

Introduction

Port Kembla Coal Terminal (PKCT) is located in the Inner Harbour at Port Kembla, near Wollongong. The Coal Terminal is the major coal loading facility in southern NSW for the transfer of coal from rail and road to ship and is serviced by extensive road and rail infrastructure. It has two bulk handling facilities; a high capacity Coal Berth that handles the loading of coal, and a Bulk Products Berth that loads a range of bulk products.

PKCT currently operates under consent conditions attached to its 1979 Development Approval. The Development Approval contains 17 conditions in relation to construction, transport and operation of the Coal Terminal. However, *State Environmental Planning Policy (SEPP) Infrastructure 2007 (formerly SEPP 7, 1982)* has superseded three conditions in relation to road haulage and limits the hours in which PKCT is permitted to receive coal deliveries by public road to between 7am and 6pm, Monday to Saturday.

PKCT is seeking to have this specific restriction under the Infrastructure SEPP removed, to allow the Coal Terminal to receive coal and bulk products by public road 24 hours per day, 7 days per week (24/7) for a maximum of 10 million tonnes per annum (mtpa). *Note: there are no infrastructure changes proposed as a result of this change to delivery hours.*

Consultation

PKCT consulted key regulatory agencies during the development of the EA. Consultation has continued throughout the project, to discuss and confirm requirements, source information and to discuss findings of the EA. Community consultation focussed on residences which are in close proximity to the site or key coal haulage transportation corridors. PKCT has also discussed the proposal with the PKCT Community Consultative Committee and information has been made available to the general community. Results to date show no significant objection to the proposal.



Statutory Context

The Department of Planning (DoP) has gazetted the proposal as a Major Project and the Minister for Planning is the consent authority under Part 3A of the EP&A Act. DoP has issued Director General Requirements (DGR), which cover Key Environmental Assessment issues. These requirements have been considered in an Environmental Assessment and include:

- Traffic in relation to increased coal truck numbers, impact on operational characteristics of roads and intersections along the coal haulage route
- Noise impacts to residential areas from on-site operations and coal truck movements along the haulage route
- Air quality impacts on the surrounding area in relation to coal dust escape from PKCT premises
- Surface water quality in relation to existing on-site operations
- Climate change impacts in relation to existing on-site and delivery operations and the proposal to increase road deliveries.

This Environmental Assessment (EA) details existing and proposed operations, and key environmental and community issues identified in the DGRs.

Existing and Proposed Operations

PKCT is responsible for receiving, assembling and loading coal and bulk products from the Southern and Western New South Wales coal fields, which is transported by ship to international and domestic markets. The Coal Terminal is a key link in the coal supply chain for the Illawarra, Wollondilly and Lithgow areas.

PKCT receives and transfers to ship nearly 12 million tonnes of coal per annum, as at end financial year 2007 (FY07), with approximately 43% delivered by road and the remaining 57% by rail. The coal received is loaded onto ships with 93% destined for export and 7% for the domestic market. Furthermore, 540,000 tonnes of bulk products were shipped in FY07, including coke and slag.

The volume of coal shipped through PKCT, known as throughput, fluctuates over time, with historical high periods in 1992/93 of over 15mtpa and low periods between 2000 – 2002 of approximately 8-9mtpa. The fluctuations are heavily influenced by market conditions in both the thermal and coking coal international markets.

The current 11 hours per day, 6 days per week (11/6) operating constraint limits coal and bulk products deliveries by public road to only 60% of the available time, or 5.2mtpa. 24/7 public road delivery operations are proposed to a maximum of 10mtpa, which will provide optimal efficiency of operations and throughput of coal and bulk products. Importantly, this can be accommodated within the existing receival, stacking and ship loading infrastructure which, apart from public road deliveries, all operate 24/7.

Should approval of this Part 3A application be granted, 24/7 public road deliveries to PKCT will commence as soon as possible. The growth in coal and bulk products delivered to PKCT by road to a maximum of 10mtpa will steadily increase over the next five to ten years, depending on production capability and market demand on coal and bulk products from road delivery mines.



