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Department of Environment and Conservation (NSW)



## COMPLIANCE AUDIT PROGRAM

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**DEPARTMENT OF ENVIRONMENT, CLIMATE CHANGE AND WATER**

**FINAL COMPLIANCE AUDIT REPORT  
COAL & ALLIED OPERATIONS PTY LTD  
HUNTER VALLEY OPERATIONS  
LEMINGTON ROAD  
SINGLETON NSW 2330**

**NOVEMBER 2010**

The Department of Environment, Climate Change and Water (NSW) exercises certain statutory functions and powers in the name of the Environment Protection Authority.

## EXECUTIVE SUMMARY

A Department of Environment, Climate Change and Water (DECCW) Compliance Audit was undertaken at Coal & Allied Operations Pty Ltd (Hunter Valley Operations) located at Singleton NSW. The site was audited as part of a joint Department of Planning (DoP), Industry and Investment NSW (I & I NSW) and DECCW environmental performance review on the management of dust from coal mines to improve environmental performance.

The joint audit was conducted with the DoP auditing the requirements of the mining operation specified in Development Approvals, I & I NSW auditing the requirements of the Mining Lease including the Mining Operations Plan and Annual Environmental Management Report relating to dust.

The main objectives of the DECCW compliance audit were to assess compliance with the requirements of the Environment Protection Licence relating to management of dust, and make recommendations for an action program to address any non-compliance identified during the audit.

Assessment of compliance was undertaken by a detailed audit inspection, information supplied by the enterprise, and a review of records and documentation relating to the premises and any relevant standards. The procedures and protocols for conducting compliance audits are detailed in the DECCW *Compliance Audit Handbook*. The audit inspection was carried out by officers of DECCW on 14 and 15 September 2010.

The findings of the audit indicate that the enterprise was not complying with some conditions attached to Environment Protection Licence 640 issued under the Protection of the Environment Operations Act 1997.

The non-compliances related to:

- Inadequate management of dust controls for overburden emplacement areas
- Not operating dust control equipment in a proper and efficient manner
- Not siting the dust depositional gauges and High Volume Air Samplers (Total Suspended Particles) in accordance with the relevant Australian Standard.

A risk assessment of non-compliances is used to colour code non-compliances according to their environmental significance and an action program developed. The action program includes a timeframe for non-compliances to be addressed to ensure the licensee deals with issues raised through the audit process in a timely manner (Table 4.1).

While the risk assessment of non-compliances is used to prioritise actions to be taken, DECCW considers all non-compliances are important and licensees must ensure that all non-compliances are addressed as soon as possible.

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## 1.0 INTRODUCTION

A DECCW Compliance Audit has been undertaken in relation to Coal & Allied Operations Pty Ltd (Hunter Valley Operations) located at Singleton. The site was audited as part of a joint Department of Planning (DoP), Industry and Investment NSW (I & I NSW) and DECCW environmental performance review on the management of dust from coal mines to improve environmental performance. The audit inspection was undertaken on 14 and 15 September 2010.

The procedures and processes for conducting DECCW Compliance Audits are detailed in the *Compliance Audit Handbook*, which can be accessed on the DECCW website at <http://www.environment.nsw.gov.au/resources/licensing/cahandbook0613.pdf>.

This report has been prepared to present the findings of the audit carried out and no responsibility is accepted for its use in any other context, or for any other purpose.

### 1.1 Audit Objective

The objectives of the audit were

- to determine whether the enterprise is complying with environment protection licence requirements in relation to the audit scope and criteria; and
- to outline a time frame for follow-up action to address any non-compliances identified during the audit.

### 1.2 Scope of the Audit

The scope of the audit is limited to the examination of the activities undertaken at Hunter Valley Operations in relation to the management of dust:

- Drilling and blasting
- Material extraction
- Transport of material
- Storage of material (Stockpiles)
- Crushing and grinding
- Exposed areas
- Dust monitoring.

The temporal scope adopted for assessment of compliance is:

- 24 hours prior to the end of the audit inspection for Operating Conditions (O1, O2 and O3);
- 24 months prior to the end of the audit inspection for Limit, Monitoring, Reporting and Special conditions (relating to the management of dust); and
- 24 months prior to the end of the audit inspection for Pollution Studies and Reduction programs.

### 1.3 Audit criteria, evidence and findings

Audit criteria (the requirements against which the auditor compares collected audit evidence) are the Operating Conditions (O1, O2 and O3), Limit, Monitoring, Reporting, Pollution Studies and Reduction programs and Special Conditions attached to Environment Protection Licence Number 640 issued under the POEO Act to Coal & Allied Operations Pty Ltd (Hunter Valley Operations), in relation to the management of dust.

Audit criteria may include any document referred to by the licence, or relevant to a particular condition of the licence.

Audit evidence was collected during discussions with site personnel, examination of documentation provided by the licensee and/or contained on DECCW files, together with observations made during the audit inspection.

