

Management Plan

Page 1 of 35

# Interim Environmental Management Report 2015/2016

Reporting Period 1.7.15-31.12.15



Interim Environmental Management Report



Page 2 of 35

### **CONTENTS**

1	I	NTRO	ODUCTION	4
	1.1	ı	Purpose	4
	1.2	9	SCOPE	4
	1.3	ſ	METHODOLOGY	4
2	ſ	Mon	IITORING	5
	2.1	ı	Noise	5
	2	2.1.1	Assessment Criteria	
	2	2.1.2	Monitoring and Results	
	2.2	٦	Transport	е
	2	2.2.1	Assessment Criteria	е
	2	2.2.2	Monitoring and Results	6
	2	2.2.3	Assessment Criteria	7
	2	2.2.4	Monitoring and Results	8
	2.3	ı	METEOROLOGICAL MONITORING	10
	2	2.3.1	Assessment Criteria	10
	2	2.3.2	Monitoring and Results	10
	2.4	9	SURFACE WATER	10
	2	2.4.1	Assessment Criteria	10
	2	2.4.2	Monitoring and Results	11
	2.5	ı	BIODIVERSITY	12
	2	2.5.1	Assessment Criteria	12
	2	2.5.2	Monitoring and Results	12
	2.6	(	GREENHOUSE & ENERGY EFFICIENCY	13
	2	2.6.1	Assessment Criteria	13
	2	2.6.2	Monitoring and Results	14
	2.7	١	WASTE	14
	2	2.7.1	Assessment Criteria	14
	2	2.7.2	Monitoring and Results	15
	2.8	ı	Hazards	15
	2	2.8.1	Assessment Criteria	15
	2	2.8.2	Monitoring and Results	15
3	(	Сомі	MUNITY RELATIONS	15
	3.1	/	Assessment Criteria	15
	3.2	ı	Monitoring and Results	15
4	I	NDE	PENDENT EXTERNAL AUDIT 2014- STATUS OF ACTIONS	16
5	(	CONC	CLUSION	17

Interim Environmental Management Report

PKCT

Page 3 of 35

Management Plan

6 REFERENCES.		17
ATTACHMENT A.	Noise Monitoring Report - December 2015	18
ATTACHMENT B.	SUMMARY OF PKCT THROUGHPUT AND RECEIVALS	20
ATTACHMENT C.	ROAD TRANSPORT COMPLAINTS & INCIDENTS SUMMARY	21
ATTACHMENT D.	ROAD TRANSPORT REPORT- JULY-DECEMBER 2015	22
ATTACHMENT E.	AIR QUALITY- MONITORING SITES	23
ATTACHMENT F.	AIR QUALITY: DUST DEPOSITION	24
ATTACHMENT G.	AIR QUALITY: CONTINUOUS DUST DATA	25
ATTACHMENT H.	WEATHER MONITORING SUMMARY- JULY- DECEMBER 2015	28
ATTACHMENT I.	WATER USAGE REPORT	31
ATTACHMENT J.	SETTLEMENT LAGOON DISCHARGES: JULY-DECEMBER 2015	32
ATTACHMENT K.	GREENHOUSE GAS REPORT- JULY- DECEMBER 2015	33
ATTACHMENT L.	ENERGY EFFICIENCY YTD	34
<b>Δ</b> ΤΤΔCHMENT <b>M</b> .	WASTE REPORT IIIIY-DECEMBER 2015	31

Interim Environmental Management Report



Management Plan

Page 4 of 35

### 1 Introduction

#### 1.1 PURPOSE

The purpose of the Interim Environment Management Report (IEMR) is to provide the community, Department of Planning and Environment (DP&E) and other stakeholders a summary of Port Kembla Coal Terminal (PKCT)'s monitoring results in accordance with Schedule 4 Condition 9(a) of DP&E Approval 08\_0009.

### 1.2 SCOPE

PKCT Major Project Approval 08\_0009 was granted on the  $12^{th}$  June 2009. The approval included a requirement for PKCT to prepare an Annual Environment Management Report (AEMR). Approval also requires an interim report covering the initial six months of the reporting period. Accordingly, the first PKCT AEMR that was submitted to the DP&E applies to the period of  $1^{st}$  July  $2009 - 30^{th}$  June 2010 (the reporting period).

PKCT also has an Environment Protection Authority (EPA) Environment Protection Licence 1625 (EPL). EPA requires licencees to make monitoring results available to the public.

Accordingly, this IEMR will be published on PKCT's website (<u>www.pkct.com.au</u>).

### 1.3 METHODOLOGY

Section 2 provides a description of the various environmental aspects monitored by PKCT under its EPL and DP&E approval conditions. Each aspect references applicable assessment criteria and provides a commentary on the monitoring undertaken. Monitoring results are included in the attachments herein.

Page 5 of 35

### 2 Monitoring

### 2.1 Noise

### 2.1.1 Assessment Criteria

EPL 1625 & Major Project Approval 08\_0009 describe noise emission criteria from PKCT's premises. Noise criteria are outlined as follows:-

1. The Proponent shall ensure that the noise generated by the project at any privately-owned residence does not exceed the criteria specified in Table 1 for the location nearest to that residence.

Table 1: Noise impact assessment criteria dB(A) LAeq (15 min)

Location	Time Period	Limits (LA <sub>eq,15 min</sub> dB(A))
	Day	51
Cnr Swan St/Kembla St	Evening	50
	Night	49
	Day	51
Cnr Swan St/Corrimal St	Evening	50
	Night	49
	Day	55
Cnr Keira St/Fox St	Evening	49
	Night	45

#### Notes:

- (a) To determine compliance with the LAeq (15 minute) noise level limits in the above table, noise from the project is to be measured at the most affected point within the residential boundary. Where it can be demonstrated that direct measurement of noise from the project is impractical, the DECC may accept alternative means of determining compliance (see Chapter 11 of the NSW Industrial Noise Policy). The modification factors in Section 4 of the NSW Industrial Noise Policy shall also be applied to the measured noise levels where applicable.
- (b) The noise emission limits identified in the above table apply under meteorological conditions of:
  - o wind speeds of up to 3 m/s at 10 metres above ground level; or
  - temperature inversion conditions of up to 3°C/100m, plus a 2 m/s source-to-receiver component drainage flow wind at 10 metres above ground level for those receivers where applicable

in accordance with the NSW Industrial Noise Policy.

However, if the Proponent has a written negotiated noise agreement with any landowner of the land listed in Table 1, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the noise limits in Table 1 in accordance with the negotiated noise agreement.

### 2.1.2 Monitoring and Results

A routine noise survey was undertaken in December 2015. A summary of the monitoring data is provided in Attachment "A". Noise surveys determined that PKCT noise levels were within the noise criteria in EPL 1625 and DP&E Approval 08\_0009. Attachment "A" provides a summary of noise monitoring results from the December survey.



Management Plan

Page 6 of 35

### 2.2 TRANSPORT

### 2.2.1 Assessment Criteria

### **Monitoring of Coal Transport**

4. The Proponent shall keep records of the amount of coal and bulk products received at the site each year, and include these records in the AEMR.

### **Traffic Management**

5. The Proponent shall ensure that vehicles waiting to deliver coal or bulk products to the site do not queue or park on public roads other than Port Kembla Road.

