

IMC Response to Recommendations from the Dendrobium IEA 2020

Item No.	Assessment Requirement	Comment	Audit Classification	Response / Action (Recommendation)	IMC Response / Time Frame																																		
Minister's Conditions of consent DA 60-03-2001 (including Modification 8 issued July 2018)																																							
Sch 2, C12	The Applicant must ensure that all plant and equipment used on site is: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Environmental awareness training is rolled out to all employees which includes information on the environmental approvals, management of water, storage and handling of hazardous substances and regulatory obligations. Specific training is defined in training matrices. It was noted that the training matrix for the Environment team is not up to date. Training which has been completed has not been recorded in the matrix and training has been assigned for some individuals which is not required. The auditor understands a review of training records is to be undertaken by the end of 2020.	Observation	Maintain training records to ensure employees have received appropriate training.	Review of training matrix has been undertaken. Records to be updated in training system by 31/01/2021																																		
Sch 4, C1	The Applicant must ensure that the noise generated at the surface facilities does not exceed the noise impact assessment criteria in Table 1 at any residence on privately-owned land, or on more than 25% of any privately-owned land. The applicable criteria for any residence not listed in Table 1 shall be the criteria applying at the nearest listed residence. Table 1: Noise impact assessment criteria dB(A)	The following exceedances in noise criteria were reported during the audit period: <ul style="list-style-type: none"> 20/5/20 exceedance of day time criteria at R6a – not deemed as a non-compliance; 24/2/20 exceedance of day time criteria at R6a – not deemed as a non-compliance; 27/11/19 exceedance of evening criteria at R6a – not deemed as a non-compliance; 11/9/19 exceedance of day time criteria at R6a – deemed a non-compliance; and 13/6/19 exceedance of day and night LAeq(15min) at R6a – not deemed as a non-compliance. Noise levels were assessed in accordance with the NSW Industrial	Non Compliance	Continue to implement all reasonable and feasible noise mitigation measures.	Noted. A directional noise monitoring system is planned to be installed in 2021.																																		
	<table border="1"> <thead> <tr> <th>Day</th> <th>Evening</th> <th colspan="2">Night</th> <th>Residence</th> </tr> <tr> <th>LAeq(15 min)</th> <th>LAeq(15 min)</th> <th>LAeq(15 min)</th> <th>LA1(1 min)</th> <th>(as shown in the Noise Monitoring Program)</th> </tr> </thead> <tbody> <tr> <td>42</td> <td>42</td> <td>38</td> <td>48</td> <td>R2</td> </tr> <tr> <td>41</td> <td>41</td> <td>40</td> <td>50</td> <td>R22</td> </tr> <tr> <td>40</td> <td>40</td> <td>39</td> <td>49</td> <td>R1 R9 R15a</td> </tr> <tr> <td>40</td> <td>40</td> <td>37</td> <td>47</td> <td>R3a R5a R6a&b</td> </tr> <tr> <td>37</td> <td>35</td> <td>35</td> <td>45</td> <td>R39a</td> </tr> </tbody> </table> Notes: <ul style="list-style-type: none"> To determine compliance with the LAeq(15 minute) limit, noise from the development is to be measured at the most affected point within the 	Day	Evening	Night		Residence	LAeq(15 min)	LAeq(15 min)	LAeq(15 min)	LA1(1 min)	(as shown in the Noise Monitoring Program)	42	42	38	48	R2	41	41	40	50	R22	40	40	39	49	R1 R9 R15a	40	40	37	47	R3a R5a R6a&b	37	35	35	45	R39a			
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	<p><i>residential boundary, or at the most affected point within 30 metres of a dwelling (rural situations) where the dwelling is more than 30 metres from the boundary. Where it can be demonstrated that direct measurement of noise from the development is impractical, EPA may accept alternative means of determining compliance.</i></p> <ul style="list-style-type: none"> To determine compliance with the L A1(1 minute) limit, noise from the development is to be measured at 1 metre from the dwelling façade. Where it can be demonstrated that direct measurement of noise from the development is impractical, DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). <ul style="list-style-type: none"> The noise emission limits identified in the above table apply under meteorological conditions of: <ul style="list-style-type: none"> wind speeds of up to 3 m/s at 10 metres above ground level; or up to 30C/100 m temperature inversion strength for all receivers, plus a 2 m/s source-to-receiver component drainage flow wind at 10 metres above ground level for those receivers where applicable. These limits do not apply if the Applicant has an agreement with the relevant owner/s of these residences to generate higher noise levels, and the Applicant has advised the Department and EPA in writing of the terms of this agreement. 	<p>Noise Policy to determine compliance.</p> <p>The Site received a warning letter from DPIE on 1 November 2019 for failing to make LA1(1min) noise monitoring results publicly available on the company website. IMC have since rectified this issue and made the results available.</p>																										
