PWCS

PORT WARATAH COAL SERVICES LIMITED
A.B.N. 99 001 363 828

COAL TERMINALS INFORMATION HANDBOOK

Revision 4.1
Effective from May 2009

EMERGENCY PROCEDURE

IN THE EVENT OF AN EMERGENCY USE THE VESSEL TELEPHONE PROVIDED OR ANY OPERATING MOBILE PHONE AND DIAL:

- Vessels at Carrington (Dyke) Berths:

4907 3222

- Vessels at Kooragang Berths:

4907 2111

STATE:

- Vessel Name
- Terminal Location & Berth Number
- Type of Emergency
- Type of Assistance Required

ALSO, ENSURE NEWCASTLE HARBOUR IS CALLED ON:

VHF CHANNEL 9

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1 PURPOSE

The purpose of this Handbook is to inform Masters of Vessels, Owners and their Agents of the relevant operating procedures of the two PWCS Coal Terminals (Carrington Coal Terminal - CCT and Kooragang Coal Terminal - KCT) in the Port of Newcastle, Australia.

2 DEFINITIONS

Air Draught	The height from Chart Datum (ISLW) to the hatch coaming/covers for shiploader operation. See Appendix B.
AMSA	Australian Maritime Safety Authority.
AQIS	Australian Quarantine and Inspection Service.
BC Code	Code of Safe Practice for Solid Bulk Cargoes.
BLU Code	Code of Practice for the Safe Loading and Unloading of Bulk Carriers.
Chart Datum (CD)	The plane or level to which soundings (elevations) or tidal heights are referenced. For Newcastle, this is the Lowest Astronomical Tide, CD = 0.0m.
Cleared Port	Time and date the vessel passes entrance buoy on departure as recorded by Newcastle Port Corporation.
Cleared to Load	Time and date the vessel is ready to receive coal after berthing and initial draught survey complete.
Coal Exporter	Any person, partnership, company, trust, co-operative or other association or entity to which PWCS provides coal handling services.
Coal Loading Plan	A plan submitted by the Master of the Vessel indicating hatch tonnages, coal type(s), pass sequence, de-ballast time and operations, sailing draught and sailing tide. Conforms to the Loading Plan in Appendix 2, BLU Code.
Commenced Loading	Time and date when first coal is delivered into a hatch of the vessel.
Completion of Loading	Time and date when the vessel has received the coal tonnage requested by the Master of the Vessel as determined by a draught survey.
Dwt	Deadweight in metric tonnes.
ETL	The estimated time of commencement of loading of the vessel at the coal loading facilities.
Gas Free	When sufficient fresh air has been introduced into the space to lower the level of a flammable, toxic or inert gas to that required for a specific purpose.
Gas Free Certificate	Certificate issued by an authorised Chemist confirming that, at the time of testing a compartment, it was gas free for a specific purpose.

Handbook	PWCS Coal Terminals Information Handbook.
Hatch	An opening in a deck of a ship providing access to a hold through which cargo is loaded.
HHW	Highest High Water.
Hold	The under deck space in which cargo is placed.
Hydraulic Interaction	Reaction of a vessel's hull to pressure exerted on its underwater volume caused by a passing vessel.
IMO	International Maritime Organisation.
ISGOTT	International Safety Guide for Oil Tankers and Terminals.
ISLW	Indian Spring Low Water.
ISM Certificate	International Safety Management Certificate.
LHW	Lowest High Water.
LOA	Length Overall.
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships 73/78 with amendments.
Master of the Vessel	Person accountable for the safe operation of the vessel including loading and unloading.
Marine Surveyor	Any person who is a full member, or their employer includes a full member of the Institute of Marine Surveyors. This person must have proven proficiency in bulk loading of vessels, including hold preparation and cargo draught surveys and must be accredited or is employed by a company that is accredited in the PWCS contractor management system.
Nobbys Head	The prominent feature and site of lighthouse at the entrance to the Port of Newcastle located at (Position: 32° 55.1' S and 151° 47.9' E)
NOR	Notice of Readiness.
NPC	Newcastle Port Corporation.
OBO	Oil-Bulk-Ore Carrier.
Pass	The quantity of cargo loaded through one hatch opening as one step of the Loading Plan.
Person in Charge	See Master of the Vessel.
Pour	See Pass

