

24 February 2017

BlueScope Steel Limited
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Five Islands Road, Port Kembla NSW 2505
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E Matthew.Imber@bluescope.com

Pamela Morales
Planning Officer
Industry Assessments
Department of Planning and Environment
Level 22, 320 Pitt St
Sydney, 2000

Dear Pamela

Pulverised Coal Injection (PCI) Facility (DA No. 154-05-00)

As discussed and outlined in our previous email correspondence, BlueScope have been working with the Environment Protection Authority (EPA) to establish a PCI Coal assessment criteria to determine the suitability of coals for use in the PCI. BlueScope has reached an agreement with the EPA and a variation to EPL 6092 has been implemented to reflect a new process for assessing and reporting on PCI coal types. Following on from this amendment, BlueScope is seeking approval to modify the Pulverised Coal Injection (PCI) Facility development consent (DA No. 154-05-00) to ensure consistency with the Environment Protection Licence (EPL) 6092 requirements and remove the requirement for PCI coals to be approved each time a new coal is sourced.

The following information is provided to support the modification request:

Background

Condition 19 of the development consent approves the use of three collieries for PCI coal sourcing, the following is an excerpt from DA No. 154-05-00 outlining the requirements of Condition 19:

- " Feed coal supplied to the PCI Facility shall be sourced from any combination of collieries listed in a) to c) below.
- a) Baal Bone Colliery
- b) Clarence Colliery
- c) Westcliff Colliery

The Applicant shall not source coal for processing in the PCI Facility from any colliery other than those listed above, without the prior written approval of the Director-General. The approval of the Director-General shall only be sought after consultation with Council regarding the proposed coal sourcing option. Written evidence of consultation with Council shall accompany any request made to the Director-General for approval of any coal sourcing option other than those listed under this condition.'

The current requirement to seek approval from WCC, who in turn require evaluation and approval of the EPA, prior to seeking written approval from the Director-General for the use of alternate sources of PCI introduces an additional level of complexity, business risk and administrative delay (refer to Attachment 1 for examples of documentation seeking regulatory approval from the three regulatory agencies).

The need to utilise alternate coal sources can arise with limited notice (i.e. colliery enters into force majeure, colliery closure, significant coal price fluctuations, logistic issues (i.e. road or rail disruptions), etc.). Any process that introduces additional delays in sourcing and/or processing of PCI coal inhibits the ability of the plant to respond in a timely manner with significant financial implications for the business.

As coal is an internationally traded commodity coal supply and coal pricing are extremely dynamic, with examples over significant coal price swings over relatively short time periods (refer to Attachment 2 for graph of international coal price fluctuations). BlueScope's requests for alternate PCI coal sourcing options are driven by the physical supply requirements and the economics at the time, ensuring the ongoing commercial arrangements for PCI coal provide flexibility to meet business requirements and optimise environmental, safety and economic outcomes.

In response to these factors, and in accordance with consent Condition 19 of Development Approval No 154-05-00, BlueScope has sought and subsequently received approval from the Director-General to source an additional 25 individual PCI Coals (refer Attachment 3 for listing).

Consultation Process with EPA and Wollongong Council (WCC)

BlueScope have undertaken a review of PCI coal composition in conjunction with the EPA. The goal of this review of PCI coal data was to determine a more streamlined mechanism for assessing and reporting on PCI coal use in the future, removing duplication and expanding the evaluation to include trace metals and other analytes of potential interest. Discussions on this topic have been underway for approximately 1 year, the process for undertaking this evaluation ultimately being incorporated into EPL 6092 as a special condition on the 25 August 2016. The following is a copy of the special condition for your reference:

E7 Pulverised Coal Injection Plant

E7.1 Special Condition: PCI Coal Assessment Criteria

Background

In 2002, the development approval for the Pulverised Coal Injection (PCI) Facility listed 3 approved coal types for use in the plant. Since that time, the EPA has received routine referrals for new coal type approval requests and currently 23 coal types are approved for use in the PCI. EPA is seeking an established and uniform criteria to assess future coal type additions based on a comparison with approved coals. This process should consider trace metal constituents, the properties of approved coals, and potential changes to air emissions based on elemental variations in coal types.

Note: In the past, this licence contained a PCI condition which limited coal sulfur concentrations to 1%.

Aim

To develop an assessment criteria to determine the suitability of coals for use in the PCI.

Requirements

Trace Metals Analysis.

The licensee must undertake trace metal analysis of a representative number of PCI coal types and submit a report to the EPA which incorporates the laboratory results and a discussion on the variability of metals (and other analytes) between approved coal types.

Note: Following review of this report, EPA in consultation with BSL, will seek to add further requirements to this condition regarding the development of coal assessment criteria.

Due Date: 15 December 2016

In response to Condition E7.1 of EPL6092 BlueScope provided the EPA with analytical data for PCI coals and compared the composition of these coals with CSIRO sourced data on Australian and International coals. A summary of this data is provided in Attachment 4. This data was supplementary to emissions data routinely provided and reviewed by EPA in accordance with the monthly and annual reporting requirements outlined in EPL 6092.

Following the provision of this data the EPA have completed their review process, with the results of the review outlined in a variation to EPL 6092 Condition R4.1 (e) (page 53 of EPL6092) which was completed on 12 January 2017. A copy of the amendment to Condition R4.1 is provided below:

'R4 Other reporting conditions

R4.1 When the Annual Return is provided to the EPA, the licensee must also provide an 'Annual Monitoring Report'.

Note: This report must provide the information that was previously provided quarterly under conditions R4, R4.1, R4.2 and R4.3.

The 'Annual Monitoring Report' must be presented in a format agreed with the EPA and comprise:

- a) data from any monitoring required by the conditions of this licence, grouped under the headings M2 'Requirement to monitor concentration of pollutants discharged', M4 'Environmental Monitoring', M5 'Weather Monitoring', M8 'Requirement to monitor volume or mass', M9 'Other Monitoring and Recording Condition', and Special Condition E1 'Approval for Alternative Standard of concentration for Hydrogen Sulphide Emissions'.
- b) data from any monitoring required by Conditions: 'O4.5 Coke Ovens', 'O4.10 -BOS Roof Emissions', 'O4.13 BOS Kish Tipping', 'O4.14 Hot Metal Pouring', 'O4.17 SRG Venting', and 'O4.19 Spectrus CT1300 Biocide'.
- c) other monitoring data required by this licence as requested by the EPA
- c) any additional data as requested by the EPA
- d) reasons for any non-compliance/s and omitted results, together with actions taken to prevent a recurrence of any non-compliance or omitted results.

e) data from any new source coal(s) used in the Pulverised Coal Injection (PCI) facility over the previous reporting year. This data must include laboratory analysis of primary physical and chemical characteristics of the new source coal(s) to show they are consistent with other approved PCI coals. That is, moisture content, ash, volatile matter, fixed carbon, total sulphur, phosphorus, calorific value and trace metal concentrations (POEO Clean Air Regulation, Type 1 and Type II substances).

In addition to the review with the EPA, BlueScope have liaised with Wollongong City Council (WCC) and WCC have indicated that they are supportive of the proposed changes and, subject to compliance with Condition R4.1 in EPL 6092, the removal of the requirement for a specific WCC approval for individual PCI Coals prior to use at the plant (refer to correspondence in Attachment 5).

Potential Environmental Impacts (and mitigation measures)

Since the plant was commissioned BlueScope have maintained a demonstrable history of compliance with all PCI consent conditions and related EPL requirements, with the exception of a single total particulate matter exceedance at the PCI Hot Gas Exhaust Stack in 2008. Historical monitoring from the stacks serving the two PCI licenced discharge points, the Depressurising Bag Filters and the PCI Hot Gas Exhaust Stack, clearly demonstrates emission levels typically well below EPL prescribed limits (refer to Attachment 6).

In addition, it should be noted that Techno economic analysis of coals is undertaken to compare coals against one another and select appropriate PCI coal(s) for use in the process. The trace element component of this assessment is gathered to allow coal comparisons and assess potential impacts. Trace element concentrations in coals used in the PCI plant are not expected to be significantly different from the suite of 28 black coals currently approved for PCI injection (refer to Attachment 3 and 4). Within this context, any variation in trace element concentrations is not expected to result in any material change in downstream emissions, as compared to historical performance.

Proposed Changes and Justification and Request for Modification to Approved Consent Conditions

As previously outlined, post the original consent approval BlueScope has sought and received approval from the Director General to source an additional 25 individual PCI Coals. This process requires engagement with three separate regulatory agencies, introducing administrative complexity each time a new coal is sourced.

The inclusion of the PCI coal sourcing reporting requirements in EPL 6092 ensures that the composition data for sourced PCI coals is comprehensive, visible and subject to evaluation by BlueScope and the EPA on an ongoing basis. The scope of the evaluation has been expanded to include moisture content, ash, volatile matter, fixed carbon, total sulphur, phosphorus, calorific value and trace metal concentrations (POEO Clean Air Regulation, Type 1 and Type II substances). Previously only sulphur was identified as an analyte of interest in the consent.

Compliance monitoring undertaken at PCI, and more broadly across Port Kembla Steelworks, as outlined in EPL6092, will continue to provide data to confirm that any modifications to PCI coal sources remain in accordance with the requirements of EPL6092 and ensure that variations in composition do not result in any material change in downstream emissions, as compared to historical performance.

BlueScope is seeking approval to modify the Pulverised Coal Injection (PCI) Facility development consent (DA No. 154-05-00) to ensure consistency with the Environment Protection Licence (EPL) 6092 requirements and remove the requirement for PCI coals to be approved each time a new coal is sourced.

As also discussed, in addition to the request for modification to Condition 19, BlueScope is seeking a modification of Condition 68 to change the current annual environmental reporting requirement to once every three years. This modification would align the reporting period with the defined frequency required for the PCI Hazard Audit (Condition 26), be in keeping with environmental reporting requirements from other projects across the plant (i.e. Sinter Plant Waste Gas Cleaning Plant, OPUP and Gypsum Plant) and significantly reduce the cost and administrative burden associated with the current annual reporting requirement.

In support of this request, as previously outlined in this letter, BlueScope has a demonstrable history of compliance with both development approval conditions and EPL 6092 Licence conditions since the project approval in 2000. In addition, BlueScope submits that a three year frequency is appropriate given the majority of the project development conditions have been completed, are no longer applicable to ongoing operations and/or are covered by existing Environmental Protection Authority EPL6092 requirements (refer to Appendix 7, a component of the PCI environmental annual report submitted to the Department of Planning on 12 December 2016, outlining compliance with all required conditions, completion status/relevance of conditions to current operations and references to relevant EPL6092 requirements).

I trust that the information provided meets your requirements and look forward to your response on this request for modification to Condition 19 and 68 of the consent. Should you have any questions or require any additional information please do not hesitate to contact me.

Yours sincerely

Matthew Imber

Environment Manager Manufacturing

Attachment 1 Historical Regulatory Approval Documentation Example



Contact: Pamela Morales Phone: 02 9228 6386

Email: pamela.morales@planning.nsw.gov.au

Mr Matthew Imber BlueScope Steel Ltd Port Kembla Steelworks PO Box 1854 Wollongong NSW 2500

Attention: Mr Lawrence Zammit

Dear Mr Imber

Port Kembla Steelworks – Pulverised Coal Injection (PCI) Facility (DA 154-05-00) Additional Coal Feed Sourcing Arrangements

I refer to your recent correspondence dated 4 July 2016 and 3 August 2016, in which you seek the Secretary's approval to source coal for the above development from two collieries, as permitted by condition 19 of the Minister's consent.

The Department understands that BlueScope is proposing to accept up to 400,000 tonnes per annum from the following collieries:

- Tarrawonga; and
- Maules Creek.

It is noted that both Wollongong City Council and the Environment Protection Authority raised no objections to the use of coal from these collieries. Subject to full compliance with the conditions of the Minister's consent for the development while using the additional coal sources, the Secretary's approval is issued for the use of these additional coal sources.

Yours sincerely

Chris Ritchie

Director

Industry Assessments
As the Secretary's nominee

12/8/16.



Port Kembla Steelworks
BlueScope Steel Ltd
Five Islands Road
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PO Box 1854
Wollongong 2500 Australia

4 th July 2016

Director Industry Assessments Department of Planning Western Gallery 23-33 Bridge Street SYDNEY NSW 2000 GPO BOX 39 Sydney NSW 2001

Attention: Mr. Chris Ritchie

Dear Chris

BlueScope Pulverised Coal Injection Facility (DA No.154 – 05-00) USE OF ADDITIONAL COAL TYPES AT PCI FACILITY – PORT KEMBLA

We advise that Development Consent "Condition 19)" of the Pulverised Coal Injection facility provides that: "Feed coal supplied to the PCI Facility shall be sourced from any combination of collieries listed in a) to c) below.