Assessment of compliance is based on information supplied by the licensee, a review of records and documentation relating to the premises and relevant Australian Standards specified in the licence.

Findings of non-compliance with licence conditions are summarised in an action program, with a time frame for follow-up action necessary to comply with the licence condition concerned.

### 1.4 Premises and Process Description

Hunter Valley Operations is managed by Coal & Allied Operations Pty Ltd and is situated in the Upper Hunter Valley between Singleton and Muswellbrook, approximately 24km north-west of Singleton, and approximately 100km north-west of Newcastle.

The licensed premise is bounded by rural lands.

Hunter Valley Operations is organised into six mining zones; West, North, and Carrington Pits to the north of the Hunter River and Riverview, Cheshunt and Lemington South Pits to the south of the Hunter River.

The coal mining process is undertaken by open cut methods. Overburden above the first seam and each subsequent layer of interburden is drilled and blasted or ripped. Shovels, excavators and loaders remove the overburden/interburden, which is transported by truck to be placed in previously worked areas of the mine. In addition to truck transportation, draglines relocate overburden/interburden within the pit. The top of each of the coal seams is cleaned and prepared, then blasted or ripped and finally loaded by front-end loaders into haulage trucks.

Raw coal is transported to either the Hunter Valley Coal Preparation Plant (HVCPP) or Howick Coal Preparation Plant. The Newdell Coal Preparation Plant is currently used only as a loading facility and operations at the Lemington CPP are currently suspended. The product coal is directly loaded at the Newdell Load Point (NLP) or Hunter Valley Load Point (HVLP) and railed to the Port of Newcastle for export. The coarse reject coal from the washing process is trucked back into the active spoil emplacement areas for co-disposal with overburden.

ROM coal is transported from the pit area to the receival areas and dump hoppers via internal coal haulage roads. Rotary breakers are used to ensure the coal entering the HVCPP is below the maximum size allowable for processing. Coal is subsequently stored in various surge bins before being transported to the HVCPP via conveyor belt for processing.

From the HVCPP, coal is transferred to the HVLP by a seven and a half kilometre overland conveyor.

Coarse rejects are disposed of in pit areas and fine reject material is placed in the tailings dam located in a pit area.

The environment protection licence requires the licensee to measure dust at various locations around the site. Weather data, sourced from the onsite meteorological station is used to monitor daily weather and dust conditions.

### **1.5 Statutory Instruments Issued to the Enterprise**

The EPA has issued the following statutory instruments to the enterprise:

Licence number 640 issued under the Protection of the Environment Operations Act 1997.

The scheduled activity undertaken at the premises is *Mining for Coal and Coal Works and Crushing, grinding or separating* with a fee scale category of Mining for Coal >5000000 tonnes produced and Coal Works > 5000000 tonnes loaded.

The anniversary date for the licence is 1 April.

A copy of Licence 640 can be accessed through DECCW's online public register at: <http://www.environment.nsw.gov.au/prpoeoapp/searchregister.aspx>.

## 1.6 Risk Assessment of Non-compliances

The significance of any non-compliances identified during the audit process are categorised. Following risk assessment for non-compliances, an escalating response relative to the seriousness of the non-compliance is determined to ensure the non-compliance is addressed by the enterprise.

The risk assessment of non-compliances involves assessment of the non-compliance against two criteria; the likelihood of environmental harm occurring and the level of environmental impact as a result of the non-compliance. After these assessments have been made, information is transferred into the risk analysis matrix below.

		Likelihood of Environmental Harm Occurring		
		Certain	Likely	Less Likely
Level of Environmental Impact	High	Code Red	Code Red	Code Orange
	Moderate	Code Red	Code Orange	Code Yellow
	Low	Code Orange	Code Yellow	Code Yellow

The assessment of the likelihood of environmental harm occurring and the level of environmental impact allows for the risk assessment of the non-compliance via a colour coding system. A red risk assessment for non-compliance denotes that the non-compliance is of considerable environmental significance and therefore must be dealt with as a matter of priority. An orange risk assessment for non-compliance is still a significant risk of harm to the environment however can be given a lower priority than a red risk assessment. A yellow risk assessment for non-compliance indicates that the non-compliance could receive a lower priority but must be addressed.

There are also a number of 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 blue colour code.

The colour code is used as the basis for deciding on the priority of remedial action required by the licensee and the timeframe within which the non-compliance needs to be addressed. This information is presented in the action program alongside the target/action date for the non-compliance to be addressed.

While the risk assessment of non-compliances is used to prioritise actions to be taken, DECCW considers all non-compliances are important and licensees must ensure that all non-compliances are addressed as soon as possible.



## **2.0 ASSESSMENT OF COMPLIANCE**

### **2.1 Compliance with Audit Criteria**

Compliance was assessed against the licensing requirements of the POEO Act, and the requirements of Environment Protection Licence Number 640 relating to the audit scope and criteria.

