

Dendrobium Mine

Environmental Management System

Management Plan



Air Quality

Review History

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Persons involved in the review of this document include:

Name	Title	Company
Chris Schultz	Environment and Community Manager	Dendrobium Mine
Scott Coleman	Environment and Community Advisor	Dendrobium Mine

Representatives from external organisations and regulatory agencies involved in the review of this document include:

Title	Organisation
Head Regional Operations	Department of Environment and Climate Change
Senior Operations Officer	Department of Environment and Climate Change

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1 INTRODUCTION

1.1 Background

Dendrobium Mine is an underground mine which commenced construction in January 2002 following approval from the Minister of the then Department of Urban Affairs and Planning on 20 November 2001. Longwall mining commenced at Dendrobium in April 2005. The mine is owned and operated by Dendrobium Coal Pty Ltd, a wholly owned subsidiary of BHP Billiton and is operated on a continuous basis, 24 hours a day and 7 days a week.

The Mining operations are located immediately adjacent to Mt Kembla, approximately 8km west of Wollongong, NSW, on the Illawarra escarpment. Mt Kembla village, located within 500m of the Pit Top site, has close historical links with coal mining.

The Pit Top facilities have been developed on the site previously known as Nebo Colliery, which was combined with Wongawilli Colliery in 1993 to form Elouera Colliery. The Nebo Portal site was relinquished from the ownership and responsibility of Elouera Colliery in December 2001 to enable Dendrobium Mine to acquire formal responsibility, ownership and identity of the site.

Dendrobium Mine accesses coal from the No. 3 Seam (Wongawilli Seam) of the Illawarra Coal Fields. Three mining areas make up the approved mine plan for Dendrobium and are named Areas 1, 2, and 3 respectively.

Dendrobium produces coking coal and is approved to produce up to 5.2 million tonnes per annum with an expected life of mine in excess of 20 years. The Bluescope Port Kembla Steel Works and Whyalla Steel Works are the major customers. In addition to these Australian based customers, coal may be exported via the Port Kembla Coal Terminal to international customers.

This Air Quality Management Plan (AQMP) addresses the management of dust associated with the operation of the mine and associated infrastructure. It describes actions to be undertaken to ensure that the effects of fugitive emissions from the facilities comply with the requirements of the mine's Environment Protection Licence (EPL) 3241 and the Development Consent. This plan is a review of the previous plan submitted (Holmes Air Sciences, 2006a) and is being submitted in accordance with Schedule 4, Condition 10 of the Development Consent, requiring an AQMP to be submitted to the Director-General by the 30 April 2009.

The air quality performance of the mine is determined by a number of factors:

- i. Design features that have been built into the mine that control the emission of dust; and
- ii. Operational practices that control the emission of dust.

Monitoring programs that measure the levels of dust in the ambient air are used to provide information on the performance of the mine and feedback from the Community Consultative Committee and the local community has helped to identify areas where controls need to be improved.

1.2 SCOPE

The scope of this management plan includes the following Dendrobium Mine sites and facilities:

Dendrobium Pit Top - consists of administration building, workshop, machinery and equipment storage areas, people and materials access to the underground workings via the Dendrobium Tunnel, a sedimentation pond and grey water treatment and Oil Water Separation facility.

Kemira Valley Coal Loading Facility – the KVCLF receives coal from underground via the Kemira Valley Tunnel. Coal is transported from underground to KVCLF via a conveyor network. The coal is then fed into a rill tower and deposited onto a 150,000 tonne stockpile from which it is loaded into trains via an enclosed rail-loading chute.

Ventilation Shaft Number 1 - The No.1 ventilation shaft, located within the Metropolitan Special Area administered by Sydney Catchment Authority (SCA), operates as a downcast shaft (i.e. drawing fresh air into the underground workings). The No. 1 vent shaft is on land owned by Illawarra Coal.

Ventilation Shafts Number 2 and 3 – Also located within the Metropolitan Special Area and within Mining Lease ML1566. Construction of the No.2 and 3 ventilation shafts was completed during 2008. The No.2 shaft operates as an additional downcast shaft whilst the No.3 shaft operates as an upcast shaft.