- a) Baal Bone Colliery
- b) Clarence Colliery
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The Applicant shall not source coal for processing in the PCI Facility from any colliery other than those listed above, without the prior written approval of the Director-General. The approval of the Director-General shall only be sought after consultation with Council regarding the proposed coal sourcing option. Written evidence of consultation with Council shall accompany any request made to the Director-General for approval of any coal sourcing option other than those listed under this condition".

In accordance with consent condition DA 19 of Development Approval No 154-05-00, BlueScope seeks approval from the Secretary to proceed with commercial arrangements for economic supply of an alternative coal type to that listed in the consent approvals.

BlueScope would like to arrange for suitable supplies of an alternate coal, Tarrawonga, in order to evaluate its economic use and to enable sufficient trials for establishment of normal commercial contracts. We attach a table showing the chemical constituents and key specification data that demonstrates that Tarrawonga coal, meets the sulphur specification specified as per consent condition (17) of the Pulverised Coal injection (PCI) Development Approval. Please refer to Attachment 1 for further details. Tarrawonga coal will be used as an equivalent coal to the currently approved coals. Tonnage potentially used at the PCI facility would be up to 400,000 tonnes per annum.

We also advise that in accordance with "Condition 19") of the Pulverised Coal Injection Facility Development Development Consent, BlueScope has consulted with Wollongong City Council and the Environmental Protection Authority (EPA) in relation to use of coal sourced from alternative collieries and will forward copies of subsequent correspondence from Wollongong City Council and the Environmental protection Authority as soon as they become available.

Therefore, your approval is sought for the use of the Tarrawonga coal types in the BIS PCI facility at BlueScope Port Kembla Steelworks.



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Five Islands Road
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PO Box 1854
Wollongong 2500 Australia

Should you have any enquires relating to this matter can you please contact Mr. Lawrence Zammit at the BlueScope Environmental Department on 42757522 – Ext.5998 or email: Lawrence.Zammit@bluescopesteel.com

Thank you for your consideration in this matter.

Yours faithfully

David Bell

Cokemaking & Ironmaking Manager



ATTACHMENT 1

Table 1

	Units	Whitehaven	Peabody	Xstrata	South32	South32	Peabody
Coal name		Tarrawonga	Wambo	Tahmoor	West Cliff	Dendrobium	Metropolitan
Total Moisture	% As received	10.0	10.0	0.0	8.5	<u>16</u>	9.5
As analysed Moisture	% Air Dried	3.5	3.0	1.5	1.0	1.0	1.0
Ash	% Air Dried	8.0	8.0	9.5	8.5-10	9.5-11	8.5-9.5
Volatile Matter	% Air Dried	34.5	35.5	27.5	21-25	23-26	19.5-20
Fixed Carbon	% Air Dried	54.0	53.5	61.5	69-59	64-66	70-72
Total Sulphur	% Air Dried	0.40	0.50	0.4	0.3-0.4	0.55-0.65	0.36
Phosphorous	% Air Dried	0.005	600.0	0.065	0.065	0.004	0.050
Gross Calorific kcal/kg (adb)	kcal/kg (adb)	7260	7300	7600	7750	7800	7750
Value							



WOLLONGONG CITY COUNCIL

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Phone (02) 4227 7111 • Fax (02) 4227 7277 • Email: council@wellongong.nsw.gov.au

Web www.wollongong.nsw.gov.au • ABN \$238 \$25 \$24 . 05) Resistance

Lawrence Zammit BlueScope Steel PO Box 1854, Wollongong NSW 2500

File: Date: CP-07.07.001 8 August 2016

Dear Mr Zammit

DEVELOPMENT APPROVAL NO 154-05-00: APPROVAL FOR NEW COAL SOURCE FOR PCI PLANT

I refer to your letters of 4 July 2016 concerning the use of Tarrawonga coal and 3 August 2016 concerning the use of Maules Creek coal. On the basis of the information submitted by BlueScope in those letters, Council has no objection to the use of those coals. Council understands that this coal quality is similar to other coal sources for the PCI Plant facility and has Sulphur percentage content below 1% that meets the condition 17. It is likely that the EPA will request BlueScope to undertake trace metals analysis for new coal source for comparison to the relevant standards.

Please contact me should you require further information.

This letter is authorised by

Pier Panozzo Manager City Centre and Major Projects Wollongong City Council Telephone (02) 4227 7111



Port Kembla Steelworks BlueScope Steel Ltd Five Islands Road Port Kembla 2505 PO Box 1854

Wollongong 2500 Australia Telephone: +61 2 4275 4078

Email: alan.bennett@bluescopesteel.com

4 th July 2016

The General Manager Wollongong City Council Locked Bag 8821 Wollongong 2500

Dear Sir/Madam

BlueScope Pulverised Coal Injection Facility (DA No.154 – 05-00) USE OF ADDITIONAL COAL TYPES AT PCI FACILITY – PORT KEMBLA

We advise that Development Consent "Condition 19)" of the Pulverised Coal Injection facility provides that: "Feed coal supplied to the PCI Facility shall be sourced from any combination of collieries listed in a) to c) below.

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The Applicant shall not source coal for processing in the PCI Facility from any colliery other than those listed above, without the prior written approval of the Director-General. The approval of the Director-General shall only be sought after consultation with Council regarding the proposed coal sourcing option. Written evidence of consultation with Council shall accompany any request made to the Director-General for approval of any coal sourcing option other than those listed under this condition".

In accordance with consent condition DA 19 of Development Approval No 154-05-00, BlueScope seeks approval from the Secretary to proceed with commercial arrangements for economic supply of an alternative coal type to that listed in the consent approvals.

BlueScope would like to arrange for suitable supplies of an alternate coal, Tarrawonga, in order to evaluate its economic use and to enable sufficient trials for establishment of normal commercial contracts. We attach a table showing the chemical constituents and key specification data that demonstrates that Tarrawonga coal, meets the sulphur specification specified as per consent condition (17) of the Pulverised Coal injection (PCI) Development Approval. Please refer to Attachment 1 for further details. Tarrawonga coal will be used as an equivalent coal to the currently approved coals. Tonnage potentially used at the PCI facility would be up to 400,000 tonnes per annum.

We also advise that in accordance with "Condition 19") of the Pulverised Coal Injection Facility Development Development Consent, BlueScope has consulted with Wollongong City Council and the Environmental Protection Authority (EPA) in relation to use of coal sourced from alternative collieries and will forward copies of subsequent correspondence from Wollongong City Council and the Environmental protection Authority as soon as they become available.

Therefore, your approval is sought for the use of the Tarrawonga coal types in the BIS PCI facility at BlueScope Port Kembla Steelworks.



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Thank you for your consideration in this matter.

Yours faithfully

Dayid Bell

Cokemaking & Ironmaking Manager

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ATTACHMENT 1

	Units	Whitehaven	Peabody	Xstrata	South32	South32	Peabody
Coal name		Tarrawonga	Wambo	Tahmoor	West Cliff	Dendrobium	Metropolitan
Total Moisture	% As received	10.0	10.0	0.6	8.5	16	9.5
As analysed Moisture	% Air Dried	3,5	3.0	1.5	1.0	1.0	1.0
Ash	% Air Dried	8.0	8.0	9.5	8.5-10	9.5-11	8.5-9.5
Volatile Matter	% Air Dried	34.5	35.5	27.5	21-25	23-26	19.5-20
Fixed Carbon	% Air Dried	54.0	53.5	61.5	62-69	64-66	77.77
Total Sulphur	% Air Dried	0.40	0.50	0.4	0.3-0.4	0.55-0.65	0.36
Phosphorous	% Air Dried	0.005	600.0	0.065	0.065	0.004	0.050
Gross Calorific Value	kcal/kg (adb)	7260	7300	7600	7750	7800	7750



Our reference: Contact:

EF13/2639: DOC16/342872-01:GN Greg Newman, (02) 4224 4100

BlueScope Steel (AIS) Ptv Ltd (Attention: Matt Imber) PO Box 1854 WOLLONGONG NSW 2500

Dear Sir

VARIATION OF APPROVED COAL SOURCES FOR USE IN THE PCI FACILITY **ENVIRONMENT PROTECTION LICENCE NUMBER 6092**

I am writing in response to BlueScope Steel (BSL) correspondence of 5 July and 9 August 2016 proposing to utilise two new source coals (Tarrawonga and Maules Creek Coal) in the Pulverised Coal Injection (PCI) facility. The Environment Protection Authority (EPA) does not object to the use of these coals. BSL must ensure that any change in coal use complies fully with all Environment Protection Licence conditions.

Through Condition 19 of the PCI consent (DA No 154-05-00) and subsequent requests and approvals, over 22 black coal types are currently approved for use in the facility. The above correspondence advises that BSL are seeking approval for the proposed coal additions from the Department of Planning and **Environment**

The BSL request is supported by laboratory analysis data which shows that primary physical and chemical characteristics are consistent with other approved coals. That is, moisture content, ash, volatile matter, fixed carbon, total sulphur, phosphorus and calorific value. BSL have advised they are also currently undertaking additional trace metals analysis, however the laboratory results will take some time to be completed. BSL have also advised that based on their current understanding and historical test data, the trace metals concentrations of the proposed coals are not expected to be significantly different from the suite of approved black coals. Further, the company states that any variation in metals concentrations is not expected to result in any material change in emissions from downstream processes.

Market conditions and other factors have resulted in routine requests such as this one. EPA has drafted a special condition which requires the consideration of trace metals analysis and establishing a criteria to facilitate the assessment of future coal approvals. This criteria could include trace metals results, other indicator such as sulfur content, or other physical parameters to manage/assess future coal changes.

A draft of this condition was emailed to and agreed to by BSL on 3 August and 8 August 2016 respectively. This condition will be added to the licence with the next variation. If you have questions regarding the above, please phone Mr Greg Newman on (02) 4224 4100.

Yours sincerely Milliam

Dov 9 August 2016 **WILLIAM DOVE Unit Head Regulation**

Environment Protection Authority

Attachment: Special Condition

ATTACHMENT 1

Special Condition: PCI Coal Assessment Criteria

Background

In 2002, the development approval for the Pulverised Coal Injection (PCI) Facility listed 3 approved coal types for use in the plant. Since that time, the EPA has received routine referrals for new coal type approval requests and currently 23 coal types are approved for use in the PCI. EPA is seeking an established and uniform criteria to assess future coal type additions based on a comparison with approved coals. This process should consider trace metal constituents, the properties of approved coals, and potential changes to air emissions based on elemental variations in coal types.

Note: In the past, this licence contained a PCI condition which limited coal sulfur concentrations to 1%.

Aim

To develop an assessment criteria to determine the suitability of coals for use in the PCI.

Requirements

Trace Metals Analysis.

The licensee must undertake trace metal analysis of a representative number of PCI coal types and submit a report to the EPA which incorporates the laboratory results and a discussion on the variability of metals (and other analytes) between approved coal types.

Note: Following review of this report, EPA in consultation with BSL, will seek to add further requirements to this condition regarding the development of coal assessment criteria.

Due Date: 15 December 2016



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4 th July 2016

Mr. Peter Bloem
Manager Illawarra
Environment Protection Authority
PO Box 513
Wollongong
NSW
2520

Dear Peter,

Attention: Mr. Greg Newman

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In accordance with consent condition DA 19 of Development Approval No 154-05-00, BlueScope seeks approval from the Secretary to proceed with commercial arrangements for economic supply of an alternative coal type to that listed in the consent approvals.

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Thank you for your consideration in this matter.

