendation
L4.1	<p><b>Noise Limits</b></p> <p>Noise generated at the premises must not exceed the noise limits presented in the table below.</p>	<p>The following noise exceedances were noted during the audit period:</p> <ul style="list-style-type: none"> <li>Exceedance &gt;2dB(A) above limit in February 2015 at residence R8. Attributed to an alarm which was subsequently rectified by removal of the audible component of the alarm.</li> <li>Exceedance &gt;2dB(A) above limit in 25 June 2015. Attributed to conveyor operation, evening and night criteria and low frequency criteria. Two residences on Braze Lane and R12. A letter from Centennial to the landowner R12 was sighted notifying the resident of the exceedance.</li> </ul> <p>Global Acoustics undertake current monthly attended monitoring. Lidsdale management noted that root cause analysis of noise exceedances is not yet undertaken at the site.</p> <p>Detailed noise monitoring started July 2014 during commissioning of the new plant and equipment. Construction noise monitoring was conducted by the construction contractor. SLR (2015, p.9) noted that <i>"It is considered that construction noise monitoring has not been undertaken sufficiently in accordance with the noise monitoring program and the required Australian Standards and that the implementation of the CNMP Section 9 is non-compliant. Noise monitoring reports present no assessment of compliance, conclusions or recommendations and therefore compliance with the construction noise criteria cannot be determined"</i>.</p> <p>One complaint was recorded during the construction phase. The complaint concerned noise associated with the 'bunching' of rail wagons during loading operations and is therefore not considered a construction related complaint.</p> <p>Given the two noise exceedances during the audit period and the Draft Independent Noise Audit (SLR, 2015) identified a non-compliance with construction noise monitoring this condition is considered non-compliant.</p> <p>The continual noise logger was observed at the Lidsdale Siding Weather Station (LSWS) site. The LSWS is located in a triangle of rail tracks and adjacent to the overland conveyor. Lidsdale management noted they were considering relocating the continual noise logger to an off-site location. MCW Environmental concur with the proposed relocation and recommend that the continual noise logger be located closer to a sensitive receiver in order to better track and trend noise issues at the site.</p>	<p>Non-compliant</p> <p><b>Recommendation</b></p> <p>Refer to Section 4.2.4 of the Main Report for noise recommendations.</p>
L4.4	<p>For the purpose of condition L4.3, the meteorological data to be used for determining meteorological conditions is the data recorded by the meteorological weather station identified as EPA identification Point 9 in condition P1.1.</p>	<p>Meteorological data was obtained from the Lidsdale Siding or nearby Springvale Colliery weather station during the audit period.</p> <p>It is noted that no on-site weather data was recorded in 2014 as the weather station was reported by Lidsdale to have operated intermittently. Weather data in 2014 was taken from the nearby Springvale Colliery.</p> <p>Given the on-site meteorological station commenced operation in January 2015 and that data had to be sourced from an off-site meteorological weather station during the audit period this condition is considered non-compliant.</p>	<p>Non-compliant</p> <p>(prior to Jan 2015 – currently compliant)</p>
L4.5	<p>To determine compliance:</p> <p>a) With the Leq(15 minute) noise limits in condition L4.1, the noise measurement equipment must be located:</p> <ol style="list-style-type: none"> <li>approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or</li> <li>within 30 metres of a dwelling façade, but not closer than 3 metres where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises.</li> </ol> <p>b) With the LA1(1 minute) noise limits in condition L4.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.</p> <p>c) With the noise limits in condition L4.1, the noise measurement equipment must be located:</p> <ol style="list-style-type: none"> <li>at the most affected point at a location where there is no dwelling at the location; or</li> <li>at the most affected point within an area at a location prescribed by conditions L4.5(a) or L4.5(b).</li> </ol>	<p>It was not possible to determine if the distances specified in this condition were being implemented from the monthly attended monitoring reports. The reports did not specify where the attended noise monitoring locations were (i.e. distances from dwelling façade between 3-30m or approximately on the nearest property boundary if closer than 30m).</p>	<p>Not Verified</p> <p>Refer to Section 4.2.4 of the Main Report for noise Recommendations.</p>

Condition Number	Condition	Comments and Evidence Sighted for Audit Period	Compliance Status (C/O/NC/NA) and Recommendation
L4.6	<p>A non-compliance of condition L4.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:</p> <p>a) At a location other than an area prescribed by conditions L4.5(a) and L4.5(b); and/or</p> <p>b) At a point other than the most affected point at a location.</p>	<ul style="list-style-type: none"> <li>It was not possible to determine if the distances specified in this condition were being implemented from the monthly attended monitoring reports. The reports did not specify where the attended noise monitoring locations were (i.e. distances from dwelling façade or 30 m from nearest property boundary).</li> </ul> <p>An ECD printout of a noise exceedance on 25 June 2015 was sighted. The ECD report contained the date of the exceedance (incident), exceedance details, investigation cause and remediation details.</p>	<p>Not Verified</p> <p>Refer to Section 4.2.4 of the Main Report for noise Recommendations.</p>
U1.2	<p>All stockpiled soil and fill material excavated as part of the Lidsdale Rail Siding upgrade project must be characterised prior to reuse on-site or disposal off-site. The characterisation must be undertaken in accordance with the industrial land use criteria summarised in Appendix II of "Guidelines for the NSW Site Auditor Scheme" (DEC, 2006).</p> <p>This task must be undertaken by 31 December 2014.</p>	<p>Remediation works had not commenced at the time of the site inspection on 31 July 2015.</p> <p>Lidsdale management reported that stockpiled soil and fill material excavated as part of the Lidsdale Rail Siding upgrade project was characterised prior to reuse on-site or disposal off-site; however, this could not be verified by MCW Environmental.</p>	<p>Not Verified</p> <p><b>Recommendation</b></p> <p><b>REC-2015-42</b> – Ensure the stockpiled soil and fill planned for use in levee/bunding is characterised prior to reuse on-site or disposal off-site. The characterisation should be undertaken in accordance with the industrial land use criteria summarised in Appendix II of "Guidelines for the NSW Site Auditor Scheme" (DEC, 2006).</p>
SoC-1	<p><b>Noise and Vibration</b></p> <ul style="list-style-type: none"> <li>A Construction Noise Management Plan will be prepared as part of the CEMP – <b>Prior to construction</b>.</li> <li>Use of mobile plant with a specified operating sound power level of 105 dBA – <b>Operation</b>.</li> <li>Sound power levels from all new plant and equipment will meet the specified levels as described in the Noise Impact Assessment prepared by Hatch 2012 reference H-338807 - <b>Operation</b>.</li> <li>A Noise Management Plan will be prepared for the ongoing operation and will include recommended mitigation strategies and ongoing monitoring as described in this EA to ensure noise objectives are being achieved - <b>Operation</b>.</li> </ul>	<ul style="list-style-type: none"> <li>The Construction Noise Management Plan (CNMP) was approved by the Director-General on 28 May 2015. Lidsdale management reported construction was authorised on 7 June 2013.</li> <li>The Independent Noise Assessment (SLR, 2015) confirmed sound power testing of stockpile dozer has not yet been undertaken, therefore the Sound Power Level ≤105 dB(A) cannot be confirmed.</li> <li>The Independent Noise Assessment (SLR, 2015) confirmed that sound power levels of plant and equipment had not been tested. Lidsdale management reported that this was to occur in August 2015.</li> <li>The Noise Management Plan was approved by the Director-General on 15 November 2013 and was submitted for approval on 10 October 2013 (i.e. within 6 months of 3 May 2013). Refer to Condition 7, Schedule 3 of DA 08_223 (Appendix A) for further details.</li> </ul> <p>Given sound power levels had not been completed at the time of the audit this condition was found to be non-compliant.</p>	<p>Non-compliant</p> <p>Refer to Section 4.2.4 of the Main Report for noise recommendations.</p>

## 8.1 Additional Recommendations (not related to non-compliances)

The following table has been reproduced from **Appendix A**. For details on the requirement, and for further discussion of the issue, please refer directly to the table in **Appendix A**. Many recommendations are based around continuous improvement opportunities identified during the audit and do not necessarily represent immediate potential non-compliance issues.

**Table 8-2 - Recommendations for Conditions Considered Compliant for Improved Compliance and Continuous Improvement**

Approval & EPL Condition Number	Rec #	Recommendation
<b>Project Approval DA 08_0223</b>		
<b>Independent Noise Audit</b>		
3.5	REC-2015-27	Confirm timings for the recommendations provided in the Independent Noise Audit Action Plan.
<b>Noise Management Plan</b>		
3.7	REC-2015-28	Refer to Section 4.2.4 of the Main Report and Table 8-3 below for noise recommendations.
<b>Weather Station</b>		
3.11	REC-2015-29	Confirm if a wind sensor that complies with the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2005/360) has been installed in the meteorological station.
<b>Transport</b>		
3.12	REC-2015-30	Provide records of coal transported on the Lidsdale Siding website at the end of each calendar year as required by Condition 12, Schedule 3.
<b>Flooding</b>		
3.20	REC-2015-33	Ensure the amendments requested by DP&E in their email dated 9 May 2014 (3:09pm) have been addressed.
<b>Water Management Plan</b>		
3.21	REC-2015-34	A procedure for discharging via pump-out should be developed and implemented. The procedure should include sampling of water and holding of water until results have been received.  Develop and implement an action plan with timeframes to track progress against outstanding mitigation measures as defined by the WMP.
<b>Management Plan Requirements</b>		
5.2	REC-2015-35	Ensure roles and responsibilities are clear for implementation of mitigation measures and monitoring requirements.  Ensure Plans include measures to manage unpredicted impacts and their consequences.  Update the Biodiversity Management Plan to include a clear requirement for periodic review.  <i>The above recommendations are not considered to be needed to be done immediately and could be made during the next scheduled update of the Plans.</i>
<b>Rehabilitation Management Plan</b>		

Approval & EPL Condition Number	Rec #	Recommendation
3.29	REC-2015-44	Ensure Consultation with the CCC is undertaken in respect of the Rehabilitation Management Plan.
<b>Environmental Protection Licence 5129</b>		
<b>Operating Conditions</b>		
O1.1	REC-2015-01	Refer to <b>REC-2015-01</b> (Table 4-1, Photo 4-14).
<b>Dust</b>		
O3.1	REC-2015-36	Ensure Monthly Environmental Monitoring Reports provide a summary of results where it is stated that further analysis (i.e. microscopic testing) has been conducted. The summary can be included in the subsequent monthly report.
<b>Monitoring and Recording Conditions</b>		
M1.3	REC-2015-37	Ensure the name of the person who collected the sample is included in the Monthly Noise Reports.
M5.1	REC-2015-38	Ensure the Lidsdale Siding Complaints Register reflects the complaints logged in the ECD database.
M5.2	REC-2015-39	Ensure information stored in the Centennial ECD Lotus Notes database correlates with Site complaint forms.
M6.2	REC-2015-40	Update the Lidsdale Website with the new telephone complaints number.
<b>Pollution Studies and Reduction Programs</b>		
U1.1	REC-2015-41	Ongoing communications should be maintained with the EPA to ensure the RAP has been developed to the satisfaction of the Agency.
U1.4	REC-2015-43	The most recent version of the Water Management Plan should be provided to the EPA.
<b>Statement of Commitments</b>		
<b>Contamination</b>		
SoC-6	REC-2015-41	Refer to REC-2015-41 Appendix A, EPL 5129.

**Table 8-3 - Recommendations relating to Management Plans, and Site Observations**

Document or Area of Recommendation	Rec #	Recommendation
Section 4 Site Inspection Observations, Table 4-1	REC-2015-01	Repair the leak from CV01 at the TLO bin. Ensure that coal fines are prevented from entering the clean water catchment drain adjacent to the TLO bin by either regular cleaning or construction of infrastructure (e.g. concrete pad for containment).
	REC-2015-02	Confirm that the increased height of the new rail line would not restrict flows and lead to possible redirection of flows onto the site in the event of the culvert being overtopped.
Section 4.1.3 Air Quality Management, Adequacy Assessment & Observations	REC-2015-03	Real time measurements coupled with additional composition analysis may be required to establish the likely source should consistent elevated results at DG9, DG10 and DG11 show a 12 month rolling average above the guideline.
	REC-2015-04	Review monitoring data and consider relocating DG11 to a location more representative of background conditions at the site. Current results at DG11 are above results close to the source areas (e.g. the stockpile), where higher measurements would be expected.
Section 4.2.4 Noise Management Adequacy Assessment & Observations	REC-2015-05	Future monthly and annual noise monitoring reports require the inclusion of a statement of verification with EPL Condition L4.5 with supporting information i.e. the correct distances from the most exposed façade of receptor buildings where noise monitoring was undertaken.
	REC-2015-06	It is recommended that the Draft Action Plan provided in the Independent Noise Audit (SLR, 2015) be implemented.
	REC-2015-07	Sound Power testing of the stockpile dozer should be undertaken to confirm the sound power level is not greater than 105 dB(A).
Section 7.3.1 General Summary of Management Plans Adequacy Review	REC-2015-08	That the structure of current management plans be improved so as to highlight management actions and mitigation measures that can be easily identified, implemented and audited against. This could include having a table or Section listing all of the management / mitigation measures required as part of the plan (similar to the TARP's in the Water management Plan).
	REC-2015-09	That integration between the EMS, the Strategy and the management plans is improved. Each plan should outline its strategic context in line with Lidsdale Siding's EMS, the Strategy and Centennial Coal's Standards.
Section 7.3.1 General Summary of Management Plans Adequacy Review, Table 7-1 Waste Management Plan	REC-2015-10	Update the 2013 Surface Water Management Plan to reflect current EPL 5129 requirements.
	REC-2015-11	Update the Surface Water Management Plan to refer to actions and activities that are currently undertaken at the site rather than those that were 'proposed' and to address the above comments. This update should include defining timeframes or an action plan for mitigation measures in Section 10.4.2 to be completed.
Section 7.3.1 General Summary of Management Plans Adequacy Review, Table 7-1 Noise Management Plan	REC-2015-12	The Noise Management Plan should be updated to include: <ul style="list-style-type: none"> <li>• The noise limits given in the EPL condition L4.1</li> <li>• Additional detailed instructions for the noise monitoring program that specifies the exact location where noise monitoring is to be undertaken to ensure compliance with EPL Condition L4.5 and supporting figure(s) showing monitoring locations at each receptor.</li> </ul>



Document or Area of Recommendation	Rec #	Recommendation
	REC-2015-13	It is not recommended that the frequency of noise monitoring be reduced based on the number of incidents of exceedances of the noise limits in 2014 and 2015.
	REC-2015-14	Confirm if a training program for relevant train operators has been implemented. If not, implement a training program in accordance with the requirements of the NMP.
Section 7.3.1 General Summary of Management Plans Adequacy Review, Table 7-1	REC-2015-15	Update the Air Quality and Greenhouse Management Plan and remove references to Wallerawang Power Station as an off-site emission source.
Air Quality and Greenhouse Gas Management Plan	REC-2015-16	Update the Air Quality and Greenhouse Management Plan to include the location of the Lidsdale Siding Weather Station, including PM10 continuous monitor.
Section 7.3.1 General Summary of Management Plans Adequacy Review, Table 7-1	-	Refer to REC -2015-35
Biodiversity Management Plan		
Section 7.3.1 General Summary of Management Plans Adequacy Review, Table 7-1	REC-2015-17	Update the HMP to refer to actions and activities that are currently undertaken at the site rather than those that were 'proposed'.
Heritage Management Plan	REC-2015-18	Update the HMP to include operational specific roles and responsibilities (i.e. site manager).
	REC-2015-19	Update the HMP to clearly define the extent of the Operational Area, the heritage artefacts located inside the Operational Area and applicable controls and mitigation measures.
Section 7.3.1 General Summary of Management Plans Adequacy Review, Table 7-1	REC-2015-20	Update the PIRMP to reflect current operations and activities.
Pollution Incident Response Management Plan	REC-2015-21	Update contact details in the PIRMP to reflect current roles and responsibilities.
	REC-2015-23	Update the Plans / Figures appended to the PIRMP to clearly and legibly show the location of potential pollutants on the premises. Ensure the cross referencing of Figures correlates with those included in the PIRMP.

## 9 Limitations of Report

MCW Environmental Consulting Pty Limited (MCW Environmental) has conducted this Independent Environmental Audit (IEA) and generated this report in accordance with the usual care and thoroughness of the consulting profession for the use of Ivanhoe Coal Pty Limited and only those third parties who have been authorised in writing by MCW Environmental to rely on this Report.

It is based on generally accepted practices and standards at the time it was prepared. No other warranty, expressed or implied, is made as to the professional advice included in this Report. This IEA report did not assess any aspects relating to safety at the site.

The IEA Report is prepared in accordance with the scope of work and for the purpose outlined in the MCW Environmental Proposal dated 16 July 2015 and the signed contract executed between MCW Environmental and Ivanhoe Coal Pty Limited.

Where this IEA Report indicates that information has been provided to MCW Environmental by third parties, MCW Environmental has made no independent verification of this information except as expressly stated in the Report. MCW Environmental assumes no liability for any inaccuracies in or omissions to that information.

This IEA Report was prepared between 13 July 2015 and 15 December 2015 and is based on the conditions encountered and information reviewed at the time of the site visit on 31 July 2015. MCW Environmental disclaims responsibility for any changes that may have occurred after this time.

This IEA Report should be read in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties. This IEA Report does not purport to give legal advice. Legal advice can only be given by qualified legal practitioners.

Except as required by law, no third party may use or rely on this IEA Report unless otherwise agreed by MCW Environmental in writing. Where such agreement is provided, MCW Environmental will provide a letter of reliance to the agreed third party in the form required by MCW Environmental.

To the extent permitted by law, MCW Environmental expressly disclaims and excludes liability for any loss, damage, cost or expenses suffered by any third party relating to or resulting from the use of, or reliance on, any information contained in this IEA Report. MCW Environmental does not admit that any action, liability or claim may exist or be available to any third party.

Except as specifically stated in this section, MCW Environmental does not authorise the use of this IEA Report by any third party.

It is the responsibility of third parties to independently make inquiries or seek advice in relation to their particular requirements and proposed use of the site.

Any estimates of potential costs which have been provided are presented as estimates only as at the date of the IEA Report. Any cost estimates that have been provided may therefore vary from actual costs at the time of expenditure.



# **Appendix A**

## **Compliance Tables – Development Consent; Environmental Protection Licence and Statement of Commitments**

Development Consent 08_0223				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
2.1	<p><b>OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT</b></p> <p>In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or rehabilitation of the project.</p>	-	<p>Other than where issues have been identified, in general Lidsdale Siding appeared to be compliant with its obligation to minimise harm to the environment.</p> <p>The Environmental Management Strategy and associated management plans and procedures have been established and generally implemented to identify, plan for and manage environmental aspects and impacts related to the project.</p>	<p>Compliant</p> <p>Refer to the recommendations within this document and the audit report for areas of non-compliance and identified opportunities for improvement.</p>
2.2	<p><b>TERMS OF APPROVAL</b></p> <p>The Proponent shall carry out the project generally in accordance with the:</p> <ul style="list-style-type: none"> <li>EA;</li> <li>Statement of Commitments; and</li> <li>Conditions of this approval.</li> </ul>	<ul style="list-style-type: none"> <li>RPS (2012), Lidsdale Siding Upgrade Project Environmental Assessment, Ref: PR110912, August 2012.</li> <li>PA 08_0223.</li> </ul>	<p>Based on a high level review of these documents, Lidsdale Siding is considered to have carried out the project in general accordance with the EA, Statement of Commitments, and Conditions of Approval.</p> <p>Compliance against individual provisions of PA 08_0223 has been assessed in this audit with commentary provided against specific items as detailed below.</p> <p>A comparison against the scope of works and environmental controls described in the referenced documents indicated general consistency with auditors site observations and documentation reviewed (as detailed throughout this appendix).</p>	<p>Compliant</p>
2.3	<p>If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.</p>	-	<p>Noted.</p> <p>The site advised that it is not aware of any inconsistencies between the above and the conditions of PA 08_0223 with the intent of the EA. None were identified through the audit process.</p>	<p>Noted</p>

**Development Consent 08\_0223**

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
2.4	<p>The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:</p> <ul style="list-style-type: none"> <li>Any strategies, plans, programs, reviews, audits, reports or correspondence that are submitted in accordance with this approval; and</li> <li>The implementation of any actions or measures contained in these documents.</li> </ul>	<ul style="list-style-type: none"> <li>Centennial (2014), Lidsdale Siding 2014 Annual Review.</li> <li>Centennial (2013), Lidsdale Siding 2013 Annual Review.</li> <li>Letter - DP&amp;E (2014-A), Lidsdale Siding Annual Report, 5 September 2014</li> <li>Letter – DP&amp;E (2014-B), Lidsdale Siding Annual Review, 29 October 2014.</li> <li>Letter – DP&amp;E (2015-A), Lidsdale Siding Annual Review 2014, 27 March 2015</li> <li>Letter - DP&amp;E (2015-B), Lidsdale Siding Rehabilitation Bond – Lodgement of Bond, 4 May 2015</li> <li>Letter – Centennial (2015), Annual Review 2014, 8 May 2015</li> </ul>	<p>There has been no known request from the Secretary (formerly referenced as the Director-General) concerning implementation of reports, strategies, plans, programs, reviews, audits or correspondence, thus this requirement has not been triggered within the audit period.</p> <p><u>2014 Annual Return</u></p> <p>A letter from DP&amp;E dated 27 March 2015 noted the following recommendations concerning the 2014 Annual Review:</p> <ol style="list-style-type: none"> <li>Include in the 2015 Annual Review a Summary of Compliance section, information on notification of any incident to the Department and monitoring results (TSP and PM<sub>10</sub>) from the Environmental Beta Attenuation Monitor (EBAM).</li> </ol> <p>Lidsdale Siding were also required within four weeks of 27 March 2015 (i.e. 24 April 2015) to provide an update to the Department on the progress of:</p> <ol style="list-style-type: none"> <li>Schedule 2, Condition 9 – Surrender of Existing Development Consents – <i>Not Verified. No evidence to demonstrate surrender of existing development consents or letters to the DP&amp;E to provide a status update.</i></li> <li>Schedule 3, Condition 29 - Rehabilitation and Closure Plan - <i>Administrative Non-compliance</i></li> <li>Schedule 3, Condition 30 - Rehabilitation Bond - <i>Compliant</i></li> <li>Schedule 5, Condition 11 – Access to information - <i>Compliant.</i></li> </ol> <p>Lidsdale responded to DP&amp;E on 8 May 2015 and noted the following:</p> <ol style="list-style-type: none"> <li>The Rehabilitation Closure Plan was revised and enclosed with the letter.</li> <li>The rehabilitation bond was submitted to the DP&amp;E by 5 June 2015.</li> <li>The surrender of existing consents had commenced with the landowners. Lidsdale noted that the application to surrender the existing consents would be submitted once correspondence had been received from the landowners. This matter was still outstanding at the time of the audit.</li> <li>The auditors sighted the Lidsdale website.</li> </ol> <p>A letter dated 4 May 2015 was sighted from DP&amp;E acknowledging receipt of calculations for the lodgement of the rehabilitation bond (Condition 30, Schedule 3 of PA 08_0223).</p> <p><u>Annual Return 2013</u></p> <p>Sighted Annual Review feedback from DP&amp;E dated 5 September 2014. DP&amp;E noted that:</p> <ul style="list-style-type: none"> <li>"A Rehabilitation and Closure Plan was due to be completed this year in accordance with the requirements of Schedule 3, Condition 29 of PA 08_0223". Lidsdale Siding were asked to confirm if this had been conducted. Refer to Schedule 3, Condition 29 of PA 08_0223 for further details.</li> <li>"Confirmation of the establishment of the Centennial Western CCC as required by Schedule 5, Condition 6 of PA 08_0223". Refer to Schedule 5, Condition 6 of PA 08_0223 for further details.</li> <li>"Provide the reporting results in respect of Total Suspended Particulate (TSP) and Particulate Matter &lt;10µm (PM<sub>10</sub>) as required by Condition 8, Schedule 3 of PA 08_0223".</li> </ul> <p>A letter from DP&amp;E dated 29 October 2014 noted that the Environmental Beta Attenuation Monitor (EBAM) was still in the commissioning phase and was likely to be in operation by the end of October 2014 and that Particulate Matter &lt;10µm (PM<sub>10</sub>) results should be included in subsequent Annual Reviews.</p>	Compliant

Development Consent 08_0223				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
	<i>Continued:</i>	<i>Continued:</i>	<i>Continued:</i> Sighted Annual Review feedback from DP&E dated 29 October 2014. The Department was generally satisfied with the Annual Review but noted that monitoring results for Total Suspended Particulate (TSP) and Particulate Matter <10µm be provided in subsequent reviews.  This Condition was found to be generally compliant based on Lidsdale Siding receiving and addressing requirements from DP&E concerning AR's.	
2.5	<b>LIMITS OF APPROVAL Operations</b> The Proponent may carry out coal handling and train loading operations on the site until 31 December 2042.  <i>Note: Under this approval, the Proponent is required to rehabilitate the site and perform additional undertakings to the satisfaction of the Director-General. Consequently, this approval will continue to apply in all other respects other than the right to conduct operations until the rehabilitation of the site and these additional undertakings have been carried out satisfactorily.</i>	-	Noted	Noted
2.6	<b>Coal Transport</b> The Proponent shall not receive more than 6.3 million tonnes of coal at the site in any calendar year	a) Ivanhoe (2014), Lidsdale Siding Annual Review. b) Lidsdale Siding Monthly Train Record for July 2015. c) Lidsdale Siding Monthly Train Record for December 2014. d) Lidsdale Siding Monthly Train Record for February 2015.	Lidsdale operates at the address specified in the EPL and undertakes the scheduled activities specified (Coal Works).  Lidsdale production figures for the audit period were sighted. The following ROM coal handled was reported: <ul style="list-style-type: none"><li>2013: 1,744,869 tonnes transported.</li><li>2014: 2,555,270 tonnes transported.</li></ul> The auditors sighted the Lidsdale Siding Monthly Train Record for February and July 2015 and December 2014. The records for February 2015 and December 2014 indicated that between 3-4 trains left the site for those periods.  Based on the volume of coal going off-site, limited material stockpiled at the time of the site inspection and the tonnage volumes for 2013 and 2014 this condition was considered compliant.	Compliant
2.7	The Proponent shall ensure that: a) All coal is transported to the site by conveyor; b) All coal is transported from the site by rail; c) No more than 7 laden trains leave the site each day; and d) No more than 5 laden trains leave the site each day, when averaged over a calendar year.	e) Site observations f) Ivanhoe (2014), Lidsdale Siding Annual Review. g) Lidsdale Siding Monthly Train Record for July 2015. h) Lidsdale Siding Monthly Train Record for December 2014. i) Lidsdale Siding Monthly Train Record for February 2015	Lidsdale management reported that data collection only commenced in 2014.  a) Coal was observed to be transported to site by conveyor on the day of the site inspection. b) No coal road haulage trucks were observed during the site inspection and no evidence of trucks have hauled coal was sighted. The auditors sighted the rail loading bin during the site inspection. Coal could not be loaded onto another form of transport other than rail at the time of the site inspection. c) An average of four laden trains was reported in the 2014 Annual Review to be leaving site per day. d) An average of two laden trains per day was reported in the 2014 Annual Review to be leaving the site in the 2014 calendar year.  The auditors sighted the Lidsdale Siding Monthly Train Record for February and July 2015 and December 2014.	Compliant
2.8	<b>Hours of Operation</b> The Proponent may undertake coal handling and train loading operations on site 24 hours a day, 7 days a week.	-	Noted  The site operates 24hrs a day and is largely unmanned. Operations are controlled remotely via the control room at the Western Coal Services site.	Noted



Development Consent 08_0223				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
2.9	<p><b>Surrender of Existing Development Consents</b></p> <p>Within 12 months of the date of this approval, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents for the site in accordance with Section 104A of the EP&amp;A Act.</p> <p><i>Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&amp;A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.</i></p>	-	Lidsdale management advised that they were consulting with landowners to surrender the previous consent and advise them of the new consent. Letters had been drafted but had not been issued to the landowners at the time of the audit.	Not Verified
2.10	Prior to the surrender of these consents, the conditions of this approval shall prevail to the extent of any inconsistency with the conditions of these consents.	-	Noted	Noted
2.11	<p><b>STRUCTURAL ADEQUACY</b></p> <p>The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>Under Part 4A of the EP&amp;A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works; and</li> <li>Part 8 of the EP&amp;A Regulation sets out the requirements for the certification of the project.</li> </ul>	<p>j) Lithgow City Council, CC041/13 – Notice of Determination of Construction Application, 31 May 2013</p> <p>k) Lithgow City Council, Final Occupation Certificate, 28 May 2014</p>	The auditors sighted the Final Occupation Certificate for the upgraded building works. No further assessment of this condition was undertaken.	Compliant
2.12	<p><b>DEMOLITION</b></p> <p>The Proponent shall ensure that all demolition work is carried out in accordance with Australian Standard AS 2601-2001: The Demolition of Structures, or its latest version.</p>	-	Lidsdale management reported that no structures were demolished during the audit period.	Compliant

Development Consent 08_0223				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
2.13	<p><b>OPERATION OF PLANT AND EQUIPMENT</b></p> <p>The Proponent shall ensure that all the plant and equipment used at the site, or to transport coal from the site, is:</p> <p>a) Maintained in a proper and efficient condition; and                      b) Operated in a proper and efficient manner.</p>	l) Centennial Purchase Order # IV102141 m) Centennial Purchase Order # IV101891 n) Centennial Purchase Order # IV101826 o) Centennial Purchase Order # IV101650 p) Centennial Purchase Order # IV101701 q) Centennial Purchase Order # IV102250 r) Centennial Purchase Order # IV102084 s) Lidsdale Siding Inspection Reports – 30/07/2015, 05/08/2015, 12/08/2015. t) Email – Water Treatment Services Pty Ltd (2015) Lidsdale Water Quality, 25/08/2015 at 12:29pm to Centennial u) Email – Water Treatment Services Pty Ltd (2015) Lidsdale Water Quality, 21/01/2015 at 12:29pm to Centennial v) ALS (2015) LDP004, 09/01/2015 at 09:50am. w) Environmental Sample Registration, Job 2400, 8 January 2015. x) Weekly Site Inspections at Lidsdale Siding – TO15 Standard Work Procedure: 23/01/2015, 31/03/2015, 29/04/2015, 06/05/2014, 11/07/2014, 11/09/2014, 29/10/2014	<p>The Centennial Planned Maintenance PULSE system is used to generate work orders for specific tasks; however, generally Lidsdale management issued Purchase Orders for ongoing or one off tasks. The following is noted:</p> <ul style="list-style-type: none"> <li>The auditors sighted purchase order IV102141 for track inspections and certification works for the months January to December 2015.</li> <li>The auditors sighted purchase order IV101891 for track inspections and certification works for the months March to December 2014.</li> <li>The auditors sighted purchase order IV101826 for track inspections and certification works for December 2014.</li> <li>The auditors sighted purchase order IV101650 for track repairs and maintenance dated 31 July 2014.</li> <li>The auditors sighted purchase order IV101701 for the service of extinguishers and hose reels and installation of signage dated 4 September 2013.</li> <li>The auditors sighted purchase order IV102250 for the repair of damaged fire equipment dated 17 June 2015.</li> <li>The auditors sighted purchase order IV102084 for clean out of sumps, TLO spillage pit and general belt cleaning for October, November and December 2014.</li> <li>Lidsdale Siding Inspection Reports were sighted for 30 July and 5 and 12 August 2015. The documents required inspections and notes of the Main Sediment Dam (spillway and wall defects, boom condition), Pond 4 (boom condition), LDP004, Refuelling Area (fuel spills), Train Loader (coal fines in drain) and Coal Stockpile (coal fines in drain). Conductivity, pH, Turbidity and Discharge are also required to be recorded on the Inspection Reports. It is noted that the Inspection Reports were typed (soft copies). The name of the individual conducting the inspection was noted on the document; however, the document was not signed.</li> <li>The auditors sighted emails from the water treatment company to Centennial providing details of field measurements for water quality at the Stockpile Dam and LDP004.</li> <li>The auditors sighted Environmental Sample Registration for LDP004 dated 8 January 2015.</li> <li>The auditors sighted a selection of Weekly Site Inspections for the site. The document included items for inspection, including, but not limited to Triangle Ponds, Site Drainage Dams and Silt Traps, as well as required conditions (e.g. “<i>drain to be clear and functional</i>”).</li> </ul> <p>It is noted this condition relates to many aspects of the site’s operation and that a full assessment of all aspects potentially relevant this condition has not been undertaken as part of this audit. The comments made above summarise the extent of review of compliance with the condition.</p>	Compliant
2.14	<p><b>STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM</b></p> <p>With the approval of the Director-General, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.</p> <p><i>Note: While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the operations on site are covered by suitable strategies, plans or programs at all times.</i></p>	-	Lidsdale management reported that this requirement had not been triggered.	Not Activated
2.15	The Proponent shall continue to implement existing strategies, plans or programs that apply to existing activities on the site until they are replaced by an equivalent strategy, plan or program approved under this approval.	-	Noted	Noted
3.1	<p><b>ACQUISITION ON REQUEST</b></p> <p>Upon receiving a written request for acquisition from the owner of Lot 2, Main Street, Wallerawang, the Proponent shall acquire the land in accordance with the procedures in Conditions 5 - 6 of Schedule 4.</p>	-	This condition has not been triggered.	Not Activated