2 OBJECTIVES

The objectives of the AQMP are to:

- Comply with all regulatory requirements set out in the Development Consent conditions and Environmental Protection Licence 3241;
- Define measures to minimise dust emissions to the maximum extent possible while being compatible with the efficient operation of the mine;
- Outline the process for investigating air quality complaints and implementing solutions to effectively address complaints, and;
- Identify operational practices to reduce complaints relating to emissions of dust to zero.

3 RESPONSIBILITIES

It is the responsibility of all employees and contractors to undertake practices to manage and minimise air emissions according to this Management Plan.

The Environment and Community Manager is responsible for coordinating the implementation of this management plan and for the periodic review of the Plan. The Environment and Community Manager will be responsible for ensuring the commitments of the AQMP are met. This will include:

- i. Overseeing the operation of the air quality monitoring system and collection of monitoring data;
- ii. Meteorological monitoring;
- iii. Reviewing data to ensure its integrity;
- iv. Analysis and interpretation of data; and
- v. Production and dissemination of reports and appropriate summaries of information in reports.

The Environment and Community Manager, along with the Safety and Training Manager, is also responsible for coordinating the training of employees and contractors with regards to dust management.

4 LEGISLATIVE AND OTHER REQUIREMENTS

4.1 Legislative Requirements

Legislation relating to the management of noise includes:

- *Protection of the Environment Operations Act 1997 (POEO Act);*
- *Protection of the Environment Operations (General) Regulation 1998; and*
- *Protection of the Environment Operations (Clean Air) Regulation 2002.*

4.2 Environment Protection Licence Requirements

Licence 3241 applies to the Dendrobium Mine premises and associated activities, and contains conditions pertaining to air quality. A copy of the licence can be accessed at the DECC website.

http://www.environment.nsw.gov.au/poeo/details.asp?licence_no=3241

4.3 Development Consent Conditions

Schedule 4 of the Development Consent details the specific environmental conditions (surface facilities) with which Dendrobium must comply. The following conditions apply to this AQMP:

Schedule 4

Air Quality – Impact Assessment Criteria

9. The applicant shall ensure the dust generated by the development does not cause additional exceedances of the criteria listed in Tables 4 to 6 at any residence on privately-owned land, or on more than 25 percent of any privately-owned land.

Table 4: Long term impact assessment criteria for particulate matter

Pollutant	Averaging Period	Criterion
Total Suspended Particulate (TSP) Matter	Annual	90 ug/m ³
Particulate Matter < 10 um (PM ₁₀)	Annual	30 ug/m ³

Table 5: Short term impact assessment criteria for particulate matter

Pollutant	Averaging Period	Criterion
Particulate matter <10 um (PM ₁₀)	25 hour	50 ug/m ³

Table 6: Long term impact assessment criteria for deposited dust

Pollutant	Averaging Period	Maximum increase in deposited dust level	Maximum total deposited dust level
Deposited Dust	Annual	2 g/m ² /month	4 g/m ² /month

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS/NZS 3580,10,1-2003: Methods for Sampling and Analysis of Ambient Air – Determination of Particulates – Deposited Matter – Gravimetric Method.

Air Quality – Monitoring

10. The Applicant shall prepare and implement an Air Quality Monitoring Program for the surface facilities (except those surface facilities within the mining area) to the satisfaction of the Director-General. This program must:

- a. be submitted to the Director-General for approval by 30 April 2009;
- b. be prepared in consultation with DECC;
- c. use a combination of high volume air samplers and dust deposition gauges to monitor the performance of the development; and
- d. include an air quality monitoring protocol for evaluating compliance with the air quality impact assessment criteria in this consent.

Schedule 7 of the Development Consent details additional procedures for air quality and noise management. The following conditions apply to this AQMP.

Schedule 7

Notification of Landowners

1. If the results of the monitoring required in Schedule 4 identify that the impacts generated by the development are greater than the relevant impact assessment criteria in Schedule 4, except where this is predicted in the documents listed in Condition 2 of Schedule 2 or where negotiated agreement has been entered into in relation to that impact, then the Applicant shall notify the Director-General and the affected landowners and/or existing or future tenants (including tenants of mine-owned properties) accordingly, and provide quarterly monitoring results to each of these parties until the results show that the development is complying with the criteria in Schedule 4

Independent Review

2. If a landowner considers the development to be exceeding the impact assessment criteria in Schedule 4, except where this is predicted in the EA, then he/she may ask the Director-General in writing for an independent review of the impacts of the development on his/her land.