Assessment of compliance was undertaken by a detailed site inspection and review of all methods, records and documentation relating to the audit scope and criteria as required by the licence issued to the licensee.

The findings of the audit indicate that some of the conditions of the environment protection licence, relating to the audit scope were not being complied with.

Details of assessment are presented in Table 2.1.

Table 2.1 Assessment of Compliance with Environment Protection Licence No. 640

Statutory Instrument: Environment Protection Licence No. 640			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
<b>OPERATING CONDITIONS</b>			
<i>The audit assessment is based upon evidence relating to the period limited to the 24 hours prior to the end of the audit inspection.</i>			
<b>O1</b>	<b>Activities must be carried out in a competent manner</b>		
O1.1 Licensed activities must be carried out in a competent manner.	<b>Activity of dust management associated with the processing, handling, movement and storage of materials from coal mining</b>		
	Yes	<i>Drilling and blasting</i>	
	Yes	<i>Materials extraction</i>	
	Yes	<i>Transport of material - Conveying and transfer</i>	
	Yes	<i>Crushing and screening</i>	
	Yes	<i>Storage of materials – Coal stockpiles</i>	
No <b>Code Yellow</b>	<p><i>Storage of materials – Overburden</i></p> <p>The management of dust on overburden emplacement areas was not being undertaken in a competent manner.</p> <p>It was noted on the day of the audit that the large overburden emplacement areas have the potential to cause dust. For example the areas known as 'Barry's Dump' and '120 Dump' are large emplacement areas with no apparent controls apart from the use of the water cart.</p> <p>The water cart was observed on the day of the audit. However due to the height and size of the emplacement areas and lack of additional controls DECCW is concerned that during times of dry weather and/or strong winds, the current dust controls may not be sufficient to manage dust emissions from these areas.</p>	The licensee must ensure that all activities are carried out in a competent manner.	

\* See explanation of risk assessment of non-compliances codes on p4.

<b>Statutory Instrument: Environment Protection Licence No. 640</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
	Yes	<i>Exposed areas</i>	
<b>O2</b>	<b>Maintenance of plant and equipment</b>		
O2.1(a)	<b>Maintenance of plant and equipment used to control dust from the activities associated with the processing, handling and movement of materials from coal mining</b>		
All plant and equipment installed at the premises or used in connection with the licensed activity must be maintained in a proper and efficient condition.	Yes	<i>Drilling and blasting</i>	
	Yes	<i>Materials extraction</i>	
	Yes	<i>Transport of material</i>	
	Yes	<i>Crushing and screening</i>	
	Yes	<i>Storage of materials</i>	
O2.1(b)	<b>Operation of plant and equipment used to control dust associated with the processing, handling and movement of materials from coal mining</b>		
All plant and equipment installed at the premises or used in connection with the licensed activity must be operated in a proper and efficient manner.	Yes	<i>Drilling and blasting operations</i>	
	Not Applicable	<i>Materials extraction - Removal of top soil</i> The requirements of this condition were not applicable as the equipment used to control dust was not operating on the day of the audit inspection as there was no removal of top soil being undertaken.	
	Yes	<i>Materials extraction (overburden and coal)</i>	
	No <b>Code Yellow</b>	<i>Transport of materials</i> The water cart used to control dust was not being operated in a proper and efficient	The licensee must ensure that the operation of plant and

\* See explanation of risk assessment of non-compliances codes on p4.

<b>Statutory Instrument: Environment Protection Licence No. 640</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
		<p>manner.</p> <p>Trucks were observed transporting material on the haul road emitting visible dust above the height of the haul truck. Water carts were used to control dust however, the number of water carts were insufficient to minimise dust from the haul roads.</p> <p>It was noted that the licensee's procedure for dust management (Environmental work instruction CAN-10-EWI-SITE-E2-004 – DUST MANAGEMENT, MOBILE EQUIPMENT) states: "As a guide, where wheel generated dust is visible at half the wheel height of heavy haul vehicles, additional dust suppression measures must be considered. Wheel generated dust consistently visible above wheel height of heavy haul vehicles is unacceptable".</p> <p>DECCW is concerned that equipment used to control dust is not being used effectively to minimise dust emissions.</p>	equipment used in connection with the licensed activity is operated in a proper and efficient manner.
	Yes	<i>Crushing and screening</i>	
	Yes	<i>Storage of materials</i>	
<b>O3</b>	<b>Dust</b>		
O3.1	Yes	<p><b>Maintenance of the premises in a condition that prevents the emission of dust from the premises</b></p> <p>Refer to comments for Condition O1.1: Activity of dust management associated with the processing, handling, movement and storage of materials from coal mining - Transport of material - Conveying and transfer.</p>	
O3.2 – O3.3	Yes	Refer to comments for Condition O1.1: Activity of dust management associated with the processing, handling, movement and storage of materials from coal mining - Transport of material - Conveying and transfer.	
O3.4 – O3.5	Not applicable	The requirements of these conditions did not apply as there were no trucks transporting coal from the premises at the time of the audit.	