Development Consent 08_0223				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.2	<p><b>NOISE</b></p> <p><b>Noise Impact Assessment Criteria</b></p> <p>The Proponent shall ensure that the noise generated by the project does not exceed the criteria in <b>Table 1</b>.</p> <p><i>Appendix 4 sets out the meteorological conditions under which these criteria apply and the requirements for evaluating compliance with these criteria.</i></p> <p><i>However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.</i></p>	<ul style="list-style-type: none"> <li>Global Acoustics (2015) June Noise Report, 31 July 2015, Ref: 15202_R01.</li> <li>Annual Noise Summary</li> <li>Landowners Letters</li> <li>Lidsdale Siding Community Complaints Register</li> <li>X3 Letters – Centennial (2015), Centennial Springvale Noise Monitoring Program, 30 July 2015</li> <li>SLR Australia Pty Ltd (2015), Draft Lidsdale Upgrade Project Independent Noise Audit, 26 June 2015, Draft 1.</li> </ul>	<p>The following noise exceedances were noted during the audit period:</p> <ul style="list-style-type: none"> <li>Exceedance &gt;2dB(A) above limit in February 2015 at residence R8. Attributed to an alarm which was subsequently rectified by removal of the audible component of the alarm.</li> <li>Exceedance &gt;2dB(A) above limit in 25 June 2015. Attributed to conveyor operation, evening and night criteria and low frequency criteria. Two residences on Braze Lane and R12. A letter from Centennial to the landowner R12 was sighted notifying the resident of the exceedance.</li> </ul> <p>Global Acoustics undertake current monthly attended monitoring. Lidsdale management noted that root cause analysis of noise exceedances is not yet undertaken at the site.</p> <p>Detailed noise monitoring started July 2014 during commissioning of the new plant and equipment. Construction noise monitoring was conducted by the construction contractor. SLR (2015, p.9) noted that <i>“It is considered that construction noise monitoring has not been undertaken sufficiently in accordance with the noise monitoring program and the required Australian Standards and that the implementation of the CNMP Section 9 is non-compliant. Noise monitoring reports present no assessment of compliance, conclusions or recommendations and therefore compliance with the construction noise criteria cannot be determined”</i>.</p> <p>One complaint was recorded during the construction phase. The complaint concerned noise associated with the ‘bunching’ of rail wagons during loading operations and is therefore not considered a construction related complaint.</p> <p>Given the two noise exceedances during the audit period and the Draft Independent Noise Audit (SLR, 2015) identified a non-compliance with construction noise monitoring this condition is considered non-compliant.</p> <p>The continual noise logger was observed at the Lidsdale Siding Weather Station (LSWS) site. The LSWS is located in a triangle of rail tracks and adjacent to the overland conveyor. Lidsdale management noted they were considering relocating the continual noise logger to an off-site location. MCW Environmental concur with the proposed relocation and recommend that the continual noise logger be located closer to a sensitive receiver in order to better track and trend noise issues at the site.</p>	<p>Non-compliant</p> <p><b>Recommendations</b></p> <p><b>REC-2015-25</b> – Refer to Section 4.2.4 of the Main Report for noise recommendations.</p> <p><b>REC-2015-26</b> – Relocate the continual noise logger to a more suitable location (i.e. closer to sensitive receivers).</p>
3.3	<p><b>Additional Noise Mitigation On Request</b></p> <p>Upon receiving a written request from the owner of any residence on land listed as Locations 1-4, 6-7, 10 or 11 in Table 1 (or at an existing residence within 200 m of Location 6 in Table 1) the Proponent shall implement additional noise mitigation measures (such as double glazing, insulation, and/or air conditioning) at the residence in consultation with the owner. These measures must be reasonable and feasible.</p> <p>If within 3 months of receiving this request from the owner, the Proponent and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Director-General for resolution.</p>	-	No written requested were received hence this condition has not been triggered.	Not Activated

**Development Consent 08\_0223**

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation												
3.4	<p><b>Operating Conditions</b></p> <p>The Proponent shall:</p> <p>a) Implement best practice noise management, including all reasonable and feasible noise mitigation measures to minimise the operational and rail noise generated by the project;</p> <p>b) Regularly assess the results of noise monitoring to ensure compliance with the relevant conditions of this approval,</p> <p>to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>SLR Australia Pty Ltd (2015), Draft Lidsdale Upgrade Project Independent Noise Audit, 26 June 2015, Draft 1.</li> <li>SLR Consulting Australia Pty (2013), Lidsdale Siding Noise Management Plan, Report Number 630.10123.02050-R1, 12 November 2013, Rev2</li> <li>Global Acoustics 2014 Monthly Noise Reports - July, August, September, October, November, December.</li> <li>Global Acoustics 2015 Monthly Noise Reports – January, February, March, April, May, June.</li> </ul>	<p>The following was observed during the site inspection on 31 July 2015 and reported by Lidsdale site management:</p> <ul style="list-style-type: none"> <li>The automated train loading facility operates at faster rate than previous operations and has removed the need for three front end loaders and a truck.</li> <li>The train reverses continuously up 0.5% grade (SLR, 2013, p.11) as opposed to previous operations where 'knuckling' was a consistent issue.</li> <li>The new conveyor has shields and low noise rollers installed.</li> <li>Sighted enclosed Train Loading Bin, conveyors were shrouded or enclosed.</li> <li>Monthly noise reports were available from July 2014 through to December 2014 and January 2015 through to June 2015.</li> <li>Lidsdale management reported that no communications had been received from the Director-General concerning noise issues at the site.</li> </ul>	Compliant												
3.5	<p><b>Independent Noise Audit</b></p> <p>The Proponent shall prepare and implement an Independent Noise Audit for the project to the satisfaction of the Director-General. The audit must:</p> <p>a) Be prepared by a suitably qualified and experienced expert, whose appointment has been approved by the Director-General;</p> <p>b) Be prepared in consultation with the EPA, and be submitted to the Director-General for approval within 12 months of completion of the upgrade to the coal loader;</p> <p>c) Incorporate monthly attended noise monitoring results for the project (unless otherwise agreed with the Director-General);</p> <p>d) Investigate and evaluate all reasonable and feasible measures to mitigate operational noise (including on-site rail noise) to ensure compliance with the noise criteria in Table 1; and</p> <p>e) Review the feasibility of reducing the number of night-time train movements to/from the site; and</p> <p>f) Include an action plan to implement the audit recommendations and a protocol for monitoring the effectiveness of these measures over time.</p>	<ul style="list-style-type: none"> <li>SLR Australia Pty Ltd (2015), Draft Lidsdale Upgrade Project Independent Noise Audit, 26 June 2015, Draft 1.</li> <li>Letter – DP&amp;E (2015), Lidsdale Siding Independent Noise Audit, 26 May 2015</li> </ul>	<p>Completion of the upgrade of the coal loader project was August 2014.</p> <p>a) Independent noise specialists from SLR Australia Pty Ltd were approved by the DP&amp;E in a letter to Centennial dated 26 May 2015.</p> <p>b) A Draft Independent Noise Audit report was provided which had been completed on 26 June 2015. Appendix B of the Draft Noise Audit included a letter dated 11 June 2015 from Centennial to the EPA seeking comment in relation to any specific components that may require further consideration in the preparation of the noise audit. The draft report (SLR, 2015, p.6) notes that no specific comment or requirement concerning the noise audit was received from the EPA. The draft report was prepared in June 2015, construction works officially ceased in August 2014, therefore it is considered the independent noise audit was prepared within 12 months of completion of the upgrade.</p> <p>c) Monthly attended noise monitoring results were included in the draft report sighted by the auditors.</p> <p>d) The draft audit report investigated and evaluated reasonable and feasible measures to mitigate operational noise at the site.</p> <p>e) The draft audit report reviewed the feasibility of reducing the number of night-time train movements to/from the site (Section 8).</p> <p>f) A draft Action Plan was included in the draft audit report (Section 10, Table 7). The draft action is summarised below:</p> <p>(SLR, 2015, p.14)</p> <table border="1"> <thead> <tr> <th>Recommendation</th> <th>Timing</th> </tr> </thead> <tbody> <tr> <td>Update NMP to include EPL 5219 noise limits</td> <td>TBC</td> </tr> <tr> <td>Operator attended noise monitoring to include summary of Lidsdale Siding operations during noise measurements.</td> <td>Next monthly noise monitoring report</td> </tr> <tr> <td>Utilise Lidsdale Siding weather station for analysing noise monitoring results.</td> <td>Next monthly noise monitoring report</td> </tr> <tr> <td>SWL measurements of the plant and equipment to be undertaken and compared to the benchmark levels in the EA in accordance with Section 8.2 of the NMP and SOC Commitment 6.</td> <td>TBC</td> </tr> <tr> <td>Undertake a review of on-site alarm systems</td> <td>TBC</td> </tr> </tbody> </table>	Recommendation	Timing	Update NMP to include EPL 5219 noise limits	TBC	Operator attended noise monitoring to include summary of Lidsdale Siding operations during noise measurements.	Next monthly noise monitoring report	Utilise Lidsdale Siding weather station for analysing noise monitoring results.	Next monthly noise monitoring report	SWL measurements of the plant and equipment to be undertaken and compared to the benchmark levels in the EA in accordance with Section 8.2 of the NMP and SOC Commitment 6.	TBC	Undertake a review of on-site alarm systems	TBC	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-27</b> – Confirm timings for the recommendations provided in the Independent Noise Audit Action Plan.</p>
Recommendation	Timing															
Update NMP to include EPL 5219 noise limits	TBC															
Operator attended noise monitoring to include summary of Lidsdale Siding operations during noise measurements.	Next monthly noise monitoring report															
Utilise Lidsdale Siding weather station for analysing noise monitoring results.	Next monthly noise monitoring report															
SWL measurements of the plant and equipment to be undertaken and compared to the benchmark levels in the EA in accordance with Section 8.2 of the NMP and SOC Commitment 6.	TBC															
Undertake a review of on-site alarm systems	TBC															



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.6	<p><b>Construction Noise</b></p> <p>Prior to the commencement of construction activities on the site, the Proponent shall prepare (and during construction implement) a <b>Construction Noise Management Plan</b> prepared in accordance with EPA's <i>Interim Construction Noise Guideline 2009</i> (or any relevant updated version), to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>Lidsdale Construction Noise Management Plan, 22 May 2013</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Construction Management Plans, 28 May 2015.</li> </ul>	<p>The Construction Noise Management Plan (CNMP) was approved by the Director-General on 28 May 2015. Lidsdale management reported construction was authorised on 7 June 2013.</p> <p>Noise related data and documentation concerning the construction phase was not available for the auditors to review. Implementation of the Construction Noise Management Plan could not be verified as data and documents were reported by Lidsdale management to be the responsibility of the Principal Contractor that was no longer on site.</p> <p>This condition was found compliant on the basis of the CNMP having been developed, however implementation of the plan during construction was not assessed..</p>	Compliant
3.7	<p><b>Noise Management Plan</b></p> <p>The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <ol style="list-style-type: none"> <li>Be prepared in consultation with the EPA, and submitted to the Director-General for approval within 6 months of the date of this approval, unless otherwise agreed by the Director-General;</li> <li>Describe the noise mitigation measures that would be implemented to ensure compliance with the noise criteria in Table 1, including the specific measures that would be implemented to minimise train loading and rail noise generated by the project, including noise associated with:                     <ol style="list-style-type: none"> <li>loading coal onto trains;</li> <li>braking and accelerating of trains;</li> <li>train warning horns; and</li> <li>idling locomotives, particularly during the night;</li> </ol> </li> <li>Outline procedures to manage responses to any complaints or issues raised by the owners of affected residences; and</li> <li>Include a noise monitoring program that:                     <ol style="list-style-type: none"> <li>incorporates monthly attended noise monitoring to evaluate the performance of the project against the noise criteria in Table 1 (unless otherwise agreed with the Director-General);</li> <li>includes a protocol for determining exceedences of the relevant conditions of this approval; and</li> <li>includes a program to monitor the actual sound power levels of the equipment on site, compare it with the benchmark levels used in the EA, and evaluate the effectiveness of any attenuation.</li> </ol> </li> </ol> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>It is expected that monthly attended noise monitoring will be required for at least 12 months following the completion of the construction of the upgraded coal loader. After 12 months, the Director-General may agree to reduce the frequency of attended noise monitoring provided the operational noise performance of the project is acceptable.</li> <li>The effectiveness of the Noise Management Plan is to be reviewed and audited in accordance with the requirements in Schedule 5.</li> </ul>	<ul style="list-style-type: none"> <li>SLR Consulting Australia Pty (2013), Lidsdale Siding Noise Management Plan, Report Number 630.10123.02050-R1, 12 November 2013, Rev2</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Lidsdale Siding Complaints Register</li> <li>Global Acoustics 2014 Monthly Noise Reports - July, August, September, October, November, December.</li> <li>Global Acoustics 2015 Monthly Noise Reports – January, February, March, April, May, June.</li> </ul>	<p><b>Preparation</b></p> <ul style="list-style-type: none"> <li>The Noise Management Plan was approved by the Director-General on 15 November 2013 and was submitted for approval on 10 October 2013 (i.e. within 6 months of 3 May 2013).</li> <li>Evidence of consultation with the EPA was sighted during the audit.</li> <li>Section 7 of the NMP describes the mitigation measures that would be implemented to ensure compliance with the noise criteria in Table 1, including the specific measures that would be implemented to minimise train loading and rail noise generated by the project.</li> <li>Section 9 outlines the procedures to manage responses to any complaints or issues raised by the owners of affected residences.</li> <li>Section 8 includes a noise monitoring program.</li> </ul> <p><b>Implementation</b></p> <p>Noise mitigation measures (Section 7, p.11) were observed during the site inspection and the following is noted:</p> <ul style="list-style-type: none"> <li>Transfer chutes were incorporated into design and constructed.</li> <li>Conveyor CV01 was fitted with low idlers.</li> <li>Conveyor Drives been measured (sound power levels CV01)</li> <li>Conveyor CV01 was covered on the eastern side – sighted.</li> <li>Conveyor CV02 covered on roof and eastern side- sighted.</li> <li>Noise barriers from ground level to the underside of the bin loading floor were sighted.</li> <li>The auditors sighted the slight incline of the rail line that reduces wagon noise.</li> <li>The coal loading bin does not always have coal in it as different coal types mixtures may be needed.</li> </ul> <p>Section 9 of the NMP included procedures to manage noise related complaints. One complaint was recorded during the construction phase. The complaint concerned noise associated with the 'bunching' of rail wagons during loading operations and is therefore not considered a construction related complaint.</p> <p>Section 8 of the NMP included a noise monitoring program. Monthly noise monitoring reports were available for the period July to December 2014 and January to June 2015. Construction was officially completed in August 2014 and monthly monitoring was required following completion of construction.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-28</b> – Refer to Section 4.2.4 of the Main Report for noise recommendations.</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
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3.8 **AIR QUALITY & GREENHOUSE GAS**  
**Air Quality Assessment Criteria**  
 The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 3, 4 or 5 at any residence on privately-owned land.  
 Compliant (based on data to date)

**Table 3 - Long-term criteria for particulate matter**

Pollutant	Averaging Period	<sup>d</sup> Criterion
Total suspended particulate (TSP) matter	Annual	<sup>a</sup> 90 µg/m <sup>3</sup>
Particulate matter < 10 µm (PM10)	Annual	<sup>a</sup> 30 µg/m <sup>3</sup>

- Site observations
- NPI reports
- Ivanhoe (2014), Lidsdale Siding Annual Review.
- Ivanhoe (2012 – 2015) Monthly Environmental Monitoring Reports (<http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx>)
- SLR (2015) Review of EBAM Data Lidsdale Siding. 630.11117 Letter.docx
- NPI Report 2012/2013
- NPI Report 2013/2014 (<http://www.npi.gov.au/npidata/action/load/individual-facility-detail/criteria/state/NSW/year/2014/jurisdiction-facility/1033>)

To minimise dust emissions, the following measures were observed on site, consistent with those noted in the Air Quality and Greenhouse Gas Management Plan:

- Fixed sprinklers on conveyor CV01.
- Fixed sprinklers on the Train Load Out bin.

None of the sprinklers were observed to be in use at the time of the site inspection. A water cart was observed in operation during the Site inspection.

NPI reports were observed for the reporting periods 2012/2013 and 2013/2014. The NPI report for 2013/2014 indicated an upgraded water spray was in use. This is understood to be the fixed sprinklers noted above.

Other site observations included:

- Three deposition dust gauges (DG9, DG10 and DG11) commenced operation in September 2014, consequently 12 months of data was not available at the time of preparation of this report.
- Assessment of Table 3 Long-term criteria for particulate matter is as follows:
  - The annual average PM<sub>10</sub> results are based on 165 days, therefore, compliance to the annual average cannot yet be established. However; at the time of the site inspection on 31 July 2015 the rolling average PM<sub>10</sub> value was 22.6 µg/m<sup>3</sup>, below the annual average guideline of 30 µg/m<sup>3</sup>.
  - The continuous PM<sub>10</sub> monitor, upon which TSP results are based, commenced operation in February 2015. Data from February 2015 through to 31 July 2015 suggest TSP is unlikely to exceed the guideline. It is noted that the annual average TSP result is based on 165 days, therefore, adherence to the annual average cannot yet be established.

The specialist air auditor considered the annual average for Table 3 criteria was trending to achieve the annual average, however the annual average could not be verified as 12 months of data was not available since operations started. Based on data provided to the time of the audit the condition was assessed as compliant.

3.8 cont'd **Table 4 - Short-term criterion for particulate matter**

Pollutant	Averaging Period	<sup>d</sup> Criterion
Particulate matter < 10 µm (PM10)	24 hour	<sup>a</sup> 50 µg/m <sup>3</sup>

**Table 5 - Long-term criteria for deposited dust**

Pollutant	Averaging Period	Maximum increase in deposited dust level	<sup>d</sup> Criterion
<sup>c</sup> Deposited dust	Annual	<sup>b</sup> 2 g/m <sup>2</sup> /month	<sup>a</sup> 4 g/m <sup>2</sup> /month

Notes to Tables 3 to 5:

- Total impact (i.e. incremental increase in concentrations due to the project plus background concentrations due to all other sources);
- Incremental impact (i.e. incremental increase in concentrations due to the project on its own);
- Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with EPA.

Assessment of Table 4 - Short-term criterion for particulate matter follows:

- The maximum 24 hour PM<sub>10</sub> results were 41.8 µg/m<sup>3</sup>, below the guideline of 50 µg/m<sup>3</sup>.

Assessment of Table 5 - Long-term criteria for deposited dust follows:

- DG1 and DG8 demonstrated compliance with the EPL guideline of 4 g/m<sup>2</sup>/month (12 month rolling annual average).
- DG6 and DG7 showed exceedance of the EPL guideline in the period July 2012 to July 2013. The 12 month block average dust deposition was above the guideline at the commencement of the audit period at DG6 and DG7 due to historical activities and fell below the guideline level for the subsequent 12 month periods i.e. July 2013 to July 2014 and July 2014 to July 2015.
- It is noted that the 12 month average at DG6 and DG7 has not been exceeded since the 12 month rolling average periods commencing July 2013 and July 2014 respectively.
- The rolling average measurements of DG9, DG10 and DG11 appear to be close to the 4 g/m<sup>2</sup>/month, however, none of the new stations have been operating for 12 months, consequently it cannot yet be established if the measurements exceed the relevant guidelines.

Compliant for long term particulate matter and short term particulate matter.

This condition (3.8) was found to be compliant for long term deposited dust results. The exceedances at locations DG6 and DG7 were associated with activities prior to the Audit period commencing May 2013, and are therefore not considered relevant to the assessment of compliance for the condition.



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.9	<p><b>Operating Conditions</b></p> <p>The Proponent shall:</p> <p>a) Implement best practice air quality management on site, including all reasonable and feasible measures to minimise the off-site odour and dust emissions generated by the project;</p> <p>b) Minimise any visible air pollution generated by the project;</p> <p>c) Install and operate equipment capable of applying water to the surface of coal loaded onto trains prior to leaving the site;</p> <p>d) Regularly assess the air quality monitoring results to ensure compliance with the relevant conditions of this approval,</p> <p>to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>SLR Consulting Australia Pty (2013), Lidsdale Siding Air Quality &amp; Greenhouse Gas Management Plan, Report Number 630.10123.0205-R2, 13 November 2013, Rev3</li> <li>EBAM data</li> </ul>	<p>The following is noted:</p> <ul style="list-style-type: none"> <li>The train is loaded via the Train Load Out bin which is up to date technology, as opposed to the use of front end loaders prior to the recent upgrades. Lidsdale is trialling weather alerts, via SMS to operators. This was not observed by the auditors.</li> <li>As the site is unmanned site, there is limited vehicle movement reducing this potential source of dust generation. A water cart for dust suppression on unsealed roads, was sighted during the site inspection on 31 July 2015.</li> <li>Sprinklers were sighted at Train Load Out bin. The sprinklers are not always operated during train movements into and out of the hopper / loading area. Lidsdale management reported that no additive or surfactant is added to the sprinkler water, however the DEM level in the coal is likely to be &gt;5%, which minimises dust emissions from the train carriages.</li> <li>EBAM monitoring station sighted during the site inspection. The results of the continuous PM<sub>10</sub> monitor (EBAM) demonstrate that short term particulate matter appears to be meeting guideline levels.</li> </ul>	Compliant
3.10	<p><b>Air Quality &amp; Greenhouse Gas Management Plan</b></p> <p>The Proponent shall prepare and implement an Air Quality &amp; Greenhouse Gas Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>a) Be prepared in consultation with EPA, and submitted to the Director-General for approval within 6 months of the date of this approval;</p> <p>b) Describe the measures that would be implemented to ensure compliance with the relevant conditions of this approval;</p> <p>c) Include an air quality monitoring program, that:</p> <ul style="list-style-type: none"> <li>uses a combination of volumetric sampling and dust deposition gauges to evaluate the performance of the project;</li> <li>monitors greenhouse gas emissions, and</li> <li>includes a protocol for determining exceedances with the relevant conditions of this approval;</li> </ul> <p>d) Describe the measures that would be implemented to minimise the release of greenhouse gas emissions from the site.</p>	<ul style="list-style-type: none"> <li>SLR Consulting Australia Pty (2013), Lidsdale Siding Air Quality &amp; Greenhouse Gas Management Plan, Report Number 630.10123.0205-R2, 13 November 2013, Rev3</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> </ul>	<p><b>Preparation of the Plan</b></p> <ul style="list-style-type: none"> <li>The AQGGMP was approved by the Director-General on 15 November 2013. Evidence of consultation with the EPA was sighted during the audit. The AQGGMP was submitted to the Director-General on 10 October 2013 (i.e. within 6 months of 3 May 2013).</li> <li>The AQGGMP described the measures that would be implemented to ensure compliance with the relevant conditions of the PA.</li> <li>Section 8 included an air quality monitoring program that used a combination of volumetric sampling and dust deposition gauges to evaluate the performance of the project and allowed for monitoring of greenhouse gas emissions. Additionally, Section 9 describes the protocol for determining exceedances with the relevant conditions of the PA.</li> <li>Section 7 described measures that would be implemented to minimise the release of greenhouse gas emissions from the site.</li> </ul> <p><b>Implementation of the Plan</b></p> <p><u>Dust Deposition</u></p> <p>Dust Deposition Gauges (DGs) record dust fallout from dust emission sources in the area.</p> <p>A network of six DGs are maintained around the site to assess deposited matter on a continuous basis with EPL conditions and are identified as DG1, DG6, DG7, DG8, DG9 and DG10.</p> <p>Recently, two additional DGs were installed during the audit period for the air quality monitoring program for the purpose of assessing the Project's overall compliance with dust deposition criteria. These DGs were located in proximity to residences R5 and R10 to the northeast and southwest of the Project site respectively and (identified as DG9 and DG10).</p> <p>Additionally, DG11 was installed at a location considered to be representative of having background dust levels.</p> <p><u>PM<sub>10</sub> and TSP measurements using Electronic Beta Attenuation Monitor (EBAM)</u></p> <p>The EBAM provides real-time measurement of airborne PM<sub>10</sub> concentration levels using the principle of beta ray attenuation. Real-time PM<sub>10</sub> concentrations are reported online, along with real-time meteorological data such as wind speed and direction, for proactive dust management. Monitoring data is manually downloaded on a monthly basis for data validation purposes. TSP is estimated from PM10 concentrations as per Section 8.1.4 of the AQGGMP.</p> <p>It is noted in Section 8.1.6 of AQGGMP (SLR, 2013, p.16) that the EBAM was recommended to be installed within 12 months following [the Upgrade] project commencing, implying a start date of approximately July 2014. The EBAM commenced operation in February 2015.</p>	Compliant

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.11	<p><b>METEOROLOGICAL MONITORING</b></p> <p>During the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:</p> <p>a) Complies with the requirements in the <i>Approved Methods for Sampling of Air Pollutants in New South Wales</i> guideline; and</p> <p>b) Is capable of continuous real-time measurement of temperature lapse rate in accordance with the <i>INP</i>.</p>	<p>y) Site observations</p> <p>z) ALS Installation Report Certificate of Conformance, 27 July 2015, Ref: LSAWS001_270715</p> <p>aa) ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs]</p> <p>bb) ALS (2014), Operation, Maintenance and Data Dissemination Report of Hydrometric Sites For 2014, Centennial Coal Services SR141223-B</p> <p>cc) Centennial (2015), Dust Data to date.csv</p> <p>dd) Letter – DP&amp;E (2015-A), Lidsdale Siding Annual Review 2014, 27 May 2015</p>	<p>During the site inspection the Lidsdale Siding Weather Station (LSWS) was sighted and observed to be operational. This included continuous recording of air temperature, wind speed and direction, temperature lapse rate, rainfall and relative humidity.</p> <p>It is noted that no on-site weather data was recorded in 2014 as the weather station was reported as operating intermittently. Weather data in 2014 was taken from the nearby Springvale Colliery.</p> <p>The LSWS was installed by ALS Laboratories and commenced operation on January 2015. Auditors sighted LSWS real-time online data during the site inspection. Data was available from 5 February to 21 July 2015 for review.</p> <p>A Certificate of Conformance dated 27 May 2015 noted that “Components 1a, 1c, 1d, and 1e complies with the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2005/360). Component 1b technically fails to meet this standard having a wind velocity accuracy of ±0.3m/s and threshold of 1.0m/s where the standard requires an accuracy of ±0.2m/s and threshold of 0.5m/s”.</p> <p>The ALS online portal allows Lidsdale management to view ‘live’ data concerning LDP004 as well as rainfall data.</p> <p>Reports are recorded in 10 minute intervals. An example Excel spread sheet for November 2013 was provided to the auditors for review that contained the information required by this condition.</p> <p>It is noted in Section 8.1.6 of AQGGMP (SLR, 2013, p.16) that the EBAM was recommended to be installed within 12 month following [the Upgrade] project commencing, implying a start date of approximately July 2014. The EBAM commenced operation in February 2015. ALS (2014, Section 5.1) also noted that “all sites are operating as expected, data dissemination services are performing as expected”.</p> <p>Given the on-site meteorological station commenced operation in January 2015 and that project approval was granted in May 2013 this condition was found to be Non-compliant.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-29</b> – Confirm if a wind sensor that complies with the Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales (DEC 2005/360) has been installed in the meteorological station.</p>
3.12	<p><b>TRANSPORT</b></p> <p><b>Monitoring of Coal Transport</b></p> <p>The Proponent shall:</p> <p>a) Keep accurate records of the amount of coal transported from the site (on a monthly basis);</p> <p>b) Make these records publicly available in the annual review and on its website at the end of each calendar year.</p>	<p>a) Ivanhoe (2014), Lidsdale Siding Annual Review.</p> <p>b) Ivanhoe (2013), Lidsdale Siding Annual Review.</p> <p>c) Lidsdale Siding Monthly Train Record for July 2015.</p> <p>d) Lidsdale Siding website: <a href="http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx">http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx</a> [Accessed 12 August 2015 at 15:24hrs]</p>	<p>Lidsdale production figures for the audit period were sighted. The following ROM coal handled was reported:</p> <p>a) 2013: 1,744,869 tonnes transported.</p> <p>b) 2014: 2,555,270 tonnes transported.</p> <p>The 2013 and 2014 Annual Reviews contained records of coal transported from the site.</p> <p>Coal records were not evident on the Lidsdale Siding website.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-30</b> - Provide records of coal transported on the Lidsdale Siding website at the end of each calendar year as required by Condition 12, Schedule 3.</p>
3.13	<p><b>Construction Traffic Management Plan</b></p> <p>The Proponent shall prepare and implement a Construction Traffic Management Plan for the project, to the satisfaction of the Director-General. This plan shall be prepared in consultation with LCC and RMS, and must be submitted to the Director-General for approval prior to the commencement of construction activities on the site. The plan must address:</p> <p>a) Interactions of construction traffic with rail level crossings;</p> <p>b) Management of wide loads;</p> <p>c) Minimising inconvenience to the public, particularly due to traffic noise and volumes; and</p> <p>d) Maintaining public safety.</p>	<p>a) Mark Waugh Pty Ltd (2013), Traffic Management Plan Construction, May 2013.</p> <p>b) Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Construction Management Plans, 28 May 2015.</p> <p>c) Lidsdale Siding Community Complaints Register</p>	<p>The Construction Traffic Management Plan (CTMP) was approved by the Director-General on 28 May 2015. Lidsdale management reported construction was authorised on 7 June 2013.</p> <p>a) Section 7.1 addressed the interaction of construction traffic and rail level crossings.</p> <p>b) The CTMP did not clearly address the management of wide loads.</p> <p>c) Construction noise was limited from 07:00am to 6:30pm Monday to Friday and 08:00am to 1:00pm on Saturdays (Section 5.1). One complaint was recorded during the construction phase. The complaint concerned noise associated with the ‘bunching’ of rail wagons during loading operations and is therefore not considered a construction related complaint.</p> <p>d) Section 5.3 (pp.9-11) addressed public/road safety.</p> <p>Implementation of the CTMP could not be audited as construction activities ceased on 22 August 2014 and records were maintained by the Principal Contractor which were not available during the audit.</p> <p>This condition was found to be compliant; however, it is noted that the TMP did not clearly address the management of wide loads as required of the condition.</p>	<p>Compliant</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.14	<p><b>Level Crossings, Main Street and Brays Lane, Wallerawang</b></p> <p>Within 6 months of the date of this approval, the Proponent shall upgrade the rail level crossings of Main Street and Brays Lane, Wallerawang, unless the Director-General directs otherwise, by:</p> <p>c) Installing additional signage and line marking on Main Street Wallerawang;                      d) Installing upgraded safety measures at the Brays Lane level crossing in accordance with the relevant Australian standard.</p> <p>The design and construction of these works must be undertaken in consultation with, and to the satisfaction of LCC and the relevant rail authority and/or its agent.</p>	<ul style="list-style-type: none"> <li>John Holland (2013), Level Crossing Investigations at Wallerawang, 4 September 2013.</li> <li>Laing O'Rourke (2014), Lidsdale Coal Siding, 10 March 2014.</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project Extension of Time to Undertake Rail Crossing Upgrades, 19 December 2013.</li> </ul>	<p>The auditors sighted the following documents:</p> <ul style="list-style-type: none"> <li>Site Investigation of LCC86170A - Active Public Vehicle Level Crossing, Main Street Wallerawang, dated 4 September 2013.</li> <li>Survey of LCC86173A - Public Vehicle Level Crossing Bray Lane, Wallerawang Colliery, dated 4 September 2013.</li> <li>A letter from DP&amp;E approving an extension to February 2014 to complete the upgrade works.</li> </ul> <p>A letter of completion dated 10 March 2014 was available for review from Laing O'Rourke that stated:</p> <p><i>"... that the following work on the Main St Level Crossing at Wallerawang has been completed in accordance with John Holland/Country Regional Network recommendations;</i></p> <ul style="list-style-type: none"> <li><i>East Approach</i> <ul style="list-style-type: none"> <li><i>Re-marked rail X pavement marking</i></li> <li><i>Installed W7-4 sign</i></li> <li><i>Barrier line to extended past furthest W7-4 sign</i></li> <li><i>Assembled RX-5 sign to include W7-2-1 sign</i></li> <li><i>Re-marked stop line</i></li> </ul> </li> <li><i>West Approach</i> <ul style="list-style-type: none"> <li><i>Installed W7-4 sign on existing post</i></li> <li><i>Extended barrier line to furthest W7-4 sign</i></li> <li><i>Re-marked rail X pavement marking</i></li> <li><i>Re-marked stop line</i></li> <li><i>Replaced two off W7-4 sign with reflective</i></li> <li><i>Assembled RX-5 sign to include W7-2-1 sign".</i></li> </ul> </li> </ul> <p>John Holland (2013) concluded that <i>"LCC86173A complies with our interpretation of the above standard" in regard to the sighting distance provision of the railway crossing protected by stop signs for a train speed of 20km/hr and a semi-trailer design vehicle".</i></p> <p>No evidence was available to confirm that the design and construction of the works at Main Street Wallerawang had been undertaken in consultation with, and to the satisfaction of Lithgow City Council and the relevant rail authority and/or its agent therefore this condition has been deemed Not Verified.</p> <p><i>*Manual of Uniform Traffic Control Devices Part 7: Railway Crossings AS1742.7-2007. Railway Crossing with Straight Approach Controlled by Stop Signs (Passive Control).</i></p>	<p>Not Verified</p> <p><b>Recommendation</b></p> <p><b>REC-2015-31</b> - Confirm the works at the Main Street Wallerawang level crossing have been undertaken in consultation with, and to the satisfaction of Lithgow City Council and the relevant rail authority and/or its agent.</p>