Sch4, C9	<p>The Applicant must ensure that 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.</p> <p><i>Table 4: Long term impact assessment criteria for particulate matter</i></p> <table border="1" data-bbox="219 943 976 1023"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Total suspended particulate (TSP) matter</td> <td>Annual</td> <td>90 µg/m³</td> </tr> <tr> <td>Particulate matter < 10 µm (PM10)</td> <td>Annual</td> <td>30 µg/m³</td> </tr> </tbody> </table> <p><i>Table 5: Short term impact assessment criteria for particulate matter</i></p> <table border="1" data-bbox="219 1110 987 1169"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Criterion</th> </tr> </thead> <tbody> <tr> <td>Particulate matter < 10 µm (PM10)</td> <td>24 hour</td> <td>50 µg/m³</td> </tr> </tbody> </table> <p><i>Table 6: Long term impact assessment criteria for deposited dust</i></p> <table border="1" data-bbox="219 1257 1023 1353"> <thead> <tr> <th>Pollutant</th> <th>Averaging period</th> <th>Maximum increase in deposited dust level</th> <th>Maximum total deposited dust level</th> </tr> </thead> <tbody> <tr> <td>Deposited dust</td> <td>Annual</td> <td>2 g/m²/month</td> <td>4 g/m²/month</td> </tr> </tbody> </table>	Pollutant	Averaging period	Criterion	Total suspended particulate (TSP) matter	Annual	90 µg/m ³	Particulate matter < 10 µm (PM10)	Annual	30 µg/m ³	Pollutant	Averaging period	Criterion	Particulate matter < 10 µm (PM10)	24 hour	50 µg/m ³	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	<p>According to the monitoring records and Annual Reviews for the audit period, no air quality exceedances were observed during the audit period.</p> <p>On 25th September 2020, the EPA observed dust emanating from the stockpiles at the DCPD during blustery conditions. The DCPD is operated under an EPL held by BlueScope Steel who received a notice to provide information from the EPA. IMC has provided information to BlueScope in relation to the notice and is awaiting feedback from the EPA. There is no indication that air quality criteria were breached as a result of this incident.</p>	Observation	Await further direction from EPA and implement any actions required.	<p>Advisory Letter received from EPA dated 3/12/2020.</p> <p>No specific further actions required.</p>
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Total suspended particulate (TSP) matter	Annual	90 µg/m ³																										
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	<i>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.</i>				
Sch 4, C 12	The Applicant must ensure all surface water discharges from the surface facilities: (a) meet the relevant ANZECC water quality objectives for the protection of aquatic ecosystems and water quality of existing receiving waters; and (b) comply with the discharge limits (both volume and quality) set for the development in any EPL.	On 10 th August 2020 the sediment dam that collects runoff water from roads, hardstand surfaces and the coal stockpile area at the KVCLF failed, releasing approximately 10 ML of water from the site, which flowed into Brandy and Water Creek. The released water contained suspended coal fines and gravel material from the dam base. Refer to EPL compliance table, Section 3, Condition L1.1	Non Compliance	The release from the sediment dam is currently under investigation by the regulator. Comply with any further direction from the EPA.	Sediment pond has been repaired and follow up monitoring has been undertaken. Review and implement actions from EPA once investigation completed.
Sch 4, C27	The Applicant must establish an agreement with WCC to share the reasonable costs of maintenance of Stones Road for the life of the development. Prior to decommissioning of the mine, Stones Road must be inspected, to the satisfaction of WCC, and the road restored by the Applicant to a standard not less than its condition prior to the development's approval. If roadworks are not carried out by the Applicant within one month of being informed by WCC that these works are required under the maintenance agreement, WCC shall be entitled to carry out such maintenance work at the Applicant's cost. Any dispute over implementation of this condition is to be referred to the Secretary for resolution.	The Deed with WCC lapsed on 18 th May 2018 and was re-signed on 28 th August 2019. IMC advised that maintenance on Stones Road is completed and funded by IMC and was undertaken as necessary during the period, despite the Deed being lapsed for a portion of the audit period. The lapsed deed did not impact the provision of maintenance for Stones Rd, therefore an administrative non-compliance has been identified against this condition.	Administrative Non Compliance	Historic NC. No further action required.	Noted
Sch 7, C1	If the results of 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 a negotiated agreement has been entered into in relation to that impact, then the Applicant must notify the Secretary 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.	Notifications of exceedance of noise criteria were provided in writing to the effected resident as soon as monitoring reports were available during the audit period. Subsequent monitoring was made available on the company website with the affected residents subsequently notified when that had occurred. IMC should notify affected residents of monitoring results prior to publishing on the website.	Observation	Provide monitoring results proactively to the resident prior to release to the website.	IMC to implement system to notify residents of results prior to publication by 31/12/2020.