### **Driver's Code of Conduct**

- 3. The Proponent shall, in consultation with affected mines and principal haulage operators, develop a program to implement the Driver's Code of Conduct (see Appendix 3) to the satisfaction of the Director-General. This program must:
  - (a) be submitted to the Director-General for approval within 6 months from the date of this approval, or as otherwise agreed by the Director-General;
  - (b) include a driver induction program to cover (but not be limited to) speed limits, compression braking, truck washing, load covering and queuing on local roads; and
  - (c) include measures to ensure the Driver's Code of Conduct is enforced.

Appendix 2- Statement of Commitments	PKCT Commitment
<ul> <li>Transport of coal and bulk products to PKCT to be conducted in a manner which does not adversely impact on public safety or amenity of road users.</li> </ul>	All trucks delivering coal and bulk products to PKCT must follow designated heavy vehicle transport routes.

### 2.2.2 Monitoring and Results

Attachment "B" provides a summary of receivals and shiploading throughput data for the reporting period.

PKCT received 2,821,239 tonnes via private and public roads during the reporting period.

There were no instances of trucks queueing on Springhill Road during the reporting period.

Attachments "C" and "D" provide a summary of monitoring results pertaining to road transport and the Drivers Code of Conduct. A Road Users Group (PKCT, truck companies and relevant coal and bulk products shippers) meet to review implementation and monitoring results. During this reporting period, a meeting was held on 14<sup>th</sup> October 2015. Weekly Shippers meetings are also held to coordinate shipping and receival plans. This is facilitated by PKCT with shippers in attendance and is a forum where any issues can be raised. Outside of meetings, PKCT has communications with road transport providers where road and Drivers Code of Conduct matters can be raised and actioned.

This is a Controlled Document in SharePoint Controlled Documents Library

Interim Environmental Management Report



Management Plan

Page 7 of 35

Air Quality

### 2.2.3 Assessment Criteria

### **Impact Assessment Criteria**

7. The Proponent shall ensure that dust generated by the project does not cause additional exceedances of the criteria listed in Tables 3 to 5 at any residence.

Table 3: Long term impact assessment criteria for particulate matter

Pollutant	Averaging Period	Criterion
Total suspended particulate (TSP) matter	Annual	90 μg/m3
Particulate matter < 10 μm (PM10)	Annual	30 μg/m3

Table 4: Short term impact assessment criteria for particulate matter

Pollutant	Averaging Period	Criterion	
Particulate matter < 10 μm (PM10)	24 hour	50 μg/m3	

### Table 5: Long term impact assessment criteria for deposited dust

Pollutant	Averaging Period	Maximum Increase in	Maximum Total	
		Deposited Dust Level	Deposited Dust Level	
Deposited Dust	Annual	2 g/m <sup>2</sup> /month	4 g/m <sup>2</sup> /month	

Note: Deposited dust is assessed as insoluble solids as defined by Standards Australia, 1991, AS 3580.10.1-1991: Methods for Sampling and Analysis of Ambient Air - Determination of Particulates - Deposited Matter - Gravimetric Method.

However, if the Proponent has a written negotiated air quality agreement with any landowner to exceed the air quality limits in Table 3, 4 and/or 5, and a copy of this agreement has been forwarded to the Department and DECC, then the Proponent may exceed the air limits in Table 3, 4 and/or 5 in accordance with the negotiated air quality agreement.

Interim Environmental Management Report



Page 8 of 35

Management Plan

EPL 1625 contains a requirement for dust monitoring but no specified limits for dust, or other air quality emissions. The EPL does require the following:

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O3.2 Activities occurring in or on the premises must be carried out in a manner that will minimise the generation or emission of wind-blown, or traffic generated dust.

### 2.2.4 Monitoring and Results

PKCT monitors air quality using dust deposition gauges and continuous dust monitors located on site and on adjacent port and residential areas as shown on Attachment "E".

Dust deposition data is reported on PKCT's web site <a href="www.pkct.com.au">www.pkct.com.au</a> in a monthly Environment Protection Licence Monitoring Report.

PKCT monitors depositional dust levels on a monthly basis and uses a 12 month rolling average to assess compliance against the criteria.

Attachment "F" provides trend graphs for PKCT's depositional gauges at nearby residential sites. Dust deposition levels across the reporting period were within the 12 month rolling average assessment criteria for insoluble solids (4 Grams/m²/month) and combustible matter (2 Grams/m²/month) at residential sites.

Across the reporting period, there were three months (July, August and November) where residential gauges exceeded the monthly combustible matter criteria of 2 Grams/m²/month for that month. In these instances, PKCT undertook additional microscopic analysis of the samples.

In July 2015, elevated combustible matter was recorded at Vikings Oval. Subsequent microscopic analysis of the sample found that Soil and Minerals comprised 80-85% of the sample, coal comprised 10 to 15% of the sample and insects and plants comprised 3 to 5%.

In August 2015, elevated combustible matter was recorded in the Vikings Oval depositional Gauge. Subsequent microscopic analysis of the deposit identified high levels of Coke (40-50%) and Soil and Minerals (30-40%) were the main constituents. Coal was only a minor component. PKCT's stockpile spray systems were operational during August. While still below the EPA Air Quality Criteria of 2 Grams/m²/month, the high levels recorded during August have increased and skewed the 12 monthly averages for the remainder of the reporting period.

In November 2015, elevated combustible matter was recorded at the Church Street residential gauge. Further analysis identified that Insect and Plant remains comprised >95% of the sample, Soil and Minerals comprised 2 to 3% of the sample and coal and coke <1%.

Interim Environmental Management Report



Page 9 of 35

Management Plan

A summary of the data recorded at the northern continuous dust monitor is presented below.

The annual average (rolling average for January to December 2015) and six-month average (July to December 2015) concentrations of TSP at the PKCT northern monitoring site were below the trigger level of  $90 \, \mu g/m^3$ .

The annual average (rolling average for January to December 2015) PM10 concentration of 29.2  $\mu g/m^3$  at the PKCT northern monitoring site was below trigger level of 30  $\mu g/m^3$ 

The six-month average (July to December 2015) PM10 concentration of 28.6  $\mu$ g/m³ at the PKCT northern monitoring site was below the trigger level of 30  $\mu$ g/m³.

At the northern PKCT monitoring site the trigger level of 90  $\mu g/m^3$  for the 24-hour average TSP concentration was exceeded on 14 occasions during the July to December 2015 period, while the 24-hour average PM10 air quality standard of 50  $\mu g/m^3$  was exceeded on 29 occasions. Each TSP exceedance day was also a PM10 exceedance day.

PKCT was identified as having made, at most, a minor contribution (i.e. less than 30%) to all 14 of the exceedances of the 24-hour average TSP trigger level at the PKCT northern monitoring site.

PKCT was identified as having made, at most, a minor contribution (i.e. less than 30%) to all 29 of the exceedances of the 24-hour average PM10 objective at the PKCT northern monitoring site.

On average, PKCT was estimated to have contributed 4% to TSP levels at the PKCT northern monitoring site on days when exceedances of the TSP trigger level occurred.

On average, PKCT was estimated to have contributed 4% to PM10 levels at the PKCT northern monitoring site on days when exceedances of the PM10 standard occurred.