Yours faithfully

David Bell

Cokemaking & Ironmaking Manager



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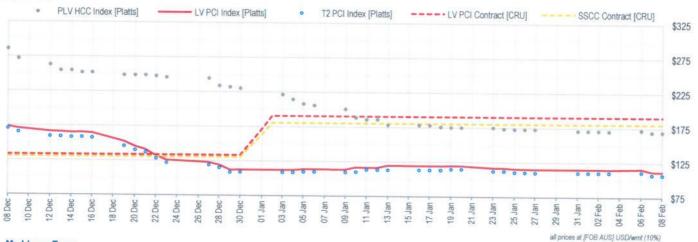
ATTACHMENT 1

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As analysed Moisture	% Air Dried	3.5	3.0	1.5	1.0	1.0	1.0
Ash	% Air Dried	8.0	8.0	9.5	8.5-10	9.5-11	8.5-9.5
Volatile Matter	% Air Dried	34.5	35.5	27.5	21-25	23-26	19.5-20
Fixed Carbon	% Air Dried	54.0	53.5	61.5	62-69	64-66	70-72
Total Sulphur	% Air Dried	0.40	0.50	0.4	0.3-0.4	0.55-0.65	0.36
Phosphorous	% Air Dried	0.005	0.009	0.065	0.065	0.004	0.050
Gross Calorific Value	kcal/kg (adb)	7260	7300	7600	7750	7800	7750

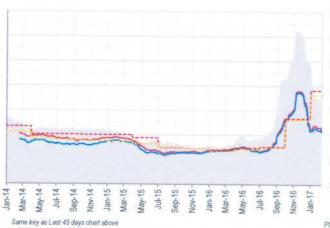
Attachment 2 International Coal Price Fluctuations

PCI Assessments 8/02/2017

Last 45 days



Med-Long Term



Benefit of PCI vs. Coke (incl. BIS) PCI Index to Contract Differential \$350 \$250 \$300 \$200 \$250 \$150 \$200 \$100 \$150 \$100 \$0 \$50 -\$50 -\$100 Jan-16 Sep-14 Jan-15 May-15 Jul-15 Sep-15 Nov-15 Mar-16 May-16 Jul-16 Sep-16 Nov-16 Jan-17

PCI Index vs. Contract (USD/wmt) = LV PCI [Platts] - LV PCI Contract [CRU]
PCI cost vs. Export Coke (AUD/DMT) = (Export Coke revenue - \$8 coke despatch) - (SSCC + \$20 rail + \$38)/0.9 repl. ratio

Daily Ass	essmen	its									de la				100	TO THE	17:05	TOTAL
	PLV HCC Index [Platts]	D-D	LV PCI Index [Platts]	D-D	vs. PLV HCC Platts	T2 PCI Index [Platts]	D-D	vs. PLV HCC Platts	SSCC Index [Platts]	D-D	vs. PLV HCC Platts	LV PCI Contract [CRU]	D-D	vs. PLV HCC Platts	SSCC Contract [CRU]	D-D	vs. PLV HCC Platts	vs. LV PCI Cont.
Wed 08-Feb	169.25	0.00	111.15	-0.55	-58.10	106.65	-0.55	-62.60	100.90	-1.05	-68.35	190.00	0.00	20.75	180.00	0.00	10.75	-10.00
Tue 07-Feb	169.25	-2.75	111.70	-3.80	-57.55	107.20	-3.80	-62.05	101.95	-1.80	-67.30	190.00	0.00	20.75	180.00	0.00	10.75	-10.00
Mon 06-Feb	172.00	1.50	115.50	1.00	-56.50	111.00	1.00	-61.00	103.75	-0.25	-68.25	190.00	0.00	18.00	180.00	0.00	8.00	-10.00
Fri 03-Feb	170.50	-0.50	114.50	-0.10	-56.00	110.00	-0.10	-60.50	104.00	-0.10	-66.50	190.00	0.00	19.50	180.00	0.00	9.50	-10.00
Thu 02-Feb	171.00	0.00	114.60	0.00	-56.40	110.10	0.00	-60.90	104.10	0.00	-66.90	190.00	0.00	19.00	180.00	0.00	9.00	-10.00
Wed 01-Feb	171.00	0.00	114.60	0.00	-56.40	110.10	0.00	-60.90	104.10	0.00	-66.90	190.00	0.00	19.00	180.00	0.00	9.00	-10.00
Tue 31-Jan	171.00		114.60		-56.40	110.10		-60.90	104.10		-66.90	190.00	0.00	19.00	180.00	0.00	9.00	-10.00
Mon 30-Jan												190.00	0.00		180.00	0.00		-10.00
Fri 27-Jan	173.00	0.00	114.60	-0.15	-58.40	110.10	-0.15	-62.90	104.10	-0.15	-68.90	190.00	0.00	17.00	180.00	0.00	7.00	-10.00
Thu 26-Jan	173.00	0.00	114.75	-0.25	-58.25	110.25	-0.25	-62.75	104.25	-1.25	-68.75	190.00	0.00	17.00	180.00	0.00	7.00	-10.00

Monthly	Average	S		1	743	Mary or	A ST	TO STATE	1		100		W. AL		-		Potenti	1
	PLV HCC Index [Platts]	m-m	LV PCI Index [Platts]	m-m	vs. PLV HCC Platts	T2 PCI Index [Platts]	m-m	vs. PLV HCC Platts	SSCC Index [Platts]	m-m	vs. PLV HCC Platts	LV PCI Contract [CRU]	m-m	vs. PLV HCC Platts	SSCC Contract [CRU]	m-m	vs. PLV HCC Platts	vs. LV PCI Cont.
Feb-17	170.50	-15.03	113.68	-2.14	-56.83	109.18	-2.25	-61.33	103.13	-7.77	-67.37	190.00	0.00	19.50	180.00	0.00	9.50	-10.00
Jan-17	185.53	-76.52	115.82	-38.54	-69.71	111.43	-38.71	-74.10	110.90	-23.27	-74.63	190.00	57.00	4.47	180.00	50.00	-5.53	-10.00
Dec-16	262.05	-38.61	154.35	-25.81	-107.70	150.14	-27.53	-111.91	134.17	-9.42	-127.88	133.00	0.00	-129.05	130.00	0.00	-132.05	-3.00
Nov-16	300.66	66.56	180.16	39.39	-120.50	177.66	40.35	-123.00	143.60	16.36	-157.06	133.00	0.00	-167.66	130.00	0.00	-170.66	-3.00
Oct-16	234.10	40.08	140.77	25.79	-93.33	137.32	25.65	-96.78	127.23	24.67	-106.86	133.00	58.00	-101.10	130.00	56.00	-104.10	-3.00
Sep-16	194.01	78.33	114.98	35.08	-79.03	111.67	33.95	-82.34	102.56	24.83	-91.45	75.00	0.00	-119.01	74.00	0.00	-120.01	-1.00
Aug-16	115.68	19.48	79.90	11.44	-35.78	77.72	10.64	-37.96	77.73	8.51	-37.95	75.00	0.00	-40.68	74.00	0.00	-41.68	-1.00
Jul-16	96.20		68.46		-27.74	67.08		-29.12	69.22		-26.98	75.00		-21.20	74.00	0.00	-22.20	-1.00

Current month is MTD

Attachment 3 List of Approved PCI Coals

The current list (as of 16 February 2017) of approved PCI Coals is outlined below:

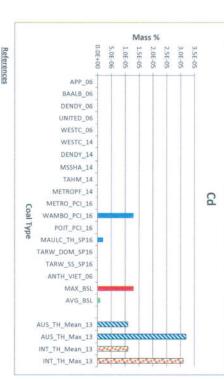
- 1. Baal Bone,
- 2. Clarence,
- 3. Westcliff,
- 4. United,
- 5. Bulga,
- 6. Cumnock,
- 7. Macquarie (West Walls End),
- 8. Liddell,
- 9. Mt Owen,
- 10. Bayswater No 3,
- 11. Rio Tinto Semi, Warkworth,
- 12. Metropolitan and Bellambi,
- 13. Vietnamese Anthracite,
- 14. Newstan,
- 15. Wambo,
- 16. Ashton,
- 17. Donaldson,
- 18. Curragh,
- 19. Capricorn,
- 20. Fowleigh,
- 21. Jellinbah,
- 22. Yarrabee,
- 23. Poitrel,
- 24. South Walker Weak,
- 25. Tahmoor,
- 26. Dendrobium,
- 27. Maules Creek, and
- 28. Tarrawonga.

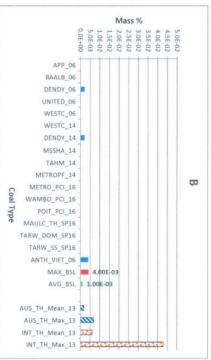
Attachment 4 PCI Coal Data Analysis

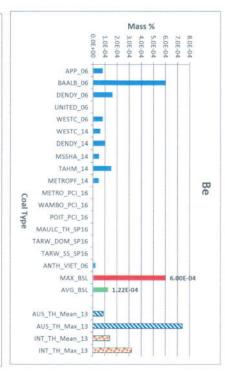
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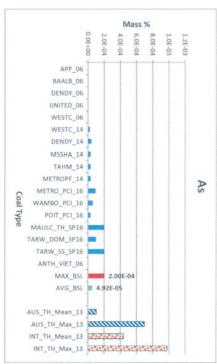
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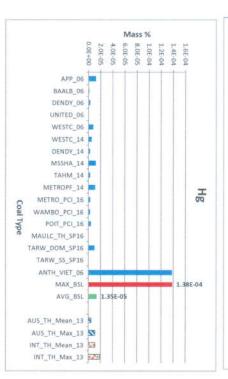
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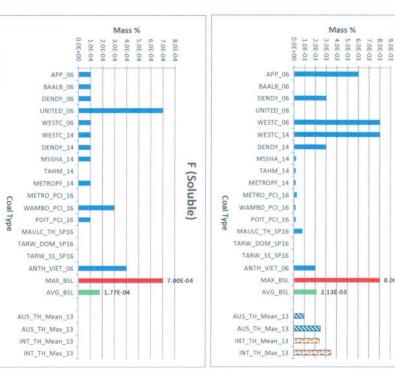


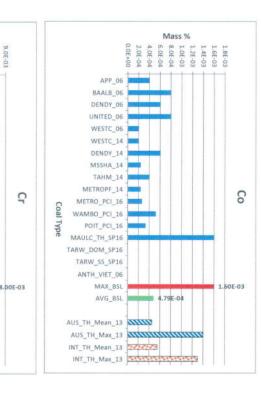


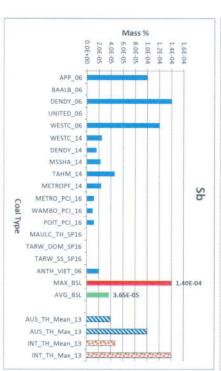




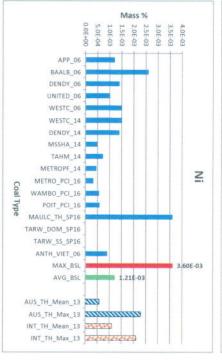


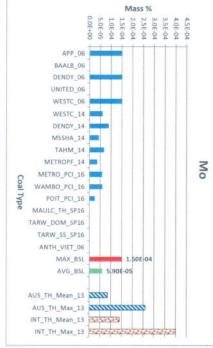


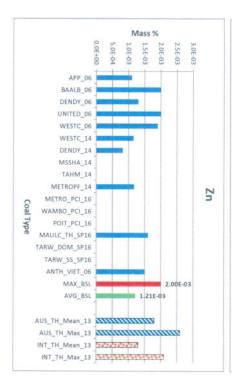


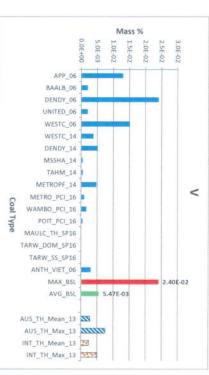


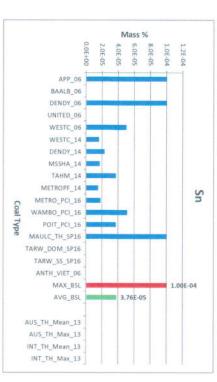


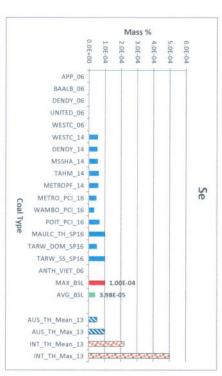












Attachment 5 WCC Correspondence Supporting Proposed Consent Modification

Imber, Matthew MI

From:

Pier Panozzo < PPanozzo@wollongong.nsw.gov.au>

Sent:

Tuesday, 7 February 2017 9:17 AM

To:

Imber, Matthew MI

Subject:

FW: HPRM: RE: Proposed changes to PCI coal evaluation process

Matthew

We understand that BlueScope is planning to seek approval to modify the Pulverised Coal Injection (PCI) Facility development consent (DA No. 154-05-00) to ensure consistency with the Environment Protection Licence (EPL) 6092 requirements and remove the requirement for PCI coals to be approved each time a new coal is sourced.

Council raises no objections to a modification of the major project approval to reflect the above given the new conditions on the EPL.