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Sch 8, C2	<p>Management plans required under this consent must be prepared in accordance with relevant guidelines, and include:</p> <ul style="list-style-type: none"> (a) a summary of relevant background or baseline data; (b) details of: <ul style="list-style-type: none"> (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; (c) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; (d) a program to monitor and report on the: <ul style="list-style-type: none"> (i) impacts and environmental performance of the development; and (ii) effectiveness of the management measures set out pursuant to condition 2(c); (e) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (f) a program to investigate and implement ways to improve the environmental performance of the development over time; (g) a protocol for managing and reporting any: <ul style="list-style-type: none"> (i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); (ii) complaint; (iii) failure to comply with statutory requirements; and (h) a protocol for periodic review of the plan. <p>Note: <i>The Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.</i></p>	<p>The Water Management Plan includes contingencies for managing unpredictable impacts and their consequences, however the Air Quality Management Plan does not include a similar contingency section in the event that unpredictable dust impacts occur.</p> <p>IMC should update the Air Quality Management Plan to include a discussion of contingency measures in the event of a significant dust event, however it is noted that air quality monitoring results are consistently below assessment criteria.</p>	Administrative Non Compliance	Include a contingency plan in the Air Quality Management Plan	The Air Quality Management Plan to be reviewed to include contingency plan by 30 June 2021 (pending approval of Dendrobium Mine Extension Project).
Sch 8, C7	<p>Within three months of commencing an Independent Environmental Audit, or within another timeframe agreed by the Secretary, the Applicant must submit a copy of the audit report to the Secretary, and any other NSW agency that requests it, together with its response to any recommendations contained in the audit report, and a timetable for the implementation of the recommendations. The recommendations must be implemented to the satisfaction of the Secretary.</p> <p>Note: <i>The audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Secretary.</i></p>	<p>The 2017 IEA report was submitted on 22 May 2018. The auditor understands that the delay in submitting the report was communicated with DPIE.</p>	Administrative Non Compliance	Historic NC. No further action required	Noted

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<p>Sch 8, C 11</p>	<p>Before the commencement of Modification 8 until the completion of all rehabilitation required under this consent, the Applicant must:</p> <p>(a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website:</p> <ul style="list-style-type: none"> (i) the documents referred to in condition 2 of Schedule 2 of this consent; (ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) minutes of CCC meetings; (v) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent; (vi) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; (vii) a summary of the current stage and progress of the development; (viii) contact details to enquire about the development or to make a complaint; (ix) a complaints register, updated monthly; (x) the Annual Reviews of the development; (xi) audit reports prepared as part of any Independent Environmental Audit of the development and the Applicant's response to the recommendations in any audit report; (xii) any other matter required by the Secretary; and <p>(b) keep such information up to date, to the satisfaction of the Secretary.</p>	<p>The IMC website did not include the following items:</p> <ul style="list-style-type: none"> ■ Primary Submission (the Dendrobium Project, dated 30 July 2001); ■ Submission in Reply (the Dendrobium Project, undated); ■ Environmental Effects of Subsidence Associated with the Dendrobium Project, prepared by National Environmental Consulting Services and dated August 2001; ■ Modification Application dated 12 February 2002 and supporting information dated 27 January 2002; ■ Modification Application and supporting information dated 24 May 2002 and additional supporting information dated 14 June 2002; ■ Modification Application and Statement of Environmental Effects for the Dendrobium Coal Sizer, prepared by Olsen Environmental Consulting and dated March 2005; ■ Application for Further Approval of West Cliff Emplacement Area Stage 3, Vol 2 (including Appendices), prepared by Cardno Forbes Rigby and dated July 2007, associated Response to Submissions dated 1 November 2007 and associated Statement of Commitments dated 28 November 2007 (see Appendix 3); ■ Modification Application – Modification of Area 3 Footprint and Review of Conditions of Consent dated 27 November 2007, EA and associated 	<p>Administrative Non Compliance</p>	<p>Include all the reports required by condition 2 of Schedule 2 of this consent on the website.</p>	<p>Condition 11 of Schedule 8 was included in the Consent with MOD 8 dated 13/07/2018. These documents were not required to be available prior to MOD 8.</p> <p>A link has been provided on the South32 website to the DPIE Major Projects website where documents associated with MOD 6, 7 and 8 are available.</p> <p>MOD 5 documents are available on the South32 website.</p> <p>South32 does not have access to documents</p>