Principal Shipper	The coal exporter with the majority of the cargo for a particular vessel.
Provisionally Detained	A vessel detained as per AMSA's Port State Control mandates.
PWCS	Port Waratah Coal Services Limited.
Reclaimer	A bucket wheel retrieval apparatus for coal.
Shiploader	A mechanical device designed to load coal by gravity from conveyors.
Shiploader Operator	A PWCS employee reporting to the Shift Supervisor, assigned to operate the shiploader.
Shift Supervisor	A PWCS employee accountable for the safe operation of the Terminal including, but not limited to, rail receival, stockyard and loading cargo into vessels in accordance with the sequence and tonnages stated in the vessel's Coal Loading Plan.
Stowage Factor	The figure which expresses the number of cubic metres which one tonne of material will occupy (or ft^3/ton).
Terminal	PWCS Carrington or PWCS Kooragang.
Terminal Representative	PWCS Shift Supervisor.
TPH (tph)	Tonnes Per Hour.
UKC	Under Keel Clearance.
Vessel Agent	Person or firm authorised by the vessel owner or charterer to act on their behalf.
Vessel Arrived	Time and date the vessel reaches the designated anchorage or, where there competing vessels, the crossing of a 5 nautical mile radius from Nobbys Head and as advised to NPC.
Vessel Berthed	Time and date when all vessel lines are secure at the berth.
Vessel Cleared Berth	Time and date when the last line securing the vessel to the berth is released.
Vessel Entered	Time and date when the vessel passes the entrance buoy, inbound to the Port of Newcastle as recorded by Newcastle Port Corporation.
Vessel Representative	Master of the Vessel, or person nominated by the Master of the Vessel, to be the interface between the vessel and PWCS.

Vessel Sailed Time and date when the vessel passes the entrance buoy, outbound from the Port of Newcastle as recorded by Newcastle Port Corporation.

Wharf Foreman A PWCS employee accountable for assisting the Person in Charge and the Terminal Representative (Shift Supervisor) in the safe loading of cargo into vessels in accordance with the agreed sequence and tonnage stated in the vessel's Coal Loading Plan and Marine Orders part 32, Clause 10, Loading and Unloading. The Wharf Foreman reports to the PWCS Shift Supervisor.

3 INTRODUCTION

This Handbook is designed to assist the Terminals and those using the Terminals achieve maximum operational efficiency and compliance with the IMO's code of practice for the safe loading and unloading of bulk carriers (ie BLU Code)

This Handbook has been produced with the assistance of the NPC, Vessel Agents, Coal Exporters, lines companies and draught surveyors.

With exception of information contained in Section 4 (Terminal Data) of this Handbook all information relates to both Terminals.

To the best of PWCS' knowledge the information contained in this Handbook is true and correct at the time of writing. However, the information contained in this Handbook is subject to change at any time and any inquiries regarding this information should be referred to:

Manager Carrington Coal Terminal
Port Waratah Coal Services Limited
PO Box 57
CARRINGTON NSW 2294
AUSTRALIA
Telephone: +61 2 49073254
Facsimile: +61 2 49073333
E-mail: customer.services@pwcs.com.au

Manager Kooragang Coal Terminal
Port Waratah Coal Services Limited
PO Box 57
CARRINGTON NSW 2294
AUSTRALIA
Telephone: +61 2 49072260
Facsimile: +61 2 49072210
E-mail: customer.services@pwcs.com.au

The NPC, pursuant to the NSW Ports Corporation and Maritime Adminstation Act 1995 and the NSW Marine Pollution Act 1987, administers the Port of Newcastle.

All matters relating to navigation, maximum Port vessel size, pilotage, towage, vessel handling, vessel safety, marine regulations and marine pollution should be referred to:

The Harbour Master
Newcastle Port Corporation
PO Box 663
NEWCASTLE NSW 2300
AUSTRALIA
Telephone: +61 2 4985 8222
Facsimile: +61 2 4926 4596
E-mail: mail@newportcorp.com.au
VHF: Channel 9 (Vessel Traffic Information Centre (VTIC) - 24 hours service

4 TERMINAL DATA

4.1 GENERAL TERMINAL OPERATIONS

• Operating hours	364 days/year, 24 hours/day (No operations Christmas Day unless notified)
• Sampling method	Automatic
• Minimum distance between berthed vessels	30 m

4.2 CARRINGTON: Dyke Berths No.4 and No.5 (River Berths)

4.2.1 Terminal Information

• Receival:	
➢ Rail	1 x 4,000 tph, 1 x 4,600 tph
➢ Road	2,500 tph
• Stockpiles:	
➢ Dimensions	4 x 1,000 m x 40 m
➢ Total capacity	1.0 million tonnes
➢ Working capacity	0.6 million tonnes
➢ Stacking capacity	4 x 2,500 tph
➢ Reclaiming capacity	4 x 2,500 tph

4.2.2 Berth Characteristics

• Berth alignment	175 0T
• Designed berth depth	16.5 m *
• Designed Steelworks Channel depth	15.2 m *
• Maximum sailing draught	Promulgated Channel Depth + Tide – 10% UKC)
• Maximum LOA	290 m (combined LOA 540 m)
• Maximum beam	47 m
• Vessel size range	20,000 – 180,000 Dwt tonnes
• Berthing	Starboard Side to
• Dredged length at berth face	615 m
• Berth structure	Reinforced concrete/steel piles. Open deck layout.
• Fenders	Bridgestone Super Cell
• Mooring system	Quick release hooks, fixed bollards and capstan winches.