\* See explanation of risk assessment of non-compliances codes on p4.

<b>Statutory Instrument: Environment Protection Licence No. 640</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
<b>M1</b>	<b>Monitoring Records</b> <i>The audit assessment is based upon evidence relating to the period limited to the 24 months prior to the end of the audit inspection.</i>		
M1.1	Yes	<b>Requirement to keep monitoring records</b>	
M1.2 a)	Yes		
M1.2 b)	It is beyond the scope of the audit to determine whether the licensee will keep monitoring records for at least 4 years.		
M1.2 c)	Yes		
M1.3 (a), (b), (c) and (d)	Yes		
<b>M2</b>	<b>Requirement to monitor concentration of pollutants discharged</b>		
M2.1	Yes	<b>Requirement to monitor concentration of pollutants discharged – Dust Deposition Network (Point 1) – AM-19</b> <b>Sampling Sites - Maison Dieu (PM10), Warkworth School (PM10) and Wandewoi (PM10)</b> <i>Units of measure &amp; sampling frequency</i>	
	No <b>Code Blue</b>	<i>Sampling in accordance with the sampling method (AM-19)</i> It is noted that the AM – 19 calls up the Australian Standards AS 3580.10.1 – 1991 and AS 2922 – 1987. The licensee undertakes depositional dust monitoring at 7 dust depositional gauges on privately owned land. During the audit the Maison Dieu, Warkworth School and Wandewoi dust deposition gauges were inspected and were found to not comply with AS 2922 – 1987. Although the height of the gauges were as specified in the standard (2+/-0.2 m), it was noted that the funnel plane above the ground was not horizontal and as such did not provide a clear sky angle of 120°. Further, with the exception of the gauge located at	The licensee must ensure that dust depositional gauges are sited and established in accordance with the sampling method (AM-19) when the Approved Methods are Gazetted to reflect the updated standards.

\* See explanation of risk assessment of non-compliances codes on p4.

Statutory Instrument: Environment Protection Licence No. 640			
Condition No.	Compliance/ Risk assessment for non-compliance *	Comment	Action required by licensee
		<p>Wandewoi the gauges were located within 5 metres of the nearest object therefore not providing an unrestricted airflow of 360<sup>0</sup> around the sampling inlets.</p> <p>However, it is noted that the requirements for siting dust gauges 5 metres from objects is no longer required in AS/NZS3580.1.1-2007 which supersedes AS2922.</p> <p>In accordance with the siting requirements of AS/NZS3580.1.1-2007 the licensee must comply with the 'clear sky angle of 120<sup>0</sup>', unrestricted air flow around sample inlet of 360<sup>0</sup> and '≥ 5 metres from source' when the Approved Methods are gazetted and reflect the updated Standards.</p>	
	Yes	<p><b>Requirement to monitor concentration of pollutants discharged – Total Suspended Particulates Network (Point 2) – AM-15</b></p> <p><i>Sampling Sites - Maison Dieu, Knodlers Lane, Warkworth School and Wandewoi</i></p> <p><i>Units of measure &amp; sampling frequency</i></p>	
	Yes	<i>Calibration</i>	
	No <b>Code Blue</b>	<p><i>Sampling in accordance with sampling method (AM-15)</i></p> <p>It is noted that AM-15 calls up the Australian Standards AS 2724.3-1984 and AS 2922 – 1987.</p> <p>The licensee undertakes High Volume Air Sampling (Total Suspended Particles) at 6 monitoring locations. During the audit the Maison Dieu, Knodlers Lane, Warkworth School and Wandewoi High Volume Air Samplers (Total Suspended Particles) were inspected and some were found to not comply with AS 2922 – 1987.</p> <p>Although the height of the gauges was as specified in the standard, the sampler located at Warkworth School was located too close to a tree (within 20 metres). It is noted that the licensee advised that the monitoring equipment located at Warkworth School is to be relocated.</p> <p>The Maison Dieu sampler does not comply with the requirement to ensure an unrestricted air flow of 360<sup>0</sup> around sampling inlet. The electricity supply shed is located close to the</p>	The licensee must ensure that dust depositional gauges are sited and established in accordance with the sampling method (AM-15) when the Approved Methods are Gazetted to reflect the updated standards.

\* See explanation of risk assessment of non-compliances codes on p4.

