

Independent Environmental Audit – Summary Report West Pit of Hunter Valley Operations

19 September 2007

Prepared for:

Coal & Allied Operations Pty Ltd
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Report by:

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Independent Environmental Audit – Summary Report
West Pit of Hunter Valley Operations
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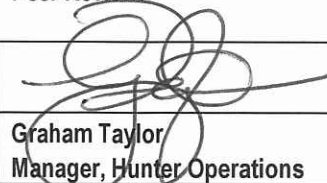


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1 INTRODUCTION

HLA-Envirosciences Pty Limited (HLA ENSR) was appointed by Coal & Allied Operations Pty Ltd (CNA) to undertake a compliance audit of the West Pit Development Consent (DA-450-10-2003) of Hunter Valley Operations (HVO), located at Lemington via Singleton in New South Wales. This report outlines the findings of the audit and recommends actions to improve compliance and the environmental performance against the development consent and/or the HVO environmental management systems.

1.1 Audit Scope

The scope of work for the environmental audit is set out in Condition 6 of Schedule 6 of the West Pit DA-450-10-2003. This condition is repeated below.

6 *Within 3 years of the date of this consent, and every three years thereafter, unless the Director-General directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the development. This Audit must:*

- a) *be conducted by suitably qualified, experienced, and independent expert/s whose appointment has been endorsed by the Director-General;*
- b) *assess the various aspects of the environmental performance of the development, and its effects on the surrounding environment;*
- c) *assess whether the development is complying with the relevant standards, performance measures, and statutory requirements;*
- d) *review the adequacy of any strategy/plan/program required under this consent; and, if necessary,*
- e) *recommend measures or actions to improve the environmental performance of the development, and/or any strategy/plan/program required under this consent.*

1.2 Audit Approach

The audit was undertaken in general accordance with AS/NZS ISO 19011:2003 – Guidelines for Quality and/or Environmental Management Systems Auditing.

Following discussion about the approach to the audit between HLA ENSR and the CNA Environment Specialist, the audit program was divided into two components:

- Compliance with the West Pit development consent and statutory licence requirements.
- General environmental management performance at HVO.

This report presents the results of the listed components of the audit. The approach taken, while following the general outline of *AS/NZS ISO 19011:2003*, was tailored to match the specific aims of each component.

1.2.1 Compliance

The compliance with the West Pit DA-450-10-2003 was assessed as follows:

- The consent conditions were reviewed to establish information required to confirm compliance.
- Interviews were conducted with CNA HVO staff to progressively identify and obtain copies of evidence to support compliance.

A tabulated report was prepared identifying the operation's compliance with the various consent conditions.

1.2.2 Monitoring

The operation's monitoring systems and outcomes were assessed as follows:

- The monitoring requirements of conditions of the DC and the Environment Protection Licence (EPL 640) were identified.
- Interviews were conducted with CNA HVO staff.
- Monitoring records and reports were inspected to confirm the results of the interviews and document review.

1.2.3 Performance

Environmental performance of the operations was assessed using the following approach:

- Review of relevant documents referred to in the development consent.
- Preparation of an audit protocol comprising CNA HVO commitments to the findings of the *Environmental Impact Statement – HVO West Pit Extension and Minor Modifications* (EIS 2003).
- Review against EPL 640 conditions.
- Interviews with the CNA Environment Services and Hunter Valley Operations Personnel.
- Inspection of the operational areas of the West Pit to confirm the results of the interviews and document review.

1.3 Audit Team

The audit was undertaken by the following HLA ENSR staff:

- Graham Taylor, Principal Environmental Scientist. Graham was responsible for peer review of the audit.
- Greg Schumacher, Manager Contaminated Sites / Industrial Workgroup. Greg was responsible for the compliance component of the audit.
- Kate Woods, Project Environmental Scientist. Kate was responsible for the assessment of compliance and the environmental performance components of the audit.

The NSW Department of Planning (DoP) confirmed by letter dated 17 May 2007 that the Director-General's approval was granted with respect to each of the proposed auditors.

1.4 Audit Timing

The environmental audit was undertaken between May 2007 and August 2007, including a site visit 29-30 May 2007 and documentation review undertaken from June – August 2007. The audit report was finalised in September 2007.

1.5 Documents Reviewed

The following principal documents were reviewed during the conduct of the audit:

- Development Consent for DA 450-10-2003 Hunter Valley Operations- West Pit Extension and Minor Modifications (file no. S02/02690 dated 2004).
- Environmental Impact Statement for the Hunter Valley Operations – West Pit Extension and Minor Modifications prepared by ERM, dated October 2003.
- Environment Protection Licence 640.