If the Director-General is satisfied that an independent review is warranted, the Applicant shall within 2 months of the Director-General's decision:

- a. consult with the landowner to determine his/her concerns;
- b. commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to conduct monitoring on the land, to:
 - determine whether the development is complying with the relevant impact assessment criteria in Schedule 4; and
 - identify the source(s) and scale of any impact on the land, and the development's contribution to this impact; and
- c. give the Director-General and landowner a copy of the independent review.

3. If the independent review determines that the development is complying with the relevant impact assessment criteria in Schedule 4, then the Applicant may discontinue the independent review with the approval of the Director-General. If the landowner disputes the results of the independent review then either the Applicant or the landowner may refer the matter to the Director-General for resolution.

Where matters referred to the Director-General under this condition cannot be resolved by the Director-General within 28 days, the Director-General shall refer the matter to an Independent Dispute Resolution Process.

4. If the independent review determines that the development is not complying with the relevant impact assessment criteria in Schedule 4, and that the development is primarily responsible for this non-compliance, then the Applicant shall:

- a. take all reasonable and feasible measures, in consultation with the landowner, to ensure that the development complies with the relevant criteria and conduct further monitoring to determine whether these measures ensure compliance; or
- b. secure a written agreement with the landowner to allow exceedances of the relevant criteria; or
- c. offer to acquire all or part of the landowner's land in accordance with the procedures in Conditions 6-8 below.

to the satisfaction of the Director-General.

5. If further monitoring under Condition 4(a) determines that the development is complying with the relevant impact assessment criteria, then the Applicant may discontinue the independent review with the approval of the Director-General.

If further monitoring under Condition 4(a) determines that measures implemented under that condition have not achieved compliance with the impact assessment criteria in Schedule 4, and the Applicant cannot secure a written agreement with the landowner under Condition 4(b) to allow these exceedances, then the Applicant shall, upon receiving a written request from the landowner, acquire all or part of the landowner's land in accordance with the procedures in Conditions 6-7 below.


Land Acquisition

6. Within 3 months of receiving a written request from a landowner with acquisition rights, the Applicant shall make a binding written offer to the landowner based on:

- a. the current market value of the landowner's interest in the property at the date of this written request, as if the property was unaffected by the development the subject of the development application, having regard to the:
 - existing and permissible use of the land, in accordance with the applicable planning instruments at the date of the written request; and
 - presence of improvements on the property and/or any approved building or structure which has been physically commenced 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 the 'additional noise mitigation measures' on Condition 6 of Schedule 4;
- b. the reasonable costs associated with:
 - relocating within the local government areas of the affected Councils, or to any other local government area determined by the Director-General;
 - obtaining legal advice and expert advice for determining the acquisition price of the land, and the terms upon which it is required; and
- c. reasonable compensation for any disturbance caused by the land acquisition process.

If, within 28 days of the Applicant making this offer, the Applicant and landowner cannot agree on the acquisition price of the land and/or terms upon which the land is to be acquired, then either party may refer the matter to the Director-General for resolution.

Upon receiving such a referral, the Director-General shall request the President of the NSW Division of the Australian Property Institute (the API) to appoint a qualified independent valuer to:

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- consider submissions from both parties;
- establish a fair market valuation for the land and determine reasonable costs and compensation for the acquisition, in accordance with paragraphs (a)-(c) above and any guidance or guidelines that the Director-General may prepare relating to this condition; and
- propose any appropriate fair and reasonable terms of acquisition.

The appointed valuer is to provide a full report and explanation of their valuation, determinations and proposed terms of acquisition to the Director-General, the Applicant and the landowner. The Director-General shall consider the report and decide whether the valuation, determinations and any proposed terms of acquisition are fair and reasonable and advise the parties accordingly.

Within 14 days of receiving the Director-General's decision that the independent valuer's report is fair and reasonable, the Applicant shall make a written offer to purchase the land at a price and according to terms not less than set out in the independent valuer's report.