<b>Statutory Instrument: Environment Protection Licence No. 640</b>			
<b>Condition No.</b>	<b>Compliance/ Risk assessment for non-compliance *</b>	<b>Comment</b>	<b>Action required by licensee</b>
		<p>sampler.</p> <p>However, it is noted that the requirements for siting the High Volume Air Samplers (Total Suspended Particles) in accordance with AS2922 has been superseded by the siting requirements of AS/NZS3580.1.1-2007.</p> <p>In accordance with the siting requirements of AS/NZS3580.1.1-2007 the licensee must comply with the 'unrestricted air flow of 180° around the sample inlet with no obstruction between the major source and the sampling inlet' (AS/NZS3580.1.1-2007). It is noted that the Maison Dieu sampler does not have an unrestricted air flow of 180° around the sample inlet as the electricity supply shed is located between the sampler and the direction of the mine.</p>	
<b>M3</b>	<b>Testing Methods – concentration limits</b>		
M3.1	Yes	<b>Testing Methods – Dust monitoring (Points 1 &amp; 2)</b>	
<b>M4</b>	<b>Recording pollution complaints</b>		
M4.1	Yes		
M4.2	Yes		
M4.3	It is beyond the scope of the audit to determine whether the licensee will keep pollution complaint records for at least 4 years.		
M4.4	Yes		

\* See explanation of risk assessment of non-compliances codes on p4.

### **3.0 FURTHER OBSERVATIONS**

Further observations are recorded where issues of environmental concern were observed which do not strictly relate to the scope of the audit or assessment of compliance. Further observations are considered to be indicators of potential non-compliances or areas where environmental performance may be improved.

No further observations were noted during the audit.



#### 4.0 ACTION PROGRAM

The following action program must be undertaken in relation to Hunter Valley Operations.

**Table 4.1 Action Program – Environment Protection Licence No. 640**

Condition No.	Action Details	Non-Compliance Code	Target/Action Date
O1.1 Licensed activities must be carried out in a competent manner.	<b>Activity of dust management associated with the processing, handling, movement and storage of materials from coal mining</b> <i>Storage of materials – Overburden</i> The licensee must ensure that all activities are carried out in a competent manner.	<b>Code Yellow</b>	Ongoing
O2.1(b) All plant and equipment installed at the premises or used in connection with the licensed activity must be operated in a proper and efficient manner.	<b>Operation of plant and equipment used to control dust associated with the processing, handling and movement of materials from coal mining</b> <i>Transport of materials</i> The licensee must ensure that the operation of plant and equipment used in connection with the licensed activity is operated in a proper and efficient manner.	<b>Code Yellow</b>	1 March 2011
M2.1 Requirement to monitor concentration of pollutants discharged	<b>Dust Deposition Network (Point 1) – AM-19</b> The licensee must ensure that dust depositional gauges are sited and established in accordance with the sampling method (AM-19). <i>It is noted that the Australian Standards referenced in the Approved Methods publication have been superseded and that DECCW is in the process of amending the Approved Methods publication to reflect these changes to the Australian Standards.</i>	<b>Code Blue</b>	The licensee must ensure that dust depositional gauges are sited and established in accordance with the sampling method (AM-19) when the Approved Methods are Gazetted to reflect the updated standards.

Condition No.	Action Details	Non-Compliance Code	Target/Action Date
	<p><b>Total Suspended Particulates Network (Point 2) – AM-15</b></p> <p>The licensee must ensure that the high volume air samplers (TSP) are sited and established in accordance with the sampling method (AM-15).</p> <p><i>It is noted that the Australian Standards referenced in the Approved Methods publication have been superseded and that DECCW is in the process of amending the Approved Methods publication to reflect these changes to the Australian Standards.</i></p>	<b>Code Blue</b>	<p>The licensee must ensure that dust depositional gauges are sited and established in accordance with the sampling method (AM-15) when the Approved Methods are Gazetted to reflect the updated standards.</p>

**APPENDIX A**

**LICENSEES RESPONSE TO DRAFT REPORT**

5 November 2010

Chris Kelly  
A/Manager Compliance and Assurance Section  
Department of Environment, Climate Change & Water  
PO Box 488G  
Newcastle NSW 2300

Dear Chris

**HUNTER VALLEY OPERATION'S RESPONSE TO DRAFT COMPLIANCE AUDIT REPORT**

Please find attached Hunter Valley Operation's (HVO) response to the Draft Compliance Audit Report – Hunter Valley Operations dated October 2010. Table 1 includes responses to both non-compliances and observations noted from the audit report.

We appreciate the opportunity to provide comment on the compliance report and if you would like to discuss any of our comments or proposed actions from the reports findings, please do not hesitate to contact myself on the number below or Glenn Cook on 02 6570 0375.