While data was unavailable from the southern monitoring site during 25, 26, 28 and 29 October and 1 December 2015 to allow the standard contribution analysis for exceedances of the PM10 standard and TSP trigger level, additional analysis of the monitoring data indicates that PKCT did not contribute significantly to the exceedance on these days.

There were no exceedances of the 24-hour average TSP trigger level of 90µg/m³ recorded at the BlueScope high volume air sampler at Vikings Oval During the July to December 2015 period.

There was one exceedance of the 24-hour average PM10 air quality objective of  $50\mu g/m^3$  at the OEH monitor at Kembla Grange during the July to December 2015 period, on 26 November. The OEH attributed this exceedance to bushfires. This day was also a PM10 exceedance day at the PKCT northern monitor.

Interim Environmental Management Report



Management Plan

Page 10 of 35

During 8 of the 29 PM10 exceedance days at the PKCT northern monitor, one or more of the OEH monitors at Wollongong, Kembla Grange and Albion Park South recorded an elevated concentration above  $40\mu g/m^3$  but below the air quality objective. The coinciding elevated concentrations indicate that regional particulate levels may have been elevated during these exceedance periods.

Attachment "G" provides a summary of continuous dust data.

It is noted that the northern monitor is not located on the northern residential boundary so that exceedance results are considered conservative.

Following a series of Rail Unloading Facility Audits at PKCT in 2014 and 2015, PKCT and other Terminals consulted with the EPA and developed a Wagon Monitoring and Reporting Program which was added to PKCT's existing EPL. A monitoring process was developed and data collection began in February 2016.

### 2.3 METEOROLOGICAL MONITORING

### 2.3.1 Assessment Criteria

11. During the life of the project, the Proponent shall ensure that there is a suitable meteorological station on or in the vicinity of the site that generally complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline.

### 2.3.2 Monitoring and Results

PKCT was compliant with this Condition during the reporting period. Meteorological monitoring is undertaken as follows:-

- Northern and southern continuous dust monitors are calibrated annually and measure PM10, PM2.5, TSP, wind speed and wind direction.
- PKCT also has an anemometer on the Main Control Tower. It measures wind speed and direction as well as rainfall, pressure, temperature and humidity.
- Summary data is provided in Attachment "H".

### 2.4 SURFACE WATER

### 2.4.1 Assessment Criteria

The Protection of the Environment Operations (POEO) Act 1997 sets requirements and controls regarding pollution of the environment. Section 120 of this Act confirms it is an offence to cause or permit pollution of any waters. PKCT is required to comply with this requirement, however, PKCT's EPL 1625 provides site specific water pollution permissions and requirements relating to their activities.

PKCT completed a five-yearly EPL review with the EPA in September 2014. Updated licence conditions related to water quality data are presented below.

Interim Environmental Management Report



Management Plan

Page 11 of 35

### **EPL 1625 Water Quality Limits**

Pollutant	Unit of	100 Percentile	Limits following September
	Measure	Concentration Limit	2014 EPL Review
Oil and Grease	Milligrams per litre	10	Not visible
рН	рН	6.5-8.5	Monitoring and reporting only
Total Suspended Solids (TSS)	Milligrams per litre	50	50

Exceeding the limit specified in Condition L2.4 of this licence for Total Suspended Solids for discharges from Point 16 identified by Conditions P1.2 and P1.3 is only permitted when the discharge occurs solely as a result of rainfall measured at the premises. For discharge to be considered to occur solely as a result of rainfall, the rainfall must exceed a 5 day rainfall depth value of 90 mm over a consecutive 5 day period.

Condition 12 of Schedule 3 of Major Project Approval 08\_0009 also specifies a surface water standard for PKCT activities. The following extract identifies the control.

### DP&E Approval 08\_0009 Water Quality Condition

### **SURFACE WATER**

### **Discharge Limits**

12. Except as may be expressly provided in an EPL for the project, the Proponent shall comply with Section 120 of the *Protection of the Environment Operations Act 1997*.

This replicates PKCT's surface water requirement under the POEO Act and is therefore controlled by EPL 1625.

PKCT has a Water Savings Action Plan in place and is continuing efforts to minimize overall and potable water usage.

### 2.4.2 Monitoring and Results

PKCT has a Water Management Plan which covers the use of water, collection of process and stormwater, treatment and control of water for reuse and discharge to harbour waters.

Attachment "I" provides data on potable and recycled water usage. Potable water usage across the reporting period has decreased compared to the same period last year (FY14/15 92ML, FY15/16 52ML). Recycled water use has remained stable (FY14/15 175ML, FY15/16 183ML).

PKCT continues to review its water supply infrastructure and investigating ways of reducing water use across the site.

Attachment "J" provides water quality results from PKCT's EPL Licensed Discharge Point 16 (LDP16). The results indicate the following:

- (a) 100% compliance for Oil and Grease.
- (b) 100% Compliance for Total Suspended Solids.

This is a Controlled Document in SharePoint Controlled Documents Library

Interim Environmental Management Report



Management Plan

Page 12 of 35

(c) Under EPL 1625, pH is required to be monitored and recorded only. pH has been recorded for 100% of overflows.

On 18<sup>th</sup> March 2015, PKCT identified a plume of turbid water below Berth 102. The plume was generated from discharge of wash-down water containing coal fines from Shiploader 1. The event was reported to the EPA immediately and following an investigation, PKCT received a Formal Warning letter from the EPA on 3<sup>rd</sup> September 2015. All corrective actions identified during the investigation have been closed out.

### 2.5 BIODIVERSITY

### 2.5.1 Assessment Criteria

### Green and Golden Bell Frog Management Plan

- 14. The Proponent shall prepare and implement a Green and Golden Bell Frog Management Plan for the project to the satisfaction of the Director-General. This program must:
  - (a) be developed in consultation with DECC; and
  - (b) be submitted to the Director-General for approval within 12 months from the date of this approval, or as otherwise agreed by the Director-General.

Objective	PKCT Commitment		
Management of Green and Golden Bell Frogs (GGBF).	Implement Interim Management Plan.     Undertake a GGBF Survey and then develop a Long Term Plan of Management.		

### 2.5.2 Monitoring and Results

PKCT has a Green and Golden Bell Frog (GGBF) management plan in place. Internal and external (with consultant) surveys are undertaken periodically by PKCT. PKCT's consultant, Biosphere, undertook a review of PKCT's management plan in July 2011. Site inspections associated with the review failed to detect any GGBF on site, any signs of tadpole activity or croaking. The management plan has been reviewed and submitted to the Environment Protection Authority. Opportunities to further develop Greenhouse Park frog habitat are under consideration. PKCT undertook its latest frog survey in February 2015. During this survey, no Green and Golden Bell frogs were sighted or heard.

There have been no onsite sightings of Green and Golden Bell Frogs in this reporting period.

The next Green and Golden Bell Frog survey is scheduled for February 2016.

Interim Environmental Management Report



Management Plan

Page 13 of 35

### 2.6 GREENHOUSE & ENERGY EFFICIENCY

### 2.6.1 Assessment Criteria

### **Operating Conditions**

- 17. The Proponent shall implement all reasonable and feasible measures to minimise:
  - (a) energy use onsite; and
  - (b) greenhouse gas emissions from the project to the satisfaction of the Director-General.