If the Director-General is of the opinion that the valuation and/or determination is not fair and/or reasonable, they shall give notice to the parties that a further independent valuation and determination will be undertaken in accordance with this condition and duly request a further appointment by the API.

If the landowner refuses to accept within 6 months a written offer duly made by the Applicant under this condition, then the Applicant's obligations to acquire the land shall cease, unless otherwise agreed by the Director-General.

7. The Applicant shall bear the full costs of any independent valuer's valuation, determination and report.

8. If the Applicant and landowner agree that only part of the land shall be acquired, then the Applicant shall pay reasonable costs associated with obtaining council approval for the plan of subdivision (where permissible), and registration of the plan at the Office of the Registrar-General.

4.4 BHP Billiton and Other Policies and Standards

BHP Billiton operates in accordance with the Health, Safety, Environment and Community (HSEC) Management Standard (STA.009) which covers all operational aspects and activities of its business and the Environment Standard (STA.020) which prescribes the mandatory environmental performance requirements that support the aspiration of zero harm across BHP Billiton.

The HSEC Management System framework is consistent with internationally recognised standards. It aims to set benchmarks for the Company's diverse range of businesses to develop and implement their own HSEC Management Systems, to provide auditable criteria for these systems and to provide a basis from which to drive continuous improvement.

The Air Quality Management Plan has been developed consistent with the principles of the HSEC Management Standard and Environment Standard.

Dendrobium Mine maintains an environmental management system which is certified to ISO14001 standard.

5 MANAGEMENT STRATEGIES

There are two areas where wind erosion has the potential to generate fugitive dust emissions. These are the Kemira Valley stockpile and the trafficable areas at the Pit Top. These areas, and the associated management strategies, are discussed in more detail in the following section.

5.1 Operational Activities and potential air quality issues

5.1.1 Kemira Valley Coal Loading Facility

The KVCLF stockpile is the area with the greatest potential for dust emissions. Coal is brought from the mine to the surface via a coal clearance system consisting of an extensive conveyor network. Once on the surface, the coal travels a further 540 metres via a surface conveyor, via a coal sizer, to the 150,000 tonne stockpile. Without sufficient management strategies, emissions could potentially occur from conveyors and from conveyor transfer points and from the loading of coal to the stockpile. In addition, bulldozers and front-end loaders which are used to maintain the stockpile shape also have the potential to generate dust. Coal loading to trains takes place via an enclosed gravity-feed system within the tunnel that runs under the stockpile. The tunnel is ventilated and tests (Coal Services Health, 2006) have shown the dust loading in the ventilation air are too low to need de-dusting.

The moisture level of the coal being loaded onto the Kemira Valley stockpile is monitored via a coal scan analyser fitted to the conveyor system on the surface at Kemira Valley. Water is added via eight water sprays to maintain the moisture level at 8% or above, and water is also applied to the coal as it is loaded to the stockpile via the rill tower using two water sprays. Coal moisture levels are estimated at half hour intervals using information based on wind speed, humidity and solar radiation. The automated stockpile dust suppression system is activated to maintain coal moisture levels at 8%. The stockpile sprays are activated whenever the 5-minute average wind speed exceeds 10 m/s. An operator activated manual override system enables the sprays to be initiated on demand to suppress dust on the stockpile.

Dendrobium will continue to assess and implement measures to proactively minimise dust. Coal dust management practices at the Kemira Valley stockpile were improved during 2007 and included lowering the coal loading profile in train wagons, more frequent dust suppression spraying in hotter months (September – April), use of cleaner water in the dust suppression system to minimise entrainment of fine coal in water drops, change to better spray heads for the rill tower sprays, and improvements in the conveyor wash down procedures.

5.1.2 Dendrobium Surface Activities

The majority of trafficable surfaces on the Pit Top are sealed and are swept by vacuum sweeper truck on a regular basis to ensure that dust emissions from these areas, due to either traffic movements or wind erosion, are kept to the minimum level practicable. An automatic fixed water spray system is in operation along the mine portal road to suppress dust.