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3.15	<p><b>SOIL AND WATER</b></p> <p><b>Water Supply</b></p> <p>The Proponent shall ensure that it has sufficient water for all stages of the project, and if necessary, adjust the scale of its operations to match its available water supply, to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>Site observations</li> <li>RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013</li> <li>Water Licence 10WA116403</li> </ul>	<p>The following water sources are available at the site:</p> <table border="1"> <thead> <tr> <th>Raw/Clean Water</th> <th>Recycled/Re-used Water</th> </tr> </thead> <tbody> <tr> <td>Licensed groundwater extraction (10WA116403 – sighted during the audit).</td> <td>Site stormwater – runoff from roads, conveyor and disturbed areas.</td> </tr> <tr> <td>Rain interception – direct incident rainfall on water control ponds.</td> <td>Coal stockpile runoff and seepage (pumped from herringbone drainage system and coal handling tunnel below the stockpile).</td> </tr> <tr> <td>Clean surface runoff (from some areas outside the site boundary) – directed to Triangle Dam.</td> <td>Contaminated water – runoff from hardstand areas.</td> </tr> <tr> <td>Springvale Colliery surplus – trucked to site as required, a pipeline will be constructed in the near future.</td> <td></td> </tr> <tr> <td>Firewater Tank 523 KL topped up from municipal supply.</td> <td></td> </tr> <tr> <td>Town municipal water supply – domestic and emergency use (firefighting) only.</td> <td></td> </tr> </tbody> </table> <p>Lidsdale management reported that during the audit period groundwater bore PB1 was capped at the request of the EPA and that a new groundwater bore was installed.</p> <p>Lidsdale management also reported that Water Licence 10SL038318 located in Pipers Flat Creek was not renewed during the audit period. The licence allowed for one to two mega litres (ML) of water to be extracted per year provided that 3ML was not exceeded over a three year period.</p>	Raw/Clean Water	Recycled/Re-used Water	Licensed groundwater extraction (10WA116403 – sighted during the audit).	Site stormwater – runoff from roads, conveyor and disturbed areas.	Rain interception – direct incident rainfall on water control ponds.	Coal stockpile runoff and seepage (pumped from herringbone drainage system and coal handling tunnel below the stockpile).	Clean surface runoff (from some areas outside the site boundary) – directed to Triangle Dam.	Contaminated water – runoff from hardstand areas.	Springvale Colliery surplus – trucked to site as required, a pipeline will be constructed in the near future.		Firewater Tank 523 KL topped up from municipal supply.		Town municipal water supply – domestic and emergency use (firefighting) only.		Compliant
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3.16	<p>The Proponent shall preferentially use excess mine water from the Springvale Coal Mine for dust suppression at the site rather than potable town water supply.</p>	<ul style="list-style-type: none"> <li>Site observations</li> <li>RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013</li> </ul>	<p>Lidsdale management reported they are not using excess water from Springvale Coal Mine. Tables 5-2 and 5-3 (RPS, 2013, p.13) provide current and proposed site water use hierarchy (i.e. Springvale pipeline in place). The hierarchy for current site water use is summarised as follows:</p> <ol style="list-style-type: none"> <li>The dirty water for reclaimed and recycled water.</li> <li>Licensed groundwater extraction.</li> <li>Excess mine de-watering from Springvale Colliery.</li> <li>Town water supply (fire main) to be used as emergency fire water.</li> </ol> <p>When required, emergency back-up water (other than for firefighting) will be trucked in from Springvale Colliery until such time as the planned pipeline along the conveyor route has been constructed.</p>	Not Activated
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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.17	<p><b>Surface Water Discharges</b></p> <p>The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits (both volume and quality) set for the project in any EPL.</p>	<ul style="list-style-type: none"> <li>RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013</li> <li>LDP004 Water Quality Data – 24 January 2013 to 23 June 2015.</li> <li>Lidsdale Siding Environmental Monitoring Report, December 2014.</li> <li>Lidsdale Siding Environmental Monitoring Report, January 2015.</li> <li>Lidsdale Siding Environmental Monitoring Report, April 2015.</li> <li>Lidsdale Siding April 2015.csv</li> <li>Spring Vale Weather Station 001.csv</li> </ul>	<p>The site has a staged surface water catchment, containment and passive treatment process. Storm water runoff at the site flows in a north-easterly direction to the Dirty Water Dam. Water is pumped to second dam where it is either discharged via natural flow or pumped following testing by ALS.</p> <p>Concentration limits specified under condition L2.4 for LDP04 do not apply when rainfall exceeds 56 mm over any consecutive five day period.</p> <p>The following discharge results were noted during the audit period:</p> <ul style="list-style-type: none"> <li>A pH result of 6.41 was recorded at LDP004 on 9 December 2014. The EPL pH range limit is 6.5 to 8.5.</li> <li>Data supplied from the Springvale Colliery Weather Station (Spring Vale Weather Station 001.csv) noted that in excess of 56 mm of rainfall was recorded over a five day period prior to discharge.</li> <li>A TSS result of 42 mg/L was recorded at LDP004 on 9 December 2014. The EPL TSS limit is 30 mg/L.</li> <li>The January 2015 Centennial Environmental Monitoring Report (p.3) noted that there was an average rainfall of 124.2 mm for January 2015.</li> <li>An Oil and Grease result of 37 mg/L was recorded on 8 January 2015. The EPL Oil and Grease limit is 10 mg/L.</li> <li>The January 2015 Centennial Environmental Monitoring Report (p.4) noted that “an exceedance was recorded for the concentration of oil and grease at LDP04 despite no visual indication of oil and grease in the water at the time of sampling. A duplicate sample will be taken in the future to allow retesting of the sample if required”.</li> <li>A TSS result of 127 mg/L was recorded at LDP004 on 21 April 2015. The EPL TSS limit is 30 mg/L.</li> <li>The April 2015 Centennial Environmental Monitoring Report noted the “Rainfall exemption criteria triggered as defined in the EPL 5129”. Data from 2 April to 1 May 2015 from the LSWS indicated that in excess of 56 mm of rainfall was recorded over a five day period prior to discharge.</li> </ul> <p>EPL 5129 requires the monitoring frequency at LDP004 to be monthly during discharge. Environmental monitoring data dated from 24 January 2013 to 23 June 2015 indicated that monitoring occurred at LDP004 on average of every 18 days which was compliant with this requirement.</p> <p>From the above, the Oil and Grease exceedance of 37 mg/L recorded on 8 January 2015 was non-compliant with the EPL. Based on this Non Compliance, this condition was found to be non-compliant.</p>	<p>Non-compliant (based on oil &amp; grease exceedance)</p> <p><b>Recommendation</b></p> <p>Refer to <b>REC-2015-34</b></p>



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.18	<p><b>Remediation of Soil Contamination</b></p> <p>Within 6 months of the date of this approval, unless otherwise agreed by the Director-General, the Proponent shall undertake a Phase 2 Contamination Assessment for the site and implement any necessary remediation within 18 months of this approval in accordance with the requirements of the <i>Contaminated Land Management Act 1997</i>, to the satisfaction of the EPA.</p>	<ul style="list-style-type: none"> <li>AECOM (2013), Updated Phase 2 Contamination Assessment, 22 October 2013</li> <li>SLR (2014-A), Land Contamination Advice, Lidsdale Siding Upgrade Project Wallerawang, NSW, 29 July 2014, Ref: 610.14220-R1D1.docx</li> <li>SLR (2014-B), Supplementary Contamination Delineation Assessment and Remedial Action Plan Historical Diesel AST Spill Lidsdale Siding Upgrade Project Main Street, Wallerawang, NSW, 3 October 2014, Ref: 610.14220-R2.</li> <li>SLR (2014-C), Preliminary Indicative Remediation Estimate Advice - Historical Diesel AST Spill Lidsdale Siding Upgrade Project Wallerawang NSW, 5 November 2014, Ref: 610.14220-R3.docx</li> <li>Ivanhoe (2014), Lidsdale Siding Annual Review.</li> <li>Letter – Centennial (2013), Lidsdale Siding Upgrade Project (PA 08_0223) Phase 2 Contamination Assessment, 29 October 2013.</li> <li>Email – Centennial (2013-A), Lidsdale Siding Management Plans, 01/10/2013 @09:09am.</li> <li>Email – Centennial (2013-B), Lidsdale Siding Phase 2 Contamination Assessment, 09/12/2013 @03:20pm to EPA.</li> </ul>	<p>The following timeline is noted:</p> <ul style="list-style-type: none"> <li>2013                             <ul style="list-style-type: none"> <li>A Phase 2 Contamination Assessment was completed by AECOM Pty Ltd in October 2013, within 6 months of the date of approval.</li> <li>The report identified that the site was considered suitable for the proposed industrial/commercial development. The report identified the possibility for off-site migration of hydrocarbon impacted groundwater, with this likely to be attributed to an ongoing source of hydrocarbon contamination. AECOM (2013) noted that the soils in the vicinity of the former Above Ground Storage Tank (AST) were considered likely to be the source of impacts to groundwater.</li> <li>A letter from Centennial to the DP&amp;E dated 29 October 2013 was available for review. The letter notes that “a draft Phase 2 Contamination Assessment was sent to the Environment Protection Authority for consultation purposes, as required by the Project Approval. The Environment Protection Authority responded with no comments”.</li> <li>The auditors sighted an email from the Centennial Environmental Coordinator to the EPA dated 9 December 2013. The email included two attachments (Lidsdale Siding Phase 2 Contamination Assessment 2013-10-25 and Lidsdale Siding Phase 2 EPA Submission Letter).</li> </ul> </li> <li>2014                             <ul style="list-style-type: none"> <li>In July 2014, SLR Consulting Pty Ltd (SLR) completed a Supplementary Contamination Delineation Assessment and Remediation Action Plan (2014-B) for the historical diesel AST spill. A diesel spill (understood to be approximately 20,000L in size) reportedly occurred from a former AST on the site during the 1970’s. Lidsdale management reported that some surficial remedial works were undertaken after the spill in the 1970s; however, recent site investigation work (i.e. AECOM, 2013) suggests residual petroleum hydrocarbon impacts are present in soils and groundwater underlying the site.</li> <li>In October 2014 SLR provided a Supplementary Contamination Delineation Assessment and Remedial Action Plan (2014-A) to Centennial. The objectives of this report were to assess the horizontal and vertical extent of petroleum hydrocarbon impact in soil around the former above ground storage tank at the site and prepare a remedial action plan to address the identified petroleum hydrocarbon impact in soil around the former above ground storage tank at the site.</li> <li>In November 2014 SLR (2014-C) provided a Preliminary Indicative Remediation Estimate Advice - Historical Diesel AST Spill. The objective of the report was to provide preliminary indicative estimates for implementation of three remedial options, to inform Centennial’s decision making process on a preferred remedial strategy.</li> </ul> </li> </ul> <p>Given remedial works have not been completed within 18 months of this approval in accordance with the requirements of the <i>Contaminated Land Management Act 1997</i>, to the satisfaction of the EPA this condition could not be verified. However, it is acknowledged that Lidsdale undertook a Phase 2 Contamination Assessment within six months of the date of PA 08_0223 (3 May 2013) and that having undertaken further assessments during the audit period Lidsdale is currently awaiting confirmation from the EPA concerning potential options that will be used at the site to remediate the identified impacts.</p>	<p>Not Verified</p> <p><b>Recommendation</b></p> <p><b>REC-2015-32</b> - Confirm with the EPA the preferred remedial strategy for the site and implement the strategy</p>



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.19	<p><b>Construction Erosion and Sediment Control Plan</b></p> <p>The Proponent shall prepare and implement an Erosion and Sediment Control Plan for construction on the site to the satisfaction of the Director-General. This plan must:</p> <ul style="list-style-type: none"> <li>a) Be prepared by suitably qualified and experienced person(s) whose appointment has been approved by the Director-General;</li> <li>b) Be submitted to the Director-General for approval prior to the commencement of construction activities on the site;</li> <li>c) Be consistent with the requirements of the Managing Urban Stormwater – Soils and Construction, Volume 2E: Mines and Quarries (DECC 2008), or its latest version;</li> <li>d) Identify activities that could cause soil erosion and generate sediment, particularly in relation to activities near waterways;</li> <li>e) Describe the location, function, and capacity of erosion and sediment control structures;</li> <li>f) Describe what measures would be implemented to maintain the structures over time; and</li> <li>g) Describe the sediment and erosion control measures to be implemented for all activities undertaken at the site, particularly during the construction phase of the project.</li> </ul>	<ul style="list-style-type: none"> <li>• Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Construction Management Plans, 28 May 2015.</li> <li>• Letter – DP&amp;E (2013) approving author of ESCP</li> <li>• Ecological (2013), Lidsdale Siding Coal Loader Erosion and Sediment Control Plan, 7 May 2013, Rev1.</li> <li>• Centennial Response to Submissions (no date)</li> <li>• Email dated 7 May 2013 from Centennial Coal to DP&amp;E.</li> <li>• Numerous Weekly CEMP Checklist Inspection reports</li> <li>• Elton Inspection reports</li> </ul>	<p>The following is noted:</p> <ul style="list-style-type: none"> <li>a) An email was sighted to DP&amp;E requesting approval from DP&amp;E of Emma Garraway as author of the ESCP. A letter from DP&amp;E was sighted approving the author of the ESCP (16 May 2013).</li> <li>b) The Construction Erosion and Sediment Control Plan (CESCP) was approved by the Director-General on 28 May 2015. Lidsdale management reported construction was authorised on 7 June 2013.</li> <li>c) Page 19 of the Plan (Ecological, 2013) notes that in response to the EPA comments the ESCP was prepared in accordance with the Managing Urban Storm water – Soils and Construction Volume 2E: Mines and Quarries (DECC 2008).</li> <li>d) Section 4, Environmental Issues and Impacts addressed activities that could cause soil erosion and generate sediment, particularly in relation to activities near waterways.</li> <li>e) Table 2, Section 5.2.1 (p.9) described the location, function, and capacity of erosion and sediment control structures.</li> <li>f) Section 6, Monitoring and Review (p.12) f) described what measures would be implemented to maintain the structures over time.</li> <li>g) Section 5, Erosion and Sediment Controls (p.8) described the sediment and erosion control measures to be implemented for all activities undertaken at the site, particularly during the construction phase of the project.</li> <li>h) Numerous weekly inspection records were sighted for the construction period showing implementation of the controls was monitored on a regular basis.</li> </ul> <p>This condition is considered compliant on the basis of numerous inspection records sighted for the construction period. These addressed ESCP controls.</p>	Compliant



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.20	<p><b>Flooding</b></p> <p>The Proponent shall undertake a flood study for the site to the satisfaction of the Director-General. This study must:</p> <p>a) Be prepared in consultation with EPA and SCA by suitably qualified and experienced persons whose appointment has been approved by the Director-General;</p> <p>b) Be submitted to the Director-General for approval within 12 months of the date of this approval; and</p> <p>c) Include:</p> <ul style="list-style-type: none"> <li>• an assessment of the risk of flooding at the site;</li> <li>• an assessment of the implications of flooding on operations at the site (including the functioning of the surface water management system) and the risks associated with off-site contamination;</li> <li>• modelling of the effects of proposed flood mitigation and control measures, (such as Willow removal from the channel of Pipers Flat Creek), by the use of a calibrated hydrological model;</li> <li>• investigation of any other measures to reduce the impacts of flooding at the site;</li> <li>• identify any additional reasonable and feasible flood mitigation and control measures; and</li> <li>• a commitment and timetable for the implementation of these measures.</li> </ul>	<ul style="list-style-type: none"> <li>• AURECON (2014), Lidsdale Siding Flooding Assessment Report, 30 April 2014, Rev2, Ref: 233327.</li> <li>• RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013.</li> <li>• Letter – Centennial (2014), Lidsdale Siding Flood Study, 1 May 2014.</li> <li>• Letter – EPA (2014), Lidsdale Siding Flood Study, 10 July 2014.</li> <li>• Email – SCA (2014), Lidsdale Siding Flood Study, 01/07/2014 @12:12pm.</li> <li>• Email – Centennial (2015), Lidsdale Flood Study, to URS, 14 September 2015 at 3:38pm.</li> <li>• Email – DP&amp;E (2014), Lidsdale Siding, to Centennial, 9 May 2014 at 3:09pm</li> </ul>	<p>a) A Flood Study was prepared by AURECON in 2014 in consultation with the EPA (EPA, 2013) and the Sydney Catchment Authority (SCA, 2014). Consultation communication was sighted by the auditors.</p> <ol style="list-style-type: none"> <li>a. The EPA noted that to avoid pollution arising from flooding the EPA supported the adoption of all necessary measures to prevent Pipers Flat Creek from entering Lidsdale Siding.</li> <li>b. The SCA considered the study satisfactory and noted that <i>“the construction of a new bund along the rail line and some additional earthworks and bunding downstream in the affected flood areas are recommended measures to minimise the risk of sediment and coal fines entering waterways”</i>. The SCA also supported the proposed Willow tree and debris removal from Pipers Flat Creek as a means of improving channel flow capacity.</li> </ol> <p>b) The Flood Study was submitted to the Director-General on 1 May 2014 (i.e. within 12 months of 3 May 2013). An email from DP&amp;E to Centennial dated 9 May 2014 notes that the Department had undertaken a preliminary review of the Study and considered that it needed to be amended to include:</p> <ol style="list-style-type: none"> <li>a. <i>‘evidence of consultation with agencies;</i></li> <li>b. <i>an assessment of the risks associated with off-site contamination in the event of flooding; and</i></li> <li>c. <i>a specific commitment and timetable for the implementation of the recommendations (i.e. removal of willow from Pipers Flat Creek and construction of an on-site bund)’</i>.</li> </ol> <p>No evidence was available to confirm the amendments to the Flood Study requested by DP&amp;E in their email to Centennial dated 9 May 2014 were available for review. Lidsdale management reported (Centennial, 2015) that the Study was pending approval by DP&amp;E.</p> <p>c) The Flood Study was reviewed by the auditors and included:</p> <ol style="list-style-type: none"> <li>a. an assessment of the risk of flooding at the site. The study (AURECON, 2014) identified that site to have <i>‘minor to medium flooding issues up to the 2 year ARI peak event. Flood modelling shows Pipers Flat Creek to overtop its banks during a 2 year ARI peak event and more extensive flooding of the site occurs with increasing ARI. During a 100 year ARI peak event the rail triangle is predicted to be inundated with flooding occurring across most of the site’</i></li> <li>b. Section 9.4 addressed the implications of flooding on operations at the site (including the functioning of the surface water management system) and the risks associated with off-site contamination.</li> <li>c. Appendix E addressed modelling of the effects of proposed flood mitigation and control measures, (such as Willow removal from the channel of Pipers Flat Creek), by the use of a calibrated hydrological model.</li> <li>d. Additional reasonable and feasible flood mitigation and control measures were included throughout the study, for example Section 7.2.2 (p.16).</li> <li>e. A commitment and time table for implementation of these measures was provided in a letter from Centennial to DP&amp;E. Lidsdale Siding proposed to have flood mitigation controls implemented by April 2016 (Centennial, 2014). A commitment and time table was not provided in the Flood Study (AURECON, 2014).</li> </ol> <p>Willow trees were observed in Pipers Flat Creek in two crossings on Bray Lane during the site inspection. An half built earth bund was observed adjacent to the northern rail line during the site inspection. Lidsdale management reported that some of the soil was to be tested to determine if it is suitable for use as a levee (bund).</p>	<p>Compliant (pending approval from the Director-General)</p> <p><b>Recommendation</b></p> <p><b>REC-2015-33</b> – Ensure the amendments requested by DP&amp;E in their email dated 9 May 2014 (3:09pm) have been addressed.</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.21	<p><b>Water Management Plan</b></p> <p>The Proponent shall prepare and implement a <b>Water Management Plan</b> for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with the EPA, NOW and SCA by suitably qualified and experienced persons, and be submitted to the Director-General for approval within 6 months of the date of this approval. The plan must include</p> <p>a) A <b>Site Water Balance</b> that includes details of:</p> <ul style="list-style-type: none"> <li>sources and security of water supply;</li> <li>water use on site;</li> <li>water management on site; and</li> <li>any water transfers to/from the site;</li> </ul> <p>b) A <b>Surface Water Management Plan</b> that includes:</p> <ul style="list-style-type: none"> <li>a description of the surface water management system for the project including clean water diversions, erosion and sediment controls, and water storages;</li> <li>baseline data on surface water flows and quality of Pipers Flat Creek which receives the water from the licensed discharge point identified in the site's EPL;</li> <li>surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts;</li> <li>a surface water monitoring program for surface water discharges, surface water flows and quality, and stream health and channel stability of Pipers Flat Creek; and</li> <li>measures to reuse and recycle water, and to minimise potable water use from the town water supply;</li> </ul> <p>c) A <b>Groundwater Monitoring Program</b> that includes:</p> <ul style="list-style-type: none"> <li>detailed baseline data of all groundwater levels, yield and quality in the area, and any privately- owned groundwater bores that may be affected by the project;</li> <li>groundwater assessment criteria based upon analysis of baseline data for groundwater, including trigger levels for investigating any potentially adverse groundwater impacts; and</li> <li>a program to monitor and/or validate the impacts of the project on any privately-owned groundwater bores that may be affected by the project;</li> <li>A Surface and Ground Water Response Plan that describes the measures and/or procedures that would be implemented to:</li> <li>respond to any exceedances of the surface water, stream health, and groundwater assessment criteria; and</li> <li>mitigate and/or offset any adverse impacts on surface water and groundwater resources located within and adjacent to the site.</li> </ul>	<ul style="list-style-type: none"> <li>RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Site observations.</li> </ul>	<p><b>Preparation:</b></p> <p>The Water Management Plan (WMP) was approved by the Director-General on 15 November 2013. The WMP was submitted to the Director-General on 10 October 2013 (i.e. within 6 months of 3 May 2013).</p> <p>The following is noted concerning the WMP:</p> <p>a) Section 6 of the WMP included a Water Balance.</p> <ul style="list-style-type: none"> <li>Sources were included in Table 6.1. Water Security was addressed in Section 5.9.</li> <li>Section 5.3 addressed water use on site.</li> <li>Section 5 addressed water management.</li> <li>Section 6 referenced movement of water from Springvale Colliery as required.</li> </ul> <p>b)</p> <ul style="list-style-type: none"> <li>Section 5 described surface water management</li> <li>Section 8.1 addressed baseline data on surface water flows and quality of Pipers Flat Creek</li> <li>Section 10.1 included the requirements for surface water quality and stream health assessment criteria, including trigger levels for investigating any potentially adverse surface water impacts</li> <li>Section 7.1 included a surface water monitoring program for surface water discharges, surface water flows and quality, and stream health and channel stability of Pipers Flat Creek</li> <li>Section 5.3 included measures to reuse and recycle water, and to minimise potable water use from the town water supply</li> </ul> <p>c)</p> <ul style="list-style-type: none"> <li>Sections, 7.2 and 8.3 detailed baseline data of all groundwater levels, yield and quality in the area, and any privately- owned groundwater bores that may be affected by the project</li> <li>Section 10 included the requirements for a groundwater assessment criteria based upon analysis of baseline data for groundwater, including trigger levels for investigating any potentially adverse groundwater impacts.</li> <li>Section 7.2 and 10.3 included a program to monitor and/or validate the impacts of the project on any privately-owned groundwater bores that may be affected by the project</li> <li>Section 10 included Surface and Ground Water Response Plan (Trigger Action Response Plan) and measures to mitigate and/or offset any adverse impacts on surface water and groundwater resources located within and adjacent to the site</li> </ul>	<p>Compliant (Preparation)</p> <p><b>Recommendation</b></p> <p><b>REC-2015-34</b> – A procedure for discharging via pump-out should be developed and implemented. The procedure should include sampling of water and holding of water until results have been received.</p> <p>Develop and implement an action plan with timeframes to track progress against outstanding mitigation measures as defined by the WMP.</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.21 (Cont'd)	<i>Continued</i>	<i>Continued</i>	<p><b>Implementation</b></p> <p>Generally the audit found that the WMP had been implemented across the site. Full assessment of compliance with the EPL follows this table and provides a detailed assessment of water management at the site with respect to the licence.</p> <p>The adequacy assessment (Table 7-2) identified a number of areas where implementation was inconsistent with some aspects of the WMP. Recommendations to update the WMP have been made in the table.</p> <p>Section 10.4.2 (p.35) provided mitigation measures for water management to be implemented as part of the WMP. The WMP, however, did not specify a timeframe in which these would be actioned. A number of mitigation measures had been addressed; however, the following mitigation measures in the WMP remained outstanding at the time of the site inspection.</p> <ul style="list-style-type: none"> <li>Hydrocarbon recovery/rehabilitation had not commenced at the time of the site inspection (Section 10.4.2, Mitigation Measures).</li> <li>The ground had not been cleared at the time of the site inspection of all coaly material and was not maintained in a 'clean' state to enable clean water runoff in the location of former front-end loading operations (Section 10.4.2, Mitigation Measures). See photograph 4-3.</li> <li>Infilling of gaps in bund/levee adjacent to Piper Flat Creek and drain inside the boundary fence to be constructed, to divert water into two or more small sediment detention basins strategically located in low-lying areas near each end had not been implemented at the time of the site inspection (Section 10.4.2, Mitigation Measures).</li> <li>Invasive willow trees to be removed from the incised channel reaches within the Study Area. Particularly in the north-west in the bend near to the 'Railway Culvert'. The removal of invasive species will be undertaken over a five year period with the advice of and/or in collaboration with the Hawkesbury-Nepean Catchment Management Authority (HNCMA).</li> </ul> <p>It was found there was general compliance with this condition; however, it is acknowledged that some mitigation measures had not been implemented.</p>	<p>Compliant (Implementation)</p> <p>See <b>REC -2015-10 and 11</b> regarding adequacy of the WMP and updating the WMP.</p>
3.22	<p><b>BIODIVERSITY</b></p> <p><b>Biodiversity Management Plan</b></p> <p>The Proponent shall prepare and implement a <b>Biodiversity Management Plan</b> for the project to the satisfaction of the Director-General. This plan must:</p> <ol style="list-style-type: none"> <li>Be submitted to the Director-General for approval within 6 months of the date of this approval;</li> <li>Be prepared by a suitably qualified ecologist;</li> <li>Include a detailed description of measures that would be implemented over the life of the project to protect and conserve biodiversity, including: <ul style="list-style-type: none"> <li>management and enhancement of retained native vegetation, (particularly <i>Eucalyptus aggregata</i>) and habitat on site;</li> <li>a detailed program (both proposed works and timetable) for the removal of Willow trees from Pipers Flat Creek; and</li> <li>measures to manage and control weeds, feral animals and fire (including asset protection and management zones).</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>NewEra (2015-A), Lidsdale Siding Planting Job, April 2015.</li> <li>NewEra (2015-B), Lidsdale Siding Planting Job, June 2015.</li> <li>Letter – Centennial (2013), Lidsdale Siding Upgrade Project Biodiversity Management Plan, 29 October 2013</li> <li>RPS Australia East Pty Ltd (2013), Biodiversity Management Plan Lidsdale Siding, Report #: 105704-2, October 2013</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Letter – Centennial (2014), Lidsdale Siding Flood Study, 1 May 2014.</li> <li>Email – Centennial (2014), Lisadle Siding project Approval, 4 June 2014 @ 14:08hrs to DP&amp;E.</li> </ol>	<p><b>Preparation:</b></p> <p>The Biodiversity Management Plan was approved by the Director-General on 15 November 2013.</p> <p>The following is noted concerning the Biodiversity Management Plan (BMP):</p> <ol style="list-style-type: none"> <li>The BMP was submitted to the Director-General on 29 October 2013 (i.e. within 6 months of 3 May 2013).</li> <li>The BMP was prepared by RPS Australia East Pty Ltd</li> <li>Sections 4.1.1, 4.1.2, 4.3, 4.6, 4.6.1 and 4.7 included measures that would be implemented over the life of the project to protect and conserve biodiversity. A detailed program (i.e. dates) for the removal of Willow trees was not evident in the BMP.</li> </ol> <p><b>Implementation</b></p> <p>Evidence of planting of new trees was observed along the fence to screen rail line from the town and sporting fields. Two reports (NewEra, 2015 A&amp;B) were available for review to confirm details regarding the planting.</p> <p>An email from Lidsdale Siding to DP&amp;E dated 4 June 2014 noted that Willow trees identified for removal are located on NSW Rail land that is managed by the John Holland Group and that if removal is required to ensure compliance with PA 08_0223 then arrangements would be made with the John Holland Group.</p> <p>Willow tree removal had not been undertaken at the time of the audit. A letter from Centennial to DP&amp;E concerning the Flood Study (including Willow trees) dated 1 May 2014 noted that proposed mitigation controls would be implemented by April 2016.</p>	Compliant