Pier Panozzo
City Centre + Major Development Manager
Post Locked Bag 8821 Wollongong DC NSW 2500
Phone +61 2 4227 7111 • Fax +61 2 4227 7277
Email council@wollongong.nsw.gov.au • www.wollongong.nsw.gov.au



From: Imber, Matthew MI [mailto:Matthew.Imber@bluescopesteel.com]

Sent: Monday, 6 February 2017 8:58 AM

To: Pier Panozzo

Subject: Proposed changes to PCI coal evaluation process

Pier

As discussed last week, BlueScope have been working with the Environment Protection Authority (EPA) to establish a PCI Coal assessment criteria to determine the suitability of coals for use in the PCI facility. BlueScope has reached an agreement with the EPA and a variation to EPL 6092 has been implemented to reflect a new process for assessing and reporting on PCI coal types. Following on from this amendment, BlueScope is planning to seek approval to modify the Pulverised Coal Injection (PCI) Facility development consent (DA No. 154-05-00) to ensure consistency with the Environment Protection Licence (EPL) 6092 requirements and remove the requirement for PCI coals to be approved each time a new coal is sourced.

As you are aware the current requirement to seek approval from WCC, who in turn require evaluation and approval of the EPA, prior to seeking written approval from the Director-General for the use of alternate sources of PCI introduces an additional level of complexity, business risk and administrative delay.

The need to utilise alternate coal sources can arise with limited notice (i.e. colliery enters into force majeure, colliery closure, significant coal price fluctuations, logistic issues (i.e. road or rail disruptions), etc.). Any process that introduces additional delays in sourcing and/or processing of PCI coal inhibits

the ability of the plant to respond in a timely manner with significant financial implications for the business.

As coal is an internationally traded commodity coal supply and coal pricing are extremely dynamic, with examples over recent years of significant coal price swings over relatively short time periods. BlueScope's requests for alternate PCI coal sourcing options are driven by the physical supply requirements and the economics at the time, ensuring the ongoing commercial arrangements for PCI coal provide flexibility to meet business requirements and optimise environmental, safety and economic outcomes.

Historically, in accordance with consent Condition 19 of Development Approval No 154-05-00 (and extract from the current condition is provided below), BlueScope has sought and subsequently received approval from the Director-General to source 27 individual PCI Coals:

'The Applicant shall not source coal for processing in the PCI Facility from any colliery other than those listed above, without the prior written approval of the Director-General. The approval of the Director-General shall only be sought after consultation with Council regarding the proposed coal sourcing option. Written evidence of consultation with Council shall accompany any request made to the Director-General for approval of any coal sourcing option other than those listed under this condition.'

In response BlueScope have undertaken a review of PCI coal composition in conjunction with the EPA. The goal of this review of PCI coal data was to determine a more streamlined mechanism for assessing and reporting on PCI coal use in the future, removing duplication in the evaluation process and expanding the evaluation to include trace metals and other analytes of potential interest. Discussions on this topic have been underway for approximately 1 year, the process for undertaking this evaluation ultimately being incorporated into EPL 6092 as a special condition on the 25 August 2016. The following is a copy of the special condition for your reference:

E7 Pulverised Coal Injection Plant

E7.1 Special Condition: PCI Coal Assessment Criteria

Background

In 2002, the development approval for the Pulverised Coal Injection (PCI) Facility listed 3 approved coal types for use in the plant. Since that time, the EPA has received routine referrals for new coal type approval requests and currently 23 coal types are approved for use in the PCI. EPA is seeking an established and uniform criteria to assess future coal type additions based on a comparison with approved coals. This process should consider trace metal constituents, the properties of approved coals, and potential changes to air emissions based on elemental variations in coal types.

Note: In the past, this licence contained a PCI condition which limited coal sulfur concentrations to 1%.

Aim

To develop an assessment criteria to determine the suitability of coals for use in the PCI.

Requirements

Trace Metals Analysis.

The licensee must undertake trace metal analysis of a representative number of PCI coal types and submit a report to the EPA which incorporates the laboratory results and a discussion on the variability of metals (and other analytes) between approved coal types.

Note: Following review of this report, EPA in consultation with BSL, will seek to add further requirements to this condition regarding the development of coal assessment criteria.

Due Date: 15 December 2016

In response to Condition E7.1 of EPL6092 BlueScope provided the EPA with analytical data for PCI coals and compared the composition of these coals with CSIRO sourced data on Australian and International coals. This data was supplementary to emissions data routinely provided and reviewed by EPA in accordance with the monthly and annual reporting requirements outlined in EPL 6092.

Following the provision of this data the EPA have completed their review process, with the results of the review outlined in a variation to EPL 6092 Condition R4.1 (e) (page 53 of EPL6092) which was completed on 12 January 2017. A copy of the amendment to Condition R4.1 is provided below with the specific amendment highlighted in yellow:

'R4 Other reporting conditions

R4.1 When the Annual Return is provided to the EPA, the licensee must also provide an 'Annual Monitoring Report'.

Note: This report must provide the information that was previously provided quarterly under conditions R4, R4.1, R4.2 and R4.3.

The 'Annual Monitoring Report' must be presented in a format agreed with the EPA and comprise:

- a) data from any monitoring required by the conditions of this licence, grouped under the headings M2 'Requirement to monitor concentration of pollutants discharged', M4 'Environmental Monitoring', M5 'Weather Monitoring', M8 'Requirement to monitor volume or mass', M9 'Other Monitoring and Recording Condition', and Special Condition E1 'Approval for Alternative Standard of concentration for Hydrogen Sulphide Emissions'.
- b) data from any monitoring required by Conditions: 'O4.5 Coke Ovens', 'O4.10 -BOS Roof Emissions', 'O4.13 BOS Kish Tipping', 'O4.14 Hot Metal Pouring', 'O4.17 SRG Venting', and 'O4.19 Spectrus CT1300 Biocide'.
- c) other monitoring data required by this licence as requested by the EPA
- c) any additional data as requested by the EPA
- d) reasons for any non-compliance/s and omitted results, together with actions taken to prevent a recurrence of any non-compliance or omitted results.

e) data from any new source coal(s) used in the Pulverised Coal Injection (PCI) facility over the previous reporting year. This data must include laboratory analysis of primary physical and chemical characteristics of the new source coal(s) to show they are consistent with other approved PCI coals. That is, moisture content, ash, volatile matter, fixed carbon, total sulphur, phosphorus, calorific value and trace metal concentrations (POEO Clean Air Regulation, Type 1 and Type II substances).

The inclusion of the PCI coal sourcing reporting requirements in EPL 6092 ensures that the composition data for sourced PCI coals is comprehensive, visible and subject to evaluation by BlueScope and the EPA on an ongoing basis. The scope of the evaluation has been expanded to include moisture content, ash, volatile matter, fixed carbon, total sulphur, phosphorus, calorific value and trace metal concentrations (POEO Clean Air Regulation, Type 1 and Type II substances. Previously only sulphur was identified as an analyte of interest in the consent.

BlueScope is planning to seek approval to modify the Pulverised Coal Injection (PCI) Facility development consent (DA No. 154-05-00) to ensure consistency with the Environment Protection Licence (EPL) 6092 requirements and remove the requirement for PCI coals to be approved each time a new coal is sourced. Following on from our discussion last week BlueScope is seeking WCC support for this amendment to the PCI coal evaluation process. Please respond to indicate WCC's position on this proposed modification, should you require any additional information or wish to discuss further please do not hesitate to contact me.

Kind regards Matt



Matthew Imber | Environment Manager Manufacturing
BlueScope Australia and New Zealand
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E Matthew.Imber@bluescopesteel.com W www.bluescope.com
A Mellor Centre | Five Islands Rd | Port Kembla INSW 2505

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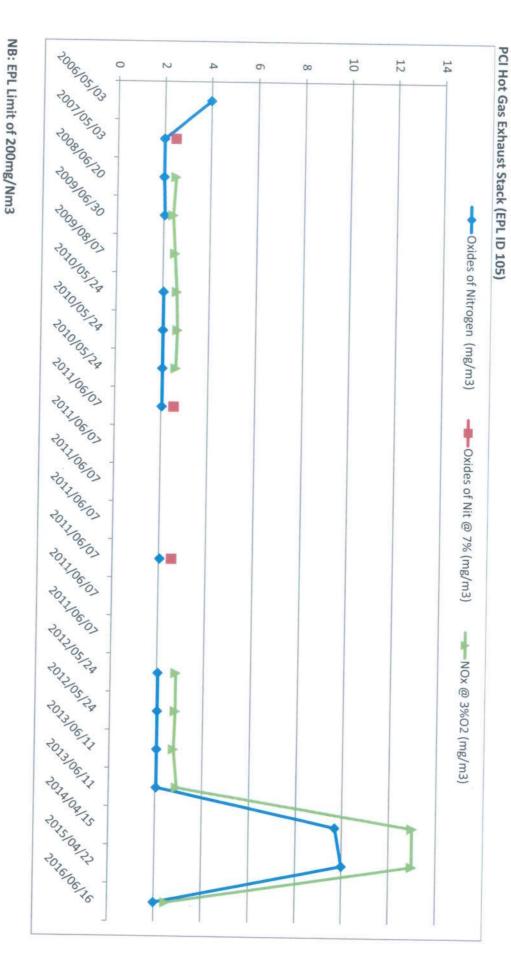
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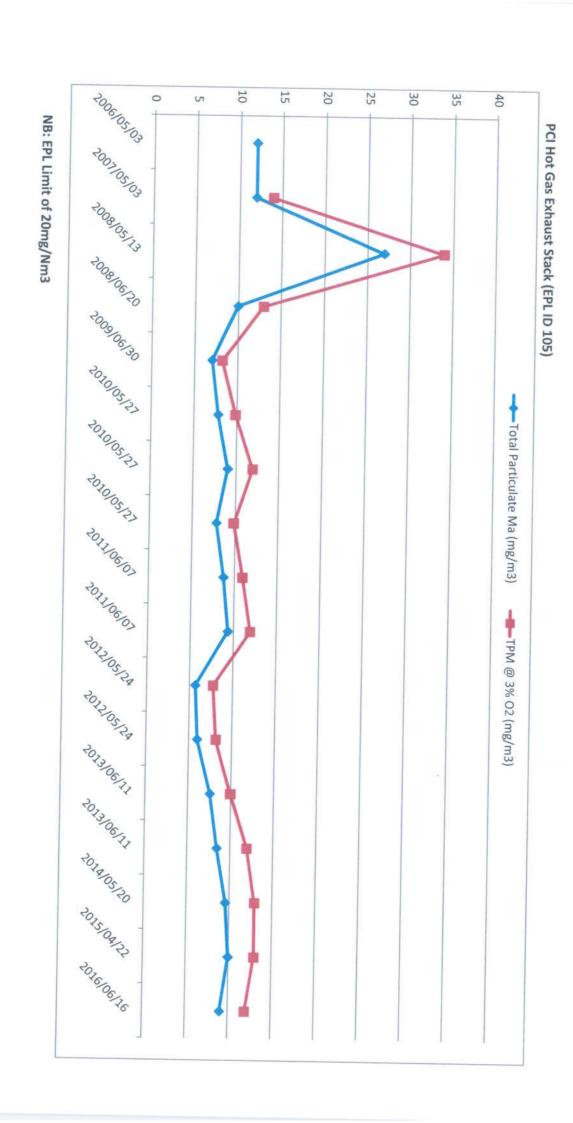
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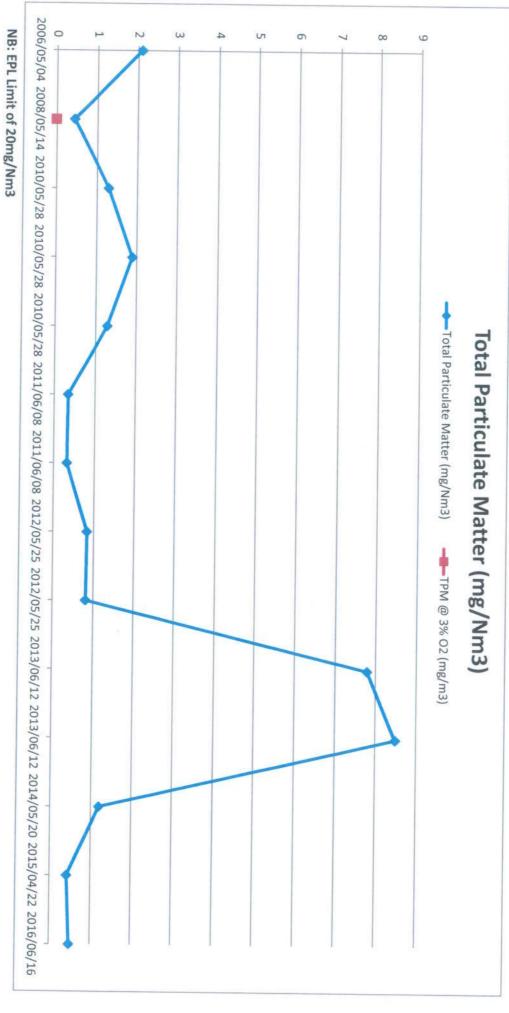
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Attachment 6 PCI Plant Emissions Data