Yours sincerely



**Andrew Speechly**  
Manager Environment – NSW

**Phone:** 0428 494 452

**Email:** Andrew.Speechly@riotinto.com

**Encl:** Table 1. Hunter Valley Operations - Response to Non-Compliances

**Coal & Allied Operations Pty Ltd**  
ABN 16 000 023 656

Lemington Road, Ravensworth via Singleton NSW 2330 Australia  
PO Box 315 Singleton NSW 2330 Australia  
Telephone +61 2 6570 0000 Facsimile +61 2 6570 0399

**Table 1: Hunter Valley Operations – Response to Non-Compliances**

**Assessment of Compliance with Environment Protection Licence No. 640**

EPL 640	Non- Compliance	DECCW Required Action	HVO Comments	HVO Proposed Action & Timing
<p><b>O1.1</b> Licensed activities must be carried out in a competent manner</p>	<p><b>Transport of material</b> - Conveying and transfer                      It was noted on the day of the audit that the transport of materials along the belt line conveyor was not being carried out in a competent manner.                      The 7.5km belt line conveyor transports coal from the Hunter Valley Coal Preparation Plant (HVCPP) to the Newdell Load Point. The belt line conveyor is located parallel to the Belt Line Road which is partly a public roadway.                      Although the HVCPP, including the belt line conveyor were closed for scheduled maintenance the day before the audit, coal had built up along the length of the conveyor.                      DECCW is concerned that spilt coal from the conveyor is not more regularly cleared from the roadway particularly where the roadway is partially public.</p>	<p>The licensee must ensure that all activities, including the transport of material is carried out in a competent manner.</p>	<p>At the time of the audit, the Hunter Valley Coal Preparation Plant was in a major shutdown and cleaning of the coal spillage from below the conveyor belt was planned and carried out during the shutdown. Sections of the belt road are cleaned throughout the year to reduce the amount of coal spillage.</p> <p>The Belt Road that runs along the conveyor is a private Coal &amp; Allied road for the entire length. The road is used by neighbouring mines under an agreement. Coal &amp; Allied installed a boom gate where the belt road joins the conveyor at the northern end to eliminate any non Coal &amp; allied vehicle from using the road.</p>	<p>No further action proposed.</p>

# COAL & ALLIED

*Managed by Rio Tinto Coal Australia*

EPL 640	Non- Compliance	DECCW Required Action	HVO Comments	HVO Proposed Action & Timing
<p><b>O1.1</b> Licensed activities must be carried out in a competent manner</p>	<p><b>Storage of materials</b> – Overburden. The management of dust on overburden emplacement areas was not being undertaken in a competent manner. It was noted on the day of the audit that the large overburden emplacement areas have the potential to cause dust. For example the areas known as ‘Barry’s Dump’ and ‘120 Dump’ are large emplacement areas with no apparent controls apart from the use of the water cart.</p> <p>The water cart was observed on the day of the audit however due to the height and size of the emplacement areas and lack of additional controls; DECCW is concerned that during times of dry weather and/or strong winds, the current dust controls may not be sufficient to manage dust emissions from these areas.</p>	<p>The licensee must ensure that all activities are carried out in a competent manner.</p>	<p>Noted. HVO has implemented waste dumping controls in this area to minimise dust generation towards sensitive receptors. Further controls are being investigated to minimise dust generated from wind action alone.</p>	<p><b>Action:</b> Investigate options and develop a plan to manage dust emissions from the exposed areas on the Cheshunt dumps. This may include the use of temporary vegetation on the exposed areas or the use of a dust suppression additive.</p> <p><b>Timing:</b> 30 April 2011</p>

## Coal & Allied Operations Pty Ltd

ABN 16 000 023 656

Lemington Road, Ravensworth via Singleton NSW 2330 Australia

PO Box 315 Singleton NSW 2330 Australia

Telephone +61 2 6570 0000 Facsimile +61 2 6570 0399

# COAL & ALLIED

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EPL 640	Non- Compliance	DECCW Required Action	HVO Comments	HVO Proposed Action & Timing
<p><b>O2.1(b)</b> All plant and equipment installed at the premises or used in connection with the licensed activity must be operated in a proper and efficient manner.</p>	<p><b>Transport of materials</b> The water cart used to control dust was not being operated in a proper and efficient manner. Trucks were observed transporting material on the haul road emitting visible dust above the height of the haul truck. Water carts were used to control dust however, the number of water carts were insufficient to minimise dust from the haul roads. It was noted that the licensee's procedure for dust management (Environmental work instruction CAN-10-EWI-SITE-E2-004 – DUST MANAGEMENT, MOBILE EQUIPMENT) states: "As a guide, where wheel generated dust is visible at half the wheel height of heavy haul vehicles, additional dust suppression measures must be considered. Wheel generated dust consistently visible above wheel height of heavy haul vehicles is unacceptable". DECCW is concerned that equipment used to control dust is not being used effectively to minimise dust emissions.</p>	<p>The licensee must ensure that the operation of plant and equipment or used in connection with the licensed activity is operated in a proper and efficient manner.</p>	<p>Noted. HVO previously operated eight water carts in the period commencing October ending March 2010 (high risk period for dust). This year we have increased the number of water carts for the duration of the high risk period to nine. The requirement for further water carts or other dust initiatives will be reviewed.</p>	<p><b>Action:</b> Review the current water cart strategy and determine the requirement/need for any further dust suppression initiatives. <b>Timing:</b> 1 March 2011</p>