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.23	<p><b>HERITAGE</b></p> <p><b>Heritage Management Plan</b></p> <p>The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This Plan must:</p> <ol style="list-style-type: none"> <li>Be prepared in consultation with any relevant Aboriginal stakeholders;</li> <li>Be submitted to the Director-General for approval within 6 months of the date of this approval;</li> <li>Include consideration of the Aboriginal and non-Aboriginal cultural context and significance of the site;</li> <li>Detail the responsibilities of all stakeholders; and</li> <li>Include programs/procedures and management measures for appropriate identification, management, conservation and protection of both Aboriginal and non-Aboriginal heritage items identified on the site.</li> </ol>	<ul style="list-style-type: none"> <li>Kayandel Archaeological Services (2013), Heritage Management Plan.</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Letter – DP&amp;E (2014), Lidsdale Siding Upgrade Project Statement of Heritage Impact for the St John the Evangelist Church, 13 May 2014.</li> </ul>	<p>The Heritage Management Plan was approved by the Director-General on 15 November 2013. DP&amp;E confirmed that the requirement of Condition 23 had been met in a letter dated 13 May 2014.</p> <p>The following is noted concerning the Heritage Management Plan (HMP):</p> <ol style="list-style-type: none"> <li>The HMP was prepared by Kayandel Archaeological Services Pty Ltd in consultation with any relevant Aboriginal stakeholders. Appendix A of the HMP included evidence of consultation.</li> <li>The HMP was submitted to the Director-General on 10 October 2013 (i.e. within 6 months of 3 May 2013).</li> <li>Sections 3, 4.2, 4.3, 5 and 6 included the consideration of the Aboriginal and non-Aboriginal cultural context and significance of the site, the detail the responsibilities of all stakeholders and programs/procedures and management measures for appropriate identification, management, conservation and protection of both Aboriginal and non-Aboriginal heritage items identified on the site.</li> </ol> <p>Lidsdale management reported that no heritage management issues had occurred during the audit period.</p>	Compliant
3.24	<p><b>St John Evangelist Church</b></p> <p>Within 12 months of the date of this approval, the Proponent shall, in consultation with the owners of the St John Evangelist Church, Main Street, Wallerawang, investigate and report on the likely visual and vibration impacts of the project on the Church building and its setting. These investigations must:</p> <ol style="list-style-type: none"> <li>Be prepared by suitably qualified and experienced persons approved by the Director-General;</li> <li>Provide recommendations to mitigate any impacts, other than those considered to be negligible;</li> <li>Summarise in a report provided to the Director-General along with the Proponent's response to the recommendations in (b) above, including a commitment and a timetable for their implementation.</li> </ol>	<ul style="list-style-type: none"> <li>RPS Australia East Pty Ltd (2014-A), St John the Evangelist Church, Wallerawang Statement of Heritage Impact, Report #: PR117929-1, April 2014.</li> <li>RPS (2014-B), St John Evangelist Church, Wallerawang, NSW, dated 18 September 2014, Ref: PR123751</li> <li>Letter – Centennial (2013), Lidsdale Siding – St John Evangelist Church Impact Study Consultant Approval, 10 July 2013.</li> <li>Centennial (2014), Lidsdale Siding Upgrade Project St John Evangelist Church, 7 May 2014</li> <li>Letter – DP&amp;E (2014), Lidsdale Siding Upgrade Project Statement of Heritage Impact for the St John the Evangelist Church, 13 May 2014.</li> <li>NewEra (2015-A), Lidsdale Siding Planting Job, April 2015.</li> <li>NewEra (2015-B), Lidsdale Siding Planting Job, June 2015.</li> </ul>	<p>RPS (2014) prepared a report of the St John Evangelist Church, Main Street, Wallerawang in April 2014. A letter from DP&amp;E notes that the Statement of Heritage Impact was submitted on 1 May 2014 (i.e. within 12 months).</p> <ol style="list-style-type: none"> <li>A letter was sighted from Centennial dated 10 July 2013 requesting approval for RPS as suitably qualified and experienced persons to conduct the investigation.</li> <li>Section 5.2 of the report (RPS, 2014-A) provided two recommendations concerning: <ol style="list-style-type: none"> <li>supplemented tree planting on the Lidsdale Siding site to maintain and improve a low visual impact; and</li> <li>consideration of a structural engineer's report to provide a baseline model of the condition of St Johns Church.</li> </ol> </li> <li>A letter was available for review from Centennial (2014) to DP&amp;E providing a response to the Statement of Heritage Impact, Report (RPS, 2014-A). The letter included a response to recommendations (Section 3) and a timetable to implementation. Centennial committed to supplementary tree planting along the Main Street frontage by December 2015. At the time of the site inspection on 31 July 2015 supplementary tree planting had not commenced. The recommended 3D laser scan of St Johns Church was completed in January 2014 (RPS, 2014-B) with the survey dataset being presented to the Friends of St Johns Church in March 2014.</li> </ol> <p>Evidence of planting of new trees was observed along the fence at the eastern end of the site to screen rail line from the town and sporting fields. Two reports (NewEra, 2015 A&amp;B) were available for review to confirm the planting.</p>	Compliant

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.25	<p><b>VISUAL</b></p> <p><b>Visual Amenity and Lighting</b></p> <p>The Proponent shall:</p> <ul style="list-style-type: none"> <li>a) Minimise visual impacts, and particularly the off-site lighting impacts;</li> <li>b) Take all practicable measures to further mitigate off-site lighting impacts from the project; and</li> <li>c) Ensure that all external lighting associated on site complies with <i>Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i>, </li></ul> <p>to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>h) Site observations.</li> <li>i) Emails –October 2013, Bass Electrical Engineering to Elton Conveyors</li> </ul>	<p>Lighting was sighted on the Train Loading Bin and CV01 conveyor during the site audit.</p> <p>Lights at the Siding can be controlled from the control room at Western Coal Services. Lights can be staged per sector so not all lights across the site are required.</p> <p>The auditors sighted newly planted tree screening at the eastern end of the site. It will take a number of years for the tube stock to establish and provide sufficient screening from the eastern end of the site. Mature tree screening was observed adjacent to the main stockpile and CV01 conveyor.</p> <p>The train loader bin and main conveyor are built in neutral colours, to help nullify any glare from lighting. Lights were observed to be pointing in a downward direction. There were no light related community complaints during the audit period.</p> <p>As series of emails dated October 2013 were sighted showing discussions between electrical contractors and the Principal Contractor concerning the purchase of potential lights as well as lighting positions during the construction phase of the project. A trial lighting experiment was held on the morning of 11 October 2013 that resulted in six lights being installed on each side of CV01 tripper gantries with each side to be controlled separately.</p> <p>No documentation was available to confirm lighting at the site complied with <i>Australian Standard AS4282 (INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i>, however, given the recent construction of the site; use of lighting only as needed; an unmanned site reducing the need for lighting; and no community lighting complaints having been received, the auditors consider this condition to be compliant. It is noted that MCW Environmental auditors are not lighting specialists.</p>	Compliant





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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.26	<p><b>WASTE</b></p> <p>The Proponent shall:</p> <p>a) Minimise the waste generated by the project; and</p> <p>b) Ensure that the waste generated by the project is appropriately stored, handled and disposed of, to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>Site Observations.</li> <li>Ivanhoe (2014), Lidsdale Siding Annual Review.</li> <li>Mine Site Review (Form SWPF 0101), 16/08/2013, 03/09/2013, 03/10/2013, 08/08/2013, 08/11/2013, 10/09/2013, 12/11/2013, 18/09/2013, 18/10/2013, 23/08/2013, 24/10/2013, 26/09/2013, 31/10/2013.</li> <li>JR Richards &amp; Sons Pty Ltd Total Waste Management Report – December 2013, June 2015, July 2015</li> <li>JR Richards &amp; Sons Pty Ltd – Waste Streams Monthly Summary Report</li> </ul>	<p>Lidsdale reported that no requests have been made by the Secretary during the audit period concerning waste issues.</p> <p>Lidsdale uses JR Richards &amp; Sons Pty Ltd as its waste contractor who manages all waste services. Limited waste is produced at the site since the upgrade given the unmanned status of the site.</p> <p>The auditors sighted a waste bin (&gt;3m<sup>2</sup>) at the site adjacent to the former workshop.</p> <p>Waste soil from the Sediment Dam will be added to the coal stockpile for re-use.</p> <p>The 2014 Annual Review included reporting on waste management (Section 2.3). The review reported the volumes of recycled waste for the years 2012, 2013 and 2014. There was a decrease in solid waste disposal in 2014 as construction works associated with the upgrade project were completed in 2013.</p> <p>The December 2014 Waste Streams Monthly Summary Report showed that waste from the site was disposed at the following locations:</p> <ul style="list-style-type: none"> <li>Renewable Oil Services - Transport License: 12991 - Facility License: 13092</li> <li>Renewable Oil Services will transport to SIM's Metal for Recycling - Transport License: 12991 - SIMS Metal Recyclers Facility License: 11264</li> <li>Ophir Road Resource Recovery Centre - Facility License: 5956</li> <li>Renewable Oil Services will transport to a licensed facility for disposal - Transport License 12991 - Hazmat Services Facility License: 13255</li> <li>Worth Recycling - Facility License :4602</li> <li>Lithgow City Council Landfill Facility - Facility License: 6004</li> <li>ISS Washroom Facilities -</li> <li>Renewable Oil Services - Transport License: 11399 - Facility License: 11658</li> <li>Planet Ark</li> <li>Lithgow City Council Landfill Facility - Facility License: 6004</li> <li>Bathurst City Council Landfill Facility - Facility License:</li> <li>Sims Metal - Facility License : 11264</li> <li>Recall Secure Document destruction</li> <li>Dolomatrix Australia (Chemsal) - Facility License No: 12628</li> <li>C&amp;R Tyre Recycling - Facility License No: 11686</li> <li>Port Hunter Conveyors</li> </ul> <p>The total off-site waste disposal tonnage for 2014 was 284 T. Lidsdale management expect waste to decrease in 2015 due to a reduction in staff as a result of the automated train loading system.</p>	Compliant
3.27	<p><b>BUSHFIRE MANAGEMENT</b></p> <p>The Proponent shall:</p> <p>a) Ensure that the project is suitably equipped to respond to any fires on site; and</p> <p>b) Assist the Rural Fire Service and emergency services as much as possible if there is a fire in the surrounding area.</p>	<ul style="list-style-type: none"> <li>Site observations</li> <li>RPS Australia East Pty Ltd (2013), Biodiversity Management Plan Lidsdale Siding, Report #: 105704-2, October 2013</li> </ul>	<p>A 523 KL firewater tank was sighted during the site inspection. Fire hydrants were located at strategic points around the site, including the Train Loader. The firewater tank is filled with bore water and topped up with municipal water supply.</p> <p>Section 4.7 of the Bushfire Management Plan (RPS, 2013) addressed fire management at the site. The Bushfire Management Plan (BMP) notes that the Site has not been considered under the Lithgow Bush Fire Management Committee Bush Fire Risk Management Plan (2012).</p> <p>The BMP recommended inter-fire intervals for the site for the bush areas surrounding the siding. Appropriate inter-fire intervals are the time needed between fire events to allow for sustainable vegetation community recovery.</p> <p>Fire trained personnel are maintained by Lidsdale Siding and were reported to be instructed to assist Rural Fire Services and emergency services as much as possible if there is a fire on-site during the project.</p> <p>Fire protection and emergency response specialists were not included within the audit team and an assessment of the adequacy of these elements has not been performed by MCW Environmental.</p>	Compliant

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3.28	<p><b>REHABILITATION</b></p> <p><b>Rehabilitation Objectives</b></p> <p>The Proponent shall rehabilitate the site to the satisfaction of the Director-General. This rehabilitation must be generally consistent with the proposed rehabilitation strategy described in the EA, and comply with the objectives in Table 6.</p> <p><b>Table 6: Rehabilitation Objectives</b></p> <table border="1"> <thead> <tr> <th>Feature</th> <th>Objective</th> </tr> </thead> <tbody> <tr> <td>Project Area</td> <td>Safe, stable &amp; non-polluting</td> </tr> <tr> <td>Surface Infrastructure</td> <td>Final land use compatible with surrounding land uses</td> </tr> <tr> <td>Community</td> <td>Ensure public safety Minimise the adverse socio-economic effects associated with the closure of the project</td> </tr> </tbody> </table> <p><i>Note: These rehabilitation objectives apply to all impacts and environmental consequences caused by coal handling and train loading operations taking place after the date of this approval; and to all project infrastructure, whether constructed prior to or following the date of this approval.</i></p>	Feature	Objective	Project Area	Safe, stable & non-polluting	Surface Infrastructure	Final land use compatible with surrounding land uses	Community	Ensure public safety Minimise the adverse socio-economic effects associated with the closure of the project	<ul style="list-style-type: none"> <li>Centennial (2015), Draft Rehabilitation and Closure Plan, April 2015.</li> <li>RPS (2012), Lidsdale Siding Upgrade Environmental Assessment, Ref: PR110912, August 2012.</li> <li>Site observations.</li> </ul>	<p>The EA (RPS, 2012, p.35) notes the following concerning rehabilitation:</p> <p><i>“The life of the Project Site is dependent on the export needs of several coal mines in the district. Once these mines close, currently anticipated to be in around 30 years, there may well be other uses for a rail siding in the district. These options would need to be explored with the land owners (NSW State Government) prior to final rehabilitation of the site. Should no further use of the Project Site be found, the site would be closed, decommissioned and rehabilitated. This would include:</i></p> <ul style="list-style-type: none"> <li><i>a) Removal of the rail spur line and shunt</i></li> <li><i>b) Removal of all infrastructure</i></li> <li><i>c) Removal of carbonaceous and contaminated materials.</i></li> <li><i>d) Filling the reclaim tunnel and other physical features of the siding.</i></li> <li><i>e) Rehabilitation of the remaining disturbed areas.</i></li> </ul> <p><i>There are several alternative land uses that the site would be suitable for including industrial, commercial, residential or natural habitat. At the time of final closure, these alternative land uses would be further investigated prior to rehabilitation works commencing following consultation with the owners of the site”.</i></p> <p>The auditors sighted tree screening planting at the eastern end of the site and evidence of hydro mulching where the new train line was installed. A number of sections of temporary rehabilitation were undertaken through the use of hydro mulching for stabilisation and erosion and sediment control.</p> <p>Lidsdale reported that no final rehabilitation was undertaken in 2014 or will be undertaken in 2015.</p> <p>PA 08_0223 allows use of the site until 2042; however, as Centennial only own a small portion of Lidsdale Siding, Lidsdale reported that there has been no final decision on final land use domains.</p>	Compliant
Feature	Objective											
Project Area	Safe, stable & non-polluting											
Surface Infrastructure	Final land use compatible with surrounding land uses											
Community	Ensure public safety Minimise the adverse socio-economic effects associated with the closure of the project											

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3.29	<p><b>Rehabilitation Management Plan</b></p> <p>The Proponent shall prepare and implement a <b>Rehabilitation Management Plan</b> for the project to the satisfaction of the Director-General. This plan must:</p> <p>a) Be prepared in consultation with the SCA, LCC and the CCC;</p> <p>b) Be submitted to the Director-General for approval within 12 months of the date of this approval;</p> <p>c) Describe how the performance of the rehabilitation would be assessed against the rehabilitation objectives in Table 6; and</p> <p>d) Provide for detailed closure planning, including measures to minimise socio-economic effects due to facility closure, to be conducted at least 3 years prior to the site being closed or placed on care and maintenance, unless otherwise approved by the Director-General in the circumstances of unexpected closure.</p>	<ul style="list-style-type: none"> <li>Letter - Centennial (2013), Lidsdale Siding Rehabilitation Management Plan and Rehabilitation Bond (Lidsdale Siding PA 08_0223), 30 April 2014.</li> <li>Centennial (2015), Draft Rehabilitation and Closure Plan, April 2015.</li> <li>NewEra (2015-A), Lidsdale Siding Planting Job, April 2015.</li> <li>NewEra (2015-B), Lidsdale Siding Planting Job, June 2015.</li> <li>NewEra (2013), Lidsdale Siding New Bank Area, 12 June 2013</li> <li>Letter – Centennial (2015), Lidsdale Siding Annual Review 2014, 8 May 2014.</li> <li>Email – Centennial (2014-A), Lidsdale Siding Rehabilitation Management Plan, Sent to SCA, 09/04/2014 at 02:08pm.</li> <li>Email – Centennial (2014-B), Lidsdale Siding Rehabilitation Management Plan, Sent to Lithgow City Council, 10/04/2014 at 09:08am.</li> <li>Email – Centennial (2014-C), Lidsdale Siding Rehabilitation Management Plan, Sent to John Holland, 18/11/2014 at 11:43am.</li> <li>Email – Centennial (2014-D), Lidsdale Siding Rehabilitation Management Plan, Sent to NSW Rail, 18/11/2014 at 11:39am.</li> <li>Email – Lithgow Coty Council (2014-A), Lidsdale Siding Rehabilitation Management Plan, Sent to Centennial, 10/04/2014 at 09:14am</li> <li>Email – Lithgow Coty Council (2014-B), Lidsdale Siding Rehabilitation Management Plan, Sent to Centennial, 16/04/2014 at 09:34am.</li> <li>Site observations</li> </ul>	<p>Evidence of planting of new trees was observed along the fence to screen rail line from the town and sporting fields. Three reports (NewEra, 2015 A&amp;B), 2013 were available for review to confirm planting.</p> <p>a) Table 5.4 provides a summary of stakeholder responses as issued by DP&amp;E and the SCA. Evidence that the SCA and LCC were consulted (Centennial, 2014-A, and 2014-B) was sighted. The draft plan notes that “<i>Centennial will be consulting with the key community stakeholders (including Lithgow City Council and the CCC) regarding rehabilitation and closure and will try to take into account any concerns/suggestions when preparing the Final Rehabilitation and Closure Plan</i>” (Centennial, 2015, p.33).</p> <p>b) No evidence of submission to the Director-General within 12 months was available for review.</p> <p>c) Sections 3.1, 7 and 8 described how the performance of the rehabilitation would be assessed against the rehabilitation.</p> <p>d) Section 5.3.1 provided detailed closure planning, including measures to minimise socio-economic effects due to facility closure, to be conducted at least 3 years prior to the site being closed or placed on care and maintenance, unless otherwise approved by the Director-General in the circumstances of unexpected closure.</p> <p>The Rehabilitation Management Plan was submitted to the Director-General on 30 April 2014, within 12 months of the date of approval.</p> <p>The draft Rehabilitation Management Plan was updated and sent to the John Holland Group (Centennial, 2014-C) and NSW Rail (owners) (Centennial, 2014-D) at the request of the DP&amp;E in November 2014. A revised Rehabilitation and Closure Management Plan was reported to have been submitted to the DP&amp;E on 8 May 2015. No evidence of the submission or comments from DP&amp;E were available for review.</p> <p>No evidence was available to confirm consultation with the CCC.</p> <p>It is noted that land ownership issues between Centennial, John Holland and NSW Rail have contributed to the delay in the provision of the Rehabilitation Management Plan to the DP&amp;E.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-44:</b> Ensure Consultation with the CCC is undertaken in respect of the Rehabilitation Management Plan.</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
3.30	<p><b>Rehabilitation Bond</b></p> <p>Within 12 months of the date of this approval, the Proponent shall lodge a rehabilitation bond for the project with the Director-General. The sum of the bond shall be calculated in accordance with the current publicly-available version of methodology and calculation spreadsheets utilised by DRE for the purpose of determining rehabilitation liabilities for mine sites, to the satisfaction of the Director-General. The Proponent shall pay the Department's reasonable costs in engaging experts to review the adequacy of the calculated sum of the bond.</p> <p>If the rehabilitation and revegetation works are completed to the satisfaction of the Director-General, the Director-General will release the rehabilitation bond.</p> <p>If the rehabilitation and revegetation works are not completed to the satisfaction of the Director-General, the Director-General will call in all or part of the rehabilitation bond, and arrange for the satisfactory completion of the relevant works.</p>	<ul style="list-style-type: none"> <li>a) Letter - DP&amp;E (2015-A), Lidsdale Siding Rehabilitation Bond – Lodgement of Bond, 4 May 2015</li> <li>b) Letter – DP&amp;E (2015-B), Lidsdale Siding Rehabilitation Bond – Receipt of Biodiversity Conservation Bond, 25 May 2015</li> <li>c) National Australia Bank (NAB), Bank Guarantee.</li> <li>d) Letter - Centennial Coal (2015) Lidsdale Siding Rehabilitation Bond, 22 May 2015.</li> <li>e) Lidsdale Siding Conservation Bond Cost Estimate, 22 May 2015.</li> </ul>	<p>The auditors sighted a letter from DP&amp;E dated 25 May 2015 confirming receipt on 22 May 2015 of the Rehabilitation Bond. This date was greater than 12 months from the date of the approval).</p> <p>Rehabilitation measures relate to final closure of the site.</p> <p>As the bond was not paid within 12 month period specified this condition was found to be an Administrative Non-compliance.</p>	<p>Administrative Non-compliance</p>
3.31	<p>Within 3 months of each Independent Environmental Audit (see Condition 9 of Schedule 5), the Proponent shall review, and if necessary revise, the sum of the rehabilitation bond to the satisfaction of the Director-General. This review must consider:</p> <ul style="list-style-type: none"> <li>a) The effects of inflation; and</li> <li>b) The performance of the rehabilitation to date</li> </ul>	-	This is the first IEA for DA 08_0023 therefore this Condition had not been triggered.	Not Activated
4.1	<p><b>NOTIFICATION OF LANDOWNERS</b></p> <p>By the end of September 2013, the Proponent shall notify in writing the owners of:</p> <ul style="list-style-type: none"> <li>a) The land listed in Condition 1 of Schedule 3 that they have the right to require the Proponent to acquire their land at any stage during the project; and</li> <li>b) Any residence on the land listed in Condition 3 of Schedule 3 that they are entitled to ask for additional noise mitigation measures to be implemented at their residence at any stage during the project.</li> </ul>	<ul style="list-style-type: none"> <li>f) Letters – Centennial (no date), Lidsdale Siding Upgrade Project</li> </ul>	<p>The Centennial Project Manager for the Upgrade Project provided letters to the following landowners:</p> <p>Black Gold Cabins, Brays Lane Centre, Brays Lane Cnr, Brays Lane South, Cripps Avenue, Duncan Street, Fair View, James Parade, Brays Lane, Lot 2 Main Street, Old Castlereagh Highway, Royal Hotel. The list of landowners matched those listed in Schedule 1, Condition 2.</p> <p>Only soft copies of the letters were provided to MCW Environmental for review therefore it was not possible to confirm if the letters were formally issued. This condition was found to be compliant given the intent of the letters to the landowners.</p>	Compliant
4.2	<p>As soon as practicable after obtaining monitoring results showing an exceedance of any relevant criteria in Schedule 3, the Proponent shall:</p> <ul style="list-style-type: none"> <li>a) Quantify the nature and extent of the exceedances of the criteria in Schedule 3;</li> <li>b) Notify all affected landowners in writing of the exceedance;</li> <li>c) Provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and</li> <li>d) Provide a copy of the NSW Health fact sheet entitled "Mine Dust and You" (as may be updated from time to time) to the affected landowners and/or existing tenants of residences where there is an exceedance of any relevant air quality criteria in Schedule 3.</li> </ul>	<ul style="list-style-type: none"> <li>g) CCC Meeting Presentation April 2015</li> <li>h) Centennial (2015), Centennial Springvale Noise Monitoring Program, 30 July 2015</li> <li>i) X3 Letters – Centennial (2015), Centennial Springvale Noise Monitoring Program, 30 July 2015</li> <li>j) Global Acoustics 2014 Monthly Noise Reports - July, August, September, October, November, December.</li> <li>k) Global Acoustics 2015 Monthly Noise Reports – January, February, March, April, May, June.</li> <li>l) Global Acoustics (2015-B) June Noise Report, 31 July 2015, Ref: 15202_R01</li> </ul>	<p>A letter from Centennial to a resident located on Brays Lane Corner (R12) was sighted. The letter notified the landowner of a noise exceedance on 25 June 2015. Letters were also sighted for residents R3 and R8.</p> <p>The CCC Meeting presentation for April 2015 included details concerning noise monitoring including exceedances between July and December 2014.</p> <ul style="list-style-type: none"> <li>a) Section 6 of the monthly noise reports provided a summary of the attended noise monitoring. Section 6 of the June 2015 monthly noise report (Global Acoustics, 2015-B, p.21) provided a summary of a noise exceedance on 25 June 2015.</li> <li>b) Lidsdale management reported that letters had been issued to residents notifying them of exceedances of criteria. Three letters dated 30 July 2015 addressed to receivers R12, R3 and R8 notifying the residents of a noise exceedance on 25 June 2015 at 22:58hrs.</li> <li>c) Lidsdale management reported that monitoring results were provided to residents. This was sighted in the letter dated 30 July 2015 to receiver R12.</li> <li>d) Lidsdale management indicated this requirement was not applicable given there were no exceedances on private property for dust during the audit period.</li> </ul>	Compliant

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
4.3	<p><b>INDEPENDENT REVIEW</b></p> <p>If an owner of privately-owned land considers the project to be exceeding the relevant criteria in Schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.</p> <p>If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision the Proponent shall:</p> <p>a) Commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to:</p> <ul style="list-style-type: none"> <li>• consult with the landowner to determine his/her concerns;</li> <li>• conduct monitoring to determine whether the project is complying with the relevant criteria in Schedule 3; and</li> <li>• if the project is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria; and</li> </ul> <p>b) Give the Director-General and landowner a copy of the independent review.</p>	-	Not Applicable (not triggered)	Not Activated





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4.4	<p><b>LAND ACQUISITION</b></p> <p>Within 3 months of receiving a written request from a landowner with acquisition rights, the Proponent shall make a binding written offer to the landowner based on:</p> <p>a) The current market value of the landowner’s interest in the land at the date of this written request, as if the land was unaffected by the project, having regard to the:</p> <ul style="list-style-type: none"> <li>• existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and</li> <li>• presence of improvements on the land and/or any approved building or structure which has been physically commenced on the land at the date of the landowner’s written request, and is due to be completed subsequent to that date, but excluding any improvements that have resulted from the implementation of any additional mitigation measures under Schedule 3;</li> </ul> <p>b) the reasonable costs associated with;</p> <ul style="list-style-type: none"> <li>• relocating within the Lithgow local government area, or to any other local government area determined by the Director-General; and</li> <li>• obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is to be acquired; and</li> </ul> <p>c) reasonable compensation for any disturbance caused by the land acquisition process.</p> <p>However, if at the end of this period, the Proponent and landowner cannot agree on the acquisition price of the land and/or the terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.</p> <p>Upon receiving such a request, the Director-General will request the President of the NSW Division of the Australian Property Institute to appoint a qualified independent valuer to:</p> <p>a) Consider submissions from both parties;</p> <p>b) Determine a fair and reasonable acquisition price for the land and/or the terms upon which the land is to be acquired, having regard to the matters referred to in paragraphs (a)-(c) above;</p> <p>c) Prepare a detailed report setting out the reasons for any determination; and</p> <p>d) Provide a copy of the report to both parties.</p> <p>Within 14 days of receiving the independent valuer’s report, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the independent valuer’s determination.</p> <p>However, if either party disputes the independent valuer’s determination, then within 14 days of receiving the independent valuer’s report, they may refer the matter to the Director-General for review. Any request for a review must be accompanied by a detailed report setting out the reasons why the party disputes the independent valuer’s determination. Following consultation with the independent valuer and both parties, the Director-General will determine a fair and reasonable acquisition price for the land, having regard to the matters referred to in paragraphs (a)-(c) above, the independent valuer’s report, the detailed report disputing the independent valuer’s determination, and any other relevant submissions.</p> <p>Within 14 days of this determination, the Proponent shall make a binding written offer to the landowner to purchase the land at a price not less than the Director-General’s determination.</p> <p>If the landowner refuses to accept the Proponent’s binding written offer under this Condition within 6 months of the offer being made, then the Proponent’s obligations to acquire the land shall cease, unless the Director-General determines otherwise.</p>	-	Not Applicable (not triggered)	Not Activated
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4.5	The Proponent shall pay all reasonable costs associated with the land acquisition process described in Condition 5 above, including the costs associated with obtaining Council approval for any plan of subdivision (where permissible), and registration of this plan at the Office of the Registrar-General.	-	Not Applicable (not triggered)	Not Activated
5.1	<p><b>Environmental Strategy</b></p> <p>The Proponent shall prepare and implement an <b>Environmental Management Strategy</b> for the project to the satisfaction of the Secretary. This strategy must:</p> <ul style="list-style-type: none"> <li>g) be submitted for approval to the Director-General within 9 months of the date of this approval;</li> <li>h) provide the strategic framework for the environmental management of the project;</li> <li>i) identify the statutory approvals that apply to the project;</li> <li>j) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development;</li> <li>k) describe the procedures that would be implemented to: <ul style="list-style-type: none"> <li>• keep the local community and relevant agencies informed about the operation and environmental performance of the project;</li> <li>• receive, handle, respond to, and record complaints;</li> <li>• resolve any disputes that may arise during the course of the development;</li> <li>• respond to any non-compliance;</li> <li>• respond to emergencies; and</li> </ul> </li> <li>l) include: <ul style="list-style-type: none"> <li>• copies of any strategies, plans and programs approved under the conditions of this approval; and</li> <li>• a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Centennial (2014), Environmental Management Strategy Lidsdale Siding, February 2014</li> <li>- Letter - Centennial (2015), Lidsdale Siding - Environmental Management Strategy, dated 2 March 2015</li> </ul>	<p>Lidsdale has developed an Environmental Management Strategy (the Strategy) in accordance with Condition 5.1, Schedule 5 of PA 08_0023.</p> <p>The following was noted concerning the Strategy:</p> <ul style="list-style-type: none"> <li>a) The Strategy was submitted to the Director-General for approval on 4 February 2014. The Director-General approved the Strategy on the 2 March 2015.</li> <li>b) Section 1.21 of the Strategy provided the strategic framework and included an overview of the Environmental System, Environmental Management Plans. The Strategy included, but was not limited to sections addressing implementation and operation, roles, responsibilities, training, communication, operational control and emergency preparedness and response. MCW Environmental consider these topics to generally provide the strategic framework for the environmental management of the site.</li> <li>c) Section 3 sets out the statutory requirements of the project in accordance with Condition 5.1(c).</li> <li>d) Section 5.1 sets out resources, roles, responsibilities, authority and accountabilities for environmental management of the Project.</li> <li>e) <ul style="list-style-type: none"> <li>a) section 5.3 described the process for managing community issues and information;</li> <li>b) section 5.3.3 described how to manage complaints</li> <li>c) section 5.3.3 described the dispute resolution process</li> <li>d) section 6.5 addressed non-compliances and that these would be managed in accordance with Centennial's ECD</li> <li>e) section 5.7 referenced the Pollution Incident Response Management Plan (PIRMP) as the principal document for managing environmental incidents.</li> </ul> </li> <li>f) Appendix 2 included PA 08_0223 and EPL 5129. No other plans or programs were included in the Strategy. Reference to plans required by PA 08_0223 was made in Section 5.4.1 (p.16).</li> <li>g) Appendix A included a Plan (i.e. Figure) of environmental monitoring locations for dust, noise, surface water and groundwater. Section 6.3 addressed environmental monitoring.</li> </ul> <p>Section 7 (p.25) noted that the Strategy and supporting standards and procedures will be reviewed at least every three years.</p>	Compliant