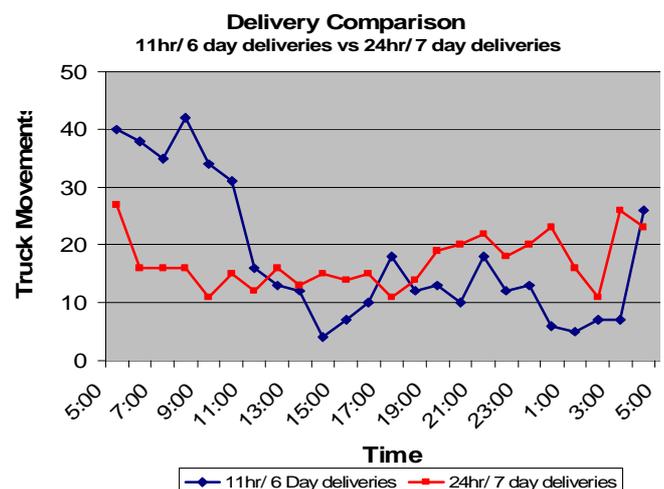
Emergency Provisions and 24/7 Public Road Delivery Trial

Under the previous SEPP 7 - Port Kembla Coal Terminal (now replaced by the Infrastructure SEPP), the Minister for Planning could permit coal and bulk products to be received at the Coal Terminal on a 24/7 basis during emergency periods (i.e. high shipping demands). During such periods, PKCT monitored noise and traffic levels. The Minister approved several emergency periods of up to 3 months duration during the last decade, with the most recent conducted in December 2006 to March 2007.

A similar provision under the Infrastructure SEPP, allows DoP to provide PKCT with an opportunity to carry out a '24/7 trial' and test the proposed development and monitor its impact. This trial operated between 3 March and 14 April 2008 and provided opportunities for noise, traffic and community perceptions to be measured and analysed. The EA has used results from noise and traffic monitoring during both emergency provision periods and the 24/7 trial to better assess the proposed operating conditions.

The emergency provisions and 24/7 trial period show that 24/7 access allows deliveries to be spread more evenly across the 24 hour period, thus reducing daytime coal truck movements. The graph below shows the difference between a day of high deliveries under the existing (11/6) and proposed conditions (24/7).

Under 11/6 restrictions, an average of 39 trucks per hour occurred between 7am and 10 am. During 24/7 conditions of the trial, there was only an average of 19 trucks per hour between 7am and 10am. This equates to a decline of 20 coal trucks per hour during the morning commuter period under 24/7 conditions. Community perceptions of coal trucks show very little noticeable change with 24-hour deliveries.



Environmental aspects of this EA can be divided into either *Key Environmental Issues* as identified by the DGRs (e.g. air, traffic, noise, surface water management, climate change and energy use, and cumulative impacts) or *Secondary Environmental Issues* (e.g. waste, land use, visual, flora and fauna, European and Indigenous Heritage) associated with existing site operations.

Approach to Environmental Assessment

PKCT undertook an Environmental Risk Assessment (ERA) as part of this EA, which covers both existing operational impacts of PKCT and additional impacts predicted as part of the proposal. Environmental risks identified during the (ERA) include dust, ship fuel bunkering, noise and endangered species.

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Traffic

Traffic was assessed on all key road haulage routes and at three key controlled intersections along the coal haulage routes for performance under existing PKCT delivery conditions. Coal trucks account for only 0.2 – 4.7% of existing total vehicle numbers on all parts of the haulage routes, and as such have very little impact on existing traffic operation. To assess the proposal, calculations were made of the required coal and bulk products trucks per hour to deliver the maximum 10mtpa and applied to forecast increases in background traffic over the next 5-10 years. An expected result of the 24/7 proposal is that coal and bulk product truck numbers increase at night, which is desirable to spread deliveries to reduce interaction with peak commuter traffic.

This modelling shows that the proposal will not have a significant impact on existing operation of any road within the coal and bulk products haulage routes. Conversely, traffic conditions will worsen if coal and bulk products deliveries increase under the current 11/6 restriction.

Air Quality

Air quality was assessed from existing and proposed PKCT operations. Stockpiles are the primary source of potential dust emissions from the site. PKCT has numerous mitigation measures in place to reduce dust including road and rail delivery in underground hoppers, water spray systems for conveyor systems and stockpiles and truck wash facilities. PKCT's Environment Protection License (EPL 1625) requires monthly monitoring of dust in and around the premises and results show that dust has been below DECC criteria for the last three years.

PKCT is one of many industrial operators, which have the potential to generate dust within Port Kembla, and all operators contribute to the overall ambient air quality. The 24/7 proposal would have only minor impacts on the air quality surrounding the site as existing controls adequately manage dust emissions to ensure compliance with DECC requirements.