PCI Facility - Stacks serving the depressurising bag filters (EPL ID 106)



Attachment 7 PCI DA Report FY16



Condition No.	CONDITION DESCRIPTION
1	Compliance Requirement Development shall be carried out as described in: a) Development Application No. 154-05-00, lodged with the Department of Urban Affairs and Planning on 15 May 2000; b) Port Kembla PCI Project Statement of Environmental Effects, prepared by Sinclair Knight Merz, dated May 2000; c) Hazard Analysis Report - Pulverised Coal Injection Plant, prepared by Broadleaf Capital International Pty Ltd, dated May 2000; and the requirements of Schedule 2.
	Response Compliant as per this document.
2	Compliance Requirement In the event of an inconsistency between this consent and any document described under condition 1a), 1b) or 1c), this consent shall prevail to the extent of the inconsistency. Response
	Not applicable to operations in FY16.
3	Compliance Requirement The Applicant shall comply with any reasonable requirement of the Director-General in respect of the implementation of any measure arising from reports submitted in accordance with the conditions of this consent, within such time as the Director-General may agree. Response Compliant in FY16.
	Compilate III 1 10.
4	Compliance Requirement The Applicant shall comply with all relevant conditions prescribed in Clause 78 of the Environmental Planning and Assessment Regulation 1994, as required by Section 80A(11) of the Act.
	Response Compliant as per this report.
5	Compliance Requirement The Applicant shall provide any information necessary for the EPA to determine whether the Applicant is a "fit and proper person", having regard to the matters in Section 83 of the Protection of the Environment Operations Act 1997.
	Response Not applicable to operations in FY16.



	INDUSTR
6	Compliance Requirement The Applicant shall notify the Director-General, Council and the EPA, of the events listed in a) to d). Notification shall be in writing and received at least two working days prior to the particular event. a) Commencement of construction. in the event that construction is staged, notification shall be undertaken at the commencement of each stage; b) Commencement of cold commissioning; c) Commencement of hot commissioning involving the No.5 Blast Furnace; d) Commencement of hot commissioning involving the No.6 Blast Furnace. Response
	Not applicable to operations in FY16.
7	PLANT CAPACITY Compliance Requirement The PCI facility shall be designed, installed and operated so that the rate of injection of pulverised coal into the No.5 and the No.6 Blast Furnaces does not exceed 200 kilograms of pulverised coal per tonne of hot metal produced at either the No.5 or No.6 Blast Furnace. Response:
	This condition has been deleted as per Determination of Section 96(1A) Modification, Pulverised Coal Injection Facility, Port Kembla, Wollongong (DA 154-05-00-Mod 2). Dated 2 nd September, 2008.
8	PLANT CAPACITY Compliance Requirement No later than one month prior to the commencement of cold commissioning, or within such period otherwise agreed by the Director-General, the Applicant shall prepare and submit for approval of the Director-General, a Plant Capacity Monitoring Program (PCMP). The Plant Capacity Monitoring Program shall be prepared in consultation with the DECC and Council, and shall meet any requirements or recommendations of the DECC. The PCMP shall include details of, but not necessarily be limited to: a) the continuous monitoring of the mass rate of pulverised coal injection into the No. 5 and the No. 6 Blast Furnaces; b) correlations between the mass rate of pulverised coal injection into the No. 5 Blast Furnace and the mass rate of hot metal production at the No.5 Blast Furnace; c) correlations between the mass rate of pulverised coal injection into the No. 6 Blast Furnace and the mass rate of hot metal production at the No. 6 Blast Furnace; Submission of the PCMP to the Director-General shall be accompanied by written evidence of consultation with Council and the DECC. Response: This condition has been modified as per Determination of Section 96(1A) Modification, Pulverised Coal Injection Facility, Port Kembla, Wollongong (DA 154-05-00-Mod 2). Dated 2 nd September, 2008:
	Please refer to the "Plant Capacity Monitoring Program Report" in Attachment 7 for further details.
9	STRUCTURAL ADEQUACY Compliance Requirement Detailed plans and specifications relating to the design and construction of relevant structural elements associated with the PCI Facility are to be submitted to the Principal Certifying Authority prior to the commencement of construction works. Such plans and specifications must be accompanied by certification provided by an Accredited Certifier or a practicing professional structural engineer, certifying the



	structural adequacy of the proposed building design and compliance with the Building Code of Australia.
	Response: This condition is not applicable to operations in FY16.
10	STRUCTURAL ADEQUACY Compliance Requirement The Applicant shall notify Council and the Director-General of the appointment of a Principal Certifying Authority. The Principal Certifying Authority shall determine when inspections and compliance certificates for the PCI Facility are required, and notify Council and the Director-General of the timing for inspections and compliance certificates.
	Response: This condition is not applicable to operations in FY16.
11	VERIFICATION OF CONSTRUCTION Compliance Requirement 1) Upon completion of building works and prior to the issue of an Occupation Certificate, a certificate(s) prepared by a suitably qualified person or a Compliance Certificate(s) issued by an Accredited Certifier, is to submitted to the Principle Certifying Authority, certifying that the following building components, where relevant, have been completed in accordance with approved plans and specifications:
	 a) footings; b) reinforced concrete structures, including ground floor and any subsequent floors, and retaining walls and columns; c) structural steelwork, framing and roof structure; d) fire protection measures to building elements required to comply with the Building Code of Australia; e) mechanical ventilation; f) wall braces and tie-downs; and g) all proposed essential services.
	The certificate(s) shall indicate at which stage of construction inspections were undertaken.
	Response: This condition is not applicable to operations in FY16.
12	SERVICES Compliance Requirement Prior to the issue of an Occupation Certificate, the Applicant shall obtain written evidence that satisfactory arrangements have been made with Integral Energy, or the relevant energy authority, for the provision of electricity services to the PCI Facility. Any substation(s) existing, or required by Integral Energy, or the relevant energy authority, shall be suitably screened or enclosed.
	Response: This condition is not applicable to operations in FY16.
13	SERVICES Compliance Requirement Prior to the issue of an Occupation Certificate, the Applicant shall obtain written evidence that satisfactory arrangements have been made with Sydney Water for the provision of water to the PCI Facility. Response: This condition is not applicable to operations in FY16.



14	OBLIGATION TO PREVENT AND MINIMISE HARM TO THE ENVIRONMENT Compliance Requirement The Applicant shall carry out all practicable measures to prevent and minimise harm to the biophysical or built environments as a result of the construction and operation of the PCI Facility.
	Response: There have been no EPA Licence breaches, no public complaints and no environmental incidents at the Bis facility that resulted in actual or potential significant off-site impacts or that may have impacted on people or the biophysical environment during the FY16 year. All environmental incidents are recorded on the Bis incident register and are also maintained on the Bis Industries intranet site.
15	COMPLIANCE REPORTS
	Compliance Requirement Pre-Construction At least one month prior to the commencement of construction, or within such period otherwise agreed by the Director-General, the Applicant shall submit for the approval of the Director-General a Pre-Construction Compliance Report, detailing compliance with all relevant conditions the construction Compliance Report, detailing compliance
	with all relevant conditions that apply prior to the commencement of construction. The Pre-Construction Compliance Report shall include: a) the dates of submissions of the various studies and/ or requirements of various conditions of this consent and of their approvals and terms of approvals; b) actions taken or proposed to implement the research of their approvals.
	 b) actions taken or proposed to implement the recommendations made in terms of approvals and/or studies. Response: This condition is not applicable to operations in FY16.
16	Pre-Operation Compliance Requirement At least one month prior to the commencement of operation, or within such period as otherwise agreed by the Director-General, the Applicant shall submit for the approval of the Director-General a Pre-Operation Compliance Report, detailing compliance with all relevant conditions that apply prior to the commencement of operation. The Pre-Operation Compliance Report shall include:
	 a) the dates of submissions of the various studies and/ or requirements of various conditions, and of their approvals and terms of approvals; b) action taken or proposed to implement the recommendations made in terms of approvals and/or studies.
	Response: This condition is not applicable to operations in FY16.
17	COAL SOURCING AND TRANSPORT Compliance Requirement The sulphur content of coal to be processed in the PCI Facility shall not exceed one percent by weight (air-dried basis).
	Response: Compliant. Please refer to the Coal Monitoring Program Results in Attachment 2 for further details.



18 COAL SOURCING AND TRANSPORT

Compliance Requirement

At least one month prior to the first delivery of coal to the PCI Facility, or within such period otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General, a Coal Monitoring Program (CMP). The Coal Monitoring Program shall be prepared and implemented with an aim to demonstrate that the sulphur content of the PCI Facility feed coal does not exceed one percent by weight (air-dried basis). The CMP shall be prepared in consultation with the EPA and Council, and shall meet any requirements or recommendations of the EPA. All monitoring data shall be reported as both maximum and average values over a quarterly calendar period, and shall be otherwise reported as specified under condition S13 of the EPL. Submission of the CMP to the Director-General shall be accompanied by written evidence of consultation with Council and the EPA.

Note: The specific requirements of the Coal Monitoring Program may be stipulated in the EPL.

Response:

Compliant. Please refer to the Coal Monitoring Program Results in Attachment 2 for further details.

19 COAL SOURCING AND TRANSPORT

Compliance Requirement

Feed coal supplied to the PCI Facility shall be sourced from any combination of collieries listed in a) to c) below.

- a) Baal Bone Colliery
- b) Clarence Colliery
- c) Westcliff Colliery

The Applicant shall not source coal for processing in the PCI Facility from any colliery other than those listed above, without the prior written approval of the Director-General. The approval of the Director-General shall only be sought after consultation with Council regarding the proposed coal sourcing option. Written evidence of consultation with Council shall accompany any request made to the Director-General for approval of any coal sourcing option other than those listed under this condition.

Response:

Compliant. Please see Coal Monitoring Program Results in Attachment 2 for further details.

Please note: additional approvals have been received for: United, Bulga, Cumnock, Macquarie (West Walls End), Liddell, Mt Owen, Bayswater No 3, Rio Tinto Semi, Warkworth, Metropolitan and Bellambi (150ktpa), Vietnamese Anthracite, Newstan, Wambo, Ashton, Donaldson, Curragh, Capricorn, Fowleigh, Jellinbah, Yarrabee, Poitrel, South Walker Weak PCI, Tarrawonga and Maules Creek Coals.

Please be advised that following engagement with the NSW EPA, BlueScope's Environmental Protection Licence (EPL 6092) will be amended in the near future to establish a process for assessing and reporting on future coal type additions. Within this context, and subject to the variation of the licence, BlueScope will contact the Department of Planning & Environment to discuss potential modifications of the compliance requirements under Condition 19) of the Development Consent. Please refer to Attachment 3 for further details.