### **Greenhouse and Energy Efficiency Plan**

- 18. Within 12 months of this approval or as otherwise agreed by the Director-General, the Proponent shall prepare and implement a Greenhouse and Energy Efficiency Plan for the project. This plan must:
  - (a) be prepared generally in accordance with the *Guidelines for Energy Savings Action Plans* (DEUS 2005, or its latest version);
  - (b) be submitted to the Director-General for approval;
  - (c) include a program to estimate/monitor greenhouse gas emissions and energy use generated by the project;
  - (d) include a framework for investigating and implementing measures to reduce greenhouse gas emissions and energy use at the project;
  - (e) describe how the performance of these measures would be monitored over time; and
  - (f) report on the project's greenhouse gas emissions and minimisation measures in the AEMR to the satisfaction of the Director-General.

EPL 1625 does not include any requirements relating to GHG emissions or energy use.

Major Project Approval 08\_0009 has requirements relating to GHG and energy efficiency but does not set any prescriptive controls. Condition 18 of Schedule 3 requires the following.

Objective	PKCT Commitment		
Minimise the production of greenhouse gas emissions associated with PKCT operations.	<ul> <li>PKCT to review onsite electricity use and identify and implement economically viable opportunities for reduced electricity usage.</li> </ul>		

Interim Environmental Management Report



Management Plan

Page 14 of 35

### 2.6.2 Monitoring and Results GHG & Energy Efficiency

Neither EPL 1625 nor DP&E Approval 08\_0009 specifies criteria for GHG emissions or energy reduction. Attachment "L" and "M" provide data covering the 2015/2016 reporting period. It is noted that Greenhouse Gases - Scope 1 and Scope 2 emissions are below the National Greenhouse and Energy Reporting (NGER) scheme reporting threshold.

Energy Efficiency – Energy efficiency has generally been poor across the reporting period with five of six months exceeding the energy efficiency target of 1.655 kWh/tonnes. Energy efficiency is calculated by dividing kilowatt hours consumed by tonnes of throughput. Of particular note was the low energy efficiency months of November and December. These values directly relate to the low throughput tonnes being experienced by PKCT, which in turn is a result of the industry slow down over the first half of the current financial year. Opportunities are being continually sought to improve efficiency through proposed plant/equipment replacements and upgrades.

GHG - Use of soya biodiesel has continued across the reporting period primarily for front end loader operations.

### **2.7 W**ASTE

### 2.7.1 Assessment Criteria

EPL 1625 does not include any standards or performance measures relating to waste.

Major Project Approval 08\_0009 has requirements relating to waste but does not set any prescriptive controls. Condition 19 of Schedule 3 requires the following.

### **Operating Conditions**

- 19. The Proponent shall:
  - (a) monitor the amount of waste generated by the project;
  - (b) investigate ways to minimise waste generated by the project;
  - (c) implement reasonable and feasible measures to minimise waste generated by the project; and
  - (d) report on waste management and minimisation in the AEMR

to the satisfaction of the Director-General.

Interim Environmental Management Report



Management Plan

Page 15 of 35

### 2.7.2 Monitoring and Results

PKCT has a Waste Management Plan in place. The plan contains waste monitoring, assessment, reporting, mitigation and management provisions to ensure necessary actions and that waste from PKCT premises comply with the criteria in the condition above.

Waste data for the reporting period as generated from normal site operations and specific Projects is presented in Attachment M.

### 2.8 HAZARDS

#### 2.8.1 Assessment Criteria

### **Dangerous Goods**

20. The Proponent shall ensure that storage, handling and transport of dangerous goods are done in accordance with the relevant *Australian Standards*, particularly *AS1940* and *AS1596*, and the *Dangerous Goods Code*.

### 2.8.2 Monitoring and Results

PKCT decommissioned its two underground fuel storage tanks in February 2014. PKCT continues to utilise a mobile refueling system for its plant machinery and no longer stores any fuel on site.

### 3 COMMUNITY RELATIONS

### 3.1 ASSESSMENT CRITERIA

Appendix 2- Statement of Commitments	PKCT Commitment		
PKCT to be regarded as a responsible corporate citizen by the community.	<ul> <li>Continued operation of the PKCT Community         Consultative Committee.</li> <li>Continued advertisement and operation of the telephone hotline.</li> </ul>		

### 3.2 Monitoring and Results

Complaints received during the reporting period entail the following:

- (a) No complaints related to PKCT general operations were received during the reporting period.
- (b) No complaints related to road transport.

The following actions occurred during the reporting period:

- Community Consultative Committee met on 15<sup>th</sup> October 2015.
- PKCT web site (<u>www.pkct.com.au</u>) continues to include e-mail and phone contact details (<u>communitylinks@pkct.com.au</u>). Community Hotline number font size was increased after request from CCC members.

Interim Environmental Management Report



Management Plan

Page 16 of 35

### 4 INDEPENDENT EXTERNAL AUDIT 2014- STATUS OF ACTIONS

An audit was carried out by consultant, AECOM P/L, in March 2014 and an audit report was submitted to the DP&E on 9<sup>th</sup> May 2014.

By email on 29<sup>th</sup> May 2014, DP&E provided a response to the audit submission raising a number of matters requiring PKCT's attention. PKCT sought to address these matters and by email of 10<sup>th</sup> June 2014, PKCT submitted a revised audit report together with a requested Action Plan.

On the 16<sup>th</sup> June 2014, the DP&E provided further feedback and PKCT revised its Action Plan and Audit Report to accommodate the requests of the DP&E.

A summary of the status of the minor Non-Compliances identified in the audit is presented below;

- The auditors identified a dust deposition funnel was not in a gauge located along the Seawall Road as a result of public tampering with the gauge. The auditors recommended installing a locked gate at this location to minimise the likelihood of this reoccurring. A locked enclosure was installed around the two Seawall Road Dust Gauges in December 2014.
- Occasional pH and TSS exceedances have occurred at PKCT's LDP16. The audit
  identified the exceedances as a minor non-compliance. During the reporting period,
  PKCT has been working through a number of initiatives to reduce the likelihood of
  further exceedances. These initiatives include;
  - Gaining funding and beginning major upgrade works at the site's Central Pond As of December 2015, the Central Pond Upgrade works are progressing and nearing completion.
  - Installation of a controlled discharge pipe to assist with water management at LDP16.
  - Engaging a consultant to undertake a review of a TSS exceedance event to understand the mechanism causing the exceedance.
  - Investigating alternate emergency water clarification methods PKCT commissioned a coagulant dosing system at the Central Pond to assist with emergency water treatment if required.
  - Reviewing the cleaning process in the Settlement Lagoon In September 2015,
     PKCT undertook a dredging program in the Settlement Lagoon, removing sediment from the western end of the Lagoon.
  - In August 2015, a pipeline was installed in the Settlement Lagoon allowing controlled transfer of water from the Lagoon to another pond. This pipeline will minimise the potential for poor quality water discharging to harbour by allowing the water to be redirected to another pond and retreated if required.

Interim Environmental Management Report



Management Plan

Page 17 of 35

### **5** CONCLUSION

Monitoring undertaken during the reporting period did not identify any notable adverse aspects. Further work to be finalised will be reported in the Annual Environmental Management Report due on  $31^{st}$  July 2016.