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Lemington Road, Ravensworth via Singleton NSW 2330 Australia

PO Box 315 Singleton NSW 2330 Australia

Telephone +61 2 6570 0000 Facsimile +61 2 6570 0399

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EPL 640	Non- Compliance	DECCW Required Action	HVO Comments	HVO Proposed Action & Timing
M2.1	<p><b>Dust Deposition Network</b> Sampling in accordance with the sampling method (AM-19) It is noted that the AM – 19 calls up the Australian Standards AS 3580.10.1 – 1991 and AS 2922 – 1987. The licensee undertakes depositional dust monitoring at 7 dust depositional gauges on privately owned land. During the audit the Maison Dieu, Warkworth School and Wandewoi dust deposition gauges were inspected and were found to not comply with AS 2922 – 1987. Although the height of the gauges were as specified in the standard (2+/-0.2 m), it was noted that the funnel plane above the ground was not horizontal and as such did not provide a clear sky angle of 1200. Further, with the exception of the gauge located at Wandewoi the gauges were located within 5 metres of the nearest object therefore not providing an unrestricted airflow of 3600 around the sampling inlets.</p>	<p>The licensee must ensure that dust depositional gauges are sited and established in accordance with the sampling method (AM-19).</p>	<p>An audit against AS3580.1.1 (2007) was undertaken by environmental monitoring contractor (ALS) this year. Items for improvement were identified and an independent review of audit and finding and actions was undertaken by Air Quality Consultant (PAE Holmes). The audit concluded that the Sky angle for depositional dust gauges could be improved for some locations and some gauges require relocation. Sky Angles have already been corrected through replacement of funnel apparatus. Maison Dieu gauge has been relocated.</p>	<p><b>Action:</b> Relocation of dust gauges in accordance with review pending permission from property owner. (including Warkworth School). <b>Timing:</b> 31 January 2011</p>

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EPL 640	Non- Compliance	DECCW Required Action	HVO Comments	HVO Proposed Action & Timing
M2.1	<p><b>Total Suspended Particulate Network</b> Sampling in accordance with sampling method (AM-15) It is noted that AM-15 calls up the Australian Standards AS 2724.3-1984 and AS 2922 – 1987. The licensee undertakes High Volume Air Sampling (Total Suspended Particles) at 6 monitoring locations. During the audit the Maison Dieu, Knodlers Lane, Warkworth School and Wandewoi High Volume Air Samplers (Total Suspended Particles) were inspected and were found to not comply with AS 2922 – 1987. Although the height of the gauges was as specified in the standard, the sampler located at Warkworth School was not level therefore interfering with the clear sky angle of 1200. It is noted that the licensee advised that the monitoring equipment located at Warkworth School is to be relocated to an alternative location 6 weeks following the audit. All four locations did not comply with the requirement to ensure an unrestricted air flow of 3600 around sampling inlet. The electricity supply shed is located in front of</p>	<p>The licensee must ensure that the high volume air samplers (TSP) are sited and established in accordance with the sampling method (AM-15).</p>	<p>CNA locates HVAS TSP units in accordance with the revised standard AS 3580.1.1 - 2007. Notwithstanding the fact that AM-15 calls up AS 2922-1987, this standard has since been superceded by AS 3580.1.1-2007. HVO recommends that the new standard is adopted by the agency. This standards quotes "unrestricted air flow of 180 degrees around the sample inlet with no obstruction between the major source and the sample inlet" rather than 360 degrees. CNA believe that units at Knodlers Lane, Maison Dieu and Wandewoi are sited in accordance with this requirement.</p> <p>An audit against AS3580.1.1 (2007) was undertaken by environmental monitoring contractor (ALS) this year. Items for improvement were identified and an independent review of</p>	<p><b>Action:</b> Warkworth School monitors to be moved (as previously identified) pending land owner approval. <b>Timing:</b> 31 January 2011</p>

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EPL 640	Non- Compliance	DECCW Required Action	HVO Comments	HVO Proposed Action & Timing
	<p>the Maison Dieu sampler and the height of the fences at Knodlers Lane, Warkworth and Wandewoi sampling sites are restricting the air flow of the sampling inlets. It was also observed that two of these samplers (Maison Dieu and Warkworth School) were also within 20m of trees.</p>		<p>audit and finding and actions was undertaken by Air Quality Consultant (PAE Holmes). The audit concluded that the HVAS at Warkworth School should be relocated due to proximity of a tree and chimney.</p> <p>With reference to AS 2922-1987 we would dispute the suggestion that a fence or fence post would restrict air flow in any significant way. Section 8.2 (a) of the standard defines sites with restricted airflows as “adjacent to buildings, trees, walls etc”. As most air quality monitoring sites would have a fence for security reasons, it would be reasonable to assume that the standard would specifically mention fencing if it considered them to interfere with air flow. It is also important to note that Section 8.2 (a) of the standard also describes a general rule of “clear sky angle of 120 degrees” (which</p>	