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20	COAL SOURCING AND TRANSPORT Compliance Requirement Any coal sourced from the Baal Bone Colliery, or the Clarence Colliery, shall be transported to the Steelworks by rail. The Applicant shall determine and fulfil any requirements of the State Rail Authority and Rail Access Corporation in relation to the transport of coal by rail, prior to any coal being transported in this manner. Response: Compliant. There was no coal sourced from Baal Bone or from the Clarence Colliery during FY16 period. Wambo and Metropolitan coal were railed into the Bis PCI facility during the FY16 year period.
21	COAL SOURCING AND TRANSPORT Compliance Requirement Any coal being transported to the PCI Facility from the Westcliff Colliery by road shall follow the route indicated in Figure 3.3, titled Coal Truck Route, and presented in the Port Kembla PCI Project Statement of Environmental Effects prepared by Sinclair Knight Merz, dated May 2000. All coal supplied to the PCI Facility shall enter the Steelworks through the Area 21 entrance Response: Compliant. There was no PCI coal sourced from Westcliff Colliery and no PCI coal transported to the steelworks by road in FY16
22	HAZARDS STUDIES Pre-Construction Studies Compliance Requirement At least one month prior to the commencement of construction of the PCI Facility (except for construction of those preliminary works that are outside the scope of the Hazards Studies), or within such period otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General the studies set out under subsections a) to d) (the Pre-Construction Studies). Construction shall not commence until approval has been given by the Director-General and, with respect to the Fire Safety Study, approval has also been given by the Commissioner of the NSW Fire Brigades.
	a) A Fire Safety Study for the proposed development. The Study shall cover all aspects detailed in the Department's Hazardous Industry Planning Advisory Paper No. 2 - Fire Safety Study Guidelines and the New South Wales Government's Best Practice Guidelines for Contaminated Water Retention and Treatment Systems. The study shall also be submitted to the NSW Fire Brigades for approval.
	b) A Hazard and Operability Study for the proposed development, chaired by an independent qualified person approved by the Director-General prior to the commencement of the Study. The Study shall be carried out in accordance with the Department's Hazardous Industry Planning Advisory paper No. 8 - HAZOP Guidelines.
	c) An Updated Hazard Analysis, in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 6 - Guidelines for Hazard Analysis. The Updated Hazard Analysis shall focus on any changes to the risk assessment detailed in Hazard Analysis Report - Pulverised Coal Injection Plant, prepared by Broadleaf Capital International Pty Ltd and dated May 2000.
	d) A Construction Safety Study prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 7 - Construction Safety Study Guidelines. Should the construction period exceed six (6) months, the commissioning portion of the Construction Safety Study may be submitted two months prior to the commencement of cold commissioning.



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	Response: This condition is not applicable to operations in FY16.
23	HAZARD STUDIES Pre Commissioning Studies Compliance Requirement No later than two months prior to the commencement of cold commissioning of the PCI Facility, or within such period otherwise agreed the Director-General, the Applicant shall prepare and submit for approval of the Director-General the studies set out under subsections a) to b) (the Pre-Commissioning Studies). Cold commissioning shall not commence until approval has been given by the Director-General.
	a) A comprehensive Emergency Plan and detailed emergency procedures for the proposed development, prepared by a duly qualified person or team. This Plan shall include detailed procedures for the safety of all people outside the development who may be at risk from the development. The plan shall be in accordance with the Department's Hazardous Industry Planning Advisory paper No. 1 - Industry Emergency Planning Guidelines. The Emergency Plan shall include, but not necessarily be limited to:
	 (i) identification of any threat to the environment and/ or public health that could arise from the construction or operation of the PCI Facility, including explosion, difficulties during cold or hot commissioning, condenser circuit overflow, utility failure, natural disaster, etc.; (ii) assessment to identify the potential for any internal or external initiator of disruptions to operations at the PCI Facility; (iii) determination of the impact of any disruption identified under ii) on the operations at the PCI Facility and the Steelworks; (iv) identification of the type and extent of any pollution that may result as a result of a disruption identified under ii), and the effect of any pollution on the environment and public health; (v) formulation of Response: procedures in the event of a disruption identified under ii), with an aim to minimise risk and pollution impacts on the PCI Facility, the Steelworks, the environment and public health; (vi) development of a strategy for alerting authorities, relevant agencies and the potentially affected community in the event of a disruption to operations leading to significant pollution or risk; (vii) development of a program to ensure that all relevant employees are familiar with the Emergency Plan and emergency procedures.
	Should an Emergency Plan for the Steelworks already be in existence, this condition may be satisfied by updating the existing Emergency Plan to include the PCI Facility. A document setting out a comprehensive Safety Management System, covering all operations on-site and associated transport activities involving hazardous materials. The document shall clearly specify all safety-related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to procedures. Records shall be kept on-site and shall be available for inspection by the Director-General upon request. The Safety Management System shall be developed in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 9 - Safety Management. Should a Safety Management System for the Steelworks already be in existence, this condition may be satisfied by updating the existing Safety Management System to include the PCI Facility.

Response:

This condition is not applicable to operations in FY16.



24 Incident Report Compliance Requirement Within 24 hours of any incident or potential incident with actual or potential significant off-site impacts on people or the biophysical environment, a report shall be supplied to the Department outlining the basic facts. A further detailed report shall be prepared and submitted following investigations of the causes and identification of necessary additional preventative measures. The report shall be submitted to the Director-General no later than 14 days after the incident or potential incident. The Applicant shall maintain a register of accidents, incidents and potential incidents. The register shall be made available, at any time, for inspection by the Director-General. Compliant. There have been no EPA Licence breaches, no public complaints and no environmental incidents at the Bis facility that resulted in actual or potential significant off-site impacts or that may have impacted on people or the biophysical environment during the FY16 year. All environmental incidents are recorded on the Bis incident register and are also maintained on the Bis Industries intranet site. 25 **Incident Report** Compliance Requirement In the event that a disruption to operations results in significant pollution being emitted from the PCI Facility, the Applicant shall, in addition to any reporting requirement under condition 24 of this consent, prepare a report for submission to the EPA detailing: a) results of an assessment to determine the potential internal and external causes of the disruption of operations at the PCI Facility; b) details of how these disruptions would impact on operations; and c) identification of the pollution that would result due to the disruption of operations and what impact the pollution would have on the health of the community and the environment. Response: Compliant. There were no disruptions to operations that resulted in significant pollution being emitted from the PCI Facility during the FY16 year. 26 **Hazard Audit** Compliance Requirement Twelve months after the commencement of operation of the proposed development, or within such further period as the Director-General may agree, the Applicant shall carry out a comprehensive Hazard Audit of the proposed development, and within one month of the Audit submit a report to the Director-General. The Audit shall be carried out at the Applicant's expense by a duly qualified independent person or team, approved by the Director-General, prior to commencement of the Audit. Further Hazard Audits shall be undertaken every three years, or as may be requested by the Director-General. Hazard Audits shall be carried out in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 5 - Hazard Audit Guidelines. Response: A hazard audit was conducted at the Bis PCI facility on the 25 th and 26 th October 2016. The hazard audit was conducted by Mr. Phillip Skinner from Arriscar Risk Engineering Services. In accordance with requirements of this condition, the hazard report will be submitted to the Department of Planning and Environment within one month of conducting the audit.



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27	Bunding Compliance Requirement Impervious bunds shall be constructed around all dangerous goods storage areas. Bund capacity shall be no less than 110% of the volume of the largest storage container located within the bund. The bund shall be designed and installed in accordance with the requirements of the EPA's Environment Protection Manual Technical Bulletin – Bunding and Spill Management and with any Australian Standard relevant to the class of dangerous goods stored. Response:
	Compliant. Bunding provisions are in place at all Dangerous Goods Storage compounds. All bunding facilities were inspected by BSL Environmental officers as part of Pollution Reduction Programme PRP 145 in 2009 and complied with the requirements specified in the EPA's Environment Protection Manual Technical Bulletin – Bunding and Spill Management requirements.
28	WORK COVER REQUIREMENTS Compliance Requirement The development shall comply with the requirements of the Dangerous Goods Act 1975, as administered by WorkCover NSW, and if necessary be licensed under that Act. Response: Compliant. All Dangerous Goods storage facilities at the Bis facility are currently licensed with Comcare.
29	WORK COVER REQUIREMENTS Compliance Requirement WorkCover NSW shall be contacted in writing prior to the commencement of construction activities in respect of any demolition or use of any crane, hoist, plant or scaffolding. Any requirements of WorkCover NSW in Response: to this written advice shall be undertaken at the Applicant's expense. Response: This condition is not applicable to operations in FY16.
30	NOISE MANAGEMENT Compliance Requirement Any construction activity, including, but not limited to, pile-driving and jack-picking, that may be reasonably considered noisy, shall be restricted to between 7:00 am and 6:00 pm, Mondays to Fridays, and 7:00 am to 1:00 pm on Saturdays. There shall be no construction activities undertaken on Sundays or public holidays. Response: This condition is not applicable to operations in FY16.
31	NOISE MANAGEMENT Compliance Requirement The hours of construction specified under condition 30 may be varied with the prior written approval of the EPA. Any request to alter the hours of construction specified in condition 30 shall: (i) be approved on a case-by-case basis; (ii) require the Applicant to consult with Council to determine Council's requirements and/or recommendations with respect to the proposed construction activity; (iii) provide any necessary information for the EPA to reasonably determine that the proposed construction activity will not adversely affect the acoustic amenity of any resident in the vicinity of the PCI Facility.



	The Applicant shall notify the Director-General of any approval to alter the construction times specified under condition 30, accompanied by written evidence of the EPA's approval of the construction activity.
	Response: Compliant. There has not been any construction related activities at the Bis facility in FY16.
32	NOISE MANAGEMENT
	Compliance Requirement The Applicant shall comply, at its own expense, with any reasonable request made by the EPA or Council to notify residents of construction activities, that the EPA or Council may reasonably consider noisy, outside the times specified in condition 30, and approved under condition 31.
	Response:
	Compliant. There has not been any construction related activities at the Bis facility in FY16 and there has not been any requests from the EPA or Council to notify residents of construction activities.
33	NOISE MANAGEMENT
	Compliance Requirement Noise from the PCI Facility shall not exceed an LA10(15 minute) noise pressure criterion of 75 dB(A) when measured at the monitoring sites nominated in plan titled PCI Plant Noise Monitoring Locations dated 29 June 2000. The LA10(15 minute) noise pressure criterion shall be measured or computed at the nominated sites over a period of 15 minutes using "FAST" Response on a sound level meter. The noise pressure measured or computed shall be increased by 5 dB(A) if the noise is substantially tonal or impulsive in character.
	Response: Compliant. As per our email communication to Mr.Chris Schultz of the Department of Planning and Environment on the 5 th November 2015, please be advised that noise surveys were conducted at the Bis PCI in November 2015. Noise survey results demonstrate that the PCI facility complies with all condition 33) environmental noise compliance requirements. Please refer to Attachment 9 for details.
	Please be advised that the next noise survey to be conducted at the Bis PCI facility is to be completed in 2020.
34	NOISE MANAGEMENT
34	Compliance Requirement Noise impacts that may be enhanced by temperature inversions shall be addressed by:
	 a) documenting noise complaints received to identify any higher level of impacts or patterns of temperature inversions; and b) where levels of noise complaints indicate a higher level of impact, then actions to quantify and ameliorate any enhanced impacts under temperature inversion conditions shall be developed and implemented.
	Response:
35	Compliant. There were no noise complaints for the PCI Facility during the FY16 year.
33	Construction Noise Management Plan Compliance Requirement At least one month prior to the commencement of construction, or within such period otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General, a Construction Noise Management Plan (CNMP). The CNMP shall be prepared and implemented with an aim to reduce noise impacts on surrounding land uses during the construction of the PCL Facility. The
	impacts on surrounding land uses during the construction of the PCI Facility. The CNMP shall be prepared in consultation with the EPA and Council, and shall meet an



requirements or recommendations of the EPA. The CNMP shall include, but not necessarily be limited to, details regarding:

- a) compliance standards:
- b) community consultation;
- c) complaints handling/ monitoring system;
- d) contact details for a person responsible for following-up complaints;
- e) noise mitigation measures:
- the design/ orientation of the proposed noise mitigation measures, demonstrating best practice;
- g) construction times;
- h) contingency measures in the event that noise complaints are received;
- i) monitoring methods and programs.

The Construction Noise Management Plan shall specifically address large concrete pours that may commence in the early morning and be completed in the late evening, or any other construction activity that is likely to require EPA approval under condition 31, for variation of the construction times specified under condition 30. Submission of the CNMP to the Director-General shall be accompanied by written evidence of consultation with Council and the EPA.

Response:

Compliant. There has not been any construction related activities at the Bis facility in FY16.

Operational Noise Management Plan Compliance Requirement

At least one month prior to the commencement of cold commissioning, or within such period otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General, an Operational Noise Management Plan (ONMP). The ONMP shall be prepared and implemented with an aim to confirm performance and assess compliance with condition 33 of this consent. The ONMP shall be prepared in consultation with the EPA and Council, and shall meet any requirements or recommendations of the EPA. The ONMP shall include, but not necessarily be limited to, details regarding:

- a) methodologies for noise monitoring;
- b) location of noise monitoring. For the purpose of ascertaining compliance with noise impact goals, monitoring sites shall include noise monitoring locations at both industrial sites and nearest, most affected residential sites;
- frequency of noise monitoring during cold commissioning, hot commissioning and operation;
- d) identification of noise monitoring sites; and
- a commitment to undertake noise reduction strategies, if monitoring indicates non-compliance with noise limits or planning goals, including a time frame for implementation to achieve compliance, if required.