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5.2	<p><b>Management Plan Requirements</b></p> <p>The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <ul style="list-style-type: none"> <li>detailed baseline data;</li> <li>a description of:                             <ul style="list-style-type: none"> <li>the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>any relevant limits or performance measures/criteria;</li> <li>the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;</li> </ul> </li> <li>a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</li> <li>a program to monitor and report on the:                             <ul style="list-style-type: none"> <li>impacts and environmental performance of the development;</li> <li>effectiveness of any management measures (see c above);</li> </ul> </li> <li>a contingency plan to manage any unpredicted impacts and their consequences;</li> <li>a program to investigate and implement ways to improve the environmental performance of the development over time;</li> <li>a protocol for managing and reporting any:                             <ul style="list-style-type: none"> <li>incidents;</li> <li>complaints;</li> <li>non-compliances with statutory requirements; and</li> <li>exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul> </li> <li>a protocol for periodic review of the plan.</li> </ul> <p><i>Note: The Director-General may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	<ul style="list-style-type: none"> <li>a) Kayandel Archaeological Services (2013), Heritage Management Plan.</li> <li>b) RPS Australia East Pty Ltd (2013), Biodiversity Management Plan Lidsdale Siding, Report #: 105704-2, October 2013</li> <li>c) RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013</li> <li>d) Mark Waugh Pty Ltd (2013), Traffic Management Plan Construction, May 2013.</li> <li>e) SLR Consulting Australia Pty (2013), Lidsdale Siding Air Quality &amp; Greenhouse Gas Management Plan, Report Number 630.10123.0205-R2, 13 November 2013, Rev3</li> <li>f) SLR Consulting Australia Pty (2013), Lidsdale Siding Noise Management Plan, Report Number 630.10123.02050-R1, 12 November 2013, Rev2</li> </ul>	<p>Management plans have been prepared against the requirements of this Condition (S5.2).</p> <ul style="list-style-type: none"> <li>Where required, plans were observed to include baseline data specific to the issue(s) being addressed, for example the Noise Management Plan, Water Management Plan, Heritage Management Plan and Air Quality Management Plan.</li> <li>The plans were observed to include the following:                             <ul style="list-style-type: none"> <li>a brief introduction that included a summary of the relevant statutory requirements including Project Approval, references to the EPL and State legislation;</li> <li>relevant limits or performance measures/criteria were noted to be included in the plans reviewed. For example the Biodiversity Management Plan included Pest Fauna Management Criteria.</li> <li>specific performance indicators were generally included in tables so that it was clear what the thresholds were and how they would be achieved. For example the Water Management Plan included licence discharge point indicators. The plans appeared to provide sufficient information to understand implementation and management measures;</li> </ul> </li> <li>The plans generally provided a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria.</li> <li>Requirements to monitor and report were included the plans. Roles and responsibilities for conducting actions were provided; however, these were generally limited in detail. It was not always clear who was responsible for implementing a mitigation measure or plan requirement. Reporting requirements were included in the plans.</li> <li>It was not always clear in the plans how unpredicted impacts and their consequences are managed and that ongoing impacts are reduced to levels below relevant impact assessment criteria as quickly as possible. The Biodiversity Management Plan included 'not applicable' notation next to this requirement in Table 1 of the plan. The Water Management Plan included TARP's to manage unpredicted impacts.</li> <li>Plans generally included a protocol for managing and reporting incidents, complaints, non-compliances with statutory requirements and exceedances of the impact assessment criteria and/or performance criteria.</li> <li>Plans including, but not limited to the Noise Monitoring Program, Water Management Plan and Heritage Management Plan included a protocol for periodic review. The Biodiversity Management Plan did not include a clear protocol for periodic review.</li> </ul>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-35</b> - Ensure roles and responsibilities are clear for implementation of mitigation measures and monitoring requirements.</p> <p>Ensure Plans include measures to manage unpredicted impacts and their consequences.</p> <p>Update the Biodiversity Management Plan to include a clear requirement for periodic review.</p> <p><i>The above recommendations are not considered to be needed to be done immediately and could be made during the next scheduled update of the Plans.</i></p>
5.3	<p><b>Adaptive Management</b></p> <p>The Proponent shall assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in this consent. Any exceedance of these criteria and/or performance measures constitutes a breach of this consent and may be subject to penalty or offence provisions under the EP&amp;A Act or EP&amp;A Regulation.</p> <p>Where any exceedance of these criteria and/or performance measures has occurred, the Proponent must, at the earliest opportunity:</p> <ul style="list-style-type: none"> <li>take all reasonable and feasible steps to ensure that the exceedance ceases and does not recur;</li> <li>consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and</li> <li>implement remediation measures as directed by the Secretary,</li> </ul> <p>to the satisfaction of the Director-General.</p>	<ul style="list-style-type: none"> <li>g) ECD Noise Incident, Ref: 4/2015/ccapp1000247.</li> <li>h) Monthly Environmental Data Monitoring Reports</li> <li>i) Centennial (2014), Environmental Management Strategy Lidsdale Siding, February 2014</li> </ul>	<p>Section 4 (p.9) of the Environmental Management Strategy provides the process for how environmental hazards and risks associated with the project will be identified and managed. Appendix 5 of the Environmental Management Strategy provides a Risk Matrix; however, no risk assessment is included in the Strategy.</p> <ul style="list-style-type: none"> <li>Lidsdale management reported that where an exceedance of criteria occurred action has been taken to address and rectify the issue. For example where a noise exceedance was recorded due to an alarm sounding, the alarm was removed.</li> </ul> <p>A noise exceedance on 25 June 2015 was being investigated at the time of the audit. An ECD summary noted that the noise was attributed to conveyor continuum (i.e. ongoing operation) combined with train noise. The ongoing investigation will reportedly look at sound power levels of equipment including trains against the criteria used in the noise impact assessment.</p> <ul style="list-style-type: none"> <li>Lidsdale management remediation of the former AST area is still to be completed.</li> <li>Lidsdale management remediation of the former AST area is still to be completed.</li> </ul>	<p>Compliant</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
5.4	<p><b>Annual Review</b></p> <p>By the end of February 2014, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:</p> <ol style="list-style-type: none"> <li>describe the development (including any rehabilitation) that was carried out in the past financial year, and the development that is proposed to be carried out over the next year;</li> <li>include a comprehensive review of the monitoring results and complaints records of the project over the past financial year, which includes a comparison of these results against the: <ul style="list-style-type: none"> <li>relevant statutory requirements, limits or performance measures/criteria;</li> <li>requirements of any plan or program required under this consent;</li> <li>monitoring results of previous years; and</li> <li>relevant predictions in the EA;</li> </ul> </li> <li>identify any non-compliance over the past financial year, and describe what actions were (or are being) taken to ensure compliance;</li> <li>identify any trends in the monitoring data over the life of the project;</li> <li>identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</li> <li>describe what measures will be implemented over the current financial year to improve the environmental performance of the project.</li> </ol>	<ul style="list-style-type: none"> <li>Centennial (2014), Lidsdale Siding Annual Review January 2013 - December 2013, 6 March 2014</li> <li>Letter - DP&amp;E (2014-A), Lidsdale Siding Annual Report, 5 September 2014</li> <li>Letter - DP&amp;E (2014), Lidsdale Siding Annual Review, 29 October 2014</li> <li>Centennial (2014), Lidsdale Siding Annual Review 2014</li> <li>Letter - Centennial (2015), Lidsdale Siding Annual Review 2014, 27 February 2015</li> <li>Letter - Centennial (2015), Lidsdale Siding Annual Review 2014, 8 May 2015</li> <li>Letter - DP&amp;E (2015-A), Lidsdale Siding Annual Review 2014, 27 March 2015</li> </ul>	<p><u>2013 Annual Review</u></p> <ul style="list-style-type: none"> <li>The 2013 Annual Review was submitted on 13 March 2014.</li> <li>DP&amp;E provided a response to Centennial on 5 September 2014 requesting clarification on unresolved issues (see below).</li> <li>The 2013 Annual Review was accepted by DP&amp;E in a letter dated 29 October 2014.</li> </ul> <p>No site inspection by DP&amp;E was conducted for the 2013 Annual Review.</p> <p>Sighted Annual Review feedback from DP&amp;E dated 5 September 2014. DP&amp;E noted that:</p> <ul style="list-style-type: none"> <li>"A Rehabilitation and Closure Plan was due to be completed this year in accordance with the requirements of Schedule 3, Condition 29 of PA 08_0223". Lidsdale Siding were asked to confirm if this had been conducted. Refer to Schedule 3, Condition 29 of PA 08_0223 for further details.</li> <li>"Confirmation of the establishment of the Centennial Western CCC as required by Schedule 5, Condition 6 of PA 08_0223". Refer to Schedule 5, Condition 6 of PA 08_0223 for further details.</li> <li>"Provide the reporting results in respect of Total Suspended Particulate (TSP) and Particulate Matter &lt;10µm (PM<sub>10</sub>) as required by Condition 8, Schedule 3 of PA 08_0223". A letter from DP&amp;E dated 29 October 2014 noted that the Environmental Beta Attenuation Monitor (EBAM) was still in the commissioning phase and was likely to be in operation by the end of October 2014 and that Particulate Matter &lt;10µm (PM<sub>10</sub>) results should be included in subsequent Annual Reviews.</li> </ul> <p><u>2014 Annual Review</u></p> <ol style="list-style-type: none"> <li>The 2014 Annual Review was submitted on 27 February 2015.</li> <li>The 2014 Annual Review was accepted by DP&amp;E in a letter dated 27 May 2015.</li> </ol> <p>A letter from DP&amp;E dated 27 March 2015 noted the following recommendations:</p> <ol style="list-style-type: none"> <li>Include in the Annual Review a Summary of Compliance section, information on notification of any incident to the Department and monitoring results (TSP and PM<sub>10</sub>) from the EBAM.</li> </ol> <p>Lidsdale were also required within four weeks of 27 May 2015 (i.e. 27 June 2015) to provide an update to the Department on the progress of:</p> <ol style="list-style-type: none"> <li>Schedule 2, Condition 9 – Surrender of Existing Development Consents – <i>Non-compliant. No evidence to demonstrate surrender of existing development consents or letters to the DP&amp;E to provide a status update.</i></li> <li>Schedule 3, Condition 29 - Rehabilitation and Closure Plan - <i>Administrative Non-compliance</i></li> <li>Schedule 3, Condition 30 - Rehabilitation Bond - <i>Compliant</i></li> <li>Schedule 5, Condition 11 – Access to information - <i>Compliant.</i></li> </ol> <p>No site inspection by DP&amp;E was conducted for the 2014 Annual Review.</p>	Compliant

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
		-	<p><i>Continued:</i></p> <p>Centennial responded to DP&amp;E by letter on 8 May 2014 noting that:</p> <ul style="list-style-type: none"> <li>• The Rehabilitation and Closure Plan had been revised to address comments from DP&amp;E and was attached to the letter.</li> <li>• The rehabilitation bond would be submitted by 5 June 2015. The bond was paid on 22 May 2015.</li> <li>• The surrender of existing consents had commenced with relevant landowners and the application to surrender licences would be submitted once correspondence had been received from the effected landholders. This issue was still outstanding at the time of the audit site inspection.</li> <li>• The Lidsdale Siding website is available for community access.</li> </ul> <p>The following is noted concerning the 2014 Annual Review:</p> <ul style="list-style-type: none"> <li>• The 2014 Annual Review included descriptions of the developments during the reporting period (Section 2).</li> <li>• The 2014 Annual Review included monitoring results for the calendar year that provided a comparison against statutory requirements were provided in Section 3.</li> <li>• Non-compliances were addressed throughout Section 3 of the Annual Review and included details concerning the actions that were (or are being taken) to ensure compliance.</li> <li>• Section 3 included trends in the monitoring data dating back to 2013.</li> <li>• No discrepancies were noted in the 2014 Annual Review for the reporting period.</li> <li>• Measures that will be implemented in the next reporting period were included in Section 6 of the Annual Review. These included, but were not limited to:               <ul style="list-style-type: none"> <li>a) Continuation of weed spraying and pest management;</li> <li>b) Continued monitoring including ecology, dust, water and noise;</li> <li>c) Continued operation of the Centennial Western CCC;</li> <li>d) Continue to hydromulching activities at Lidsdale Siding;</li> <li>e) Completion of the flood mitigation works;</li> <li>f) Further develop visual amenity controls; and</li> <li>g) Finalise Conceptual Rehabilitation and Closure Plan.                   <ul style="list-style-type: none"> <li>• Further comments concerning the AEMR are provided in Section 3 of the Report.</li> </ul> </li> </ul> </li> </ul>	
5.5	<p><b>Revision of Strategies, Plans And Programs</b></p> <p>Within 3 months of:</p> <ul style="list-style-type: none"> <li>a) the submission of an annual review under Condition 4 above;</li> <li>b) the submission of an incident report under Condition 7 below;</li> <li>c) the submission of an audit report under Condition 9 below; or</li> <li>d) any modification to the conditions of this consent (unless the conditions require otherwise),</li> </ul> <p>the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.</p> <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</i></p>	<ul style="list-style-type: none"> <li>• Lidsdale Siding management plans, programs and strategies as detailed in <b>Appendix A</b>.</li> </ul>	<p>Lidsdale management reported that requirements to revise strategies, plans and programs had not been triggered during the audit period.</p>	Not Activated





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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation						
5.6	<p><b>Community Consultative Committee</b></p> <p>Within 12 months of the date of this approval, the Proponent shall establish and operate a regional Community Consultative Committee (CCC) in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Department of Planning, 2007, or its latest version), and to the satisfaction of the Director-General. This CCC is to service this project and any other approved project and/or development operated by the company in the Western Coalfield.</p> <p><i>Notes:</i></p> <ul style="list-style-type: none"> <li>The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Applicant complies with this consent.</li> <li>In accordance with the guideline, the Committee should be comprised of an independent chair and appropriate representation from the Applicant, Council, recognised environmental groups and the local community.</li> </ul>	<ul style="list-style-type: none"> <li>Community Consultation Committee Meeting Minutes - Available at: Lidsdale Siding website: <a href="http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx">http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx</a> [Accessed 30 July 2015 at 12:17hrs] - April 2014, October 2014, April 2015</li> <li>April 2015 CCC Meeting Presentation</li> <li>Letter – Centennial (2014), Lidsdale Siding Upgrade Project Regional Community Consultative Committee, 1 May 2014</li> <li>Letter – DP&amp;E (2014), Angus Place Springvale CCC Appointment of a Community Representative, 2 April 2014</li> </ul>	<p>Centennial notified DP&amp;E of the Centennial Coal's Western Community Consultative Committee on 1 May 2014 (i.e. within 12 months of the approval dated).</p> <p>The CCC meets every six months. Two CCC meetings have been held since Project Approval in May 2013. Centennial operate a combined Western Coalfields CCC whereby other Centennial sites are included in the meetings (i.e. Springvale, Angus, Western Coal Services, Lidsdale Siding).</p> <p>The appointment of the CCC Community Representative was approved by DP&amp;E on 2 April 2014.</p> <p>CCC meetings were held on the following dates during the audit period:</p> <table border="0"> <tr> <td><b>1</b></td> <td>8 April 2014;</td> </tr> <tr> <td><b>2</b></td> <td>15 October 2014; and</td> </tr> <tr> <td><b>3</b></td> <td>1 April 2015.</td> </tr> </table>	<b>1</b>	8 April 2014;	<b>2</b>	15 October 2014; and	<b>3</b>	1 April 2015.	Compliant
<b>1</b>	8 April 2014;									
<b>2</b>	15 October 2014; and									
<b>3</b>	1 April 2015.									
5.7	<p><b>REPORTING</b></p> <p><b>Incident Reporting</b></p> <p>The Proponent shall notify the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incidents associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.</p>	<ul style="list-style-type: none"> <li>Lidsdale Siding Pollution Incident Response Management Plan</li> </ul>	<p>Lidsdale management reported that there have not been any incidents that have:</p> <ol style="list-style-type: none"> <li>Caused or threatened to cause actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial harm to the environment; and/or</li> <li>Breached or exceeded the limits or performance measures/criteria in this consent.</li> </ol> <p>Therefore no incident report has been provided to the Director-General and any other relevant agencies.</p> <p>The auditors sighted screenshots of the ECD Lotus Notes database that provided a summary of Centennial Coal defined Level 1-5 incidents for the audit period (Refer to Section 5.2 of the Report for further details).</p>	Not Activated						
5.8	<p><b>Regular Reporting</b></p> <p>The Proponent shall provide regular reporting on the environmental performance of the development on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.</p>	<ul style="list-style-type: none"> <li>Lidsdale Siding website: <a href="http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx">http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx</a> [Accessed 30 July 2015 at 12:17hrs]</li> </ul>	<p>Documents including, but not limited to the following were available on the Lidsdale Siding website:</p> <ul style="list-style-type: none"> <li>Environment Management Plans</li> <li>Environmental Assessments</li> <li>Environmental Monitoring Data (Monthly)</li> <li>Development and Environment Approvals</li> <li>Environmental Management Reports</li> <li>Community Consultation documents including minutes and agendas for meetings. A complaints register was available on the website.</li> </ul> <p>A copy of the 2014 Annual Review was available on the website.</p>	Compliant						

## Development Consent 08\_0223

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
5.9	<p><b>INDEPENDENT ENVIRONMENTAL AUDIT</b></p> <p>Within 12 months of completion of the upgrade to the coal loader, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:</p> <ol style="list-style-type: none"> <li>be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;</li> <li>include consultation with the relevant agencies;</li> <li>assess the environmental performance of the development and assess whether it is complying with the requirements in this consent and any relevant EPL or Mining Lease (including any assessment, plan or program required under these approvals);</li> <li>review the adequacy of strategies, plans or programs required under the abovementioned approvals; and</li> <li>recommend appropriate measures or actions to improve the environmental performance of the development, and/or any assessment, plan or program required under the abovementioned approvals.</li> </ol> <p><i>Note: This audit team must be led by a suitably qualified auditor and include experts in any field specified by the Director-General.</i></p>	<ul style="list-style-type: none"> <li>Letter – DP&amp;E NSW (2015), Lidsdale Siding Upgrade Project (08_0223) Independent Environmental Audit, 10 July 2015</li> </ul>	<p>This audit report and supporting documents address the requirements of Condition 9, Schedule 5 of DA 08_0223.</p> <ul style="list-style-type: none"> <li>Centennial commissioned MCW Environmental to conduct the 2015 Independent Environmental Audit. The MCW Environmental audit team was approved by the DP&amp;E to conduct the audit in a letter to Centennial dated 10 July 2015. The site inspection was conducted on the 31 July 2015.</li> <li>The 2015 IEA involved consultation with the following agencies: DP&amp;E, DTIRIS-DRE and EPA.</li> <li>The 2015 IEA assessed the environmental performance of the project against the requirements of MCoA 08_0223, EPL 5129, EA SoC and plans and programs required by these approvals.</li> <li>The 2015 IEA reviewed the adequacy of strategies, plans or programs required by these approvals.</li> <li>The 2015 IEA included appropriate measures and/or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under the abovementioned approvals.</li> </ul> <p>Refer to Table 1-1 of the Report for further details.</p>	Compliant
5.10	<p>Within 6 weeks of the completion of this audit, unless the Director-General agrees otherwise, the Proponent shall submit a copy of the audit report to the Secretary, together with its response to any recommendations contained in the audit report.</p>	-	<p>Noted</p> <p>This is the first Independent Environmental Audit as required by PA 08_0223.</p>	Noted
5.11	<p><b>Access to Information</b></p> <p>11. From the end of October 2013, the Proponent shall:</p> <ol style="list-style-type: none"> <li>make copies of the following publicly available on its website: <ul style="list-style-type: none"> <li>the EA;</li> <li>current statutory approvals for the development;</li> <li>approved strategies, plans and programs required under the conditions of this consent;</li> <li>a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs;</li> <li>a complaints register, which is to be updated monthly;</li> <li>minutes of CCC meetings;</li> <li>the annual reviews of the development (for the last 5 years, if applicable);</li> <li>any independent environmental audit of the development, and the Applicant's response to the recommendations in any audit;</li> <li>any other matter required by the Secretary; and</li> </ul> </li> <li>keep this information up-to-date,</li> <li>to the satisfaction of the Director-General.</li> </ol>	<ul style="list-style-type: none"> <li>Lidsdale Siding website: <a href="http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx">http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx</a> [Accessed 30 July 2015 at 12:17hrs]</li> </ul>	<ul style="list-style-type: none"> <li>Access to information appears to be in compliance with the requirements of this condition. The Lidsdale Siding website was reviewed and observed to contain the following information: <ul style="list-style-type: none"> <li>Environment Management Plans</li> <li>Environmental Assessments</li> <li>Environmental Monitoring Data</li> <li>Development and Environment Approvals</li> <li>Environmental Management Reports</li> <li>Community Consultation documents including minutes and agendas for meetings.</li> <li>a limited Complaints Register was available on the website.</li> </ul> </li> </ul> <p>The following plans and reports were available:</p> <ul style="list-style-type: none"> <li>Annual Environment Management Report 2013</li> <li>Pollution Incident Response Plan</li> </ul> <p>Environment Protection Licence Monitoring Data was available on the website for the period December 2013 through to June 2015.</p> <ul style="list-style-type: none"> <li>Information on the Lidsdale Siding website appeared to be up-to-date. It is noted that the next CCC meeting is scheduled for October 2015.</li> </ul>	Compliant



Environmental Protection Licence 5129										
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation						
A1.1	<p><b>Administrative Controls</b></p> <p>This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.</p> <p>Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.</p> <table border="1"> <thead> <tr> <th>Scheduled Activity</th> <th>Fee Based Activity</th> <th>Scale</th> </tr> </thead> <tbody> <tr> <td>Coal Works</td> <td>Coal Works</td> <td>&gt;2,000,000 – 5,000,000 T handled</td> </tr> </tbody> </table>	Scheduled Activity	Fee Based Activity	Scale	Coal Works	Coal Works	>2,000,000 – 5,000,000 T handled	<ul style="list-style-type: none"> <li>Centennial (2014), Lidsdale Siding Annual Review.</li> </ul>	<p>Lidsdale operates at the address specified in the EPL and undertakes the scheduled activities specified (Coal Works).</p> <p>The EPL was reviewed on 4 August 2014.</p> <p>A variation to EPL 5129 was made on 11 August 2014 to include various conditions. See main report.</p> <p>Lidsdale production figures for the audit period were sighted. The following ROM coal handled was reported:</p> <ul style="list-style-type: none"> <li>2013: 1,744,869 tonnes transported.</li> <li>2014: 2,555,270 tonnes transported.</li> </ul> <p>These operations are within the fee based activity levels defined (&gt;2,000,000 – 5,000,000 Tonnes handled).</p>	Compliant
Scheduled Activity	Fee Based Activity	Scale								
Coal Works	Coal Works	>2,000,000 – 5,000,000 T handled								
A2.1	<p><b>Premises or Plant to Which This Licence Applies</b></p> <p>The licence applies to the following premises:</p> <p>Lidsdale Coal Loading Facility, Main Street, Wallerawang, NSW 2845</p> <p>LOT 1 DP 252472, LOT 2 DP 252472, LOT 7 DP 252472, LOT 9 DP 252472, LOT 1 DP 776498, LOT 13 DP 827839</p>	-	<p>Noted. Auditors did not assess whether the site is operating wholly within the areas defined by the Lots stated in the licence.</p>	Noted						
A3.1	<p><b>Information Supplied to the EPA</b></p> <p>Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.</p> <p>In this condition the reference to "the licence application" includes a reference to:</p> <ol style="list-style-type: none"> <li>the applications for any licences (including former pollution control approvals) which this licence replaces under the <i>Protection of the Environment Operations (Savings and Transitional) Regulation 1998</i>; and</li> <li>the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.</li> </ol>	-	<p>Works appeared to be generally in line with the change to applicable scheduled activities and scale/capacity. The original licence application was not assessed as part of this audit</p>	Compliant						
A3.2	<p>All works and activities must be undertaken in accordance with the project approval for Application Number 08_0223 as issued by the Planning and Assessment Commission, on behalf of the Minister for Planning and Infrastructure, on 3 May 2013. The conditions in this project approval take precedent over any information previously supplied to the EPA as part of the licence application in the event of a discrepancy.</p>	-	<p>Noted</p> <p>Works appeared to be generally in line with PA 08_0223. See compliance assessment against PA 08_0223.</p>	<p>Noted</p> <p>Refer to compliance assessment against PA 08_0223.</p>						

**Environmental Protection Licence 5129**

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
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**P1.1 Location of Monitoring/Discharge Points and Areas**  
 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

**Air**

EPA ID #	Type of Monitoring Point	Type of Discharge Point	Local Description
1	Dust Monitoring	-	Labelled as 'DG7' on figure in Appendix 4 of "Lidsdale Siding - Air Quality & Greenhouse Gas Management Plan" dated 13 November 2013.
2	Dust Monitoring	-	Labelled as 'DG6' on figure in Appendix 4 of "Lidsdale Siding - Air Quality & Greenhouse Gas Management Plan" dated 13 November 2013.
3	Dust Monitoring	-	Labelled as 'DG8' on figure in Appendix 4 of "Lidsdale Siding - Air Quality & Greenhouse Gas Management Plan" dated 13 November 2013.
5	Dust Monitoring	-	Labelled as 'DG1' on figure in Appendix 4 of "Lidsdale Siding - Air Quality & Greenhouse Gas Management Plan" dated 13 November 2013.
6	Dust Monitoring	-	Labelled as 'DG9' on figure in Appendix 4 of "Lidsdale Siding - Air Quality & Greenhouse Gas Management Plan" dated 13 November 2013.
7	Dust Monitoring	-	Labelled as 'DG10' on figure in Appendix 4 of "Lidsdale Siding - Air Quality & Greenhouse Gas Management Plan" dated 13 November 2013.
8	Dust Monitoring	-	PM10 monitoring - labelled as 'BAM' on figure in Appendix 4 of "Lidsdale Siding - Air Quality & Greenhouse Gas Management Plan" dated 13 November 2013.
9	Meteorological monitoring	-	Labelled as 'LSWS' on figure in Appendix 4 of "Lidsdale Siding - Air Quality & Greenhouse Gas Management Plan" dated 13 November 2013.

- Ivanhoe Coal – Monthly Environmental Monitoring Data: December 2013
- Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014
- Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015
- Dust Data – 7 May 2013 to 25 May 2015.Xls
- SLR 2015 Review of EBAM data, Lidsdale Siding, 28 July 2015

Monthly environmental monitoring reports from May 2012 to June 2015 were available on the Lidsdale website. The monthly reports contained Air Quality Monitoring data (Section 3), including Depositional Dust results (Section 3).

A Figure (Appendix D) of licenced monitoring points including EPL dust monitoring locations DG1, DG6, DG7, DG8, DP9 and DG10 as well as Lidsdale Siding Weather Station (LSWS) and EBAM was available for review.

The location for DG11 was also provided; however, DG11 was not included on EPL 5129, as it's considered a background location.

Monthly dust monitoring results from December 2013 through to June 2015 were available for review. Monthly environmental monitoring data reports are available on the Lidsdale website that include dust results.

Monitoring results, measured in g/m<sup>2</sup>/month obtained between 2012 through 2015 showed general compliance with relevant guidelines with the exception of DG6 in June 2013 when DG6 was damaged by construction equipment and monitoring was not possible. DG6 was established away from the construction area to avoid further damage.

Dust monitoring analysis was reportedly undertaken by ALS.

Based on the data described above, MCW Environmental assessed that Lidsdale appeared to be conducting dust monitoring at locations DG1, DG6, DG8, DG9, DG10, EBAM and LSWS as identified in this condition.

Compliant

**P1.2** The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

-

Noted

Noted

**Environmental Protection Licence 5129**

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
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P1.3 **Location of Monitoring/Discharge Points and Areas**  
 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

**Water and Land**

EPA ID #	Type of Monitoring Point	Type of Discharge Point	Local Description
4	Discharge to Waters Discharge quality monitoring	Discharge to Waters Discharge quality monitoring	Confluence of stormwater discharge channel and Coxs River labelled as LDP4 on figure titled "Environmental Plan - Lidsdale Rail Siding", provided to the EPA on 1 April 2014 (DOC14/48632)

- Ivanhoe Coal – Monthly Environmental Monitoring Data: December 2013
- Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014
- Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015
- EPL 5129

Monthly environmental monitoring reports from December 2013 to June 2015 were available on the Lidsdale website for LDP004. The monthly reports contained Surface Water Quality (Section 4) for LDP004.  
 An Excel® spread sheet of water monitoring data for the following periods and including EPA Point 4 (LDP004), was available for review.

Compliant



**Environmental Protection Licence 5129**

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
L1.1	<p><b>LIMIT CONDITIONS</b></p> <p><b>Pollution of Waters</b></p> <p>Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i>.</p>	<ul style="list-style-type: none"> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: December</li> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>• EPL 5129</li> <li>• Site observations</li> <li>• ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs]</li> <li>• Lidsdale Siding Environmental Monitoring Report, April 2015.</li> <li>• Lidsdale Siding April 2015.csv</li> <li>• Spring Vale Weather Station 001.csv</li> <li>• Weekly Site Inspections at Lidsdale Siding – TO15 Standard Work Procedure: 23/01/2015, 31/03/2015, 29/04/2015, 06/05/2014, 11/07/2014, 11/09/2014, 29/10/2014</li> <li>• Lidsdale Siding Inspection Reports – 30/07/2015, 05/08/2015, 12/08/2015</li> <li>• ALS Environmental Certificate of Analysis – ES1500329, 16 January 2015</li> <li>• ALS Environmental, Chain of Custody Documentation – ES1500329, 9 January 2015</li> </ul>	<p>In general Lidsdale had effective means of controlling and managing clean and dirty water on site. A new drain was in the process of being constructed from the coal stockpile to the dirty water dam at the time of the site inspection.</p> <p>Storm water runoff at the site flows in a north-easterly direction and is collected by the Dirty Water Dam. Water is pumped to second dam (Triangle Dam) where it is either discharged via natural flow or pumped out following testing by ALS.</p> <p>A variation to EPL 12374 was made on 11 August 2014 to include a condition for extreme rainfall events (Condition L2.5). EPL condition L2.5 specifies that the limits specified under Condition L2.4 for the sediment basins identified as EPA licence discharge point 4 do not apply when the discharge occurs solely as a result of rainfall measured at the premises which exceeds a total of 56 millimetre of rainfall over any consecutive five day period. As a result, the discharges listed in Condition L2.1 did not represent a non-compliance with the licence for exceedences of pH and TSS.</p> <p>Refer to Condition L2.3 for water analysis conducted at the site in addition to that required by the EPL.</p>	Compliant

Environmental Protection Licence 5129				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
L2.1	<p><b>Concentration Limits</b></p> <p>For each monitoring/discharge point or utilisation area specified in the table's below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.</p>	<ul style="list-style-type: none"> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: December 2013</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>EPL 5129</li> <li>LDP004 Water Quality 2013-2015.Xls (24/01/2013 to 23/06/2013)</li> <li>ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs]</li> </ul>	<p>Water monitoring data was observed for LDP004 (Point 4) for the period 23 May 2013 through to 23 June 2015.</p> <p>There were 21 occasions where water was discharged through LDP004 during the audit period. ALS Laboratories conduct water sampling and analysis on behalf of Lidsdale.</p> <p>Lidsdale management reported that oil and grease results are not received in time before the water can be pumped out. This is demonstrated with an oil and grease exceedance on 8 January 2015. No documented evidence of visual inspections of water prior to discharge was available for review.</p> <p>The following discharge results were noted during the audit period:</p> <ul style="list-style-type: none"> <li>A pH result of 6.41 was recorded at LDP004 on 9 December 2014. The EPL pH range limit is 6.5 to 8.5.</li> <li>A TSS result of 42 mg/L was recorded at LDP004 on 9 December 2014. The EPL TSS limit is 30 mg/L.</li> </ul> <p>The December 2014 Centennial Environmental Monitoring Report noted that the Lidsdale weather station recorded 59.4 mm of rainfall over a five day period at the time of sampling on 9 December 2014. The ALS online portal allows Lidsdale management to view 'live' data concerning LDP004 as well as rainfall data. The LSWS was not commissioned at in December 2014 therefore Lidsdale used the nearby Springvale Colliery weather station data (Spring Vale Weather Station 001.csv). Data from the portal for Springvale Colliery weather station shows that there was rainfall in excess of 56 mm over a five day consecutive period before discharge.</p> <ul style="list-style-type: none"> <li>An Oil and Grease result of 37 mg/L was recorded on 8 January 2015. The EPL Oil and Grease limit is 10 mg/L.</li> </ul> <p>The January 2015 Centennial Environmental Monitoring Report (p.4) noted that "an exceedance was recorded for the concentration of oil and grease at LDP04 despite no visual indication of oil and grease in the water at the time of sampling. A duplicate sample will be taken in the future to allow retesting of the sample if required". Lidsdale management reported no sheen was visible on the water at the time of discharge. No documentation was available to confirm this. Lidsdale Siding Inspection Reports were sighted for 30 July and 5 and 12 August 2015. The documents required inspections and notes of the Main Sediment Dam, Pond 4 and LDP004. The Inspection Report did not include a requirement to document any visual observations of dam water, such as a visible sheen. Conductivity, pH, Turbidity, Discharge, spillway and wall defects and boom condition are required to be recorded on the Inspection Reports. It is noted that the Inspection Reports were typed (soft copies). The name of the individual conducting the inspection was noted on the document; however, the document was not signed. Centennial Standard Work Procedure TO15 did not include a requirement to document any visual observations of dam water.</p> <ul style="list-style-type: none"> <li>A TSS result of 127 mg/L was recorded at LDP004 on 21 April 2015. The EPL TSS limit is 30 mg/L.</li> </ul> <p>The April 2015 Centennial Environmental Monitoring Report noted the "Rainfall exemption criteria triggered as defined in the EPL 5129". Rainfall of 73 mm was recorded at LSWS over five consecutive days prior to discharge on 21 April 2015.</p> <p>Based on the above exceedances of L1.1 (Oil and Grease exceedance of 37 mg/L was recorded on 8 January 2015) this condition is considered non-compliant.</p>	<p>Non-compliant</p> <p><b>Recommendation</b></p> <p>Refer to <b>REC-2015-34</b> (Appendix A, DA 08_0223)</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
L2.2	Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.	<ul style="list-style-type: none"> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: December</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>LDP004 Water Quality 2013-2015.Xls (24/01/2013 to 23/06/2013)</li> <li>EPL 5129</li> <li>ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs]</li> </ul>	<p>No pH exceedances occurred during the audit period.</p> <p>A pH result of 6.41 was recorded at LDP004 on 9 December 2014. The EPL pH range limit is 6.5 to 8.5; however, this occurred following five consecutive days of rain prior to discharge hence the limit did not apply.</p> <p>The ALS online portal allows Lidsdale management to view 'live' data concerning LDP004 as well as rainfall data. The LSWS was not commissioned in December 2014 therefore Lidsdale used the nearby Springvale Colliery weather station data. Data from the portal for Springvale Colliery weather station shows that there was rainfall in excess of 56 mm over a five day consecutive period before the discharge event on 9 December 2014.</p>	Compliant