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		<p>Statement of Commitments (see Appendix 4);</p> <ul style="list-style-type: none"> ■ EA (MOD 7); and ■ EA (MOD 8). <p>IMC was issued with a warning by the Department for not reporting LA1 noise monitoring results on the website during the audit period. This matter was rectified and was isolated in nature and not reflective of a systemic failure to report, therefore an administrative non-compliance has been raised.</p>			<p>prior to MOD 5.</p>
Environmental Protection Licence 3241					
<p>L1.1</p>	<p>Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.</p>	<p>According to the Annual Reviews, Annual Returns and the monitoring spreadsheet, there were no instances of exceedances of the applicable water quality limits for any samples collected during the audit period.</p> <p>On 10 August 2020 the sediment dam that collects runoff water from roads, hardstand surfaces and the coal stockpile area at the Kemira Valley facility failed, releasing approximately 10 ML of water from the site, which flowed into Brandy and Water Creek. The released water contained suspended coal fines and gravel material from the dam base and therefore introduced matter into Brandy and Water Creek.</p> <p>Following the event, IMC immediately commenced mitigation measures, which included diverting all runoff to the buffer dam, monitoring water quality in the receiving waters and investigating the cause of the event.</p> <p>Characterisation of the extent of</p>	<p>Non Compliance</p>	<p>The release from the sediment dam is currently under investigation by the regulator.</p>	<p>As addressed above.</p>

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		<p>impacts, if any, of the release on the receiving waterways and potential remedial options have also been undertaken.</p> <p>At the time of the site visit, earth works were being completed to repair and recommission the sedimentation dam. The incident is currently under investigation by the regulator and IMC.</p>			
M1.3	<p>The following records must be kept in respect of any samples required to be collected for the purposes of this licence:</p> <ul style="list-style-type: none"> a) the date(s) on which the sample was taken; b) the time(s) at which the sample was collected; c) the point at which the sample was taken; and d) the name of the person who collected the sample. 	<p>The EPL requires samples be collected for the following monitoring purposes:</p> <p>Monthly dust monitoring at five locations for ash, combustible solids and insoluble solids (Points 6, 9, 13, 17, 18);</p> <p>Monthly ambient air monitoring at two locations for PM10 and TSP (points 20, 21); and</p> <p>Monthly monitoring during discharge at one location for As, Cu, Ni, Zn, oil & grease, pH, TSS and conductivity (point 5).</p> <p>ERM reviewed the spreadsheet that documents the monitoring results for all the locations required by the licence. ERM identified that all the dust, ambient air and water quality samples included the date on which the sample was taken and the point at which the sample was collected.</p> <p>ERM reviewed example chain of custody documentation and confirmed that the name of the person who collected the sample was included on all example documents. The time at which the sample was collected was not observed on the documents available for review, therefore ERM</p>	Administrative Non Compliance	Ensure that the time of collection for each sample is included on sample records, such as the chain of custody.	Chain of Custody forms to be modified to include time sample collected by 31/01/2021.

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		considers IMC non-compliant with the requirements of this condition.			
Consolidated Coal Lease 768					
No compliance findings related to CCL 768					
Mining Lease ML 1510					
25.	The lease holder shall provide and maintain to the satisfaction of the Minister efficient means to minimise contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment and shall observe any instruction given or which may be given by the Minister with a view to preventing or minimising the contamination, pollution, erosion or siltation of any river, stream, creek, tributary, lake, dam, reservoir, watercourse or catchment area or any undue interference to fish or their environment.	On 10 th August 2020 the sediment dam that collects runoff water from roads, hardstand surfaces and the coal stockpile area at the KVCLF failed, releasing approximately 10 ML of water from the site, which flowed into Brandy and Water Creek. The released water contained suspended coal fines and gravel material from the dam base and therefore introduced matter into Brandy and Water Creek that changed the physical, chemical or biological condition of the water, which potentially constitutes pollution, therefore IMC are not compliant with this condition. Further detail is provided in the EPL table Section 3, Condition L1.1.	Non Compliance	The release from the sediment dam is currently under investigation by the regulator.	As addressed above.
Mining Lease ML 1566					
No compliance findings related to ML 1566					