Submission of the ONMP to the Director-General shall be accompanied by written evidence of consultation with Council and the EPA.

Note: The specific requirements of the Operational Noise Monitoring Program may be stipulated in the EPL.

Response:

This condition is not applicable to operations in FY16.

37 AIR QUALITY MANAGEMENT

Compliance Requirement

The works required by PRP 53 of EPL 6092 shall achieve the following minimum annual emissions reductions from the Steelworks Sinter Plant Stack, in both annual mass emissions and emissions per tonne of sinter produced:



- a) a minimum reduction in NO_x emissions of 10 percent, with an aim to reduce emissions of NO_x up to 20 percent; and
- b) a minimum reduction in emissions of SO2 of 58 percent;

These reductions are to be calculated using a methodology approved by the EPA.

Note: The EPA has assessed the likely mass emissions of NO_x and SO_2 as a result of the operation of the PCI Facility, in conjunction with PRP 53 for the Sinter Plant Gas Cleaning Project. Any increases in NO_x and SO_2 emissions from the PCI Facility will be offset by decreases in emissions from the Sinter Plant following completion of PRP 53 in year 2002.

The minimum percentage reduction specified in condition 37 of this consent ensures that mass emissions of NO_x will be reduced below a NO_x-neutral level with the aim to reduce NO_x emissions to 1998 levels to meet the actions specified in the NSW Government's 25-Year Air Quality Management Plan. While the NSW Government's 25-Year Air Quality Management Plan does not specifically detail actions to deal with SO₂ emissions, the EPA supports the Applicant's initiative to reduce mass emissions of SO₂ to 1998 levels as indicated in the percentage reduction levels specified in condition 37.

While there will be increases in NO_x and SO₂ emissions for a one-year period until the completion of PRP 53, these increases are not expected to cause exceedances of NEPM goals. The Air Quality Monitoring Program required under condition 40 aims to assess compliance with the specified percentage reductions.

Response:

Compliant.

Pollution Reduction Program PRP 53 was completed through the construction and operation of the (SMERP – Sinter Machine Emission Reduction Project) pursuant to development consent granted on 1 August 2001 by the Minister for Urban Affairs and Planning in response to DA 26-02-01.

Condition 37) of the PCI Development consent was superseded by monitoring and reporting requirements detailed in condition 4.19) of the Sinter Machine Emission Reduction Project. Monitoring undertaken since the construction of the Waste Gas Cleaning Plant demonstrates that the required reduction in NOx and SO2 emissions have been met. There have been a number of variations (post the completion of PRP 53) to the BSL EPL 6092 Licence that have resulted in the :

- Deletion of the Sinter Plant SOx annual load reduction limit of 748 tonnes per annum; and,
- The replacement of the annual NOx reduction limit of 314 tonnes per annum with an annual load limit of 8,085,00.0 kg for the entire BSL Port Kembla Steelworks facility into the BSL EPA 6092 Licence.

Therefore condition 37) has been satisfied and has no ongoing application.

38 AIR QUALITY MANAGEMENT

Compliance Requirement

Should the works required by PRP 53 of EPL 6092 not be undertaken, emissions reductions of 314 tonnes per year of NO_x and 748 tonnes per year of SO_2 shall be achieved at other emissions sources at the Steelworks.

Response:

This condition is no longer applicable Please refer to response provided for Condition 37) for further details.

39 AIR QUALITY MANAGEMENT

Compliance Requirement

For each discharge point specified in the tables below, the concentration of a pollutant discharged at that discharge point shall not exceed the concentration limit specified for that pollutant. The averaging period shall be undertaken in accordance with the Test Methods specified in the *Approved Methods for Sampling and Analysis of Air*



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	Pollutants in New South Wales. All monitoring shall be conducted in strict accordance with the requirements outlined in that document.
	Response: Compliant. Please see Air Quality Monitoring Program report in Attachment 4 for further details.
40	AIR QUALITY MANAGEMENT Compliance Requirement At least six months prior to cold commissioning, or within such period as otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General, an Air Quality Monitoring Program (AQMP). The AQMP shall be prepared and implemented with the aims to:
	 a) demonstrate the reductions in SO₂ and NO_x emissions required under condition 37 of this consent; b) assess ambient air quality, with respect to SO₂ and NO_x, in the context of NEPM goals; c) demonstrate compliance with the discharge point quality criteria specified under condition 39 of this consent.
	The AQMP shall be prepared in consultation with the EPA and Council, and shall meet any requirements or recommendations of the EPA. The AQMP shall be in accordance with <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South</i> Wales. Submission of the AQMP to the Director-General shall be accompanied by written evidence of consultation with Council and the EPA.
	Note: The specific requirements of the Air Quality Monitoring Program may be stipulated in the EPL.
	Response: This condition is not applicable to operations in FY16.
41	AIR QUALITY MANAGEMENT
	Compliance Requirement In regard to condition 40(b) of this consent, the Air Quality Monitoring Program shall include, but not necessarily be limited to, details of:
	 a) the monitoring methodologies and standards to be employed to assess any changes in ambient air quality both pre- and post- PCI and Sinter Plant Gas Cleaning Project development; b) monitoring location(s); c) frequency of monitoring; d) reporting and assessment of monitoring results; e) Opportunities to integrate the Air Quality Monitoring Program with other
	 e) Opportunities to integrate the Air Quality Monitoring Program with other monitoring programs.
	Response: Compliant. Please see Air Quality Monitoring Program report in Attachment 4 for further details.
42	AIR QUALITY MANAGEMENT Compliance Requirement In regard to condition 40 c) of this consent, the Applicant shall monitor the concentration of each of the pollutants specified in the tables below, at the discharge points indicated. The applicant shall use the sampling methods and units of measure specified in the tables. Sampling methods shall be those specified in Approved Methods for Sampling and Analysis of Air Pollutants in New South Wales.
	Response: Compliant. Please see Air Quality Monitoring Program report in Attachment 4 for
	40.15



	further details.
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43	AIR QUALITY MANAGEMENT Compliance Requirement Monitoring for the concentration of a pollutant emitted to the air, required to be conducted under this consent, or the EPL, in relation to the PCI Facility, or in order to comply with a relevant local calculation protocol must be performed in accordance with:
	 any methodology which is required by or under the <i>Protection of the Environment Operations Act 1997</i> to be used for the testing of the concentration of the pollutant; or if no such requirement is imposed by or under the <i>Protection of the Environment Operations Act 1997</i>, any methodology which this consent or a condition of the EPL or a local calculation protocol (as the case may be) requires to be used for that testing; or if no such requirement is imposed by or under the <i>Protection of the Environment Operations Act 1997</i>, or this consent, or a condition of the EPL or a local calculation protocol (as the case may be), any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.
	Note: The Clean Air Act (Plant and Equipment) Regulation 1997 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales. Response: Compliant. Please see Air Quality Monitoring Program report in Attachment 4 for further details.
44	DUST MANAGEMENT Compliance Requirement Activities undertaken during the construction of the PCI Facility shall be carried out in a manner that will minimise the generation of dust.
	Response: This condition is not applicable to operations in FY16.
45	DUST MANAGEMENT Compliance Requirement The PCI Facility shall be designed, installed and operated with the objective of no visible dust emissions from the plant, equipment and associated activities. This shall include:
	 a) All conveyor systems and transfer points associated with the PCI Facility being designed, maintained and operated to achieve no visible dust emissions; and b) All conveyor systems associated with the PCI Facility being fully enclosed with the aim of preventing visible dust emissions; and c) Effective cleaning devices being installed on the return sides of all conveyor systems.
	Response: Compliant. Please see PCI DA Monitoring Program in Attachment 5 for further details.



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46	DUST MANAGEMENT Compliance Requirement
	At least six months prior to the commencement of cold commissioning, or within such period otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General, a Dust Management Plan (DMP). The DMP shall be prepared and implemented with an aim to achieve no visible dust emissions from the plant, equipment and associated activities. The DMP shall be prepared in consultation with the EPA and Council, and shall meet any requirements or recommendations of the EPA. Submission of the DMP to the Director-General shall be accompanied by written evidence of consultation with Council and the EPA.
	Response: This condition is not applicable to operations in FY16.
47	DUST MANAGEMENT Compliance Requirement The Dust Management Plan required under condition 46 of this consent shall include details of a Dust Suppression Management System, developed in consultation with Council and the EPA. The Dust Suppression Management System shall have an aim of preventing visible dust emissions at all times from sealed and unsealed areas that are the subject of this consent. Unsealed areas shall include the Feed Coal Stockpile, associated coal handling areas and radial stacker. The Dust Suppression Management System shall be integrated into the BHP High Wind Early Warning System.
	Response: Compliant. Please see PCI DA Monitoring Program in Attachment 5 for further details.
48	DUST MANAGEMENT Compliance Requirement Waste oils, or any medium other than water, shall not be applied to the PCI Facility Feed Coal Stockpile for any reason.
	Response: Compliant. Please see PCI DA Monitoring Program in Attachment 5 for further details.
49	DUST MANAGEMENT Compliance Requirement The Applicant shall ensure that all vehicles leaving the unsealed areas of the PCI Facility pass through the No. 3 Truck Wheel Washer. Response: Compliant. Please see PCI DA Monitoring Program in Attachment 5 for further details.
50	SOIL AND WATER MANAGEMENT Compliance Requirement The site and activities carried out therein must not pollute the surface or groundwater. Response: Compliant. There have been no licence breaches, no public complaints and no environmental incidents at the Bis facility that have caused or threatened harm to the biophysical or built environments as per the POEO definitions during FY16.
51	SOIL AND WATER MANAGEMENT Compliance Requirement The volumetric flow-rate of blowdown from the No. 6 Blast Furnace Gas Cleaning Recirculating System, with which the PCI Condenser Circuit blowdown has been combined, shall not exceed 30kL h ⁻¹ .



Note: The volumetric flowrate of blowdown from the No. 6 Blast Furnace Gas Cleaning Recirculating System will not increase as a result of the addition of blowdown from the PCI Condenser Circuit. The EPA is satisfied that make-up water to the No. 6 Blast Furnace Gas Cleaning Recirculating System, can be replaced with PCI Condenser Circuit blowdown.

In relation to the No. 5 Blast Furnace, PRP 54 of the EPL requires BHP to undertake an investigation to upgrade the Gas Cleaning System, with completion of the investigation in December 2001. The aim of PRP 54 is to investigate options to replace the once-through salt-water cleaning system to reduce mass loads of pollutants discharged from the No. 5 Blast Furnace Drain.

Response:

Compliant. This condition is no longer applicable as No.6 Blast Furnace has been decommissioned.

52 SOIL AND WATER MANAGEMENT Compliance Requirement

At least one month prior to the commencement of hot commissioning, or within such period otherwise agreed by the Director, the Applicant shall prepare and submit for the approval of the Director-General a Blowdown Monitoring Program (BMP). The BMP shall be prepared and implemented with an aim to demonstrate that the quality and quantity of blowdown from the No. 6 Blast Furnace Gas Cleaning Recirculating System has not changed as a result of the inclusion of the PCI Facility Condenser Circuit blowdown. The BMP shall be prepared in consultation with the EPA and Council, and shall meet any requirements or recommendations of the EPA. The BMP shall include, but not necessarily be limited to, details regarding:

- the monitoring methodologies and standards to be employed to assess any changes in No. 6 Blast Furnace blowdown water quality and quantity;
- b) monitoring frequency;
- c) reporting and assessment of monitoring results;
- d) the parameters and substances which are proposed to be monitored; and
- opportunities to integrate the Blowdown Quality Monitoring Program with other monitoring programs.

Submission of the BMP to the Director-General shall be accompanied by written evidence of consultation with Council and the EPA.

Note: The specific requirements of the Blowdown Monitoring Program may be stipulated in the EPL.

Response:

Compliant. This condition is no longer applicable as No.6 Blast Furnace has been decommissioned.

53 SOIL AND WATER MANAGEMENT

Compliance Requirement

Temporary sediment fences (eg haybales, geotextile fabric, or other appropriate material) shall be installed on the site prior to the commencement of any excavation activity, in accordance with Council's Guidelines. Upon completion of the PCI Facility, sediment fences shall remain in place until adequate soil erosion measures and sediment control measures are completed to the satisfaction of Council.

Response:

This condition is not applicable to operations in FY16.