Noise

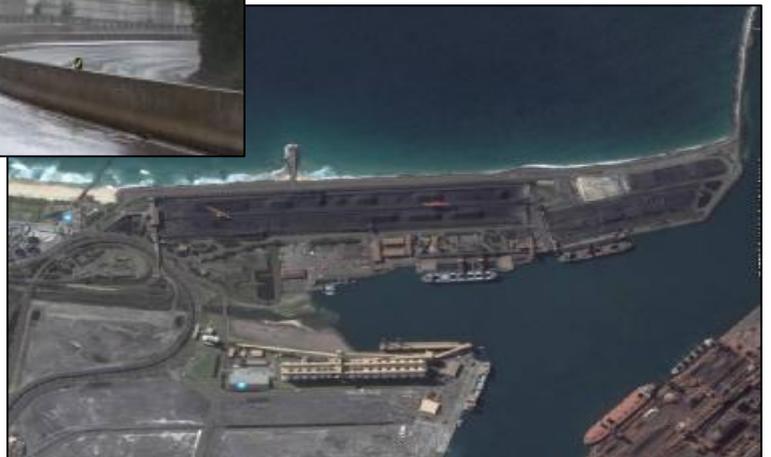
Noise assessments were carried out on existing PKCT on-site activities, road deliveries and proposed increased road deliveries. Monitoring showed that the PKCT noise emissions from existing on-site operations are within DECC Industrial Noise criteria at the nearest residential receivers.

The current road coal haulage routes are within levels permitted by Environmental Criteria for Road Traffic Noise (ECRTN). Modelling against the ECRTN criteria on the major roads such as Mt Ousley, F6, Northern Distributor, Masters Road and Springhill Road demonstrate very little change under the proposed change. For example, Mount Ousley Road shows only a change of +/- 0.2 dB under the 2013 10mtpa scenario, even with increased night time deliveries.

However, following the opening of the Northern Distributor Extension, and a subsequent 58% drop in traffic volume, the Bellambi Lane noise assessment has shown that 24/7 coal haulage has potential night noise impacts. To protect residential amenity, while still allowing GNRE to efficiently deliver coal to PKCT up to maximum forecast volumes, it is proposed that a restriction is placed on Bellambi Lane. It is therefore proposed to mitigate against this change, unless further or alternative appropriate approvals are in place, by implementing truck deliveries along Bellambi Lane only during 7am to 10pm on Monday to Friday and from 8am to 6pm on Saturday and Sunday.

Surface Water

The current surface water management system at PKCT collects and treats dirty water before discharge to Port Kembla Harbour. Site runoff is directed to a number of collection ponds and these ponds are pumped to a settlement lagoon for chemically aided coagulation. Discharges into the harbour must be undertaken in accordance with the operating conditions stipulated in EPL 1625. The EPL specifies both concentration limits for discharges into the harbour and requirements for monitoring of discharges. PKCT's annual EPL report shows water discharged meets license requirements. PKCT's increased road-based deliveries will have no impact on the management of surface water within the PKCT site. Existing management systems will continue to adequately control on-site water flows and mitigate impacts on the environment.



Climate Change and Energy Use

The results of the GHG assessment of existing PKCT activities and 11/6 road deliveries shows that Scope 1, 2 and 3 emissions are in the order of 5.69 Mt CO₂-e per year or 0.49t CO₂-e per year per tonne of coal. Raising deliveries to 10mtpa will increase GHG emissions to 7.55 Mt CO₂-e per year, however, will improve per tonne to 0.46t CO₂-e per year per tonne of coal. GHG emissions from existing and proposed PKCT operations and deliveries are very low and constitute a negligible percentage of NSW, Australian and world emissions. In both the existing 11/6 and proposed 24/7 operations, Scope 3 emissions make up almost all of total emissions. If Scope 3 emissions are omitted in calculations (which reflects the true change in GHG emissions due to the proposed increased coal deliveries by road) then there is an actual decrease of ~6% in GHG emissions per tonne of coal handled due to the implementation of the 24/7 road deliveries up to 10mtpa.

Other Environmental Issues

Other environmental issues, including waste, visual amenity, endangered species and cultural heritage have all been considered in relation to the existing and proposed operation. No significant impacts have been identified as a result of these assessments.

Cumulative Impact Assessment

Developments with potential to contribute to cumulative environmental impacts considered, in conjunction with both the ongoing PKCT operation and proposed 24/7 public road deliveries, include other activities proposed by Port Kembla Port Corporation within the Inner or Outer Harbour and other developments anticipated in PKCT's locality. This EA has appraised traffic congestion, road noise, noise from the northern area of the port precinct, and dust from the northern area of the port precinct. In this regard, existing and proposed port operations and surrounding developments will have minimal impacts on the environment in combination with PKCT.



