



ANNUAL KOORAGANG COAL TERMINAL COMPLIANCE REPORT


| January to 31 December 2019



PORT WARATAH
COAL SERVICES

Pioneering Through Partnership

For more info visit pwcs.com.au or ring **(02) 4907 2000**

Name of Operation	Kooragang Coal Terminal
Name of Operator	Port Waratah Coal Services
Development Consent(s)	DA 35/96 PA 06_0189 PA 06_0189 MOD 1 PA 06_0189 MOD 2 PA 06_0189 MOD 3
Name of holder of Development Consent / Project Approval	Port Waratah Coal Services Limited
Environmental Protection Licence Number	1552
Groundwater bore licence	20BLI73934
Compliance Report Start Date	1 January 2019
Compliance Report End Date	31 December 2019
<p>I, Trudie Larnach, certify that this compliance report is a true and accurate record of the compliance status of the Kooragang Coal Terminal for the period 1 January 2018 to 31 December 2018 and that I am authorised to make this statement on behalf of Port Waratah Coal Services.</p> <p>Note.</p> <p>a) <i>The Annual Review is an 'environmental audit' for the purposes of section 122B (2) of the Environmental Planning and Assessment Act 1979. Section 122E provides that a person must not include false or misleading information (or provide information for inclusion in) an audit report produced to the Minister in connection with an environmental audit if the person knows that the information is false or misleading in a material respect. The maximum penalty is, in the case of a corporation, \$1 million and for an individual, \$250,000.</i></p> <p>b) <i>The Crimes Act 1900 contains other offences relating to false and misleading information: section 192G (Intention to defraud by false or misleading statement—maximum penalty 5 years imprisonment); sections 307A, 307B and 307C (False or misleading applications/information/documents—maximum penalty 2 years imprisonment or \$22,000, or both).</i></p>	
Name of Authorised Reporting Officer	Trudie Larnach
Title of Authorised Reporting Officer	Manager Sustainability and Corporate Affairs
Signature of Authorised Reporting Officer	
Date	24 March 2020



Annual Kooragang Terminal Operation Compliance Report

This annual operation compliance report provides a summary of the compliance status of the Kooragang Coal Terminal (KCT). The Compliance report provides an assessment of the environmental performance of the project by way of compliance with the requirements and conditions of the following regulatory approvals:

- Development Consent 06_0189 including modifications of 26 November 2012, 5 April 2012 and 31 May 2010;
- Development Application No. 35/96 (Stage 3 Expansion);
- Environment Protection Licence (EPL) No 1552; and
- Groundwater bore licence No 20BL173934.

A total of 229 conditions were assessed for compliance with the above approvals. Six conditions were not complied with for the reporting period. A summary of KCT's compliance with key operational approvals as at the 31 December 2019 is provided in **Table 1**. A compliance key as per the Department of Planning and Environment (DPE) October 2015 Annual Review Guideline is provided in **Table 2** with a summary of the non-compliances for the reporting period provided in **Table 3**. In accordance with Condition 8.2 of PA 06_0189, a register of all incidents for the Kooragang Coal Terminal and the resulting actions undertaken by Port Waratah during 2019 are provided in **Table 4**.

Table 1: Statement of Compliance with Kooragang Terminal Approvals and Environment Protection Licences

Development Approval/Licence	Approval/Licence Number	Approval/Anniversary Date	Approval Body	Compliance
Kooragang Coal Terminal – Stage 1 (15Mtpa) & 2 Approval (35Mtpa)		21 April 1982	Minister for Public Works	Yes
Kooragang Coal Terminal – Stage 3 Expansion Approval (77Mtpa)	DA35/96	25 November 1996	DUAP	Yes
Kooragang Coal Terminal – Proposed increase to Throughput Capacity (120Mtpa) Modified Project Approval	06_0189	13 April 2007	NSW DoP	No
	06_0189 MOD 1	Modified 31 May 2010	NSW DoP	
	06_0189 MOD 2	Modified 5 April 2012	NSW DoP	
	06_0189 MOD 3	Modified 26 November 2012	NSW DPE	
Kooragang Coal Terminal Environment Protection Licence	EPL 1552	1 June	EPA	No
Groundwater bore licence	20BL173934	18 February 2017	NSW DI	Yes

Note: The light grey text represents previous approval documents that have been superseded.