## Environmental Protection Licence 5129

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
L2.3	To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table\.	<ul style="list-style-type: none"> <li>ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs].</li> <li>May 2015 Surface Water Results (25-27 May 2015).Xls</li> </ul>	<p>Noted</p> <p>EPL 5129 requires the following pollutants be monitored at LDP004:</p> <ul style="list-style-type: none"> <li>Oil and Grease;</li> <li>pH; and</li> <li>Total Suspended Solids</li> </ul> <p>Section 7 (p.19) of the Water Management Plan notes that other the EPL requirements for LDP004 surface water (and groundwater).</p> <p>Sampling and analysis was reported to be conducted in accordance with relevant Australian Standards (including AS/NZS 5667.1:1998 and APHA, 1998) and/or NATA registered methods, and Approved Methods for the Sampling and Analysis of Water Pollutants in NSW (DEC). Samples were reported to be submitted to a NATA accredited laboratory (ALS). ALS is a NATA accredited laboratory (Accreditation No: 825, Warabrook, NSW).</p> <p>A water analysis Excel spreadsheet was reviewed for the period 25 May to 27 May 2015 included the following analytes for surface water monitoring at Lidsdale (i.e. not just LDPs). Monitoring is also conducted for surface flows at Pipers Flat Creek (upstream and downstream) and site groundwater:</p> <p>Temperature, pH, EC, Dissolved Oxygen, Turbidity, Chlorine Free, Chlorine Total, TSS, TDS, COD, Oil &amp; Grease, Manganese (Dissolved), Iron (Dissolved), Water Height, Volume of Water Purged, Aluminium (Dissolved), Aluminium (Total), Aluminium, Antimony, Arsenic (Dissolved), Arsenic (Total), Arsenic, Barium, Beryllium (Dissolved), Beryllium (Total), Boron (Dissolved), Cadmium (Dissolved), Cadmium (Total), Cadmium, Chromium (Dissolved), Chromium (Total), Chromium, Cobalt (Dissolved), Cobalt (Total), Cobalt, Copper (Dissolved), Copper (Total), Copper, Iron (Total), Lead (Total), Lead (Dissolved), Lithium, Magnesium (Dissolved), Manganese (Total), Mercury (Dissolved), Molybdenum (Dissolved), Molybdenum (Total), Nickel (Dissolved), Nickel (Total), Nickel, Selenium (Dissolved), Selenium (Total), Selenium, Silica, Silver, Sulphur (Total), Sulphur Sulphate (Total), Chloride, Calcium, Magnesium, Sodium, Potassium Sulphide, Tin, Titanium, Uranium, Vanadium (Dissolved), Vanadium (Total), Zinc (Dissolved), Zinc (Total), Zinc, Trivalent Chromium, Hexavalent Chromium, Ammonia, Nitrite, Nitrate, Nitrite + Nitrate as N, Nitrogen (Ammonia), Nitrogen (Total), Nitrogen Organic TKN, Phosphorous (Total), Phenolics, Anionic Surfactants, Acidity to low pH, Acidity to high pH, Alkalinity to CO, Alkalinity to OH, Alkalinity to HCO, Total Alkalinity as CaCO<sub>3</sub>, Langelier Saturation, Hardness (Total), BOD, NOx, TOC, DOC, Fe 2+, Fe 3+, Redox Potential Fluoride (Total), Cyanide (Total), Chlorine, C6 - C9 Fraction ug/L, C10 - C14 Fraction ug/L, C15 - C28 Fraction ug/L, C29 - C36 Fraction ug/L, C10 - C36 Fraction (sum) ug/L, C6 - C10 Fraction ug/L, C6 - C10 Fraction minus BTEX (F1) ug/L, &gt;C10 - C16 Fraction ug/L, &gt;C16 - C34 Fraction ug/L, &gt;C34 - C40 Fraction ug/L, &gt;C10 - C40 Fraction (sum) ug/L, &gt;C10 - C16 Fraction minus Naphthalene (F2), Benzene ug/L, Toluene ug/L, Ethylbenzene ug/L, meta- &amp; para xyle ug/L, ortho - Xylene ug/L, Total Xylenes ug/L, Sum of BTEX ug/L, Naphthalene ug/L, 1,2-Dichloroethane-D4 %, Toluene-D8 %, 4-Bromofluorobenzene %</p> <p>Given the above monitoring it is considered the analytes monitored are adequate for the risks posed by the site. It is noted that MCW Environmental auditors are not water specialists and have not assessed all data detailed above nor assessed all potential contaminant sources on site.</p>	Noted

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
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L2.4 Water and/or Land Concentration Limits - Noted Noted

**Point 4**

Pollutant	Units of Measure	50 Percentile Concentration Limit	90 Percentile Concentration Limit	3DGM Concentration Limit	100 Percentile Concentration Limit
Oil & Grease	Milligrams per Litre	-	-	-	10
pH	pH	-	-	-	6.5 – 8.5
TSS <sup>Note 1</sup>	Milligrams per Litre	-	-	-	30

<sup>Note 1</sup> Total Suspended Solids

L2.5 The limits specified under Condition L2.4 for the sediment basin identified as EPA licence discharge Points 4 do not apply when the discharge occurs solely as a result of rainfall measured at the premises which exceeds; - Noted Noted

- a total of 56 millimetre of rainfall over any consecutive 5 day period.

*Note: A 56 mm rainfall depth is defined by the publication "Managing Urban Stormwater: Soils and Construction" (Landcom 2006) as the rainfall depth in millimetres for a 95th percentile 5 day rainfall event for the Central Tablelands consistent with the storage capacity (recommended minimum design criteria) for Type D sediment retention basins for mines and quarries (Vol 2E of Landcom 2008).*



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
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**L3.1 Waste**

The licensee 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, if any, in the column titled "Description" in the table below.

Any waste received at the premises must only be used for the activities referred to in relation to that waste in the column titled "Activity" 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" in the table below.

This condition does not limit any other conditions in this licence.

Code	Waste	Description	Activity	Other Limits
NA	General or Specific exempted waste	Waste that meets all the conditions of a resource recovery exemption under Clause 51A of the <i>Protection of the Environment Operations (Waste) Regulation 2005</i>	As specified in each particular resource recovery exemption	NA

- Site observations
- Ivanhoe (2014), Lidsdale Siding Annual Review.
- JR Richards & Sons Pty Ltd Total Waste Management Report – December 2013, December 2014, June 2015, July 2015
- JR Richards & Sons Pty Ltd – Waste Streams Monthly Summary Report
- Mine Site Review (Form SWPF 0101), 16/08/2013, 03/09/2013, 03/10/2013, 08/08/2013, 08/11/2013, 10/09/2013, 12/11/2013, 18/09/2013, 18/10/2013, 23/08/2013, 24/10/2013, 26/09/2013, 31/10/2013.
- SLR (2013), Draft Construction Environmental Management Plan (CEMP) Waste Management Plan, 28 February 2013

Lidsdale management reported that no waste was received at the premises during the audit period from other sites.

No waste from outside sources was observed during the site inspection on 31 July 2015.

Lidsdale Siding uses JR Richards & Sons Pty Ltd as its waste contractor who manages all waste services. Limited waste is produced at the site since the upgrade given the unmanned status of the site.

Waste soil from the Sediment Dam will be added to the coal stockpile for re-use. The auditors sighted a waste bin (>3m<sup>2</sup>) at the site adjacent to the former workshop.

Auditors sighted Mine Site Review Forms that including inspection of waste areas and waste receptacles for the construction phase of the project and a Draft Construction Waste Management Plan. Implementation of the Draft Construction Waste Management Plan could not be verified due to construction having been completed well before the audit.

The 2014 Annual Review included reporting on waste management (Section 2.3). The review identified the volumes of recycled waste for the years 2012, 2013 and 2014. There was a decrease in solid waste disposal in 2014 as construction works associated with the upgrade project were completed in 2013.

The December 2014 Waste Streams Monthly Summary Report showed that waste from the site was disposed at the following locations:

- Renewable Oil Services - Transport License: 12991 - Facility License: 13092
- Renewable Oil Services will transport to SIM's Metal for Recycling - Transport License: 12991 - SIMS Metal Recyclers Facility License: 11264
- Ophir Road Resource Recovery Centre - Facility License: 5956
- Renewable Oil Services will transport to a licensed facility for disposal - Transport License 12991 - Hazmat Services Facility License: 13255
- Worth Recycling - Facility License :4602
- Lithgow City Council Landfill Facility - Facility License: 6004
- ISS Washroom Facilities -
- Renewable Oil Services - Transport License: 11399 - Facility License: 11658
- Planet Ark
- Lithgow City Council Landfill Facility - Facility License: 6004
- Bathurst City Council Landfill Facility - Facility License:
- Sims Metal - Facility License : 11264
- Recall Secure Document destruction
- Dolomatrix Australia (Chemsal) - Facility License No: 12628
- C&R Tyre Recycling - Facility License No: 11686
- Port Hunter Conveyors

The total off-site waste disposal tonnage for 2014 was 284 T. Lidsdale management expect waste to decrease in 2015 due to a reduction in staff as a result of the automated train loading system.

Compliant

**Environmental Protection Licence 5129**

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
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L4.1 **Noise Limits**  
 Noise generated at the premises must not exceed the noise limits presented in the table below.

Location	Day	Evening	Night	Night
	L <sub>Aeq</sub> (15min)	L <sub>Aeq</sub> (15min)	L <sub>Aeq</sub> (15min)	L <sub>A1</sub> (1min)
1. Lot 2 Main St, Wallerawang	50	50	50	55
2. Black Gold Cabins, Main St, Wallerawang	46	46	46	49
3. "Killarney", Brays Lane, Wallerawang	47	47	47	56
4. "Fairview", Brays Lane, Wallerawang	43	43	43	54
5. Duncan Street, Lidsdale	46	46	46	57
6. Old Castlereagh Highway, Lidsdale	43	43	43	56
7. Royal Hotel, Main St, Wallerawang	41	41	41	49
8. Corner Heel St & Cripps Ave, Wallerawang	40	40	40	45
9. Corner of Cripps Ave & Pindari Place, Wallerawang	39	39	39	45
10. Brays Lane South, Wallerawang	45	45	45	50
11. "Tara", Brays Lane, Wallerawang	45	45	45	51
12. Brays Lane Corner, Wallerawang	43	43	43	51

Note: The above noise limits do not apply at properties where the licensee has a written agreement with the landowner to exceed the noise limits.

- Global Acoustics (2015) June Noise Report, 31 July 2015, Ref: 15202\_R01.
- Annual Noise Summary
- Landowners Letters
- Lidsdale Siding Community Complaints Register
- X3 Letters – Centennial (2015), Centennial Springvale Noise Monitoring Program, 30 July 2015
- SLR Australia Pty Ltd (2015), Draft Lidsdale Upgrade Project Independent Noise Audit, 26 June 2015, Draft 1.

The following noise exceedances were noted during the audit period:

- Exceedance >2dB(A) above limit in February 2015 at residence R8. Attributed to an alarm which was subsequently rectified by removal of the audible component of the alarm.
- Exceedance >2dB(A) above limit in 25 June 2015. Attributed to conveyor operation, evening and night criteria and low frequency criteria. Two residences on Braze Lane and R12. A letter from Centennial to the landowner R12 was sighted notifying the resident of the exceedance.

Global Acoustics undertake current monthly attended monitoring. Lidsdale management noted that root cause analysis of noise exceedances is not yet undertaken at the site.

Detailed noise monitoring started July 2014 during commissioning of the new plant and equipment. Construction noise monitoring was conducted by the construction contractor. SLR (2015, p.9) noted that "It is considered that construction noise monitoring has not been undertaken sufficiently in accordance with the noise monitoring program and the required Australian Standards and that the implementation of the CNMP Section 9 is non-compliant. Noise monitoring reports present no assessment of compliance, conclusions or recommendations and therefore compliance with the construction noise criteria cannot be determined".

One complaint was recorded during the construction phase. The complaint concerned noise associated with the 'bunching' of rail wagons during loading operations and is therefore not considered a construction related complaint.

Given the two noise exceedances during the audit period and the Draft Independent Noise Audit (SLR, 2015) identified a non-compliance with construction noise monitoring this condition is considered non-compliant.

The continual noise logger was observed at the Lidsdale Siding Weather Station (LSWS) site. The LSWS is located in a triangle of rail tracks and adjacent to the overland conveyor. Lidsdale management noted they were considering relocating the continual noise logger to an off-site location. MCW Environmental concur with the proposed relocation and recommend that the continual noise logger be located closer to a sensitive receiver in order to better track and trend noise issues at the site.

Non-compliant  
**Recommendation**  
 Refer to Section 4.2.4 of the Main Report for noise recommendations.

L4.2 For the purpose of condition L4.1;  

- 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.

-

Noted

Noted

L4.3 The noise limits set out in condition L4.1 apply under all meteorological conditions except for the following:  
 a) During periods of rain or hail;  
 b) Average wind speeds at microphone height exceeds 5 metres/second;  
 c) Wind speeds greater than 3 metres/second at 10 metres above ground level; or  
 d) Temperature inversion conditions greater than 3 degrees C/100 m.

- Global Acoustics 2014 Monthly Noise Reports - July, August, September, October, November, December.
- Global Acoustics 2015 Monthly Noise Reports – January, February, March, April, May, June.
- Global Acoustics (2015), 2014 – 2015 Ann Noise, 31 July 2015, 15202\_R02

Noise monitoring recorded under non-applicable meteorological conditions was excluded from noise monitoring results.

Compliant

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
L4.4	For the purpose of condition L4.3, the meteorological data to be used for determining meteorological conditions is the data recorded by the meteorological weather station identified as EPA identification Point 9 in condition P1.1.	<ul style="list-style-type: none"> <li>Global Acoustics (2015), 2014 – 2015 Ann Noise, 31 July 2015, 15202_R02</li> <li>Site observations</li> <li>ALS Installation Report Certificate of Conformance, 27 July 2015, Ref: LSAWS001_270715</li> <li>ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs]</li> <li>ALS (2014), Operation, Maintenance and Data Dissemination Report of Hydrometric Sites For 2014, Centennial Coal Services SR141223-B</li> </ul>	<p>Meteorological data was obtained from the Lidsdale Siding or nearby Springvale Colliery weather station during the audit period.</p> <p>It is noted that no on-site weather data was recorded in 2014 as the weather station was reported by Lidsdale to have operated intermittently. Weather data in 2014 was taken from the nearby Springvale Colliery.</p> <p>Given the on-site meteorological station commenced operation in January 2015 and that data had to be sourced from an off-site meteorological weather station during the audit period this condition is considered non-compliant.</p>	<p>Non-compliant (prior to Jan 2015 – currently compliant)</p>
L4.5	<p>To determine compliance:</p> <p>d) With the Leq(15 minute) noise limits in condition L4.1, the noise measurement equipment must be located:</p> <p>III. approximately on the property boundary, where any dwelling is situated 30 metres or less from the property boundary closest to the premises; or</p> <p>IV. within 30 metres of a dwelling façade, but not closer than 3 metres where any dwelling on the property is situated more than 30 metres from the property boundary closest to the premises.</p> <p>e) With the LA1(1 minute) noise limits in condition L4.1, the noise measurement equipment must be located within 1 metre of a dwelling façade.</p> <p>f) With the noise limits in condition L4.1, the noise measurement equipment must be located:</p> <p>III. at the most affected point at a location where there is no dwelling at the location; or</p> <p>IV. at the most affected point within an area at a location prescribed by conditions L4.5(a) or L4.5(b).</p>	<ul style="list-style-type: none"> <li>Global Acoustics 2014 Monthly Noise Reports - July, August, September, October, November, December.</li> <li>Global Acoustics 2015 Monthly Noise Reports – January, February, March, April, May, June.</li> </ul>	<p>It was not possible to determine if the distances specified in this condition were being implemented from the monthly attended monitoring reports. The reports did not specify where the attended noise monitoring locations were (i.e. distances from dwelling façade between 3-30m or approximately on the nearest property boundary if closer than 30m).</p>	<p>Not Verified</p> <p>Refer to Section 4.2.4 of the Main Report for noise Recommendations.</p>
L4.6	<p>A non-compliance of condition L4.1 will still occur where noise generated from the premises in excess of the appropriate limit is measured:</p> <p>c) At a location other than an area prescribed by conditions L4.5(a) and L4.5(b); and/or</p> <p>d) At a point other than the most affected point at a location.</p>	<ul style="list-style-type: none"> <li>Global Acoustics 2014 Monthly Noise Reports - July, August, September, October, November, December.</li> <li>Global Acoustics 2015 Monthly Noise Reports – January, February, March, April, May, June.</li> <li>ECD Incident Printout - 4/2015/ccapp1000247</li> </ul>	<ul style="list-style-type: none"> <li>It was not possible to determine if the distances specified in this condition were being implemented from the monthly attended monitoring reports. The reports did not specify where the attended noise monitoring locations were (i.e. distances from dwelling façade or 30 m from nearest property boundary).</li> <li>An ECD printout of a noise exceedance on 25 June 2015 was sighted. The ECD report contained the date of the exceedance (incident), exceedance details, investigation cause and remediation details.</li> </ul>	<p>Not Verified</p> <p>Refer to Section 4.2.4 of the Main Report for noise Recommendations.</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
L4.7	For the purpose 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.	<ul style="list-style-type: none"> <li>Global Acoustics 2014 Monthly Noise Reports - July, August, September, October, November, December.</li> <li>Global Acoustics 2015 Monthly Noise Reports – January, February, March, April, May, June.</li> </ul>	<p>The penalty for low-frequency noise has been applied to noise exceedance criteria where necessary.</p> <p>The following noise exceedances were noted during the audit period where Section 4 of the INP was applied:</p> <ul style="list-style-type: none"> <li>Exceedance &gt;2dB(A) above limit in February 2015 at residence R8. Attributed to an alarm which was subsequently rectified by removal of the audible component of the alarm.</li> <li>Exceedance &gt;2dB(A) above limit in 25 June 2015. Attributed to conveyor operation, evening and night criteria and low frequency criteria. Two residences on Braze Lane and R12. A letter from Centennial to the landowner was sighted notifying the resident of the exceedance.</li> </ul>	Compliant



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
O1.1	<p><b>OPERATING CONDITIONS</b></p> <p><b>Activities must be Carried Out in a Competent Manner</b></p> <p>Licensed activities must be carried out in a competent manner.</p> <p>This includes:</p> <p>a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and</p> <p>b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</p>	<ul style="list-style-type: none"> <li>Site observations</li> <li>Work Order CK72050 – Dam Monitoring</li> <li>Mine Site Review (Form SWPF 0101), 16/08/2013, 03/09/2013, 03/10/2013, 08/08/2013, 08/11/2013, 10/09/2013, 12/11/2013, 18/09/2013, 18/10/2013, 23/08/2013, 24/10/2013, 26/09/2013, 31/10/2013.</li> <li>Centennial Purchase Orders # IV102141 / # IV101891 / # IV101826 / # IV101650 / # IV101701 / # IV102250 / # IV102084</li> <li>Lidsdale Siding Inspection Reports – 30/07/2015, 05/08/2015, 12/08/2015.</li> <li>Email – Water Treatment Services Pty Ltd (2015) Lidsdale Water Quality, 25/08/2015 at 12:29pm to Centennial</li> <li>Email – Water Treatment Services Pty Ltd (2015) Lidsdale Water Quality, 21/01/2015 at 12:29pm to Centennial</li> <li>ALS (2015) LDP004, 09/01/2015 at 09:50am.</li> <li>Environmental Sample Registration, Job 2400, 8 January 2015.</li> <li>Weekly Site Inspections at Lidsdale Siding – TO15 Standard Work Procedure: 23/01/2015, 31/03/2015, 29/04/2015, 06/05/2014, 11/07/2014, 11/09/2014, 29/10/2014</li> <li>JR Richards &amp; Sons Pty Ltd Total Waste Management Report – December 2013, June 2015, July 2015</li> <li>JR Richards &amp; Sons Pty Ltd – Waste Streams Monthly Summary Report</li> </ul>	<p>In order to assess compliance with this condition, various aspects of the operation were considered and reviewed. Based on this review, the following was noted:</p> <ul style="list-style-type: none"> <li>A New automated train loading system was constructed to replace front end loading of trains which has improved the environmental performance on site and is considered to represent a more competent approach to loading trains.</li> <li>Water Treatment Services Pty Ltd conducts inspections of the site on behalf of Lidsdale. Sighted Work Order for Dam Monitoring.</li> <li>Auditors sighted a new drain around stockpile being constructed at the time of the site inspection to improve runoff to the sediment dams.</li> <li>Lidsdale did not receive any Penalty Notices (PN) from the EPA during the audit period.</li> <li>Auditors sighted a selection of weekly surface inspection reports for the construction phase of the project (Mine Site Review (Form SWPF 0101), 16/08/2013, 03/09/2013, 03/10/2013, 08/08/2013, 08/11/2013, 10/09/2013, 12/11/2013, 18/09/2013, 18/10/2013, 23/08/2013, 24/10/2013, 26/09/2013, 31/10/2013). No inspection records were available for the operational phase of the project following construction.</li> <li>Water was observed to be dripping from the overhead conveyor (CV01) to the train loading bin. Pooled water had collected at the eastern base of the train loading bin and there was the potential for coal fines to flow into a clean water catchment drain adjacent to the train loading bin if the flow of water increased.</li> <li>The auditors sighted purchase order IV102141 for track inspections and certification works for the months January to December 2015.</li> <li>The auditors sighted purchase order IV101891 for track inspections and certification works for the months March to December 2014.</li> <li>The auditors sighted purchase order IV101826 for track inspections and certification works for December 2014.</li> <li>The auditors sighted purchase order IV101650 for track repairs and maintenance dated 31 July 2014.</li> <li>The auditors sighted purchase order IV101701 for the service of extinguishers and hose reels and installation of signage dated 4 September 2013.</li> <li>The auditors sighted purchase order IV102250 for the repair of damaged fire equipment dated 17 June 2015.</li> <li>The auditors sighted purchase order IV102084 for clean out of sumps, TLO spillage pit and general belt cleaning for October, November and December 2014.</li> <li>Lidsdale Siding Inspection Reports were sighted for 30 July and 5 and 12 August 2015. The documents required inspections and notes of the Main Sediment Dam (spillway and wall defects, boom condition), Pond 4 (boom condition), LDP004, Refuelling Area (fuel spills), Train Loader (coal fines in drain) and Coal Stockpile (coal fines in drain). Conductivity, pH, Turbidity and Discharge are also required to be recorded on the Inspection Reports. It is noted that the Inspection Reports were typed (soft copies). The name of the individual conducting the inspection was noted on the document; however, the document was not signed.</li> <li>The auditors sighted emails from the water treatment company to Centennial providing details of field measurements for water quality at the Stockpile Dam and LDP004.</li> <li>Auditors sighted Environmental Sample Registration for LDP004 dated 8 January 2015.</li> <li>Auditors sighted a selection of Weekly Site Inspections for the site. The document included items for inspection, including, but not limited to Triangle Ponds, Site Drainage Dams and Silt Traps, as well as required conditions (e.g. "drain to be clear and functional").</li> </ul> <p><i>Continued</i></p>	<p>Compliant</p> <p><b>Recommendations</b></p> <p>Refer to <b>REC-2015-01</b> (Table 4-1, Photo 4-14).</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
	<p><i>Continued:</i></p>	<p><i>Continued:</i></p>	<p><i>Continued:</i></p> <p>The December 2014 Waste Streams Monthly Summary Report showed that waste from the site was disposed at the following locations:</p> <ul style="list-style-type: none"> <li>• Renewable Oil Services - Transport License: 12991 - Facility License: 13092</li> <li>• Renewable Oil Services will transport to SIM's Metal for Recycling - Transport License: 12991 - SIMS Metal Recyclers Facility License: 11264</li> <li>• Ophir Road Resource Recovery Centre - Facility License: 5956</li> <li>• Renewable Oil Services will transport to a licensed facility for disposal - Transport License 12991 - Hazmat Services Facility License: 13255</li> <li>• Worth Recycling - Facility License :4602</li> <li>• Lithgow City Council Landfill Facility - Facility License: 6004</li> <li>• ISS Washroom Facilities -</li> <li>• Renewable Oil Services - Transport License: 11399 - Facility License: 11658</li> <li>• Planet Ark</li> <li>• Lithgow City Council Landfill Facility - Facility License: 6004</li> <li>• Bathurst City Council Landfill Facility - Facility License:</li> <li>• Sims Metal - Facility License : 11264</li> <li>• Recall Secure Document destruction</li> <li>• Dolomatrix Australia (Chemsal) - Facility License No: 12628</li> <li>• C&amp;R Tyre Recycling - Facility License No: 11686</li> <li>• Port Hunter Conveyors</li> </ul> <p>The total off-site waste disposal tonnage for 2014 was 284 T. Lidsdale management expect waste to decrease in 2015 due to a reduction in staff as a result of the automated train loading system.</p> <p>Overall, MCW Environmental assessed Lidsdale Siding to be generally compliant with this condition, subject to the observations identified above. MCW Environmental did not assess whether disposal of wastes was to licenced facilities or confirm compliance with waste legislation.</p> <p>Refer to Section 6.1.1.1 concerning comments for the 2014 EPA Compliance Audit Report that assessed compliance against this Condition.</p>	



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
O2.1	<p><b>Maintenance of Plant and Equipment</b></p> <p>All plant and equipment installed at the premises or used in connection with the licensed activity:</p> <p>a) must be maintained in a proper and efficient condition; and</p> <p>b) must be operated in a proper and efficient manner.</p>	<ul style="list-style-type: none"> <li>• SLR (2015), Review of EBAM Data Lidsdale Siding, 28 July 2015, Ref: 630.11117 Letter.docx</li> <li>• ALS (2014), Operation, Maintenance and Data Dissemination Report of Hydrometric Sites For 2014, Centennial Coal Services SR141223-B</li> <li>• LDP004 Station History – Level / Flow / W.Q – 04/04/2014, 09/12/2014, 29/01/2014</li> <li>• Centennial Purchase Orders # IV102141 / # IV101891 / # IV101826 / # IV101650 / # IV101701 / # IV102250 / # IV102084</li> </ul>	<p>MCW Environmental did not complete a detailed assessment of this condition; however, make the following observations relevant to the condition.</p> <p>Plant and equipment used on site for environmental management included:</p> <ul style="list-style-type: none"> <li>• Discharge water flow meters sampled by ALS.</li> <li>• Sedimentation dams, including dam telemetry checked by ALS.</li> <li>• Sediment fences.</li> <li>• Dust suppression sprinklers.</li> <li>• Lidsdale Siding Weather Station / EBAM / Noise Meter (NAME)</li> <li>• Dust gauges sampled by UQMP.</li> <li>• Spill response kits (sighted during site inspection).</li> </ul> <p>The Centennial system PULSE is used to generate work orders for specific tasks; however, generally Lidsdale management issued Purchase Orders for ongoing or one off tasks.</p> <ul style="list-style-type: none"> <li>• The auditors sighted purchase order IV102141 for track inspections and certification works for the months January to December 2015.</li> <li>• The auditors sighted purchase order IV101891 for track inspections and certification works for the months March to December 2014.</li> <li>• The auditors sighted purchase order IV101826 for track inspections and certification works for December 2014.</li> <li>• The auditors sighted purchase order IV101650 for track repairs and maintenance dated 31 July 2014.</li> <li>• The auditors sighted purchase order IV101701 for the service of extinguishers and hose reels and installation of signage dated 4 September 2013.</li> <li>• The auditors sighted purchase order IV102250 for the repair of damaged fire equipment dated 17 June 2015.</li> <li>• The auditors sighted purchase order IV102084 for clean out of sumps, TLO spillage pit and general belt cleaning for October, November and December 2014.</li> </ul> <p>ALS (2014, Section 1.2) noted that “<i>Operation Maintenance &amp; Data Dissemination of Lidsdale Siding Hydrometric Site LDP004 is an ongoing service provided by ALS. Level and flow data capture throughout the year was satisfactory</i>”. ALS (2014, Section 5.1) also noted that “<i>all sites are operating as expected, data dissemination services are performing as expected</i>”.</p> <p>Environmental monitoring equipment is operated by ALS (water and PM<sub>10</sub> monitoring) and is subject to ALS internal QA testing and ongoing maintenance requirements. Dust sampling is conducted by UQMP (The University of Queensland). A review of EBAM data by SLR (2015) was sighted. SLR concluded that “<i>there were no exceedances measured for the data set provided compared with the specified AQMP short term and long term criteria, notwithstanding that only 165 days of data have been provided</i>”.</p> <p>While MCW Environmental did not complete a detailed assessment of this condition, from site observations and based on the information described above, Lidsdale Siding is considered to be generally compliant with the condition.</p> <p>Refer to Section 6.1.1.1 concerning comments for the 2014 EPA Compliance Audit Report that assessed compliance against this Condition.</p>	Compliant