### 6 REFERENCES

Environmental Protection Licence 1625 – Port Kembla Coal Terminal

Major Project Approval 08 0009 for the Port Kembla Coal Terminal Project

Management Plan

Page 18 of 35

### Attachment A. Noise Monitoring Report - December 2015

PORT KEMBLA COAL TERMINAL DECEMBER 2015 COMPLIANCE MONITORING PAGE 14 REPORT NO. 07355-NM-12 VERSION A

Table 5-1 Summary of Monitoring Results – Location 1 – Corner Swan & Kembla Streets

		Criteria (dBA)		BarnOwl® La	eq (dBA)	wed out of							
Date & Start Time	Period		PKCT Direction [Est. PKCT Contribution]	All Noise	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations					
08/12/15 4.35-4.50pm	Day	51	46 [<25]	62	2.8 22°	C	C	YES Not Audible	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.				
4,35-4.30pm							NOT AUDIDIE	On-site: Noise dominated by truck movements and train. Number of truck movements 6.					
08/12/15	Evening	vening 50	g 50 41		54	2.7	D	YES	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.				
9.10-9.25pm			[<25]		240		Not Audible	On-site: Noise dominated by truck wash. Number of truck movements0.					
08/12/15 10.45-11pm	Night 49	Night 49	Night 4	Night 49 39 [<25]	Night 49	54	3.1 16°	D	YES	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.			
10.43-11biii											[<25]		160
08/12/15	Night	Night 49	Night 49 [	Night 49 39 54 [<25]	3.6 30	D	YES Not Audible	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.					
11-11.15pm					30			On-site: Noise emanating from train shed. Number of truck movements 0.					

WILKINSON ((MURRAY

PORT KEMBLA COAL TERMINAL DECEMBER 2015 COMPLIANCE MONITORING PAGE 15 REPORT NO. 07355-NM-12 VERSION A

Table 5-2 Summary of Monitoring Results – Location 2 – Corner Swan & Corrimal Streets

			BarnOwl® L	eq (dBA)	ur to 1								
Date & Start Time	Period		PKCT Direction [Est. PKCT Contribution]	All Noise	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations					
08/12/15 4-4.15pm	Day	51	38 [<25]	56	2.2 26°	С	YES Not Audible	At residential location:  Noise dominated by road traffic and local activities,  PKCT activities not audible.					
55.54544 <b>4</b> 4555					56567							390000000000000000000000000000000000000	On-site: Noise dominated by truck movements and train. Number of truck movements 6.
08/12/15	Evening	50	44	58	3.5	D	YES	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.					
9.35-9.50pm			[<25]		30°	30° Not	30*	Not Audible	On-site: Noise dominated by truck wash and train.  Number of truck movements 0.				
08/12/15	Night	49	38	52	3.7	D	YES	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.					
10-10.15pm	100 miles		[<25]		26º Not Audible		On-site: Noise emanating from train and train shed.  Number of truck movements 0.						
08/12/15	Night	49	42	54	4.0	D	YES	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.					
10.15-10.30pm			[<25]		190			Not Audible	NOT AUDIDIE	On-site: Noise emanating from berthed ship. Number of truck movements 0.			





Management Plan

Page 19 of 35

### Attachment "A" Noise Monitoring Report - December 2015 (continued)

PORT KEMBLA COAL TERMINAL DECEMBER 2015 COMPLIANCE MONITORING PAGE 16 REPORT NO. 07355-NM-12 VERSION A

Table 5-3 Summary of Monitoring Results – Location 3 – Corner Keira & Fox Streets

			BarnOwl® L	neq (dBA)	we to t				
Date & Start Time	Period	Criteria (dBA)	PKCT Direction [Est. PKCT Contribution]	All Noise	Wind Speed (m/s) and Direction	Stability Class	Compliance	Observations	
08/12/15 5.05-5.20pm	Day	55	56 [<35]	66	2.1 240	С	YES Not Audible	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.  On-site: Noise dominated by truck movements and train. Number of truck movements 6.	
08/12/15 8.45-9pm	Evening	49	42 [<25]	61	3.5 230	D	YES Not Audible	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.	
6.45-9pm			[~25]	[ (23]		25*		NOT AUDIDIE	On-site: Noise dominated by truck wash and train unloading. Number of truck movements 0.
08/12/15	Night	45	46	58	3.3	D	YES	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.	
11.30-11.45pm	ă.		[<25]		17º Not Audibl		Not Audible	On-site: Noise emanating from truck wash and a from end loader. Number of truck movements 0.	
08/12/15	Night	45	46	56	3,4	D	YES	At residential location:  Noise dominated by road traffic and local activities.  PKCT activities not audible.	
11.45pm-12am			[<25]		180		Not Audible	On-site: Noise dominated by truck movements and a pump. Number of truck movements 4.	



Interim Environmental Management Report



Management Plan

Page 20 of 35

### Attachment B. SUMMARY OF PKCT THROUGHPUT AND RECEIVALS

**Shiploading and Receivals: July- December 2015** 

Shinlanding Julyan Dagambar 2015	C	oal	Calva		Total
Shiploading July to December 2015	Coking	Steaming	Coke	Iron Ore	lotai
Berth 101: Bulk Products Berth (Tonnes)	0	0	0	0	0
Berth 102: Coal Berth (Tonnes)	3,840,619	1,403,677	0	0	5244296
			Total (tonnes)		5,244,296

Receivals July to December 2015	Private and Public Road
Road Receival (Tonnes)	2,821,239
Rail Receival (Tonnes)	2,058,736
Total Tonnes	4,879,975

Interim Environmental Management Report



Management Plan

Page 21 of 35

### Attachment C. ROAD TRANSPORT COMPLAINTS & INCIDENTS SUMMARY

**Incidents: July-December 2015** 

	Incident Summary July to December 2015							
Company	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15		
Bulktrans	0	0	0	0	0	0		
Brindles	0	0	0	0	0	0		
Trazblend	0	0	0	0	0	0	Tota	
Total	0	0	0	0	0	0	0	

1	Incid	ent	Summ	arv
	HUCKU	CHIL	Juilli	ICHLY

No on-road incidents reported by transport companies during the reporting period.