5.1.3 Ventilation Shafts

Odour tests have been conducted on the air released through the ventilation shaft and dispersion modelling has been undertaken to estimate odour levels in the ambient air near the ground (Holmes Air Sciences, 2006b). Model results indicate that odour levels at ground-level are well-below the level at which complaints would be expected. No complaints concerning odours from the ventilation shafts have been received.

Experience indicates that air quality impacts are not expected from the ventilation shaft emissions.

5.2 Air Quality Management and Mitigation

The management strategies used to control dust at the Dendrobium operations are summarised below:

- i. Conveyors and conveyor transfer points are covered and partially enclosed;
- ii. Scrapers are used to clean the return conveyor;
- iii. Water sprays are used to maintain the coal on the conveyor in a damp condition;
- iv. A coal scan analyser is used to monitor the moisture content of the coal, and the moisture level of the coal in the stockpile is estimated every 30 minutes using data on environmental conditions and moisture is controlled to a level of 8%;
- v. Two overhead water sprays are used to suppress dust emissions from coal being loaded to the Kemira Valley stockpile via the rill tower;
- vi. Eight ground-based sprays are used to apply water to the Kemira Valley stockpile;
- vii. An automated dust suppression system at the Kemira Valley site that consists of two overhead water sprays and eight ground-based sprays is used to apply water to the Kemira Valley Stockpile. The system operates every half an hour and is also activated whenever the five minute average wind speed exceeds 10 m/s. The system can also be activated remotely by operators of equipment on the stockpile. A summer time setting has been implemented to spray more frequently in hot weather;
- viii. An automated dust suppression system at the Pit Top site that consists of a series of sprays is located along the portal road. The system operates at a set frequency to ensure sufficient dust suppression is achieved;
- ix. Regular road sweeping is used to minimise dust emissions from trafficked areas;
- x. The coal sizer, located at Kemira Valley, is enclosed and mechanically ventilated with the ventilation air passed through a fabric filter to remove particulate matter before air is released to the ambient air; and
- xi. Modified loading equipment is in place for train wagons to reduce coal profile.

The equipment and procedures described above will be maintained in good working order and applied as described.

5.3 Management Strategy Effectiveness

The management strategies discussed above are used to minimise emissions at the Dendrobium operations. A monitoring study to identify the short-term dust levels has been undertaken using a Dustrak monitor (Holmes Air Sciences, 2006b). The study found that there was no evidence that short-term episodes of dust occur or are causing annoyance or complaints. Coal dust management practices at the Kemira Valley stockpile were reviewed during 2007 and improvements implemented including lowering the coal loading profile in train wagons, more frequent dust suppression spraying in hotter months (September - April), use of cleaner water in the dust suppression system to minimise entrainment of fine coal in water drops, change to better spray heads for the rill tower sprays, and improvements in the conveyor wash down procedures.

6 MONITORING

The objective of the monitoring program is to provide monitoring information and advice to ensure that fugitive dust emissions from the site are appropriately managed and minimised. Ongoing refinement of the monitoring programs, including monitoring locations, may be necessary as a result of monitoring result analysis or the review of operational activities.

6.1 Existing Air Quality Monitoring Program

In order to test for compliance against the standards detailed in Section 4 of this report, air quality monitoring is conducted at sites throughout the Mt Kembla area. Four types of monitoring are currently utilised as part of the monitoring program, these include:

- i. Dust deposition monitoring;
- ii. Microscopic (visual) analysis of deposition samples;
- iii. Monitoring of the concentrations of Total Suspended Particulates (TSP); and
- iv. Monitoring of the concentrations of particulate matter with equivalent aerodynamic size less than 10 μm (PM_{10}).

A network of dust monitoring equipment is in place. The network comprises eight gauges measuring average monthly dust deposition and two sites where 24-hour average TSP and PM_{10} concentrations are measured on a monthly basis (currently measured on an approximate 12-day cycle) using high volume air samplers (HVAS). The gauges and samplers are located on both private land and land owned by Dendrobium to provide information that allows air quality in the nearby residential area to be determined either directly or to be inferred. The network of deposition gauges and samplers will be maintained and operated in accordance with the relevant Australian Standards to provide monthly dust deposition rates and TSP and PM_{10} concentrations every 12 days.