Justification

The current 11/6 policy was introduced in response to community concerns regarding haulage of coal and bulk products by road on Wollongong streets. At that time, over 25 years ago, 11 mines were delivering by road and coal trucks were required to transit through residential areas en-route to PKCT (see "coal nuisance" article below). Currently, only three mines deliver coal by public road, significantly reducing associated environmental impacts and these deliveries are either diverted around residential areas (e.g. Masters Road or Southern Freeway) or travel along new roads which are generally shielded from residential areas (Mt Ousley Road and Northern Distributor). Almost all of these roads have noise barriers. Mount Ousley Road itself has been widened to provide slow vehicle lanes in both directions. There have also been major improvements to the trucking fleet with improvements to road safety and amenity impacts. Under these circumstances, the current 11/6 policy is no longer relevant.

The current 11/6 policy is also inequitable to PKCT when compared to its peers who largely operate on an unrestricted 24/7 basis (e.g. Port Kembla Harbour, BlueScope Steelworks, Port Kembla Grain Terminal, Multi-Purpose Berth). Even PKCT itself operates on a 24/7 basis, apart from public road deliveries. Under these circumstances, continuation of the current 11/6 policy is unreasonable.

The 24/7 proposal will enable PKCT to continue to handle increasing quantities of coal and bulk products to deliver further economic opportunities as a vital link in the global coal supply chain. PKCT will be able to accept road deliveries to match its customer requirements with shipping timetables and achieve overall operational efficiencies. This position will better secure the 89 direct employees plus approximately 34 full time equivalent contractors who work at PKCT.

Improvement in coal truck technology, noise mitigation measures along road haulage routes and works to ensure these routes are suitable for heavy vehicles, when combined, reduce impacts from coal trucks on sensitive receivers and other traffic. Implementation of 24/7 will reduce total traffic impacts during peak commuter times compared with 11/7 restrictions. The proposed restriction on coal truck haulage at Bellambi Lane ensures an acceptable noise level amenity for nearby residents.

The existing environmental safeguards can cater for the increased throughput with no significant impacts from dust, noise or GHG emissions. Continuation of existing on-site operations and increase in public road deliveries to 24/7 for a maximum of 10mtpa will present no significant impacts in relation to community amenity and the natural and built environment.

The previous justifications for the 11/6 time restriction are no longer relevant and it is unnecessary and unreasonable to retain this restriction on the growth of the NSW coal industry. Furthermore, the current 11/6 policy is inequitable when compared with neighbouring industrial and port operations, who all operate unrestricted on a 24/7 basis.





Conclusions

This EA has focussed on the key environmental issues (as identified in the DGRs) of PKCT proposal to increase road deliveries to 24/7 for a maximum of 10mtpa. It has also addressed secondary environmental issues to ensure a rigorous review of PKCT existing and proposed operations. It shows that existing and proposed PKCT operations have a small environmental footprint, which is minimised through existing environmental impact mitigation measures.

Improvement in coal truck technology, noise mitigation measures along road haulage routes and works to ensure these routes are suitable for heavy vehicles, when combined, reduce impacts from coal trucks on sensitive receivers and other traffic. The current road infrastructure and operating environment is vastly improved from the time when the restriction on public road delivery was introduced. The only significant impact requiring mitigation measures is noise levels along Bellambi Lane associated with the proposed increase in deliveries from GNRE No. 1 Mine. Thus, the previous justifications for the 11/6 time restriction are no longer relevant and it is unnecessary and unreasonable to retain this restriction on the growth of NSW coal exports.

Total traffic impacts from the proposal will be less as 24/7 deliveries reduce the number of coal trucks on the road during peak commuter times compared with 11/6 restrictions. Noise levels along Bellambi Lane (inclusive of the proposed increase in coal truck numbers), are predicted to reduce once the Northern Distributor Extension opens in 2009. This benefits local residents and the mining industry as exports can increase at the same time as traffic noise levels reduce. The proposed restriction at Bellambi Lane ensures an acceptable noise level for nearby residents.

Continuation of existing on-site operations and increase in public road deliveries to 24/7 for a maximum of 10mtpa will present no significant impacts in relation to community amenity and the natural and built environment.

Recommendations

Following assessment of existing and proposed operations, the recommendations of the EA are that PKCT commit to a number of Statements of Commitment, including:

- Road haulage of coal and bulk products to PKCT being limited to 10mtpa
- A driver's code of conduct for all transport companies delivering to PKCT
- Review effectiveness of truck wash facilities to be undertaken
- Unless further or alternate approvals are in place, coal truck deliveries along Bellambi Lane will only be undertaken between 7am and 10pm Monday to Friday and 8am to 6pm on Saturday and Sunday.
- Maintain appropriate dust suppression systems on-site to effectively manage dust both on stockpiles and roadways, and a dust monitoring programme including installation of two continuous dust monitors to monitor airborne dust emissions
- Reduction in freshwater use on site through implementation of recycled water (Tertiary Treated Effluent) for dust suppression on stockpiles and other non-domestic uses.



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