Page 22 of 35

Management Plan

### Attachment D. ROAD TRANSPORT REPORT- JULY-DECEMBER 2015

Monthly Reports Summary FY 15/16	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	FY15/16 Total	Comment
Tonnes - Public Road	410,726	302,964	410,200	287,465	126,183	145,570	1,683,108	Note: Slow market conditions across
Tonnes - Private Road	257,598	258,461	302,274	238,373	28,564	52,861	1,138,131	the reporting period has resulted in lower received tonnes compared to
Total road tonnes	668,324	561,425	712,474	525,838	154,747	198,431	2,821,239	previous years.
Spillage - Public Road	0	0	0	0	0	0	0	·
Incident - Other	0	0	0	0	0	0	0	
Impact with other vehicle	0	0	0	0	0	0	0	4
Incidents Reported to RTA	0	0	0	0	0	0	0	
Complaints	0	0	0	0	0	0	0	5
EPL/ regulatory breaches	0	0	0	0	0	0	0	
Inductions (%)	100	100	100	100	100	100	100	
Hours restrictions breach	0	0	0	0	0	0	0	
Road Transport Providers (RTP): Observations/ Audits	113	84	130	115	61	109	612	
RTP: Number of drivers observed	439	452	518	507	261	332	2,509	
RTP: Trucksafe/NHVAS/Other Audits	31	76	45	54	33	46	285	
CTO / Audits at mine sites (Shippers & PKCT)	0	0	1	0	0	0	1	
CTO / Audits: At PKCT (Shippers & PKCT)	3	1	0	2	3	1	10	
CTO / Audits: Mine to PKCT (Shippers & PKCT)	0	1	2	0	0	1	4	
RTP system audits	0	0	0	0	0	0	0	Includes data from Shippers and Road Transport Provider's



Management Plan

Page 23 of 35

### Attachment E. AIR QUALITY- MONITORING SITES



### Location of EPL Air Quality Monitoring Sites

Dust Gauges- EPA EPL sites

BlueScope High Volume Sampler/ EPA EPL P11

Continuous Dust Monitor Sites



PKCT Site Boundary

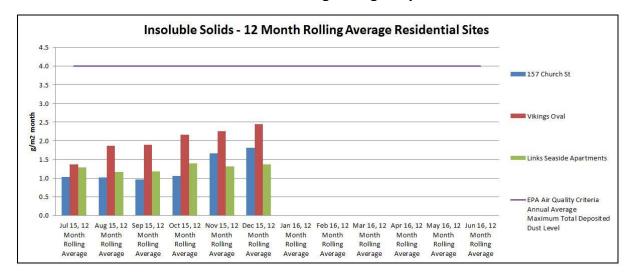


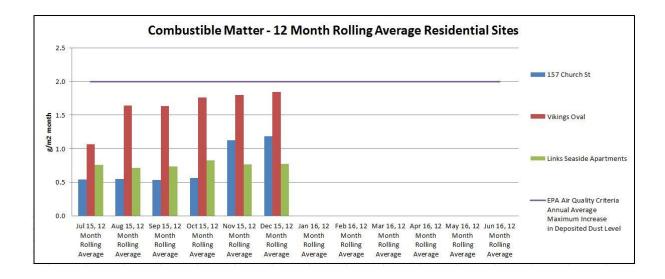
Management Plan

Page 24 of 35

### Attachment F. AIR QUALITY: DUST DEPOSITION

### Residential Sites – 12 month rolling average July to December 2015







Management Plan

Page 25 of 35

### Attachment G. AIR QUALITY: CONTINUOUS DUST DATA

### July- December 2015

Table 6 Maximum recorded 24-hour average TSP concentrations at the northern PKCT monitoring site during July to December 2015 by month (trigger level of 90 µg/m³)

Monitoring period	Maximum concentration (µg/m³)	Number of exceedances
July 2015	33.4	0
August 2015	47.8	0
September 2015	63.0	0
October 2015	162.0	7
November 2015	126.8	2
December 2015	141.9	5
	Total exceedances	14

Table 7 Maximum recorded 24-hour average PM<sub>10</sub> concentrations at the northern PKCT monitoring site during July to December 2015 by month (air quality standard of 50 μg/m³)

Monitoring period	Maximum concentration (µg/m³)	Number of exceedances
July 2015	20.9	0
August 2015	34.9	0
September 2015	41.5	0
October 2015	107.5	9
November 2015	73.7	6
December 2015	98.4	14
	Total exceedances	29

Table 8 Annual average TSP and PM<sub>10</sub> concentrations at the northern PKCT monitoring site during July to December 2015

Pollutant	Standard/ trigger level (µg/m³)	Rolling annual average January – December 2015 (µg/m³)	Six-month average July – December 2015 (µg/m³)
TSP	90	44.0	43.9
PM <sub>10</sub>	30	29.2	28.9



Management Plan

Page 26 of 35

### Attachment "G" Air Quality: Continuous Dust Data (continued)

Table 9 PKCT contribution ratings for exceedance days during July to December 2015

PKCT contribution rating	Number of TSP exceedance days	Number of PM <sub>10</sub> exceedance days
None	3	9
Minimal (0% to 10%)	7	12
Minor (10% to 30%)	1	3
Moderate (30% to 70%)	0	0
Major (70% to 100%)	0	0
Unclassified (missing data)	0	0
Total exceedance days	14	29



Page 27 of 35

Management Plan

### Attachment "G" Air Quality: Continuous Dust Data (continued)

Table 12 Proportions of TSP that were made up of PM<sub>10</sub>, PM<sub>2.5</sub> and PM<sub>1.0</sub> for the periods exceeding the TSP trigger level and/or PM<sub>10</sub> air quality standard at the northern PKCT monitoring site during the July to December 2015 period

	Trigger level/	24-hour	PM <sub>10</sub> pro	oportion	PM <sub>2.5</sub> pr	oportion	PM <sub>1.0</sub> proportion	
Date	standard exceeded	average TSP concentration (µg/m³)	μg/m³	% of TSP	μg/m³	% of TSP	μg/m³	% of TSP
3 October	TSP, PM <sub>10</sub>	91.3	57.8	63%	13.7	15%	4.6	5%
5 October	TSP, PM <sub>10</sub>	153.3	94.9	62%	15.4	10%	4.0	3%
16 October	TSP, PM <sub>10</sub>	162.0	107.5	66%	42.9	26%	18.1	11%
17 October	TSP, PM <sub>10</sub>	99.7	68.6	69%	31.7	32%	14.2	14%
18 October	PM <sub>10</sub>	80.1	56.8	71%	25.0	31%	11.1	14%
19 October	PM <sub>10</sub>	77.5	52.4	68%	21.5	28%	8.5	11%
20 October	TSP, PM <sub>10</sub>	93.0	61.6	66%	20.7	22%	8.3	9%
21 October	TSP, PM <sub>10</sub>	98.3	61.8	63%	16.8	17%	6.7	7%
26 October	TSP, PM <sub>10</sub>	102.8	67.2	65%	21.4	21%	8.3	8%
6 November	PM <sub>10</sub>	74.7	53.6	72%	26.5	35%	11.9	16%
19 November	PM <sub>10</sub>	88.5	58.3	66%	22.0	25%	9.3	11%
25 November	PM <sub>10</sub>	79.3	52.4	66%	19.0	24%	8.1	10%
26 November	TSP, PM <sub>10</sub>	126.8	73.7	58%	18.7	15%	6.5	5%
28 November	PM <sub>10</sub>	77.5	52.2	67%	17.6	23%	6.8	9%
29 November	TSP, PM <sub>10</sub>	91.1	64.4	71%	26.7	29%	9.1	10%
1 December	TSP, PM <sub>10</sub>	137.4	90.6	66%	22.7	17%	7.1	5%
6 December	PM <sub>10</sub>	77.4	51.3	66%	18.8	24%	8.3	11%
8 December	PM <sub>10</sub>	79.5	54.5	68%	23.5	29%	9.4	12%
9 December	PM <sub>10</sub>	78.1	55.3	71%	28.0	36%	12.8	16%
10 December	TSP, PM <sub>10</sub>	141.9	98.4	69%	40.8	29%	15.9	11%
11 December	PM <sub>10</sub>	82.6	55.0	67%	26.1	32%	11.6	14%