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			<p>our sites comply with), which is to ensure the airflow is not restricted by buildings, trees, walls etc.</p> <p>HVO also disputes that the HVAS located at Warkworth School was not level at the time of the audit.</p>	

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M4.2	<p>The licensee has not recorded all the information for pollution complaints as required by the environment protection licence. A complaint relating to dust was entered into the Incident and Action Management System on 9 July 2010; however the following information was not recorded:</p> <ul style="list-style-type: none"> <li>i) action taken by the licensee in relation to the complaint;</li> <li>ii) any follow-up contact with the complainant; and</li> <li>iii) where no action was taken, the reasons why no action was taken.</li> </ul> <p>Refer to Further Observations: Newdell Load Point – Spill</p>	<p>The licensee must ensure that all pollution complaints logged include all the information required by the licence.</p>	<p>HVO challenges this finding. A comprehensive database has been maintained for a number of years across Coal and Allied sites to record complaint information as required by the Environmental Protection Licence. This information is provided in the Annual Environmental Management Report each year, a copy of which is provided to DECCW. The information is also presented at Community Consultative Committees. When using the Rio Tinto Incident and Action Management System (known internally as the Rio Tinto Business Solution) this information is recorded in the incident description. All complaints received by HVO receive a phone call. In most cases (on request from the complainant) followup information will be provided over the phone or in person. This is standard practice. In the event</p>	<p><b>Action:</b> Review the complaints recording system and determine how it can be made more explicit demonstrating compliance with EPL condition M4.2 .</p> <p><b>Timing:</b> Complete</p>

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EPL 640	Non- Compliance	DECCW Required Action	HVO Comments	HVO Proposed Action & Timing
			<p>of further actions resulting from the complaint (ie repair of truck exhaust) an action will be entered into the Rio Tinto Business Solution to ensure followup by the appropriate person. Based on what appears to be a misunderstanding of HVO's complaint management system we will investigate how the existing system can be more explicit in demonstrating compliance with this condition.</p>	

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**Table 2: Hunter Valley Operations – Response to Observations**

DECCW Observation	Comments HVO	HVO Proposed Action & Timing
<p>During the audit inspection on 14 September 2010 the audit team were advised that the Newdell Load Point was not operating due to a spill.</p> <p>The licensee advised that all incidents are logged into an Incident and Action Management System within 24 hours of them occurring however the system was viewed by the audit team on 15 September 2010, 24 hours following the incident, and no entry had been logged.</p> <p>DECCW is concerned that if incidents or complaints are not logged in accordance with the procedure it is unknown what action has been taken in relation to that incident.</p>	<p>The spill of coal from the conveyor was fully contained within the confines of the Preparation Plant (where coal is handled) and collected in a concrete sump. This type of incident is not recorded in the system as it is a process activity with no actual or potential environmental impact.</p>	<p>No action proposed.</p>

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**APPENDIX B**

**LETTER COVERING LICENSEES RESPONSE TO DRAFT COMPLIANCE AUDIT  
REPORT**



**Environment,  
Climate Change  
& Water**

Your reference:  
Our reference: FIL10/9435  
Contact: Alan Bawden 02 4908 6804

Mr Andrew Speechly  
A/Manager Environmental Services  
Coal & Allied Operations Pty Ltd  
PO Box 315  
SINGLETON NSW 2330

Dear Mr Speechly

**Re: Final Compliance Audit Report – Management of dust from coal mines  
Coal & Allied Operations Pty Ltd – Hunter Valley Operations (Licence Number 640)**

The Department of Environment, Climate Change and Water (DECCW) is pleased to present you with a copy of the Final Compliance Audit Report for Coal & Allied Operations Pty Ltd – Hunter Valley Operations located at Singleton.

The comments provided by you in your letter dated 5 November 2010 have been considered when finalising the report. DECCW's response to your comments is outlined in the Attachment. Your comments have also been attached as an Appendix to the final report together with a copy of this letter.

As previously advised, the compliance audit was undertaken as part of a joint Department of Planning, DECCW and Industry and Investment NSW cross agency environmental compliance and performance review focusing on the management of dust from coal mines. The next step will be the release of a report summarising the findings of all audits carried out and a review of best practice. A copy of the report will be sent to you for your information.

I would like to take this opportunity to thank you and your staff for the co-operation during the audit. If you require further information or clarification on any matters regarding this audit, please do not hesitate to contact Alan Bawden on 02 4908 6804.

Yours sincerely

17/11/10

**LYNNE NEVILLE**  
**Manager Compliance and Assurance Section**  
**Environment Protection and Regulation**

Enclosure:  
Attachment – DECCW response to the Draft Report  
Final Audit Report - Coal & Allied Operations Pty Ltd – Hunter Valley Operations