54 SOIL AND WATER MANAGEMENT

Compliance Requirement

Drains, gutters, access ways and roadways shall be maintained free of sediment and any other polluting material. Gutters and roadways shall be swept or scraped regularly to maintain them in a clean state



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	Response: Compliant. Fugitive dust emissions on internal roadways are minimised by the use of road sweepers and water carts that operate in the area.
55	SOIL AND WATER MANAGEMENT Compliance Requirement
	Construction activities such as brick-cutting, the washing of tools or paints brushes, or other equipment, and the mixing of mortar shall not be carried out on any roadway or public footpath or any other location which could lead to the discharge of polluting materials into the stormwater drainage system, or into a natural watercourse.
	Response: Compliant. There have been no environmental incidents, no EPA licence breaches and no public complaints associated with construction activities at the Bis PCI facility during the FY16 period.
56	SOIL AND WATER MANAGEMENT
	Compliance Requirement The Feed Coal Stockpile area shall be isolated from any clean areas of the PCI Facility and the Steelworks to ensure contaminated surface water from the Stockpile area is collected, treated and beneficially reused at the PCI Facility or the Steelworks.
	Response: Compliant. Please see DA Monitoring Programs in Attachment 5 for further details.
57	SOIL AND WATER MANAGEMENT
	Compliance Requirement All equipment shall be designed, installed and operated to minimise the potential for spillage. Any spillage shall be immediately cleaned up in an appropriate manner.
	Response: Compliant. There have been no environmental incidents, no EPA licence breaches and no public complaints associated Bis PCI facility during the FY16 period.
58	SOIL AND WATER MANAGEMENT
	Compliance Requirement Stockpiles of sand, gravel, soil and the like, shall be located to ensure that the stockpiled material:
	 a) does not spill onto the road pavement; and b) is not placed in drainage lines or water courses, and cannot be washed into these areas.
	In the event that soil or other stockpiled material is accidentally spilled onto the road or gutter, the material shall be removed prior to the completion of the day's work. In the event of impending wet weather, the material shall be removed immediately.
	Response: Compliant. None of the abovementioned materials have been stockpiled at the Bis facility during the FY16 period.
59	Soil and Water Management Plan Compliance Requirement
	At least one month prior to the commencement of construction activities, or within such period otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General, a Soil and Water Management Plan (SWMP). The SWMP shall be prepared and implemented with an aim to detail measures to be employed to minimise soil erosion and the discharge of sediment and any other pollutant to lands and/ or waters during construction. The SWMP shall be



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	prepared in consultation with the EPA and Council, and shall meet the requirements and recommendations of the EPA. The SWMP shall be prepared in accordance with the Department of Housing's publication <i>Managing Urban Stormwater: Soils and Construction</i> . Submission of the SWMP to the Director-General shall be accompanied by written evidence of consultation with Council and the EPA. Response: This condition is not applicable to operations in FY16.
	This condition is not applicable to operations in FTTo.
60	Soil and Water Management Plan Compliance Requirement The Soil and Water Management Plan required under condition 59 of this consent shall include consideration of dust management during construction of the PCI Facility. Details of measures to prevent wind-blown dust during construction shall be outlined in the SWMP.
0.4	Response: Compliant. This condition is not applicable to operations in FY16.
61	STORM WATER MANAGEMENT Storm Water Management Plan Compliance Requirement
	At least six months prior to cold commissioning, or the first delivery of coal to the PCI Facility, whichever is the earlier, or within such period otherwise agreed by the Director-General, the Applicant shall prepare and submit for the approval of the Director-General a Stormwater Management Plan (SMP). The SMP shall be prepared and implemented with an aim to reduce pollutants discharged from the PCI Facility during wet weather and to meet licence conditions of the EPL relevant to wet weather. The SMP shall be prepared in consultation with the EPA and Council, and shall meet the requirements and recommendations of the EPA. The SMP shall encompass the following environmental objectives and requirements, unless otherwise approved by the EPA:
	 a) For paved areas, being essentially an area where first-flush effects occur, all polluted runoff from a storm event shall be collected and treated for beneficial reuse purposes up to a one in ten year Average Return Interval, ten minute rainfall event; b) For unpaved area, being essentially an area where the contaminant load carried in runoff from a storm event does not exhibit characteristic first-flush effects, all polluted runoff from a storm event shall be collected and treated for beneficial reuse purposes up to a one in ten year Average Return Interval, two hour rainfall event; and c) Upgrade of the stormwater treatment facility known as "7A Settling Basin" to operate to collect and treat polluted runoff for beneficial reuse purposes up to the first 31 minutes of a one in ten year Average Return Interval, two hour rainfall event.
	Submission of the SWMP to the Director-General shall be accompanied by written evidence of consultation with Council and the EPA.
	Response: This condition is not applicable to operations in FY16. Note PRP 176 was completed and signed off by the EPA on 14 th September, 2016. Please refer to Attachment 6.
62	WASTE MANAGEMENT Compliance Requirement Any slurries, dusts and sludges associated from the process of materials shall be treated and recycled at the Steelworks in accordance with the requirements of the EPL. Other materials shall be disposed in an environmentally appropriate manner.
	Response: Compliant. All Bis PCI facility Wastes have been identified and recorded into the PCI Environmental Aspects and Impacts register. No incidents of incorrect waste disposal



	were recorded during the FY16 period.
63	WASTE MANAGEMENT Compliance Requirement The Applicant shall provide an adequate receptacle to store all waste generated by the PCI Facility, pending disposal. The receptacle shall be regularly emptied and waste shall not be allowed to lie or accumulate on the site, other than in the receptacle. Consideration shall be given to the source-separation of recyclable and reusable materials.
	Response: Compliant. All wastes identified in PCI Aspects and Impacts register are disposed by approved contractors. No incidents of incorrect waste disposal were recorded at the Bis PCI facility during the FY16 period.
64	ENVIRONMENTAL MONITORING AND REPORTING
	Compliance Requirement The results of any monitoring required under this consent, or a licence under the Protection of the Environment Operations Act 1997 in relation to the PCI Facility, or in order to comply with the load calculation protocol, shall be recorded and retained as set out in conditions 65 and 66 of this consent.
	Response: Compliant. Please see Air Quality Monitoring Report in Attachment 4 for further details. All historical stack testing results are kept on record.
65	ENVIRONMENTAL MONITORING AND REPORTING Compliance Requirement
	The results of any monitoring referred to under condition 64 of this consent shall be:
	 a) in a legible form, or in a form that can be readily reduced to a legible form; b) kept for at least four years after the monitoring or event to which the results relate took place; and
	 produced in a legible form to any authorised officer of the EPA who requests to see them, or to the Director-General.
66	Response: Compliant. As per Response comment for Condition 64.
	ENVIRONMENTAL MONITORING AND REPORTING Compliance Requirement The following records shall be kept in respect of any samples required to be collected:
	 the date(s) on which the sample(s) were collected; the time(s) at which the sample(s) were collected; the point(s) at which the sample(s) were collected; and
	d) the name of the person(s) who collected the sample(s). Response:
	Compliant. As per Response comment for Condition 64.
67	ENVIRONMENTAL MONITORING AND REPORTING Compliance Requirement The Applicant shall submit an Annual Return to the EPA in relation to the development as defined, and required, by the EPL under the Protection of the Environment Operations Act 1997, in relation to the PCI Facility. In the Return, the Applicant shall:
	a) report on the annual monitoring undertaken (where the activity has resulted
	in pollutant discharges); b) provide a summary of complaints relating to the PCI Facility;



c) report on compliance with EPL conditions; and

provide a calculation of EPL fees (administrative fees and, where relevant, load-based fees) that are payable. If load-based fees apply to the activity, the Applicant shall be required to submit load-based fee calculation worksheets with the Return.

Response:

Compliant. All Bis PCI facility related Environmental Monitoring, EPL Licence compliance and Load Based Licensing details are included in the BlueScope Annual Return submission to the EPA on an annual basis for EPL6092.

68 ENVIRONMENTAL MONITORING AND REPORTING Compliance Requirement

The Applicant shall prepare and submit for the approval of the Director-General, an Environmental Monitoring Report (EMR), on a yearly basis, with the first EMR to be submitted no later than 12 twelve months after the date of this consent. A copy of the EMP shall also be submitted to Council for its records. The aims of the EMR, as distinct from the Annual Return required under condition 67 of this consent, are to:

- a) allow the Director-General to assess compliance with the relevant conditions of this consent; and
- b) provide a document, accessible to the public, that clearly demonstrates the environmental performance of the PCI Facility.

The Applicant shall agree to Council and the Director-General making the Environmental Monitoring Reports available on request for public inspection.

Response:

Compliant. This document has been compiled and is a component of the EMR for the FY16 reporting period. The EMR can be made available on request for public inspection. Please refer to Attachment 8.

69 ENVIRONMENTAL MONITORING AND REPORTING Compliance Requirement

The EMR shall include, but not necessarily be limited to:

- a) a summary and discussion of all results and analyses for the preceding 12month period, from the Programs and Plans listed in i) to viii).
 - (i) Plant Capacity Monitoring Program;
 - (ii) Coal Monitoring Program;
 - (iii) Construction Noise Monitoring Program (during construction);
 - (iv) Operational Noise Monitoring Program (during operation);
 - (v) Air Quality Monitoring Program;
 - (vi) Dust Management Plan;
 - (vii) Blowdown Monitoring Program; and
 - (viii) Stormwater Management Plan.
- a discussion of any aims of the Programs and Plans listed under condition 69 a), and to what degree these aims have been achieved in the context of the results and analyses of those Programs and Plans.
- an outline of compliance with the relevant conditions of this consent in the context of the results and analyses of the Programs and Plans listed under condition 69 a):
- d) a summary of complaints relating to the PCI Facility; and
- e) details of any actions taken, or intended to be taken, if any, to mitigate any adverse environmental impacts and to meet the reasonable requirements of the Director-General.

The EMR shall be clear and concise, and in a format that is easily accessible to, and understood by, the general public.



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	Response: Compliant. As per comments for Condition 68. Please refer to Attachment 8.
70	GENERAL Compliance Requirement All activities, goods and materials associated with the construction or operation of the PCI Facility shall be performed or stored, wholly within the Site.
	Response: This condition is not applicable to operations in FY16.
71	GENERAL Compliance Requirement The lighting of the PCI Facility shall be directed so as not to cause nuisance to the owners or occupiers of premises adjoining the Steelworks or to motorists on adjoining or nearby roads.
	Response: Compliant. There have been no public complaints or incidents associated with nuisance from PCI lighting during FY16.
72	GENERAL Compliance Requirement The PCI Facility shall be constructed and maintained so that the colours and materials used in the construction are in accordance with the BHP Environmental Improvement Program - Masterplan for the Steelworks.
	Response: Compliant. The colours and materials used in the construction of the Bis PCI facility comply with the original approved colours and materials as per original Development Consent requirements.
73	GENERAL Compliance Requirement To prevent any damage by wind uplift, adequate fixing and bracing shall be provided to the PCI Facility roof structure to withstand the loading requirements of Australian Standards AS1170.1 and AS1170.2.
	Response: Compliant. There have been no incidents associated with damage by wind uplift during FY16.
74	GENERAL Compliance Requirement Any demolition activity shall comply with the requirements of Australian Standard AS2601-1991.
	Response: This condition is not applicable to operations in FY16.
75	GENERAL Compliance Requirement All staff, including contractors and subcontractors, shall be trained in environmental awareness and responsibility, as required under the EPL, both generally and specifically to the Applicant's activities. The training program shall be implemented annually from the commencement of the development and evaluated as part of the EPL review.
	Response: Compliant. Environmental awareness and responsibilities for all Bis PCI employees have been incorporated into the Bis PCI induction process.



76	GENERAL Compliance Requirement This approval and consent does not relieve the Applicant of any obligation to obtain any other approval under the Local Government Act 1993, as amended, the Ordinance made thereunder, or any other Act.
	Response: Compliant. There have been no environmental licence breaches, no public complaints and no environmental incidents that have caused harm to the biophysical or built environments as per the POEO definitions occurred during FY16.
77	DISPUTE RESOLUTION Compliance Requirement In the event that the Applicant, Council, or a government authority other than the Department cannot agree on the specification or requirements applicable under this consent, the matter shall be referred by either party to the Director-General or, if not resolved, to the Minister, whose determination of the disagreement shall be final and binding on the parties.
	This condition does not apply in relation to any activity authorised or controlled by an Environment Protection Licence issued by the EPA, under the <i>Protection of the Environment Operations Act 1997</i> , for the development to which this consent applies.
	Response: This condition is not applicable to operations in FY16.