Numerous documents were obtained during the Compliance Audit. A set of reference documents has been created by HVO for future reference. Numerous other documents were inspected or referred to during specific aspects of the audit. These are referenced in the relevant sections of this report.

1.6 Personnel Interviewed

The following Coal & Allied personnel and contractors were interviewed during the course of the audit:

- Fiona Talbot, Environmental Specialist - Systems.
- Anna McMullen, NSW Manager Project Approvals.
- Scott Mitchell, Acting Site Environmental Coordinator (HVO).
- Sarah Bailey, Environmental Coordinator - Reporting & Cultural Heritage.
- Doug Stewart, Environmental Specialist - Rehabilitation.
- Andrew Speechly, Environmental Specialist - Operations.
- Matthew Kenny, HVO Drill & Blast Engineer.
- Ernie Martin, HVO Drill & Blast Engineer.
- Jeroen Hendriks, HVO Superintendent Mining West.
- Liz Watts, HVO Superintendent Short Term Planning.
- Tim Veness, HVO Mine Geologist.
- Tony Thomas, HVO Training Coordinator.
- Jason Potts, Ecowise Senior Technical Consultant.

1.7 Limitations to the Audit

The HLA ENSR audit team received complete cooperation from HVO staff during the conduct of the audit. However, the following issue arose during the audit, which limited to some extent, its findings:

- Not all documents required to be obtained, retained and/or forwarded to various agencies could be located for review. Where this has impacted on the audit notation it has been included in the text.
- The adequacy of strategy/ plans/ programs required under the consent was assessed by reference to acceptance of the strategy/ plan/ program by the relevant government authority. Where improvements were identified they were included in the text.

2 BACKGROUND INFORMATION

CNA is one of Australia's largest producers and exporters of black coal. The company currently operates and manages three open cut coal mines in the Hunter Valley; HVO, Bengalla and Mount Thorley Warkworth (MTW).

The Hunter Valley Operations (HVO), an open cut mining complex, has developed through a series of acquisitions and extensions to existing operations. HVO is located at Lemington, approximately 24 kilometres north of Singleton, NSW. The Operation is an open-cut truck/shovel and dragline coal mine operated by CNA, Rio Tinto Coal Australia provides management services to all CNA Mining Operations.

Mining originally started in the area around West Pit (formerly known as Howick) in 1949, with the earliest production commencing in the current West Pit in 1968. The Lemington mine, which was acquired and merged into Hunter Valley Operations in 2001, began production in 1971 and the original Hunter Valley mine began production in 1979.

The mining and processing activities at HVO are geographically divided by the Hunter River with movements of coal, overburden, and equipment, water for operation, materials and personnel between the two areas. In general however, HVO manages the activities at HVO North and HVO South as an integrated operation.

HVO North comprises the active pits of West Pit, Carrington Pit and North Pit and the mined out Alluvial Lands. In addition three coal preparation plants are located in HVO North; Hunter Valley Coal Preparation Plant (HVCPP), Newdell Coal Preparation Plant (NCPP) and Howick Coal Preparation Plant (HCPP). There are two train load out areas: Hunter Valley Load Point (HVLP) and Newdell Load Point (NLP).

In 2003 an EIS was prepared to allow the expansion of the HVO West Pit to the east of the current mine operation and allowed the consolidation of 18 separate consents that related to HVO North (West Pit Extension and Minor Modification EIS (2003). *Development Consent (DA-450-10-2003)* was granted by the Department of Infrastructure, Planning and Natural Resources (DIPNR) on 12 June 2004. The consent was modified on 16 August 2005 and 25 June 2006.

3 COMPLIANCE WITH CONSENTS, LICENCES AND APPROVALS

Schedule 6, Condition 6 (c) of the development consent requires the audit to:

- *Assess whether the development is complying with the relevant standards, performance measures and statutory requirements.*

In general a high degree of compliance with the development consent and EPL conditions has been achieved. It is also noted that HVO makes considerable effort in complying with its environmental obligations as defined, and also in the spirit of its responsibilities. HVO has well documented systems and excellent record keeping relating to environmental activity. A high level of resources is devoted to environmental matters through a competent and well lead environmental team. It was also apparent that environmental considerations and responsibilities are devolved and understood at all levels at HVO and that these translated to real and practical actions at the operational level on a day to day basis.

With the exception of groundwater monitoring most requirements have been realised. Recommendations for improved compliance are included in **Section 5** of this report; the recommendations include the undertaking of actions to improve compliance with the monitoring and reporting requirements for groundwater, air quality and noise emissions.