The specific locations of each of the dust monitoring stations are outlined in the tables below.

EPL Required Dust Deposition Gauges

Site	GPS Coordinates		Description
	Easting	Northing	
Point 6	300928	6188716	Figtree Farm, O'Briens Road, Figtree
Point 9	299434	6187701	Mt Kembla Public School, Mt Kembla
Point 10	298982	6187685	374 Cordeaux Road, M Kembla
Point 12	298666	6188095	55 Harry Graham Drive, Kembla Heights
Point 13	298830	6188007	Portal Road, Pit Top site
Point 15	299381	6189589	O'Briens Gap East, Harry Graham Drive, Kembla Heights
Point 17	300350	6187985	206 Cordeaux Road, Mt Kembla
Point 18	300344	6189321	Old Loading Bins, KVCLF

High Volume Air Samplers

Site	GPS Coordinates		Description
	Easting	Northing	
Point 20	300273	6188795	Located at the entrance to KVCLF
Point 21	298680	6187770	Located on top of the Bathhouse building, Pit Top site

In addition to the above gauges, resident requested gauges will be installed as required and will be monitored in accordance with the appropriate air quality goals.

Some dust deposition levels above the assessment criteria have been measured. To enable the effect of emissions from the mine to be distinguished from other material that has been found in the dust deposit samples, the monitoring program has been modified to include a microscopic analysis of the deposition samples at selected gauges (this modification occurred during 2006). Microscopic analysis determines the percentage contribution of mineral dirt, coal, fibrous material, metal, foam/rubber, insect and vegetation. The microscopic analysis allows various components of dust deposition rates to be established.¹

Where mineral dirt or coal contribution are high in relation to the measured total dust deposition rate for a specific site, these data can be assessed in conjunction with meteorological data from Kemira Valley or the Pit Top to determine the source of dust. This may facilitate targeted dust management actions where it is relevant to do so.

Data from the monitoring network will be reviewed as they become available to ensure that the mine continues to comply with the air quality assessment criteria (see Section 4)) and that early detection of any non-compliance is detected.

The dust monitoring data and 15-minute meteorological data is archived in Excel spreadsheets. The archived data facilitates the preparation of graphical summaries and the analysis and interpretation of the data.

The data comprise separate spreadsheets showing:

- i. The date and dust deposition levels;
- ii. The date and 24-hour average TSP and PM₁₀ concentration values at the two HVAS sites; and
- iii. The date, hour and minute, 15-minute average wind speed, 15-minute average wind direction, standard deviation of wind direction measured over 15-minutes, 15-minute average temperatures at 2, 10 and approximately 20 m below the top of the conveyor cover, and total rainfall recorded every 15-minutes.

¹ For example, in August 2007 a large component of the 'dust' composition was found to be insect related – corresponding to a seasonal migration of Bogong moths. Often spring/summer time visual analysis shows a high percentage of vegetation material associated with pollen and mowing grass. Elevated levels of mineral dirt at Point 15 may be associated with the adjacent motor cross track.

Computer-based archives of the meteorological and air quality monitoring data will continue to be maintained.

Should deposited dust exceeds the 4 g/m²/month amenity goal at a dust deposition gauge not located on a BHP Billiton property and the microscopic analysis indicates that this exceedance is caused by high proportions of coal, Dendrobium will further investigate the source of coal dust generation and implement measures to reduce these emissions where relevant.

If Dendrobium receives notification from a landowner who considers the operations to be exceeding the air quality criteria detailed in Schedule 4 of the Development Consent, the applicable conditions outlined in Schedule 7 of the Consent will be followed.

6.2 Air Quality Monitoring Program Review

The AQMP will be reviewed on a triennial basis or when required.

A review of the air quality data and associated community complaints was undertaken in 2009 (see Appendix A). This review, which was conducted in January 2009, consisted of an internal and external review of compliance levels achieved at each of the dust monitoring sites, for the period from 2006 to 2008. The review recommended the removal of a number of previously monitored dust deposition gauges. The sites that have been removed from the program are outlined in the table below.