Table 2: Statement of Compliance Key

Risk Level	Colour Code	Description
High	Non-compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> • Potential for serious environmental consequences, but is likely to occur; or • Potential for moderate environmental consequences but is likely to occur.
Low	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> • Potential for moderate environmental consequences, but is likely to occur; or • Potential for low environmental consequences but is likely to occur.
Administrative non-compliance	Non-compliant	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)



Table 3: Kooragang Terminal non-compliance details

Relevant Approval	Condition #	Condition Description	Compliance Status	Comment
PA 06_0189	2.8	<p>Operation Noise</p> <p>The Proponent shall design, construct, operate and maintain the project to ensure that the noise contributions from the expanded coal terminal do not exceed the maximum allowable noise contributions specified in Table 1 of PA 06_0189, at those locations and during those periods indicated. The maximum allowable noise contributions apply under:</p> <p>a) meteorological conditions of: wind speeds up to 3 ms-1 at 10 metres above ground level; or</p> <p>b) temperature inversion conditions up to 3oC per 100 metres and wind speeds up to 2ms-1 at 10 metres above the ground.</p>	Non-compliant	Port Waratah's Noise Consultant (SLR) conducted noise monitoring of KCT operations during the night-time period on 7 May 2019. KCT complied with the relevant noise limits/criteria at all locations except for FWI (Fern Bay West), where a KCT noise contribution of 53dBA was recorded, resulting in a 3dBA exceedance.



Relevant Approval	Condition #	Condition Description	Compliance Status	Comment
	2.12	<p>Soil and Water Quality Impacts</p> <p>Except as may be expressly provided under the provisions of an Environmental Protection Licence for the project, the proponent shall comply with Section 120 of the Protection of the Environment Operations Act 1997 which prohibits the pollution of waters</p>	Non-compliant	<p>Non-compliances that occurred at the Kooragang Coal Terminal during the reporting period that involved water quality impacts are as follows:</p> <ul style="list-style-type: none"> • During clean up activities at the KCT Wharf on 18 February, a visible plume was observed in the water near the wharf. Upon investigation, the plume was found to originate from process water containing coal fines entering an electrical services pit (positioned in between the road and the maintenance bay), travelling along a conduit within the wharf apron and exiting at the point where the cables exit beneath the wharf apron and into the harbour. (Formal warning received from the EPA in relation to this incident). • On 28 February 2019, coal build up was observed falling from 7.10 Shiploader onto the K5/K6 maintenance bay. Upon Investigation, wet coal was found to be building up on the pulley at the Shiploader and as the coal dried, flakes of coal were breaking off and landing on the maintenance bay below. There was potential for a small amount of coal material to have entered the harbour. • On 17 April 2019, a grease distribution block on 7.10 shiploader developed a pin hole leak that resulted in grease being released from the system and onto the structure of the machine and the wharf Infrastructure, rip rap and harbour below. Approximately 28kg of grease has landed on the rip rap and harbour waters over a period of 11 hours. (Official Caution was received from the EPA in relation to this incident).
	2.13	<p>Soil and Water Impacts</p> <p>The proponent shall not permit the discharge of any water from the site to the Hunter River unless expressly provided under the provisions of an Environment Protection Licence, or when a storm exceeds a 1 in 100 year ARI event or after prolonged wet weather 'equivalent' to this event</p>	Non-compliant	Refer to comment for Condition 2.12 above.