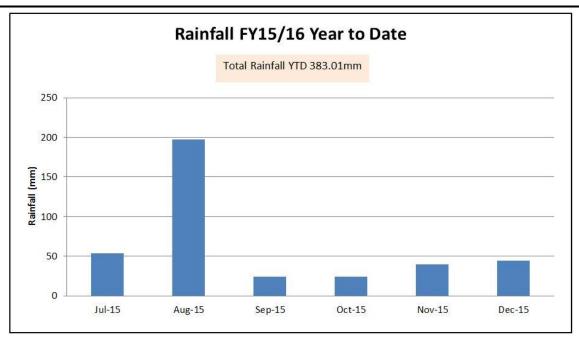
	Trigger level/	24-hour	PM <sub>10</sub> proportion		PM <sub>2.5</sub> proportion		PM <sub>1.0</sub> proportion	
Date	standard exceeded	average TSP concentration (µg/m³)	μg/m³	% of TSP	µg/m³	% of TSP	μg/m³	% of TSP
12 December	PM <sub>10</sub>	85.7	60.1	70%	22.4	26%	10.1	12%
13 December	PM <sub>10</sub>	75.6	51.7	68%	18.6	25%	7.6	10%
15 December	PM <sub>10</sub>	82.5	56.1	68%	19.4	24%	6.6	8%
16 December	PM <sub>10</sub>	85.5	56.7	66%	19.3	23%	6.7	8%
19 December	TSP, PM <sub>10</sub>	96.9	66.1	68%	21.4	22%	7.6	8%
20 December	TSP, PM <sub>10</sub>	122.7	85.5	70%	30.2	25%	11.4	9%
21 December	TSP, PM <sub>10</sub>	123.5	87.1	71%	32.1	26%	11.1	9%
26 December	PM <sub>10</sub>	78.2	55.1	70%	22.8	29%	8.5	11%



Management Plan

Page 28 of 35

### Attachment H. Weather Monitoring Summary- July- December 2015



The July to December 2015 period has seen relatively dry conditions with a single significant rainfall event in August. Total rainfall across this reporting period was 383.01mm.



Management Plan

Page 29 of 35

### Attachment "H"- Weather Monitoring Summary- July- December 2015 (continued)

Date	Rainfall (mm)	Maximum Temperature (deg C)	Maximum Wind Speed (m/sec)	Average Wind Speed (m/sec)
Jul-15	53.72	18.6	17.4	5.1
Aug-15	197.35	25.7	18.5	5.3
Sep-15	23.86	27.8	24.5	5.6
Oct-15	24.47	35.1	26.1	5.1
Nov-15	39.35	40.6	30.2	5.3
Dec-15	44.26	32.2	26	5.1



Management Plan

Page 30 of 35

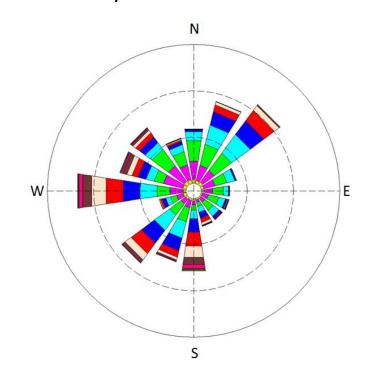
### Wind Rose - Monitors C1 &C2 (refer Attachment "E" for locations)