Location	GPS Coordinates		Address	Date of removal from AQMP	Reason
	Easting	Northing			
Point 7	299771	6188869	Stones Road, Mt Kembla	February 2009	Refer to PAE Holmes Report: dated 28/1/09
Point 8	299918	6188337	26 Stones Road, Mt Kembla	February 2009	Refer to PAE Holmes Report: dated 28/1/09
Point 11	298040	6187427	Windy Gully, Kembla Heights	February 2009	Refer to PAE Holmes Report: dated 28/1/09
Point 14	298945	6188348	Old Mine Managers Residence, Kembla Heights	February 2009	Refer to PAE Holmes Report: dated 28/1/09
Point 16	299003	6190105	O'Briens Gap West, Harry Graham Drive, Kembla Heights	February 2009	Refer to PAE Holmes Report: dated 28/1/09
Point 19	300418	6189563	West End of KVCLF	February 2009	Refer to PAE Holmes Report: dated 28/1/09

7 REPORTING

7.1 Monitoring Data and Non-Conformances

All non-conformances to this AQMP and community complaints are recorded in First Priority, a computer based incident recording and reporting system. This system keeps track of non-compliances, corrective actions, responsibilities, planned and actual completion dates and details of reporting to Regulatory Agencies and the community where appropriate.

Reporting of air quality monitoring results and non-compliances occurs in a range of formats including:

- Internal Reporting (e.g. Monthly and Annual reports);
- Reports to Regulatory Agencies (e.g. Licence Annual Returns, annual Environmental Management Report); and
- Community Reports (e.g. BHP Billiton/Illawarra Coal annual Sustainability Reports and presentations to the Dendrobium Community Consultative Committee (DCCC)).

The Environmental Management Strategy contains further details of these reporting mechanisms.

7.2 Auditing

A system of HSEC auditing is undertaken on the Dendrobium Mine sites and includes the use of trained internal and external auditors. In addition, auditing is undertaken to ensure compliance with the ISO14001 standard.

Dendrobium Mine has an independently certified Environmental Management System (EMS). The Illawarra Coal EMS Team meets on a regular basis to develop, implement and improve the EMS. An ongoing audit program is implemented in accordance with the following schedule:

Audit Type	Frequency
Internal – from other IC site	Every 6 months
External - independent	Every 12 months
ISO14001 Certification - independent	Every 3 years

All internal auditors are trained and certified as competent auditors by an independent and external provider.

The results of monitoring and auditing are regularly reported through the senior management team to ensure that action items are addressed.

Air Quality monitoring results are reported to relevant government agencies in accordance with the requirements of the Development Consent and Environment Protection Licence.

8 COMPLAINTS RECORDING AND REPORTING

Dendrobium has a 24 hour, 7 day free call community hotline number (1800 000 510), advertised to the public via the DCCC and public notices such as Dendrobium News, which provides a mechanism by which complaints and general enquiries regarding environmental or community issues associated with operational activities can be directed. All complaints (whether received via the hotline or directly to Dendrobium personnel) are documented and entered into First Priority (a data and document management program). After hours community complaints are immediately forwarded to the relevant Environment and Community representative for investigation and action.

Complaints will be handled via the procedures required by Section M4 of the EPL and explained in the Environmental Management Strategy. These involve the keeping of a legible record of all complaints showing:

- i. The date and time of the complaint
- ii. The method by which the complaint was received
- iii. The personal detail of the complainant which were provided by the complainant and if no details were provided a note to that effect
- iv. The nature of the complaint
- v. The action taken including any follow up contact
- vi. If no action is taken the reason why no action was taken.

The number and category (noise, traffic, dust, etc) of complaints are reported monthly to senior Mine Management and also during DCCC meetings on a bi-monthly basis. A summary of complaints for the year is reported in the annual Environmental Management Report.

All aspects of the operation will be reviewed if air quality standards/goals are exceeded to identify further improvements that can practically be implemented, with the goal being to achieve zero air quality related complaints received as a result of operational activities.

9 REFERENCES

Coal Services Health (2006). "Report into PM10 dust monitoring at Kemira Valley" Prepared by Coal Services Health (Peter Adlington), Corrimal, NSW.

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FIGURE 1 – Air Quality Monitoring Sites