4 ASSESSMENT AGAINST COMMITMENTS TO THE EIS (2003)

Condition 6 (b) of the development consent requires the audit to:

- *assess the various aspects of the environmental performance of the development and its effects on the surrounding environment.*

CNA identified key commitments to the EIS for the *Hunter Valley Operations – West Pit Extension and Minor Modifications (2003)*. These commitments were based on EIS (2003) recommendations. In some instances these commitments have also been transferred into consent conditions and or POEO licence conditions.

Performance outcomes where possible and practical to be measured or observed appear to be consistent with predictions identified in the EIS (2003). In particular air emissions, water management, visual amenity, traffic flow, noise and vibration impacts have been assessed or observed. Cumulative impacts, heritage, ecological and socio economic impacts while not directly measured appear to be consistent with predictions identified in the EIS (2003).

5 RECOMMENDATIONS FOR IMPROVEMENT

This section presents the recommendations for improvement that arise out of the Independent Environmental Audit undertaken at CNA's HVO North Operations in accordance with DA-450-10-2003.

Table 1: Recommendations for Improvement

	Approval/ Licence/ Audit Reference	Condition No.	Recommendation
1	Development Consent	Schedule 4 Condition 5	It is recommended that a review of the siting of the PM10 HVAS be undertaken at all monitoring locations to ensure it is in accordance with AS2922 – 1987 Ambient Air – Guide for the Siting of Sampling Units. This includes locating the equipment away from uncovered piles of soil and unsealed roads.
2	Development Consent	Schedule 4 Condition 6	The HVO Air Quality Monitoring Program should be fully implemented including an alarm system to ensure that Operations personnel can take immediate corrective action if air quality criteria are exceeded.
3	Development Consent	Schedule 4 Conditions 7 & 10	It is recommended that the HVO North Noise Monitoring Protocol be fully implemented including an alarm system to ensure that Operations personnel can take immediate corrective action if it is determined that noise criteria has been exceeded by HVO operations. SVAN real-time monitors should be configured to provide statistical data summaries every 15 minutes (not every 5 minutes) to allow reporting of LA10 and LA90. An estimation of noise contribution from HVO operations should be recorded in the AEMR (or in another appropriate location), alongside the non-directional real-time monitoring data to ensure that noise impacts are understood by HVO and can be managed effectively using the real-time equipment.
4	Development Consent	Schedule 4 Condition 11	It is recommended that the Class of the meteorological station at the Corporate Centre be defined and recorded.
5	Development Consent	Schedule 4 Condition 22	It is recommended that HVO clarify with the DoP whether this condition relates solely to an excavation water licence or includes a levee water licence. If it is determined that this condition is relevant to a levee water licence, HVO should undertake a comparison of EIS (2003) predicted impacts with actual impacts on water resources to the satisfaction of the DNR, as required by this condition.
6	Development Consent	Schedule 4 Condition 24	It is recommended that HVO include the EIS (2003) site water balance predictions in the Section 2.8.1.2 of the AEMR (Table of Annual Water Supply and Use at HVO) and comment on any differences or similarities between water supply and use and the predictions.

	Approval/ Licence/ Audit Reference	Condition No.	Recommendation
7	Development Consent	Schedule 4 Condition 26	<p>It is recommended that the surface water monitoring location at Emu and Parnells Creek be included in the Surface Water Monitoring Location Map in the AEMR (Section 3.4). In addition, the AEMR should detail all non-sampling occasions and the reasons for not sampling.</p> <p>It is also recommended that HVO ensure that surface water flow measurements are undertaken and reported for all creeks and rivers detailed in this consent condition, where practicable.</p>
8	Development Consent	Schedule 4 Condition 27	It is recommended that the existing groundwater sampling locations and regime be reviewed and revised so that they are in accordance with the EIS (2003) commitments.
9	Development Consent	Schedule 4 Conditions 35	It is noted that weed control has been unsuccessful during drought conditions, however it is recommended that HVO persist with their actions to control weeds in accordance with environmental procedures EP10.2 Flora and Fauna and EP5.1 Rehabilitation, particularly in the area where temporary crossing of the Hunter River took place.
10	Development Consent	Schedule 6 Condition 3A	It is recommended that HVO undertake a review of their monitoring programs within six months of completion of this audit report in accordance with the Development Consent.
11	Development Consent	Schedule 6 Condition 5	Condition 5f) It is recommended that the location of actual mining operations in relation to locations predicted in the EIS (2003) for that year be indicated in the AEMR, with noise criteria adjusted, where necessary if the location of operations has changed.
12	EPL 640	M4.1 – M4.4	It is recommended that all complaints records include actions taken by HVO in relation to the complaint, including follow-up contact with the complainant or the reasons why no action was taken by HVO.