Relevant Approval	Condition #	Condition Description	Compliance Status	Comment
EPL 1552	EPL LI.1	Pollution of waters Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	Non-compliant	Refer to comment for condition 2.12 of the Development Consent 06_0189 above.
	EPL O3.1	The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.	Non-compliant	<p>Non-compliances that occurred at the Kooragang Coal Terminal during the reporting period that involved dust emissions are as follows:</p> <ul style="list-style-type: none"> On 31 January 2019, a significant amount of dust was observed coming from the KCT yard stockpiles during unloading of coal at Dump Station 4. After mitigation actions were implemented such as the initiation of dump station and heavy conveyor sprays, the unloading process resumed. Dust was again generated during the stacking process. At this point the unloading of the coal ceased and was rescheduled. On 6 June 2019, excessive dust was experienced while ship loading coal resulting in an off-site deposition of coal dust on Heron road and the deck of the vessel.



Table 4: 2018 KCT Environmental Incident Register (in accordance with Condition 8.2 of PA 06_0189)

Number	Incident Date	Incident Details	Incident Type	Incident Response
1	31 Jan	On 31 January, A significant amount of dust was observed coming from the KCT yard stockpiles during unloading of coal at Dump Station 4. After mitigation actions were implemented such as the initiation of dump station and heavy conveyor sprays, the unloading process resumed. Dust was again generated during the stacking process. At this point the unloading of the coal ceased and was rescheduled.	Air Quality	Port Waratah determined the impact from the dust event caused no material harm and as such the PIRMP was not initiated. Subsequent unloading recommenced at a reduced rate with representatives from the load point onsite to witness the rest of the unloading process. Dust emissions from the remaining coal delivery were managed well with the additional controls in place. An audit of the Intelligent Dust Management System across Port Waratah was commenced to assess the effectiveness of the dust suppression controls. It is aimed to complete the audit in 2020.
2	18 Feb	On 18 February 2019, following washdown of 7.09 Shiploader at the K5/K6 maintenance pad, an Operator conducting follow up housekeeping hosed a small area of coal spillage from the road adjacent to K5/K6 maintenance pad into the site's water management system. After approximately 15-20 minutes of hosing, the Operator became aware of a visible plume in the harbour, directly adjacent to the K5/K6 maintenance pad. It is apparent that process water had entered an electrical services pit positioned in between the road and the maintenance pad, travelled along a conduit within the wharf apron, exiting at the point where cables exit beneath the wharf apron in line with the edge of the rip rap and entered the harbour.	Water	Port Waratah enacted the PIRMP following discovery of the incident. A review of all service pits located at the Wharf was undertaken with temporary containment measures installed at the two locations with process water use within the vicinity of the service pits restricted. Long term solutions have since been implemented, which includes the re-contouring of the area around the services pits to shed water away from the pit and replacing the pits with upgraded, sealed pits. The EPA issued Port Waratah a 'Formal Warning' for this incident.
3	28 Feb	On 28 February 2019, coal build up on the boom take up bend pulley lagging on 7.10 Shiploader was observed falling from the shiploader while it was loading a vessel at the K7 Maintenance Pad. A subsequent inspection of the area found coal flakes were located on the maintenance pad with a small amount found on the pad apron.	Water	Port Waratah determined the impact from the incident to not have caused material harm due to the minimal amount of coal flakes that may have entered the harbour and as such the PIRMP was not initiated. Shiploading ceased while inspections were carried out on the machine. The machine and maintenance pad were washed down before the machine was returned to service. A temporary containment device was implemented following the incident to capture and contain the spillage on 7.10 shiploader. A similar temporary device was installed on the remaining 2 shiploaders. with permanent containment devices subsequently engineered and installed on all Shiploaders.