Environmental Protection Licence 5129				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
O3.1	<p><b>Dust</b></p> <p>Activities occurring in or on the premises must be carried out in a manner that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.</p>	<ul style="list-style-type: none"> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: December</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>Dust Data for 2013 to 2015 for Lidsdale Siding (7 May 2013 to 25 May 2015).Xls</li> <li>Lidsdale Siding Community Complaints Register</li> <li>Dust Data for 2013 to 2015 for Lidsdale Siding.xls.</li> <li>LDP004 Water Quality 2013_2015.xlsx.</li> <li>May 2015 ALS.xls</li> <li>AMCP Laboratory Test Report, 22 July 2013, DG7</li> <li>AMCP Laboratory Test Report, 20 September 2013, DG8</li> <li>AMCP Laboratory Test Report, 2 September 2013, DG7</li> <li>AMCP Laboratory Test Report, 29 September 2013, DG7 &amp; DG8</li> <li>AMCP Laboratory Test Report, 25 August 2014, DG7</li> <li>AMCP Laboratory Test Report, 18 March 2015, DG9</li> <li>AMCP Laboratory Test Report, 1 April 2015, DG9</li> </ul>	<p>Potential dust sources during the site inspection were observed to include:</p> <ul style="list-style-type: none"> <li>Windblown dust at the stockpile area;</li> <li>Windblown dust from coal loading activities;</li> <li>Windblown dust from unsealed internal roads; and</li> <li>Dust from coal and coal fines spills that may occur.</li> </ul> <p>Section 7 of the AQGGMP presents current and additional mitigation measures to minimise dust</p> <p>Lidsdale conducts dust monitoring at six deposition sampling points around the site, including DG11; a background sampler. One dust gauge (DG6) is located off-site. No dust complaints were received during the audit period and dust deposition gauges (DG1, DG6, DG7 and DG8) surrounding the primary operational areas have been compliant since July 2014. Similarly the 24 hour averaged PM<sub>10</sub> data, collected since February 2015, located near the main stockpile has been compliant since operation.</p> <p>Monthly dust monitoring results from May 2012 through to July 2015 were available for review. Monthly Environmental Monitoring Data reports include Air quality Monitoring information including depositional dust data (Section 3.1). Historically, elevated dust deposition measurements were recorded, however, the frequency of exceedances has been decreasing suggesting dust generating activities on site are being minimised. Additionally, where elevated measurements were obtained, further compositional analysis suggested coal dust was rarely present in significant concentrations, rather mineral dust, insect and plant debris comprised significant proportions of the dust, indicating site operations may not have been responsible.</p> <p>Monthly reports included statements that indicated where higher dust readings were identified samples were sent off for microscopic testing. Subsequent reports did not include the results of the microscopic testing.</p> <p>Based on site observations and the discussion above, MCW Environmental considers that Lidsdale has generally complied with this condition.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-36</b> – Ensure Monthly Environmental Monitoring Reports provide a summary of results where it is stated that further analysis (i.e. microscopic testing) has been conducted. The summary can be included in the subsequent monthly report.</p>
O3.2	<p>All trafficable areas, coal storage areas and vehicle manoeuvring areas in or on the premises must be maintained, at all times, in a condition that will minimise the generation, or emission from the premises, of wind-blown or traffic generated dust.</p>	<ul style="list-style-type: none"> <li>Site observations</li> <li>Weekly Site Inspections at Lidsdale Siding – TO15 Standard Work Procedure: 23/01/2015, 31/03/2015, 29/04/2015, 06/05/2014, 11/07/2014, 11/09/2014, 29/10/2014</li> </ul>	<p>The auditors observed a water cart, which could be used to dampen unsealed roads, during the site inspection. Spray nozzles were observed at the coal stockpile and inside the Train Loader shed. Dust is not included as an issue to note on the weekly inspection reports.</p> <p>MCW Environmental was on site for one sunny dry day (31 July 2015). No significant levels of windblown dust were observed.</p>	<p>Compliant</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
O4.1	<p><b>Other Operating Conditions</b></p> <p>The sediment basins identified as EPA identification no. (licence discharge points) 4 under condition P1.3 must be drained or pumped out within 5 days following rainfall in order to maintain the design storage capacity of the basin.</p>	<ul style="list-style-type: none"> <li>Site observations</li> <li>LDP004 Water Quality 2013-2015.Xls</li> <li>ALS Environmental Certificate of Analysis – ES1500329, 16 January 2015</li> <li>ALS Environmental, Chain of Custody Documentation – ES1500329, 9 January 2015</li> </ul>	<p>The auditors observed a pump at the Triangle Dam at LDP004.</p> <p>The site water storage dams were observed to have sufficient freeboard at the time of the site inspection, although calculations of the capacity of the freeboard were not undertaken.</p> <p>It was noted that during pump-out of the Triangle Dam discharge water by-passed LDP004 (i.e. the hose was placed to the side of the weir); however, water ultimately flowed through the culvert into receiving waters. Lidsdale hire a pump as needed. There is no permanent pumping infrastructure at LDP004.</p> <p>Evidence of sampling was sighted for discharges from LDP004 from 23 May 2013 through to 23 June 2015. LDP004 discharged on 21 occasions during the audit period (either naturally or by pump).</p> <p>Lidsdale management reported that ALS sample water prior to pump-out. Turbidity is measured on-site and based on the results water is either held and treated or discharged. It is noted that there is a delay in receiving results for oil and grease due to the analytical method required to test the sample and that water can be pumped out before the oil and grease results are available. On 9 January 2015 an exceedance of EPL criteria for oil and grease was recorded after pump-out commenced. Lidsdale management reported that a duplicate sample will be taken in future to allow re-testing of the sample.</p>	Compliant
O4.2	<p>Water discharged to comply with condition O4.1 may only be discharged from sediment basins to waters via licence discharge Point 4 where the water complies with the discharge limit specified under condition L2.4 for licence discharge Point 4.</p>	<ul style="list-style-type: none"> <li>Site observations</li> </ul>	<p>Noted</p> <p>The LDP004 was observed during the site inspection.</p> <p>The Lidsdale water management system separates clean and dirty water. Clean water from undisturbed areas west of the stockpile area are diverted to surface water drains that flow into a culvert beneath the rail line that flows to Pipers Flat Creek.</p> <p>Dirty water from around the stockpile and disturbed areas flows east towards the Dirty Water Dam. Sediment fences were observed in drains around the train loading bin.</p>	Noted
O4.3	<p>The licensee must undertake maintenance to desilt all sediment basins to retain their design storage capacities.</p>	<ul style="list-style-type: none"> <li>Site observations</li> <li>Purchase Order IV102256, 18 June 2015</li> </ul>	<p>Evidence of spoil/silt was observed adjacent to the Dirty Water Dam. Lidsdale management reported the dam had recently been de-silted by an excavator. A Purchase Order, dated 18 June 2015 was sighted for the desilting of dam and storage of sediments for drying as well as transportation of coal fines to the disposal pond. De-silting of the Dirty Water Dam is undertaken as required.</p> <p>The dams did not visually appear to be laden with silt during the site inspection.</p>	Compliant

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
M1.1	<p><b>MONITORING AND RECORDING CONDITIONS</b></p> <p><b>Monitoring Records</b></p> <p>The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.</p>	<ul style="list-style-type: none"> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: December</li> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>• GW Bore Data for 2013 to 2015 for Lidsdale Siding.xls</li> <li>• Global Acoustics – Monthly Noise Monitoring Reports – July, August, September, October, November, December 2014.</li> <li>• Global Acoustics – Monthly Noise Monitoring Reports – January, February, March, April, May, June 2015</li> <li>• Global Acoustics (2015), Lidsdale Annual Report, Environmental Noise Monitoring 2014/2015, 13 July 2015, Ref: 15202_R02.</li> <li>• ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs].</li> <li>• Dust Data for 2013 to 2015 for Lidsdale Siding.xls.</li> <li>• LDP004 Water Quality 2013_2015.xlsx.</li> <li>• May 2015 ALS.xls</li> <li>• AMCP Laboratory Test Report, 22 July 2013, DG7</li> <li>• AMCP Laboratory Test Report, 20 September 2013, DG8</li> <li>• AMCP Laboratory Test Report, 2 September 2013, DG7</li> <li>• AMCP Laboratory Test Report, 29 September 2013, DG7 &amp; DG8</li> <li>• AMCP Laboratory Test Report, 25 August 2014, DG7</li> <li>• AMCP Laboratory Test Report, 18 March 2015, DG9</li> <li>• AMCP Laboratory Test Report, 1 April 2015, DG9</li> </ul>	<p>Monitoring results are compiled and stored on a spread sheet. A water analysis and dust Excel spreadsheet was reviewed for the period May 2015.</p> <p>Dust deposition monitoring results for the period 7 May 2013 to 25 June 2015 were available for the monitoring required by EPL 5129.</p> <p>The ALS online portal allows Lidsdale management to view 'live' data concerning LDP004. The following data is available on the portal:</p> <ul style="list-style-type: none"> <li>• Level (Metres)</li> <li>• Discharge (Cumecs)</li> <li>• Discharge (ML/Day)</li> </ul> <p>Monthly environmental monitoring reports were available on the Lidsdale website for review. Reports included but were not limited to noise, water and dust emission data.</p> <p>It is considered that the monitoring records are maintained in compliance with the requirements of this condition and may be made available upon requests of an authorised officer.</p>	Compliant





**Environmental Protection Licence 5129**

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
M1.2	<p>All records required to be kept by this licence must be:</p> <ul style="list-style-type: none"> <li>a) in a legible form, or in a form that can readily be reduced to a legible form;</li> <li>b) kept for at least 4 years after the monitoring or event to which they relate took place; and</li> <li>c) produced in a legible form to any authorised officer of the EPA who asks to see them.</li> </ul>	<ul style="list-style-type: none"> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: December</li> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>• Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>• GW Bore Data for 2013 to 2015 for Lidsdale Siding.xls</li> <li>• Global Acoustics – Monthly Noise Monitoring Reports – July, August, September, October, November, December 2014.</li> <li>• Global Acoustics – Monthly Noise Monitoring Reports – January, February, March, April, May, June 2015</li> <li>• Global Acoustics (2015), Lidsdale Annual Report, Environmental Noise Monitoring 2014/2015, 13 July 2015, Ref: 15202_R02.</li> <li>• ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs].</li> <li>• Dust Data for 2013 to 2015 for Lidsdale Siding.xls.</li> <li>• LDP004 Water Quality 2013_2015.xlsx.</li> <li>• May 2015 ALS.xls</li> <li>• AMCP Laboratory Test Report, 22 July 2013, DG7</li> <li>• AMCP Laboratory Test Report, 20 September 2013, DG8</li> </ul>	<p>Monitoring results were sighted and available for the audit period. Records were available from 2012 onwards.</p> <p>Records were available in Centennial's ECD management system accessed via the Lidsdale Environmental Compliance Database.</p> <p>It is considered that the monitoring records are maintained in compliance with the requirements of this condition and may be made available upon request by an authorised officer.</p>	Compliant
M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:</p> <ul style="list-style-type: none"> <li>a) the date(s) on which the sample was taken;</li> <li>b) the time(s) at which the sample was collected;</li> <li>c) the point at which the sample was taken; and</li> <li>d) the name of the person who collected the sample.</li> </ul>	<ul style="list-style-type: none"> <li>• Dust Data for 2013 to 2015 for Lidsdale Siding.xls.</li> <li>• LDP004 Water Quality 2013_2015.xlsx.</li> <li>• Global Acoustics – Monthly Noise Monitoring Reports – July, August, September, October, November, December 2014.</li> <li>• Global Acoustics – Monthly Noise Monitoring Reports – January, February, March, April, May, June 2015</li> </ul>	<p>The auditors sighted ALS monitoring data, indicating the:</p> <ul style="list-style-type: none"> <li>a) Date;</li> <li>b) Time;</li> <li>c) Point where sample taken; and</li> <li>d) Name of person collecting.</li> </ul> <p>The Monthly Noise Monitoring Reports did not contain the name of the person that collected the sample.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-37</b> – Ensure the name of the person who collected the sample is included in the Monthly Noise Reports.</p>

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
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M2.1	<p><b>Requirement to Monitor Concentration of Pollutants</b></p> <p>For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:</p>	<ul style="list-style-type: none"> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: December</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>Dust Data for 2013 to 2015 for Lidsdale Siding.xls.</li> <li>LDP004 Water Quality 2013_2015.xlsx.</li> <li>May 2015 Surface Water Results (25-27 May 2015).Xls</li> <li>May 2015 Dust – 3 October 2014 to 24 April 2015</li> </ul>	<p>The auditors sighted raw data as well as monthly reports for the years 2013, 2014 and part of 2015 and observed that sample testing for conductivity, oil and grease, pH and total suspended solids had been taken on a monthly basis at Lidsdale monthly via discharge.</p> <p>The ALS May 2015 spread sheet notes the following methods of water analysis:                      TSS - CBM-E008 / Electrical Conductivity - CBM-E006 / pH value - CBM-E005 / Dissolved Oxygen - CBM-E015 / TOG - EP020 / Chloride - ED009 / Fluoride - ED009 / Sulphate - ED009 / Alkalinity - ED037P / Calcium - ED093F / Magnesium - ED093F / Sodium - ED093F / Potassium - ED093F / Arsenic (filt) - EG020F / Nickel (filt) - EG020F / Cadmium (filt) - EG020F / Copper (filt) - EG020F / Manganese (filt) - EG020F / Iron (filt) - EG020F / Nitrate - EK058G / TPH - EP080</p> <p>The ALS May 2015 spread sheet noted the testing method for deposited dust matter to be 3580.10.1.</p> <p>From the data reviewed Lidsdale appeared to be compliant with this condition.</p>	Compliant
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M2.2	<p><b>Air Monitoring Requirements</b></p> <p>Points 1, 2, 3, 5, 6, 7</p>	-	Noted	Noted
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Pollutant	Units of Measure	Frequency	Sampling Method
Particulate matter	Grams per square metre per month	Monthly	Australian Standard 3580.10.1-2003

**Point 8**

Pollutant	Units of Measure	Frequency	Sampling Method
PM10	Milligrams per cubic metre	Continuous	Australian Standard 3580.9.11-2008



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation																				
M2.3	<p><b>Water and/ or Land Monitoring Requirements</b>  <b>Points 1,7 &amp; 8</b></p> <table border="1"> <thead> <tr> <th>Pollutant</th> <th>Units of Measure</th> <th>Frequency</th> <th>Sampling Method</th> </tr> </thead> <tbody> <tr> <td>Conductivity</td> <td>microsiemens per centimetre</td> <td>Monthly during discharge</td> <td>Probe</td> </tr> <tr> <td>Oil and Grease</td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>pH</td> <td>pH</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> <tr> <td>TSS <sup>Note 1</sup></td> <td>milligrams per litre</td> <td>Monthly during discharge</td> <td>Grab sample</td> </tr> </tbody> </table> <p>Note 1 Total Suspended Solids</p>	Pollutant	Units of Measure	Frequency	Sampling Method	Conductivity	microsiemens per centimetre	Monthly during discharge	Probe	Oil and Grease	milligrams per litre	Monthly during discharge	Grab sample	pH	pH	Monthly during discharge	Grab sample	TSS <sup>Note 1</sup>	milligrams per litre	Monthly during discharge	Grab sample	<ul style="list-style-type: none"> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: December</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>Dust Data for 2013 to 2015 for Lidsdale Siding.xls.</li> <li>LDP004 Water Quality 2013_2015.xlsx.</li> <li>May 2015 Surface Water Results (25-27 May 2015).Xls</li> <li>May 2015 Dust – 3 October 2014 to 24 April 2015</li> </ul>	<p>The auditors sighted raw data as well as monthly reports for the years 2013, 2014 and part of 2015 and observed that sample testing for conductivity, oil and grease, pH and total suspended solids had been taken on a monthly basis at Lidsdale monthly via discharge.</p> <p>From the data reviewed Lidsdale appeared to be compliant with this condition.</p>	Compliant
Pollutant	Units of Measure	Frequency	Sampling Method																					
Conductivity	microsiemens per centimetre	Monthly during discharge	Probe																					
Oil and Grease	milligrams per litre	Monthly during discharge	Grab sample																					
pH	pH	Monthly during discharge	Grab sample																					
TSS <sup>Note 1</sup>	milligrams per litre	Monthly during discharge	Grab sample																					
M3.1	<p><b>Testing Methods - Concentration Limits</b></p> <p>Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:</p> <ol style="list-style-type: none"> <li>any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or</li> <li>if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or</li> <li>if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.</li> </ol> <p><i>Note: The Protection of the Environment Operations (Clean Air) Regulation 2010 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".</i></p>	<ul style="list-style-type: none"> <li>Dust Data for 2013 to 2015 for Lidsdale Siding.xls.</li> <li>May 2015 Dust – 3 October 2014 to 24 April 2015</li> <li>AMCP Laboratory Test Report, 20 September 2013, DG8</li> <li>ACIRL Pty Ltd NATA Certificate 15784</li> <li>ACIRL Pty Ltd Scope of Accreditation 15784</li> </ul>	<p>The annual water analysis report from ALS to Lidsdale as well as the dust monitoring spread sheet provide details of the methods of analysis. The ALS May 2015 spread sheet noted the testing method for deposited dust matter to be 3580.10.1 - AS 3580.10.1 - 2003 Methods for sampling and analysis of particulate matter - Deposited matter - Gravimetric method.</p> <p>A NATA certificate for ACIRL Pty Ltd indicated they were competent to operate in accordance with ISO/IEC 17025. A scope of accreditation for ACIRL Pty Ltd indicated they are certified for ISO/IEC 17025:2005 ambient air and air sampling to AS3580.10.1. Dust sampling (compositional analysis) is conducted by UQMP (The University of Queensland).</p>	Compliant																				
M3.2	<p>Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.</p>	<ul style="list-style-type: none"> <li>LDP004 Water Quality 2013_2015.xlsx.</li> <li>May 2015 Surface Water Results (25-27 May 2015).Xls</li> </ul>	<p>Lidsdale management reported using ALS as its laboratory and field testing contractor for water and PM<sub>10</sub> monitoring. ALS is NATA accredited laboratory (Accreditation No: 825, Warabrook, NSW).</p> <p>The annual water analysis report from ALS to Lidsdale as well as the dust monitoring spread sheet provide details of the methods of analysis.</p> <p>Lidsdale management reported that no other method has been approved by the EPA in writing before any tests are conducted.</p>	Compliant																				
M4.1	<p><b>Weather Monitoring</b></p> <p>The meteorological weather station must be maintained so as to be capable of continuously monitoring the parameters specified in condition M4.2.</p>	<ul style="list-style-type: none"> <li>ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs]</li> </ul>	<p>The ALS portal demonstrated that the meteorological weather station was continuously monitoring the parameters specified in M4.2.</p>	Compliant																				

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation															
M4.2	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.	<ul style="list-style-type: none"> <li>ALS Website (2015) Lidsdale Mine LDP004, Available at: <a href="https://portal.alsglobal.com">https://portal.alsglobal.com</a> [Accessed 11/08/2015 at 16:52hrs]</li> <li>ALS Installation Report Certificate of Conformance, 27 July 2015, Ref: LSAWS001_270715</li> </ul>	<p>The ALS portal demonstrated that the meteorological weather station was continuously monitoring the parameters specified in M4.2.</p> <ul style="list-style-type: none"> <li>Air Temp. (Deg.C)</li> <li>Wind Direc (Deg)</li> <li>Wind Vel. (M/s)</li> <li>Temperature Lapse Rate (Deg.C)</li> <li>Rainfall (mm)</li> <li>Humidity (%)</li> </ul> <p>An ALS conformance certificate dated 27 July 2015 noted that the LSWS was fitted with the following components:</p> <ul style="list-style-type: none"> <li>Campbell Scientific CR800 Data Logger</li> <li>RM Young 05103 Wind Sensor</li> <li>Vaisala HMP155 Air Temperature and Humidity sensor</li> <li>Middelton SK01-D2 Pyranometer</li> <li>Model 107 Temperature Sensor</li> </ul>	Compliant															
M5.1	<p><b>Recording of Pollution Complaints</b></p> <p>The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.</p>	<ul style="list-style-type: none"> <li>Lidsdale Siding Community Complaints Register</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: December 2013</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>Centennial Website: <a href="http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx">http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx</a></li> <li>Email – Centennial (2014), Noise Complaint at Lidsdale Siding Sent to EPA on 17/11/2014 at 10:52am.</li> </ul>	<p>The Lidsdale Siding Complaints Register (PDF) available on the Lidsdale Siding website noted two complaints (16/10/2013 and 17/11/2014). However, a review of the ECD Lotus Notes database for the periods between 25 June 2015 and 16 October 2013 noted the following complaints:</p> <table border="1"> <thead> <tr> <th>Issue</th> <th>Date</th> <th>Nature of Incident</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>17 – 18 May 2015</td> <td>Noise complaints (x3) from same complainant</td> </tr> <tr> <td>Noise</td> <td>25 June 2015</td> <td>Noise compliant at location receiver R3</td> </tr> <tr> <td>Noise</td> <td>17 November 2014</td> <td>Noise complaint of alarm sounding over weekend</td> </tr> <tr> <td>Noise</td> <td>16 October 2013</td> <td>Noise compliant local resident. Three large “booms”</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li><b>Three</b> noise related complaints between 17 and 20 May 2015 were reported to the EPA. These complaints were received from the one complainant who identified a ‘humming’ and reversing alarm sound that was believed to be from Lidsdale Siding. Lidsdale management investigated the surrounding area and identified several noise sources, external to Lidsdale Siding, that they believed were the likely cause.</li> </ul> <p>The 2013/2014 Annual Return noted the following:</p> <ul style="list-style-type: none"> <li><b>Two</b> noise related complaints on the weekend of 15 and 16 November 2014. The complaint was related to an alarm sounding intermittently over the weekend. To resolve the issue Lidsdale disabled the alarm and an alternative system reporting to the control room was installed. An email notification to the EPA dated 17 November 2014 was sighted.</li> <li>One noise complaint was received in March 2015. The complaint concerned conveyor noise. A copy of the March 2015 noise monitoring results was reported to have been provided to the complainant; however, a copy of the letter was not available for review.</li> </ul>	Issue	Date	Nature of Incident	Noise	17 – 18 May 2015	Noise complaints (x3) from same complainant	Noise	25 June 2015	Noise compliant at location receiver R3	Noise	17 November 2014	Noise complaint of alarm sounding over weekend	Noise	16 October 2013	Noise compliant local resident. Three large “booms”	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-38</b> – Ensure the Lidsdale Siding Complaints Register reflects the complaints logged in the ECD database.</p>
Issue	Date	Nature of Incident																	
Noise	17 – 18 May 2015	Noise complaints (x3) from same complainant																	
Noise	25 June 2015	Noise compliant at location receiver R3																	
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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation									
M5.2	The record must include details of the following: a) the date and time of the complaint; b) the method by which the complaint was made; c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; d) the nature of the complaint; e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and f) if no action was taken by the licensee, the reasons why no action was taken.	<ul style="list-style-type: none"> <li>Lidsdale Siding Community Complaints Register</li> <li>Centennial Website: <a href="http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx">http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx</a></li> <li>Centennial Airly (2014), Environmental Management Strategy Lidsdale Siding, February 2014</li> <li>Incident, Incident Detail &amp; Investigation Form (Form SCS0-F-0003) dated 03/08/2015, 20/05/2014, 17/11/2014, 30/10/2013</li> <li>Lidsdale Siding Incident Report, Pacific National, 16 October 2013</li> </ul>	<p>The Environmental Management Strategy included a blank Record of Pollution Complaint form. The form included the following fields:</p> <ul style="list-style-type: none"> <li>The date and time of the complaint;</li> <li>The method by which the complaint was made;</li> <li>Contact details of complainant;</li> <li>The nature of the complaint; and</li> <li>The action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant.</li> </ul> <p>Records of complaints forms dated 3 August 2015, 17 November 2014, 20 May 2014 and 30 October 2013 were available for review as well as an Incident Report form concerning the shunting of coal wagons on 16 October 2013.</p> <p>Other than the Incident Report form dated 16 October 2013 and the Incident, Incident Detail &amp; Investigation Forms dated 17 November 2014, the other dates of the Incident, Incident Detail &amp; Investigation Forms did not correlate with the dates of complaints listed in the ECD Lotus Notes database for the period between 25 June 2015 and 16 October 2013 shown below:</p> <table border="1"> <thead> <tr> <th>Issue</th> <th>Date</th> <th>Nature of Incident</th> </tr> </thead> <tbody> <tr> <td>Noise</td> <td>17 – 18 May 2015</td> <td>Noise complaints (x3) from same complainant</td> </tr> <tr> <td>Noise</td> <td>25 June 2015</td> <td>Noise compliant at location receiver R3</td> </tr> </tbody> </table>	Issue	Date	Nature of Incident	Noise	17 – 18 May 2015	Noise complaints (x3) from same complainant	Noise	25 June 2015	Noise compliant at location receiver R3	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-39</b> – Ensure information stored in the Centennial ECD Lotus Notes database correlates with Site complaint forms.</p>
Issue	Date	Nature of Incident											
Noise	17 – 18 May 2015	Noise complaints (x3) from same complainant											
Noise	25 June 2015	Noise compliant at location receiver R3											
M5.3	The record of a complaint must be kept for at least 4 years after the complaint was made.	<ul style="list-style-type: none"> <li>ECD Lotus Notes Database Screenshot – 24 March 2015 to 27 July 2008</li> </ul>	Auditors sighted a screenshot of complaints in the ECD Lotus Notes database over the period between 24 March 2015 and 27 July 008 which addresses the requirement to keep complaint data for at least four years.	Compliant									
M5.4	The record must be produced to any authorised officer of the EPA who asks to see them.	-	Lidsdale management reported that no request has been received from EPA.	Not Activated									
M6.1	<b>Telephone Complaints Line</b>  The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	-	Refer to Condition M6.2.	Compliant									
M6.2	The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	<ul style="list-style-type: none"> <li>Centennial Website: <a href="http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx">http://www.centennialcoal.com.au/Operations/Projects/Lidsdale-Siding.aspx</a></li> <li>CCC Meeting Minutes, dated 1 April 2015.</li> </ul>	<p>Lidsdale management reported that the 1800 7700 205 has been closed and that a new number has been implemented that reports to the Western Coal Services Control Room.</p> <p>The new number 02 6355 9500 has been communicated to the Community Consultation Committee. The number reports to the Western Coal Services control room that is manned 24hrs a day. The caller's details are recorded and passed on to the relevant Centennial member of staff. MCW Environmental called the telephone number on 27 August 2015 [3:12pm]. The call was answered by the Western Coal Services control room.</p> <p>This telephone number is not the same as the number provided on the Lidsdale Siding website ((02) 6355 7965).</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-40</b> - Update the Lidsdale Website with the new telephone complaints number.</p>									



## Environmental Protection Licence 5129

Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
M6.3	The preceding two conditions do not apply until 3 months after: <ol style="list-style-type: none"> <li>the date of the issue of this licence or</li> <li>if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.</li> </ol>	-	Noted	Noted
R1.1	<p><b>REPORTING CONDITIONS</b></p> <p><b>Annual Return</b></p> <p>The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:</p> <ol style="list-style-type: none"> <li>a Statement of Compliance; and</li> <li>a Monitoring and Complaints Summary.</li> </ol> <p>At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.</p>	<ul style="list-style-type: none"> <li>EPA (2015), Licence Summary for EPL 5129. Available at <a href="http://www.epa.gov.au">http://www.epa.gov.au</a> [Accessed: 27/07/2015 at 14:35hrs].</li> <li>Annual Return 2012/2013</li> <li>Annual Return 2013/2014</li> </ul>	<p>MCW Environmental sighted Annual Returns lodged by Lidsdale for the following periods:</p> <ul style="list-style-type: none"> <li>2012 / 2013; and</li> <li>2013 / 2014.</li> </ul> <p>The Annual Returns were stored in the Lidsdale Compliance database. The reporting period is 16 July to 15 July.</p> <p>The Annual Returns contained a Statement of Compliance and Monitoring and Complaints Summary.</p> <p>The 2014/2015 Annual Return was in the process of being prepared at the time of the audit and was not available for review.</p>	Compliant
R1.2	<p>An Annual Return must be prepared in respect of each reporting period, except as provided below.</p> <p><i>Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.</i></p>	-	<p>Noted</p> <p>Annual Return documents are completed for the reporting period (July to July).</p>	Noted
R1.3	<p>Where this licence is transferred from the licensee to a new licensee :</p> <ol style="list-style-type: none"> <li>the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and</li> <li>the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.</li> </ol> <p><i>Note: An application to transfer a licence must be made in the approved form for this purpose.</i></p>	-	Not Activated	Not Activated
R1.4	<p>Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:</p> <ol style="list-style-type: none"> <li>in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or</li> <li>in relation to the revocation of the licence - the date from which notice revoking the licence operates.</li> </ol>	-	Not Activated	Not Activated
R1.5	The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').	<ul style="list-style-type: none"> <li>EPA (2015), Licence Summary for EPL 5129. Available at <a href="http://www.epa.gov.au">http://www.epa.gov.au</a> [Accessed: 27/07/2015 at 14:35hrs].</li> <li>Centennial Remittance Advice 11738</li> </ul>	<ul style="list-style-type: none"> <li>The 2012 / 2013 Annual Return was received within the allotted 60 day period.</li> <li>The 2013 / 2014 Annual Return was received within the allotted 60 day period.</li> </ul> <p>A Remittance Advice from Centennial to the EPA was sighted dated 11 August 2014 (i.e. before 13 September).</p>	Compliant



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
R1.6	The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.	<ul style="list-style-type: none"> <li>Annual Return 2012/2013</li> <li>Annual Return 2013/2014</li> <li>Lidsdale Compliance Database</li> </ul>	Annual Return documents for the periods 2012 / 2013 and 2013 / 2014 were sighted on the Lidsdale Compliance Database which addressed the requirements of the condition.	Compliant
R1.7	<p>Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:</p> <p>a) the licence holder; or</p> <p>b) by a person approved in writing by the EPA to sign on behalf of the licence holder.</p>	<ul style="list-style-type: none"> <li>Annual Return 2012/2013</li> <li>Annual Return 2013/2014</li> </ul>	<ul style="list-style-type: none"> <li>The Annual Returns 2013 / 2014 had been completed and signed on 19 August 2013 by the Chief Operating Officer and the Company Secretary.</li> <li>The Annual Returns 2012 / 2013 had been completed and signed on 8 September 2014.</li> </ul>	Compliant
R2	<p><b>Notification of Environmental Harm</b></p> <p><i>Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.</i></p>	-	-	-
R2.1	Notifications must be made by telephoning the Environment Line service on 131 555.	<ul style="list-style-type: none"> <li>Lidsdale Compliance Database</li> <li>Annual Return 2012/2013</li> <li>Annual Return 2013/2014</li> </ul>	Lidsdale reported that no incidents causing environmental harm occurred during the audit period and none were recorded on the Incidents database. No evidence of environmental harm having occurred was sighted by the Auditors.	Not Activated
R2.2	The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.	-	<p>Lidsdale management reported that no incidents of environmental harm occurred during the audit period therefore this condition has not been triggered during the audit period.</p> <p>Lidsdale reported that the exceedences of the oil and grease on 8 January 2015 did not constitute environmental harm, and hence did not require formal reporting under this condition. The auditors concur that the oil and grease exceedance on 8 January 2015 did not constitute environmental harm and warrant reporting to the EPA.</p>	Not Activated
R3.1	<p><b>Written Report</b></p> <p>Where an authorised officer of the EPA suspects on reasonable grounds that:</p> <p>a) where this licence applies to premises, an event has occurred at the premises; or</p> <p>b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on on or off premises to which the licence applies), the authorised officer may request a written report of the event.</p>	-	<p>Not Activated</p> <p>No EPA officer has acted under this condition during the audit period.</p>	Not Activated
R3.2	The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.	-	Not Activated	Not Activated

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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
R3.3	The request may require a report which includes any or all of the following information: a) the cause, time and duration of the event; b) the type, volume and concentration of every pollutant discharged as a result of the event; c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event; d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort; e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants; f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and g) any other relevant matters.	-	Not Activated	Not Activated
R3.4	The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.	-	Not Activated	Not Activated
G1.1	<b>Copy of Licence Kept at Premises or Plant</b> A copy of this licence must be kept at the premises to which the licence applies	<ul style="list-style-type: none"> <li>Site observations</li> </ul>	A copy of the licence was available at the site office.	Compliant
G1.2	The licence must be produced to any authorised officer of the EPA who asks to see it.		A copy of the licence was available at the site office.	Compliant
G1.3	The licence must be available for inspection by any employee or agent of the licensee working at the premises.	<ul style="list-style-type: none"> <li>Site observation</li> </ul>	A copy of the licence was available at the site office.	Compliant
U1	<b>POLLUTION STUDIES AND REDUCTION PROGRAMS</b> <b>Contamination associated with former fuel storage</b>  <i>The AECOM Pty Limited "Updated Phase 2 Contamination Assessment" dated 22 October 2013 identified the potential for hydrocarbon contamination, sourced from a former aboveground fuel storage tank and present in groundwater, to migrate off-site. Contaminated soils and sediments on site are also considered to be an on-going source and contributing to this contaminated groundwater.</i>  In order to redress this situation, the Licensee must undertake the following measures:	<ul style="list-style-type: none"> <li></li> </ul>		