### **North Rose July to December 2015**

## N Each ring is 5.0% Each ring is 5.0% Wind speed [m/s] Calms = 0 Missing = 7 Total valid = 26489

S

### **South Rose July to December 2015**



This is a Controlled Document in SharePoint Controlled Documents Library

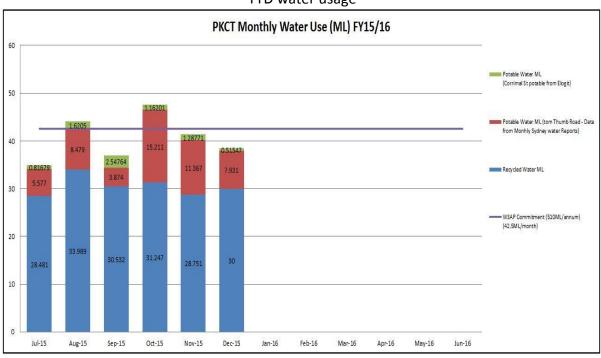


Management Plan

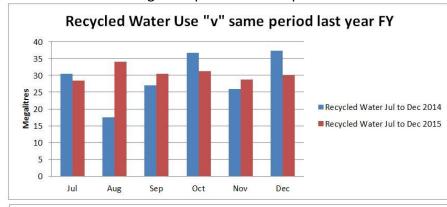
Page 31 of 35

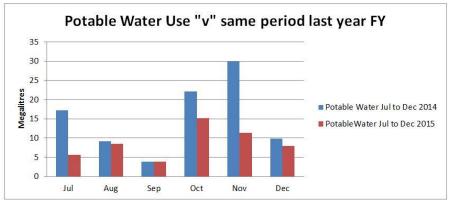
### Attachment I. WATER USAGE REPORT

### YTD water usage



### Water usage compared to same period last FY





Interim Environmental Management Report



Management Plan

Page 32 of 35

### Attachment J. Settlement Lagoon Discharges: July-December 2015

nvironment Protection Licence: 1625 ype of Monitoring: water quality requency: daily grab sample when discharging		water quality parameter oH		EPL Limit (100 percentile)		
				monitoring only	<b>1</b>	
		totals	suspended solids	less than 50		
		oil/ grease (milligrams per litre)		not visible		
	7		Oil greas	(minigranis per lice)	TIOC VISIBLE	
Sample Date	Date Results Obtained	Date Published	pH (pH units)	total suspended solids (milligrams per litre)	oil/ grease (milligrams per litre)	Commentary on Results
23/07/2015	20/08/2015	27/08/2015	8.3	<5	not visible	EPL compliant
06/08/2015	14/09/2015	23/09/2015	7.7	<5	not visible	EPL compliant
12/08/2015	14/09/2015	23/09/2015	8.6	<5	not visible	EPL compliant
20/08/2015	14/09/2015	23/09/2015	8.6	17	not visible	EPL compliant
25/08/2015	14/09/2015	23/09/2015	7.4	22	not visible	EPL compliant
26/08/2015	14/09/2015	23/09/2015	6.8	7	not visible	EPL compliant
27/08/2015	14/09/2015	23/09/2015	6.9	5	not visible	EPL compliant
28/08/2015	14/09/2015	23/09/2015	7.0	8	not visible	EPL compliant
29/08/2015	14/09/2015	23/09/2015	7.2	<5	not visible	EPL compliant
26/09/2015	14/09/2015	16/10/2015	7.6	<5	not visible	EPL compliant
27/09/2015	14/09/2015	16/10/2015	7.5	<5	not visible	EPL compliant
21/10/2015	11/11/2015	13/11/2015	9.4	39	not visible	EPL compliant
22/10/2015	11/11/2015	13/11/2015	9.3	31	not visible	EPL compliant
27/10/2015	11/11/2015	13/11/2015	8.8	45	not visible	EPL compliant
28/10/2015	11/11/2015	13/11/2015	9.8	25	not visible	EPL compliant
29/10/2015	11/11/2015	13/11/2015	9.8	19	not visible	EPL compliant
30/10/2015	11/11/2015	13/11/2015	9.0	20	not visible	EPL compliant
01/11/2015	21/12/2015	22/12/2015	9.4	23	not visible	EPL compliant
02/11/2015	21/12/2015	22/12/2015	9.5	22	not visible	EPL compliant
03/11/2015	21/12/2015	22/12/2015	9.4	12	not visible	EPL compliant
04/11/2015	21/12/2015	22/12/2015	9.4	15	not visible	EPL compliant
05/11/2015	21/12/2015	22/12/2015	7	25	not visible	EPL compliant
06/11/2015	21/12/2015	22/12/2015	7.1	20	not visible	EPL compliant
07/11/2015	21/12/2015	22/12/2015	7.2	<5	not visible	EPL compliant
08/11/2015	21/12/2015	22/12/2015	7.2	10	not visible	EPL compliant
13/11/2015	21/12/2015	22/12/2015	8.9	19	not visible	EPL compliant
14/11/2015	21/12/2015	22/12/2015	8.5	18	not visible	EPL compliant
15/11/2015	21/12/2015	22/12/2015	8.1	11	not visible	EPL compliant
16/11/2015	14/01/2016	15/01/2016	6.4	10	not visible	EPL compliant
18/11/2015	21/12/2015	22/12/2015	8.3	20	not visible	EPL compliant
19/11/2015	14/01/2016	15/01/2016	6.4	13	not visible	EPL compliant
20/11/2015	21/12/2015	22/12/2015	8.4	22	not visible	EPL compliant
22/11/2015	21/12/2015	22/12/2015	8.3	26	not visible	EPL compliant
27/11/2015	21/12/2015	22/12/2015	8.9	8	not visible	EPL compliant
30/11/2015	21/12/2015	22/12/2015	9.5	18	not visible	EPL compliant
02/12/2015	14/01/2016	15/01/2016	8.7	11	not visible	EPL compliant
16/12/2015	14/01/2016	15/01/2016	9.5	12	not visible	EPL compliant
21/12/2016	14/01/2016	15/01/2016	8.7	23	not visible	EPL compliant
22/12/2015	14/01/2016	15/01/2016	8.5	14	not visible	EPL compliant
27/12/2015	14/01/2016	15/01/2016	8.3	6	not visible	EPL compliant
	200,000,000		8.7	7		EPL compliant
28/12/2015	14/01/2016	15/01/2016	0.1	Œ	not visible	LFL compliant

NB TSS (total suspended solids) - under EPL, a TSS water quality limit of 50 mg/litre pertains. Exceedance of this limit is permitted when discharge occurs solely as a result of rainfall measured at the premises. For discharge to be considered to occur solely as a result of rainfall, the rainfall must exceed a 5 day rainfall depth value of 90 mm over a consecutive 5 day period.

Interim Environmental Management Report



Management Plan

Page 33 of 35

### Attachment K. Greenhouse Gas Report- July- December 2015

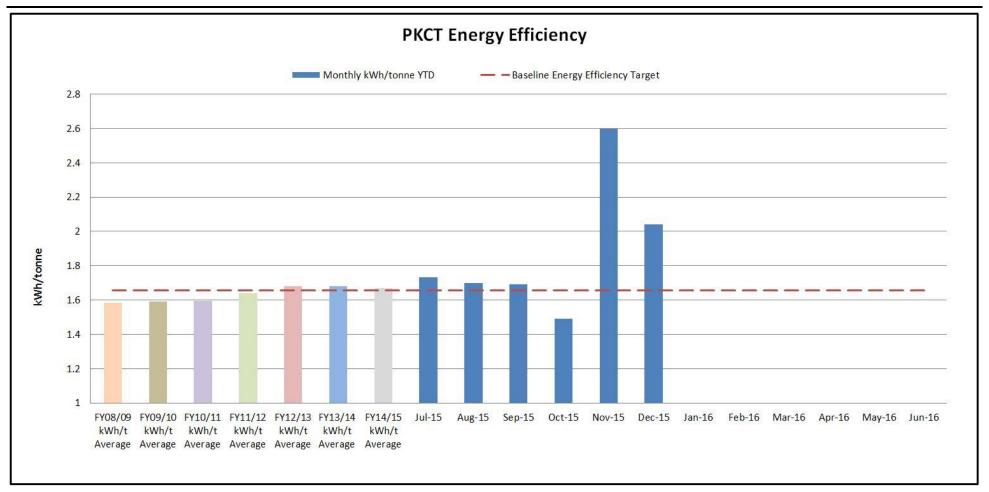
2015/2016 FY		Α	В	С	D	E
(July-December)					Gigajoules	tonnes
	Reporting unit	Amount consumed (reporting unit)	Energy content (GJ per reporting unit)	Emissions factor (kg CO2-e per GJ)	Reportable energy (GJ)	Reportable emissions (tonnes CO2-e)
Scope 1 – direct emissions						
Diesel oil(transport)	kL	0	38.60	69.90	0	0
Diesel oil (stationary energy)	kL	0	38.60	69.50	0	0
Biodiesel B20 (Transport)	kL	40	30.88	69.51	1235	86
Petrol (transport)	kL	8	34.20	69.60	274	19
Petroleum based oils	kL	0.47	38.80	27.90	18	1
Petroleum based greases	kL	1.24	38.80	27.90	48	1
Acetylene	m3 *	0	0.0393	51.33	0	0
Scope 2 – indirect emissions						
	Reporting		Energy content (GJ per	Emissions factor (kg		
	unit		kWh)	CO2-e per kWh)		
Electricity	kWh	9,187,975	0.0036	0.89	33077	8177
Tot	al	·	•		34652	8284
Threshold					100,000	25,000



Page 34 of 35

Management Plan

### Attachment L. ENERGY EFFICIENCY YTD





Management Plan

Page 35 of 35

### Attachment M. WASTE REPORT JULY-DECEMBER 2015

Waste volumes generated during normal site operations July to December 2015

Waste Volumes	July 2015 to December 2016		
General Waste	48910.5	kg	Landfill
Metal	23.247	kg	Recycled
Cardboard Recycling	2340	kg	Recycled
Waste Rags	1920	L	Recycled
Waste Grease Cartridges	240	L	Recycled
Waste Oil Filters	480	L	Recycled
Waste Pressure Packs	1440	L	Recycled
J120 Waste (oil and hydrocarbons mixed with water)	18720	L	Off Site Treatment

Waste volumes generated by Project July to December 2015

Waste Volumes by Project - July to December 2015					
Project	Туре	Quantity	Disposal method		
Central Pond Upgrade	Concrete	91.81 t	Recycled		
Southern Demolition Project	Steel	11.30 t	Recycled		
Southern Demolition Project	Asbestos Soil	7.20 t	Landfill		
Southern Demolition Project	Concrete	446.66 t	Recycled		
Stockyard Rails Phase 2	General Waste	18.04 t	Landfill		
Stockyard Rails Phase 3	Concrete	910.74 t	Recycled		
Stockyard Rails Phase 4	Steel	40.00 t	Recycled		
Stockyard Rails Phase 5	Asbestos	26.44 t	Landfill		