Number	Incident Date	Incident Details	Incident Type	Incident Response
4	17 Apr	<p>On 17 April 2019 at 07:57 am, a grease distribution block located on 7.10 shiploader at the Kooragang Coal Terminal (KCT) developed a pin hole leak that resulted in grease being released from the system. The grease system continued to operate until the grease system triggered a low-level grease alarm at 06:42 pm later that day and automatically shut the grease system down. During this time grease from the system has been released, depositing on the deck of the shiploader, the wharf infrastructure, ballast rock (located within EPL 1552) and into the harbour.</p>	Water	<p>Port Waratah initiated the PIRMP following the discovery of the incident. The grease system operated for a total of 10 hours and 45 minutes until the system triggered a low-level grease alarm. Approximately 49 kg of grease was released from the system over the duration of the incident - 21 kg of grease was collected from the deck of the shiploader and 5 kg was hand cleaned from the ballast rock and wharf infrastructure. 23 kg of grease was unaccounted for and has most likely entered the harbour.</p> <p>Recovered grease was disposed of via a licenced waste management contractor. As a result, a review and risk assessment of all shiploader alarms and control system coding was conducted; an audit was conducted on all shiploader greasing and lubrication systems including an audit into site-wide hydrocarbons management systems, locations and risks; and a review undertaken of alternative hydrocarbon products.</p> <p>The EPA has since issued Port Waratah an 'Official Caution' for this incident.</p>



Number	Incident Date	Incident Details	Incident Type	Incident Response
5	7 May	Port Waratah's Noise Consultant (SLR) conducted noise monitoring of KCT operations during the night-time period on 7 May 2019. KCT complied with the relevant noise limits/criteria at all locations except for FWI (Fern Bay West), where a KCT noise contribution of 53dBA was recorded, resulting in a 3dBA exceedance.	Noise	<p>The 15-minute measurement commenced at 22:45 and finished at 23:00. No individual piece of onsite plant or equipment was noted to be particularly noisy or identifiable during the survey. Modelled noise data over the same period for FWI predicted noise levels to have been 45dBA, which is significantly lower than the attended monitoring results.</p> <p>Equipment operating one outbound stream Out of service for maintenance, and approximately 'half the normal tonnes' being transferred.</p> <p>From the completion of the previous monitoring location (FE1) to the commencement of monitoring at FWI, the following operations commenced:</p> <ul style="list-style-type: none"> - DS1 inbound (1.26, 1.35) - DS2 feeder belt (1.21) - DS3 inbound (1.28, 1.37) - 3.58 Stacker, 3.10 & 3.14 conveyors - 3.22 Stacker <p>Additional to the above items, three trains were also idling/approaching the KCT Dumpstations.</p> <p>Meteorological Data Leading up to monitoring at FWI, data from the onsite weather station indicated a 'moderately stable' atmosphere, which is typically associated with noise enhancing conditions, where a recorded exceedance would not be valid as per the provisions detailed in c.2.8 of the KCT 120Mtpa Modified Approval. At 10:30pm, the weather station recorded a sudden effect that led to an 'extremely unstable' atmosphere (Sigma Theta changed from <2 to >35). Unstable atmospheres are associated with noise attenuating conditions. At the same time however, there was a sudden shift in wind direction (NW to WSW), a 1 degree drop in temperature and a 10% increase in RH, all of which have noise enhancing characteristics, especially for the Fern Bay area. Following completion of monitoring at FWI, the 'moderately stable' atmospheric conditions returned and it is believed that the noise would have dissipated at FWI.</p>



Number	Incident Date	Incident Details	Incident Type	Incident Response
6	6 June	On 6 June 2019, excessive dust was experienced while ship loading coal resulting in an off-site deposition of coal dust on Heron road and the deck of the vessel.	Air Quality	<p>Port Waratah determined the impact from the incident to not have caused material harm and as such the PIRMP was not initiated.</p> <p>The coal was removed from the road via a street sweeper and cleaned off the deck of the vessel.</p> <p>An investigation identified four primary causes for the dust:</p> <ul style="list-style-type: none"> - The Intelligent Dust Management System (IDMS) was placed in 'fire mode' during the loading of the coal which inhibited the yard sprays. - Outbound belt spray system was not functioning as required. - The coal type was unwashed and extremely dusty. - The dust seals on the vibrating feeders were in a poor condition. <p>Actions to address the causes have been identified and implemented. A complete review of the IDMS was commenced in 2019 and will be completed in 2020.</p>