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Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
U1.1	<p>A remediation action plan (RAP) must be prepared that identifies the most appropriate treatment options for the impacted soils in the vicinity of the former above ground fuel storage tank. The RAP must include the proposed procedures to validate that the objectives of the remediation have been met.</p> <p>The RAP must be prepared and submitted to the Central West (Bathurst) Office of the EPA by 31 October 2014.</p>	<ul style="list-style-type: none"> <li>Email – Centennial (2014-A) TRIM: Western Coal Services DG#3 to EPA 31 October 2014 at 09:30am</li> <li>Email – Centennial (2014-B) TRIM: Western Coal Services DG#3 to EPA 31 October 2014 at 11:14am</li> <li>Email – Centennial (2014-C) TRIM: Western Coal Services DG#3 to EPA 10 November 2015 at 09:08am</li> <li>AECOM (2013), Updated Phase 2 Contamination Assessment, 22 October 2013</li> <li>SLR (2014-A), Land Contamination Advice, Lidsdale Siding Upgrade Project Wallerawang, NSW, 29 July 2014, Ref: 610.14220-R1D1.docx</li> <li>SLR (2014-B), Supplementary Contamination Delineation Assessment and Remedial Action Plan (RAP) Historical Diesel AST Spill Lidsdale Siding Upgrade Project Main Street, Wallerawang, NSW, 3 October 2014, Ref: 610.14220-R2.</li> <li>SLR (2014-C), Preliminary Indicative Remediation Estimate Advice - Historical Diesel AST Spill Lidsdale Siding Upgrade Project Wallerawang NSW, 5 November 2014, Ref: 610.14220-R3.docx</li> <li>Ivanhoe (2014), Lidsdale Siding Annual Review.</li> <li>Letter – EPA (2013), No Subject, 25 October 2013, Ref: EF12/3156:DOC12/75623</li> <li>Letter – Centennial (2013), Lidsdale Siding Upgrade Project (PA 08_0223) Phase 2 Contamination Assessment, 29 October 2013.</li> <li>Email – Centennial (2013-A), Lidsdale Siding Management Plans, 01/10/2013 @09:09am to EPA.</li> </ul>	<p>A supplementary Contamination Delineation Assessment and Remedial Action Plan (RAP) Historical Diesel AST Spill was prepared by SLR (SLR, 2014-B) on 3 October 2014. An email from Centennial to the EPA dated 31 October 2014 (Centennial, 2014-A_ was available for review. The email noted that the RAP was ready and could be emailed to the EPA. A second email (Centennial, 2014-B) asked confirmation from the EPA that the RAP had been received via email. Centennial followed up the enquiry concerning EPA's receipt of the RAP on 10 November 2014 (Centennial, 2015-C). Lidsdale management noted that the site had not received advice from the EPA concerning the RAP.</p> <p>The following timeline is noted concerning the RAP and remediation of the former above ground fuel storage tank area:</p> <ul style="list-style-type: none"> <li>2013 <ul style="list-style-type: none"> <li>A Phase 2 Contamination Assessment was completed by AECOM Pty Ltd in October 2013.</li> <li>The report identified that the site was considered suitable for the proposed industrial/commercial development. The report identified the possibility for off-site migration of hydrocarbon impacted groundwater, with this likely to be attributed to an ongoing source of hydrocarbon contamination. AECOM (2013) noted that the soils in the vicinity of the former Above Ground Storage Tank (AST) were considered likely to be the source of impacts to groundwater.</li> <li>A letter from the EPA to Centennial dated 25 October 2013 acknowledged that consultation had been sought by Centennial in the development of management plans as required by PA 08_0223 but that the EPA did not generally review the plans.</li> <li>A letter from Centennial to the DP&amp;E dated 29 October 2013 was available for review. The letter notes that "a draft Phase 2 Contamination Assessment was sent to the Environment Protection Authority for consultation purposes, as required by the Project Approval. The Environment Protection Authority responded with no comments".</li> <li>The auditors sighted an email from the Centennial Environmental Coordinator to the EPA dated 9 December 2013. The email included two attachments (Lidsdale Siding Phase 2 Contamination Assessment 2013-10-25 and Lidsdale Siding Phase 2 EPA Submission Letter).</li> </ul> </li> <li>2014 <ul style="list-style-type: none"> <li>In July 2014, SLR Consulting Pty Ltd (SLR) completed a Supplementary Contamination Delineation Assessment and Remediation Action Plan (2014-B) for the historical diesel AST spill. A diesel spill (understood to be approximately 20,000L in size) reportedly occurred from a former AST on the site during the 1970's. Lidsdale management reported that some surficial remedial works were undertaken after the spill in the 1970s; however, recent site investigation work (i.e. AECOM, 2013) suggests residual petroleum hydrocarbon impacts are present in soils and groundwater underlying the site.</li> <li>In October 2014 SLR provided a Supplementary Contamination Delineation Assessment and Remedial Action Plan (2014-A) to Centennial. The objectives of this report were to assess the horizontal and vertical extent of petroleum hydrocarbon impact in soil around the former above ground storage tank at the site and prepare a remedial action plan to address the identified petroleum hydrocarbon impact in soil around the former above ground storage tank at the site.</li> <li>In November 2014 SLR (2014-C) provided a Preliminary Indicative Remediation Estimate Advice - Historical Diesel AST Spill. The objective of the report was to provide preliminary indicative estimates for implementation of three remedial options, to inform Centennial's decision making process on a preferred remedial strategy.</li> </ul> </li> </ul>	<p>Compliant</p> <p>Recommendation</p> <p><b>REC-2015-41</b> – Ongoing communications should be maintained with the EPA to ensure the RAP has been developed to the satisfaction of the Agency.</p>

Environmental Protection Licence 5129				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
U1.2	<p>All stockpiled soil and fill material excavated as part of the Lidsdale Rail Siding upgrade project must be characterised prior to reuse on-site or disposal off-site. The characterisation must be undertaken in accordance with the industrial land use criteria summarised in Appendix II of "Guidelines for the NSW Site Auditor Scheme" (DEC, 2006).</p> <p>This task must be undertaken by 31 December 2014.</p>	<ul style="list-style-type: none"> <li>Site observations</li> </ul>	<p>Remediation works had not commenced at the time of the site inspection on 31 July 2015.</p> <p>Lidsdale management reported that stockpiled soil and fill material excavated as part of the Lidsdale Rail Siding upgrade project was characterised prior to reuse on-site or disposal off-site; however, this could not be verified by MCW Environmental.</p>	<p>Not Verified</p> <p><b>Recommendation</b></p> <p><b>REC-2015-42</b> – Ensure the stockpiled soil and fill planned for use in levee/bunding is characterised prior to reuse on-site or disposal off-site. The characterisation should be undertaken in accordance with the industrial land use criteria summarised in Appendix II of "Guidelines for the NSW Site Auditor Scheme" (DEC, 2006).</p>
U1.3	<p>To eliminate the potential for the production bore to act as a conduit for the movement of hydrocarbon contamination between the impacted shallow aquifer and deeper aquifers, the Licensee must seal off the lower part of this production bore.</p> <p>This task must be undertaken by 30 September 2014.</p>	<ul style="list-style-type: none"> <li>Purchase Order IV102068</li> <li>Site observations</li> </ul>	<p>Lidsdale management reported that the production bore (PB1) had been sealed. A Purchase Order dated 30 September 2014 was sighted. The Purchase Order noted the works to be "Remediation of production bore located at Lidsdale Siding required by EPA. Option 1 from proposal S168E/EA".</p> <p>A bore was not observed in the vicinity of the remediation area. A production was observed to the east of the Triangle Pond. Beyond what is stated above, Auditors could not verify the nature and quality of the works used to seal the production bore.</p>	<p>Compliant</p>
U1.4	<p>In order to monitor the success of the measures identified above, the Licensee must revise the Water Management Plan prepared for the premises. The component of the plan relevant to groundwater must identify the bores to be monitored, the pollutants to be measured, the frequency of monitoring events, an appropriate groundwater assessment criteria and identify what conditions must be met to result in the cessation of the groundwater monitoring program as it applies to the monitoring of petroleum hydrocarbons at the premises.</p> <p>This plan must be revised and submitted to the Central West (Bathurst) Office of the EPA by 30 September 2014.</p>	<ul style="list-style-type: none"> <li>RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013</li> <li>Email – Centennial (2013), Lidsdale Siding Management Plans – to EPA, 01/10/2013 at 09:09am</li> </ul>	<p>The Water Management Plan (RPS, 2013) included details concerning groundwater hydrocarbon contamination monitoring (Section 7.3, pp.21-22). The plan identified the bores to be monitored, the pollutants to be measured, the frequency of monitoring events and appropriate groundwater assessment criteria (Table 7-4). The plan also identified what conditions must be met to result in the cessation of the groundwater monitoring program as it applies to the monitoring of petroleum hydrocarbons at the premises (Section 7.3.2).</p> <p>An email dated 1 October 2013 showed that the Water Management Plan had been sent to the EPA. The document status table of the plan review by MCW Environmental indicates that the latest revision (Rev E) was dated 24 September 2014.</p>	<p>Compliant</p> <p><b>Recommendation</b></p> <p><b>REC-2015-43</b> – The most recent version of the Water Management Plan should be provided to the EPA.</p>

Statement of Commitments				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
SoC-1	<p><b>Noise and Vibration</b></p> <ul style="list-style-type: none"> <li>A Construction Noise Management Plan will be prepared as part of the CEMP – <b>Prior to construction</b>.</li> <li>Use of mobile plant with a specified operating sound power level of 105 dBA – <b>Operation</b>.</li> <li>Sound power levels from all new plant and equipment will meet the specified levels as described in the Noise Impact Assessment prepared by Hatch 2012 reference H-338807 - <b>Operation</b>.</li> <li>A Noise Management Plan will be prepared for the ongoing operation and will include recommended mitigation strategies and ongoing monitoring as described in this EA to ensure noise objectives are being achieved - <b>Operation</b>.</li> </ul>	<ul style="list-style-type: none"> <li>Lidsdale Construction Noise Management Plan, 22 May 2013</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Construction Management Plans, 28 May 2015.</li> <li>SLR Australia Pty Ltd (2015), Draft Lidsdale Upgrade Project Independent Noise Audit, 26 June 2015, Draft 1.</li> <li>Letter – DP&amp;E (2015), Lidsdale Siding Independent Noise Audit, 26 May 2015</li> <li>SLR Consulting Australia Pty (2013), Lidsdale Siding Noise Management Plan, Report Number 630.10123.02050-R1, 12 November 2013, Rev2</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> </ul>	<ul style="list-style-type: none"> <li>The Construction Noise Management Plan (CNMP) was approved by the Director-General on 28 May 2015. Lidsdale management reported construction was authorised on 7 June 2013.</li> <li>The Independent Noise Assessment (SLR, 2015) confirmed sound power testing of stockpile dozer has not yet been undertaken, therefore the Sound Power Level ≤105 dB(A) cannot be confirmed.</li> <li>The Independent Noise Assessment (SLR, 2015) confirmed that sound power levels of plant and equipment had not been tested. Lidsdale management reported that this was to occur in August 2015.</li> <li>The Noise Management Plan was approved by the Director-General on 15 November 2013 and was submitted for approval on 10 October 2013 (i.e. within 6 months of 3 May 2013). Refer to Condition 7, Schedule 3 of DA 08_223 (Appendix A) for further details.</li> </ul> <p>Given sound power levels had not been completed at the time of the audit this condition was found to be non-compliant.</p>	<p>Non-compliant</p> <p>Refer to Section 4.2.4 of the Main Report for noise recommendations.</p>
SoC-2	<p><b>Air Quality</b></p> <ul style="list-style-type: none"> <li>An Air Quality Management Plan will be prepared as part of the CEMP – <b>Prior to construction</b>.</li> <li>Design and implementation of a site specific study to determine the characteristics of coal being transported off-site. The study will determine the Dust Extinction Moisture (DEM) level of the coal as it is transported from Lidsdale Siding. This study will allow a quantification of the likely particulate matter emissions from each coal surface type and also identify the efficacy of dust mitigation measures over the likely time of transport from site to Port and may result in further mitigation measures for the control of dust from rail transport – <b>As part of construction works</b>.</li> <li>Water sprays will be located on the main stockpile to reduce particulate emissions due to wind erosion – <b>As part of construction works</b>.</li> <li>Water sprays will be located at the coal transfer point - <b>As part of construction works</b>.</li> <li>Completion of the EPL PRP and implementation of recommended actions – <b>As part of construction works</b>.</li> </ul>	<ul style="list-style-type: none"> <li>SLR Consulting Australia Pty (2013), Lidsdale Siding Air Quality &amp; Greenhouse Gas Management Plan, Report Number 630.10123.0205-R2, 13 November 2013, Rev3</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Tunra Bulk Solids handling Research Associates (2014), Dust Emission Investigation on 7 Centennial Coal Samples, Final Report #8206</li> <li>Site observations</li> </ul>	<ul style="list-style-type: none"> <li>The AQGGMP was approved by the Director-General on 15 November 2013. Evidence of consultation with the EPA was sighted during the audit. The AQGGMP was submitted to the Director-General on 10 October 2013 (i.e. within 6 months of 3 May 2013).</li> <li>The AQGGMP described the measures that would be implemented to ensure compliance with the relevant conditions of the PA.</li> <li>A study to determine the Dust Extinction Moisture level of the coal as it is transported from Lidsdale Siding had been conducted (Tunra, 2014).</li> <li>Water sprays were observed around the site as well as the TLO bin, conveyor CV01 and coal stockpile.</li> <li>The only PRP in EPL 5129 at the time of the audit concerned contamination associated with former fuel storage. Work associated with PRP U1 was ongoing, Ref Appendix A, EPL 5129.</li> </ul>	<p>Compliant</p>



Statement of Commitments				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
SoC-3	<b>Greenhouse Gas</b> <ul style="list-style-type: none"> <li>Identify and implement cost effective measures to improve energy efficiency – <b>As part of construction works.</b></li> <li>Regular maintenance of plant and equipment to minimise fuel consumption – <b>As part of construction works.</b></li> <li>Consideration of energy efficiency in plant and equipment selection/phase – <b>As part of construction works.</b></li> </ul>	<ul style="list-style-type: none"> <li>SLR Consulting Australia Pty (2013), Lidsdale Siding Air Quality &amp; Greenhouse Gas Management Plan, Report Number 630.10123.0205-R2, 13 November 2013, Rev3</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>NPI Report for 12/13 Lidsdale Coal Loading Facility 1033 Financial Year</li> </ul>	<p>It is noted that construction works had been completed at the time of the site inspection on 31 July 2015. Construction activities were managed by the Principal Contractor. Generally the upgrade of Lidsdale Siding has reduced greenhouse gas emissions from site operations.</p> <p>The upgrade project means that the site is largely unmanned and therefore vehicle kilometres travelled (VKT) has reduced during the audit period. Only one bulldozer is located on-site and use of this is restricted to reshaping the coal stockpile as needed. Prior to the upgrade four bulldozers and a truck were in use at the site on a daily basis. The conveyors and TLO bin are electric reducing fuel emissions.</p> <p>The Air Quality &amp; Greenhouse Gas Management Plan identifies measures that will be considered for implementation on-site including:</p> <ul style="list-style-type: none"> <li>Reducing vehicle kilometres travelled (VKT) by introducing carpooling to Project sites.</li> <li>Improving equipment fuel economy by implementing anti-idling policies and training.</li> </ul>	Compliant
SoC-4	<b>Surface Water Soils &amp; Agriculture</b> <ul style="list-style-type: none"> <li>Implement an erosion and sediment control strategy as part of the Construction Environmental Management Plan – <b>During construction.</b></li> <li>Erosion and sediment controls will be implemented as per Managing Urban Stormwater: soils and construction (Landcom, 2004) during construction – <b>During construction.</b></li> <li>Contaminated water will be contained on site and moved towards the containment ponds – <b>During construction.</b></li> <li>Surface water sampling and analysis will be undertaken prior to discharge in accordance with the EPL – <b>During construction.</b></li> <li>A site water management plan will be prepared prior to commissioning the new infrastructure – <b>Prior to commissioning.</b></li> </ul>	<ul style="list-style-type: none"> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Construction Management Plans, 28 May 2015.</li> <li>Ecological (2013), Lidsdale Siding Coal Loader Erosion and Sediment Control Plan, 7 May 2013, Rev1.</li> <li>Centennial Response to Submissions (no date)</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: December</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2014 to December 2014</li> <li>Ivanhoe Coal – Monthly Environmental Monitoring Data: January 2015 to June 2015</li> <li>ALS Environmental Certificate of Analysis – ES1500329, 16 January 2015</li> <li>ALS Environmental, Chain of Custody Documentation – ES1500329, 9 January 2015</li> <li>RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>ALS (2015) LDP004, 09/01/2015 at 09:50am.</li> </ul>	<p>The Construction Erosion and Sediment Control Plan (CESCP) was approved by the Director-General on 28 May 2015. Lidsdale management reported construction was authorised on 7 June 2013. Implementation of construction activities could not be confirmed during the site inspection.</p> <p>Existing sediment dams were used during construction works. Lidsdale management reported there had been no alteration to stormwater management during construction works. Storm water runoff at the site flows in a north-easterly direction and is collected by the Dirty Water Dam. Water is pumped to second dam (Triangle Dam) where it is either discharged via natural flow or pumped out following testing by ALS.</p> <p>The Water Management Plan (WMP) was approved by the Director-General on 15 November 2013. The WMP was submitted to the Director-General on 10 October 2013 (i.e. within 6 months of 3 May 2013).</p>	Compliant



Statement of Commitments				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
SoC-5	<p><b>Groundwater</b></p> <ul style="list-style-type: none"> <li>Implement a groundwater management plan as part of the Construction Environmental Management Plan – <b>Construction &amp; operation.</b></li> <li>Apply for a water extraction licence for the construction period and adhere to any specific conditions of the licence – <b>Prior to construction.</b></li> </ul>	<ul style="list-style-type: none"> <li>RPS Australia East Pty Ltd (2013), Lidsdale Siding Water Management Plan, Report #: S168D/024c, November 2013</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Water Licence 10WA116403</li> </ul>	<ul style="list-style-type: none"> <li>Sections 7.2 and 8.3 detailed baseline data of all groundwater levels, yield and quality in the area, and any privately-owned groundwater bores that may be affected by the project</li> <li>Section 10 included the requirements for a groundwater assessment criteria based upon analysis of baseline data for groundwater, including trigger levels for investigating any potentially adverse groundwater impacts.</li> <li>Section 7.2 and 10.3 included a program to monitor and/or validate the impacts of the project on any privately-owned groundwater bores that may be affected by the project</li> <li>Section 10 included Surface and Ground Water Response Plan (Trigger Action Response Plan) and measures to mitigate and/or offset any adverse impacts on surface water and groundwater resources located within and adjacent to the site</li> <li>Licensed groundwater extraction (10WA116403) was sighted during the audit.</li> </ul> <p>Lidsdale management reported that during the audit groundwater bore PB1 was capped at the request of the EPA and that a new groundwater bore was installed.</p> <p>Lidsdale management also reported that Water Licence 10SL038318 located in Pipers Flat Creek was not renewed during the audit period.</p>	Compliant
SoC-6	<p><b>Contamination</b></p> <ul style="list-style-type: none"> <li>A Remediation Action Plan will be developed to the satisfaction of OEH and will include a program for the remediation of identified contamination on site – <b>Six months from the date of consent.</b></li> <li>The production bore construction will be altered so groundwater is not allowed to migrate between aquifers – <b>During construction.</b></li> </ul>	<ul style="list-style-type: none"> <li>SLR (2014-A), Land Contamination Advice, Lidsdale Siding Upgrade Project Wallerawang, NSW, 29 July 2014, Ref: 610.14220-R1D1.docx</li> <li>SLR (2014-B), Supplementary Contamination Delineation Assessment and Remedial Action Plan Historical Diesel AST Spill Lidsdale Siding Upgrade Project Main Street, Wallerawang, NSW, 3 October 2014, Ref: 610.14220-R2.</li> <li>SLR (2014-C), Preliminary Indicative Remediation Estimate Advice - Historical Diesel AST Spill Lidsdale Siding Upgrade Project Wallerawang NSW, 5 November 2014, Ref: 610.14220-R3.docx</li> <li>Purchase Order IV102068</li> <li>Email – Centennial (2014-A) TRIM: Western Coal Services DG#3 to EPA 31 October 2014 at 09:30am</li> <li>Email – Centennial (2014-B) TRIM: Western Coal Services DG#3 to EPA 31 October 2014 at 11:14am</li> <li>Email – Centennial (2014-C) TRIM: Western Coal Services DG#3 to EPA 10 November 2015 at 09:08am</li> </ul>	<ul style="list-style-type: none"> <li>An email from Centennial to the EPA dated 31 October 2014 (Centennial, 2014-A_ was available for review. The email noted that the RAP was ready and could be emailed to the EPA. A second email (Centennial, 2014-B) asked confirmation from the EPA that the RAP had been received via email. Centennial followed up the enquiry concerning EPA's receipt of the RAP on 10 November 2014 (Centennial, 2015-C). Lidsdale management noted that the site had not received advice from the EPA concerning the RAP.</li> <li>In October 2014, SLR Consulting Pty Ltd (SLR) completed a Supplementary Contamination Delineation Assessment and Remediation Action Plan (2014-B) for the historical diesel AST spill. A diesel spill (understood to be approximately 20,000L in size) reportedly occurred from a former AST on the site during the 1970's. Lidsdale management reported that some surficial remedial works were undertaken after the spill in the 1970s; however, recent site investigation work (i.e. AECOM, 2013) suggests residual petroleum hydrocarbon impacts are present in soils and groundwater underlying the site.</li> <li>In October 2014 SLR provided a Supplementary Contamination Delineation Assessment and Remedial Action Plan (2014-A) to Centennial. The objectives of this report were to assess the horizontal and vertical extent of petroleum hydrocarbon impact in soil around the former above ground storage tank at the site and prepare a remedial action plan to address the identified petroleum hydrocarbon impact in soil around the former above ground storage tank at the site.</li> <li>In November 2014 SLR (2014-C) provided a Preliminary Indicative Remediation Estimate Advice - Historical Diesel AST Spill. The objective of the report was to provide preliminary indicative estimates for implementation of three remedial options, to inform Centennial's decision making process on a preferred remedial strategy.</li> <li>Lidsdale management reported that the production bore (PB1) had been sealed. A Purchase Order dated 30 September 2014 was sighted. The Purchase Order note the works to be "<i>Remediation of production bore located at Lidsdale Siding required by EPA. Option 1 from proposal S168E/EA</i>". A bore was not observed in the vicinity of the remediation area. A production was observed to the east of the Triangle Pond.</li> </ul>	<p>Compliant</p> <p><b>Recommendation</b></p> <p>Refer to <b>REC-2015-41</b> Appendix A, EPL 5129.</p>

Statement of Commitments				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
SoC-7	<b>Visual</b> <ul style="list-style-type: none"> <li>A visual screen consisting of native tree and shrub species comparable to the existing forested areas to the north of the site will be planted (as per Figure 4) and will take into consideration the removal of existing willow trees - <b>Within 5 years following completion of construction.</b></li> <li>The main conveyor and bin structures will be colour treated to reduce reflection and contrast against the existing backdrop – <b>During construction.</b></li> </ul>	<ul style="list-style-type: none"> <li>NewEra (2015-A), Lidsdale Siding Planting Job, April 2015.</li> <li>NewEra (2015-B), Lidsdale Siding Planting Job, June 2015.</li> <li>NewEra (2013), Lidsdale Siding New Bank Area, 12 June 2013</li> <li>Letter – Centennial (2013), Lidsdale Siding Upgrade Project Biodiversity Management Plan, 29 October 2013</li> <li>•</li> <li>Site observations</li> </ul>	<p>Evidence of planting of new trees was observed along the fence to screen rail line from the town and sporting fields. Two reports (NewEra, 2015 A&amp;B) were available for review to confirm the planting. A third NewEra report (NewEra, 2013) noted that that the newly formed bank to the south-west of the site had been planted with native trees and hydromulched between 31 May 2013 and 6 June 2013. The purpose of the work was to stabilise the newly formed bank, reduce erosion and provide a screen to the surrounding businesses and residential areas.</p> <p>Willow tree removal had not been undertaken at the time of the audit. A letter from Centennial to DP&amp;E concerning the Flood Study (including Willow trees) dated 1 May 2014 noted that proposed mitigation controls would be implemented by April 2016.</p> <p>The main conveyor and bin structures were observed to be coloured dark green to reduce reflection and contrast against the existing backdrop</p>	Compliant
SoC-8	<b>Traffic &amp; Transport</b> <ul style="list-style-type: none"> <li>A construction traffic management plan will be prepared and implemented as part of the CEMP – <b>Prior to construction.</b></li> <li>Contribute to the upgrade of road line marking on Main Street to satisfy AS1742.7-2007, Manual of Uniform Traffic Control, Part 7: Railway Crossings – <b>During construction.</b></li> </ul>	<ul style="list-style-type: none"> <li>Mark Waugh Pty Ltd (2013), Traffic Management Plan Construction, May 2013.</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Construction Management Plans, 28 May 2015.</li> <li>Lidsdale Siding Community Complaints Register</li> <li>John Holland (2013), Level Crossing Investigations at Wallerawang, 4 September 2013.</li> <li>Laing O'Rourke (2014), Lidsdale Coal Siding, 10 March 2014.</li> </ul>	<p>The Construction Traffic Management Plan (CTMP) was approved by the Director-General on 28 May 2015. Lidsdale management reported construction was authorised on 7 June 2013.</p> <p>A letter of completion dated 10 March 2014 was available for review from Laing O'Rourke that stated:</p> <p><i>"... that the following work on the Main St Level Crossing at Wallerawang has been completed in accordance with John Holland/Country Regional Network recommendations;</i></p> <ul style="list-style-type: none"> <li><b>East Approach</b> <ul style="list-style-type: none"> <li>Re-marked rail X pavement marking</li> <li>Installed W7-4 sign</li> <li>Barrier line to extended past furthest W7-4 sign</li> <li>Assembled RX-5 sign to include W7-2-1 sign</li> <li>Re-marked stop line</li> </ul> </li> <li><b>West Approach</b> <ul style="list-style-type: none"> <li>Installed W7-4 sign on existing post</li> <li>Extended barrier line to furthest W7-4 sign</li> <li>Re-marked rail X pavement marking</li> <li>Re-marked stop line</li> <li>Replaced two off W7-4 sign with reflective</li> <li>Assembled RX-5 sign to include W7-2-1 sign".</li> </ul> </li> </ul> <p>John Holland (2013) concluded that "LCC86173A complies with our interpretation of the above standard* in regard to the sighting distance provision of the railway crossing protected by stop signs for a train speed of 20km/hr and a semi-trailer design vehicle".</p> <p>*Manual of Uniform Traffic Control Devices Part 7: Railway Crossings AS1742.7-2007. Railway Crossing with Straight Approach Controlled by Stop Signs (Passive Control).</p>	Compliant

Statement of Commitments				
Condition No.	Condition	Evidence Source	Comment / Finding	Compliance Status & Recommendation
SoC-9	<p><b>Terrestrial Ecology</b></p> <ul style="list-style-type: none"> <li>A Construction Environmental Management Plan (CEMP) will be prepared and implemented that will include measures to minimise erosion and sedimentation impacts upon waterways and associated vegetation resulting during construction and minimise vegetation clearing, particularly within those areas that contain Eucalyptus aggregate - <b>During construction.</b></li> <li>All construction machinery will be cleaned prior to entering the site - <b>Commence prior to construction and then annually.</b></li> <li>A program of weed monitoring will be undertaken and potential weed infestations appropriately managed to ensure surrounding communities are protected from invasive species - <b>Commence prior to construction and then annually.</b></li> </ul>	<ul style="list-style-type: none"> <li>RPS Australia East Pty Ltd (2013), Biodiversity Management Plan Lidsdale Siding, Report #: 105704-2, October 2013</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Ecological (2013), Lidsdale Siding Coal Loader Erosion and Sediment Control Plan, 7 May 2013, Rev1.</li> </ul>	<p>Construction activities were completed by August 2014. MCW Environmental were unable to confirm if construction machinery was cleaned prior to entering the site.</p> <p>The Biodiversity Management Plan was approved by the Director-General on 15 November 2013. Sections 4.1.1, 4.1.2, 4.3, 4.6, 4.6.1 and 4.7 included measures that would be implemented over the life of the project to protect and conserve biodiversity. Table 7 of the Biodiversity Management Plan included a monitoring frequency for flora surveys.</p>	Compliant
SoC-10	<p><b>Aquatic Ecology</b></p> <ul style="list-style-type: none"> <li>Coal material on the northern side of the rail siding will be removed and adequate drainage installed – <b>During construction.</b></li> <li>Progressive removal of Willows within the section of Pipers Flat Creek which passes through the Study Area - <b>A 5 year program of works following completion of construction.</b></li> </ul>	<ul style="list-style-type: none"> <li>Site observations</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Letter – Centennial (2014), Lidsdale Siding Flood Study, 1 May 2014.</li> <li>Email – Centennial (2014), Lidsdale Siding project Approval, 4 June 2014 @ 14:08hrs to DP&amp;E.</li> </ul>	<p>A new drain was in the process of being constructed from the coal stockpile to the dirty water dam at the time of the site inspection. Coal material on the northern side of the rail siding had been removed; however, coaly material remained on the ground (see photograph 4-3).</p> <p>An email from Lidsdale Siding to DP&amp;E dated 4 June 2014 noted that Willow trees identified for removal are located on NSW Rail land that is managed by the John Holland Group and that if removal is required to ensure compliance with PA 08_0223 then arrangements would be made with the John Holland Group.</p> <p>Willow tree removal had not been undertaken at the time of the audit. A letter from Centennial to DP&amp;E concerning the Flood Study (including Willow trees) dated 1 May 2014 noted that proposed mitigation controls would be implemented by April 2016.</p>	Compliant
SoC-11	<p><b>Heritage</b></p> <ul style="list-style-type: none"> <li>Prepare an Aboriginal Cultural Heritage Management Plan (ACHMP) as part of the CEMP. The ACHMP is to include provisions for further consultation with Indigenous communities involved in the archaeology study for any actions affecting identified archaeological sites – <b>Prior to construction.</b></li> <li>The five artefact scatters and isolated finds located within the broader study area will be protected by the erection of visible protection fence and included in any site inductions as necessary – <b>During construction and ongoing operation.</b></li> <li>In the event that any work is to occur where the five identified sites are located in SU1a and SU1b, appropriate approvals will be sought to salvage the artefacts – <b>Ongoing.</b></li> </ul>	<ul style="list-style-type: none"> <li>Kayandel Archaeological Services (2013), Heritage Management Plan.</li> <li>Letter – DP&amp;E (2013), Lidsdale Siding Upgrade Project (08_0223) Management Plans, 15 November 2013.</li> <li>Letter – DP&amp;E (2014), Lidsdale Siding Upgrade Project Statement of Heritage Impact for the St John the Evangelist Church, 13 May 2014.</li> </ul>	<p>The Heritage Management Plan was approved by the Director-General on 15 November 2013. DP&amp;E confirmed that the requirement of Condition 23 had been met in a letter dated 13 May 2014.</p> <p>Lidsdale management reported that no heritage items were impacted during construction works as construction related activities were centred on the rail siding.</p> <p>MCW Environmental understand from discussions with Lidsdale that no works have been undertaken during the audit period that impacted the five identified sites are located in SU1a and SU1b.</p>	Compliant



# Appendix B NSW DP&E Auditor Approval



## Planning & Environment

**Planning Services  
Resource Assessments and Compliance**

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Mr Graeme Glazebrook  
Manager Western Coal Services  
Centennial Coal  
PO Box 198  
Wallerawang NSW 2845

Dear Mr Glazebrook,

**Lidsdale Siding Upgrade Project (08\_0223)  
Independent Environmental Audit**

I refer to your letter dated 5 June 2015 and email of 9 July 2015 advising that Ivanhoe Coal wishes to commission MCW Environmental to undertake the Independent Environmental Audit required by condition 9 of Schedule 5 of the Lidsdale Siding Upgrade Project Approval.

Please be advised that the Department has considered the qualifications and experience of Michael Woolley of MCW, and Nick Ballard, Katherine Dodd, Dave Davis and Stephen Bowly of URS, and the Secretary approves the appointment of this team of people to undertake the Audit.

Should you have any questions about this letter, please contact Margaret Kirton on 9228 6289.

Yours sincerely

Howard Reed 10-7-15  
**Director Resource Assessments**  
as the Secretary's nominee