* Subject to promulgation

4.2.3 Air Draught (see Appendix B also)

- Maximum 18.5 m
- Minimum clearance under the shiploader from the hatch cover 1.0 m
- This Air Draught will enable the shiploader to change hatches with the operator remaining in the control cabin.
- For geared bulk carriers the shiploader must luff up to its full limit to clear deck gear when changing hatches. It is anticipated that hatch changes on geared vessels will take slightly longer than normal due to this operation.
- To assist the Master of the Vessel or cargo officer, white horizontal bands have been placed on the shiploader legs indicating when the limit is being approached so that action may be taken by the vessel, and/or Terminal, to ensure the limit is not exceeded.

4.2.4 Loading Facilities

- Number of berths 2
- Number of shiploaders 3 (1 decommissioned)
- Maximum Number of shiploaders per vessel 2
- Outreach 29.2 m from fenders
- Travel distance 490 m
- Shiploader capacity 2,500 tph each
- Maximum loading capacity 5,000 tph
- Nominal loading capacity
  - 1 loader 1,750 tph
  - 2 loaders 3,000 tph
- Conveyor speed 3.75 – 5.0 metres/second
- Travel distances along the berth apron measured from boom centre line:
  - Shiploader 1: 65 m & 514 m marks
  - Shiploader 2: 40 m & 489.5 m marks
  - Shiploader 3 Decommissioned

4.3 KOORAGANG: Kooragang Berths K4, K5 and K6

4.3.1 Terminal Information

- Receival:
  - Rail 3 x 6,600 tph

- Stockpiles:
  - Dimensions 2 x 2,500 m x 56 m, 1 x 1000 m x 56 m
  - Total capacity 3 million tonnes
  - Working capacity 2.4 million tonnes
  - Stacking capacity 19,800 tph
  - Reclaiming capacity 3 x 8,000 tph

4.3.2 Berth Characteristics

- Berth alignment 111 ^{0}T
- Designed berth depth 16.5 m *
- Steelworks Channel depth 15.2 m *
- Maximum sailing draught Promulgated channel depth + Tide – 10% UKC)
- Maximum LOA 300 m
- Maximum beam 50 m
- Vessel size range 40,000 – 232,000 Dwt tonnes
- Berthing Port Side To.
- Dredged length at berth face 976 m
- Berth lengths:
  - K4 311 m
  - K5 315 m
  - K6 350 m
- Berth structure Reinforced concrete/steel piles. Open deck layout.
- Fenders Bridgestone Super Cell
- Mooring system Quick release hooks, storm bollards and capstan winches.

* Subject to Promulgation

4.3.3 Air Draught (see Appendix B also)

- Maximum — 20.5 m (21.5 m minus 1 m clearance)
- Minimum clearance under the shiploader and the hatch cover — 1.0 m
- Minimum clearance between Shiploader spout and Hatch Coaming or other objects — 1.0 m
- This Air Draught will enable the shiploader to change hatches with the operator remaining in the control cabin.
- To assist the Master of the Vessel or cargo officer, a Black horizontal band has been placed on the shiploader structure indicating when the limit is being approached so that action may be taken by the vessel, and/or Terminal, to ensure the limit is not exceeded.

4.3.4 Loading Facilities

- Number of berths — 3
- Number of shiploaders: — 3
  - Shiploader 7.08 — Berths K4 & K5
  - Shiploader 7.09 — Berths K4, K5 & K6
  - Shiploader 7.10 — Berths K5 & K6
- Maximum number of shiploaders per vessel — 1
- Shiploader Travel distance — 819 m
- Outreach — 35 m (55 m-coal fall)
- Travel distances along the berth apron measured from boom centre line:
  - Shiploader 7.08 — 19 m & 543 m marks
  - Shiploader 7.09 — 78 m & 838 m marks
  - Shiploader 7.10 — 340 m & 960 m marks
- Conveyor speed — 5.0 – 5.5 metres/second
- Maximum shiploading capacity — 10,500 tph
- Nominal loading capacity — 5,000 tph per vessel

5 TERMINAL OPERATIONS AND PROCEDURES

5.1 VESSEL SUITABILITY

The Terminals are designed to accept single deck, self-trimming bulk carriers. Such vessels are expected to be classed Lloyd's 100A1 or equivalent, and have a valid ISM Certificate.

In determining the suitability of a vessel to load at PWCS Coal Terminals, PWCS may give consideration to (see specific information required below):

1. The minimum vessel size, maximum length and beam of the vessel, ability to receive coal at the nominated shiploader rate (see Vessel Performance Criteria), de-ballasting capability, type and arrangement of deck equipment;

2. The requirements stipulated by the NPC, RIGHTSHIP, AMSA, IMO or any other relevant authority;

3. Any other vessel suitability requirements that PWCS may reasonably determine from time to time.

4. Previous loading performance of the vessel at PWCS Coal Terminals or any other similar bulk terminal.

In respect to geared vessels, it is expected that the vessel's gear will be positioned so as to not impede the normal operation of the shiploader and otherwise reduce the loading performance of the Terminals. It is the intention of PWCS to load most geared vessels at the PWCS Carrington Terminal.

Owners/Charterers of vessels wishing to load at PWCS for the first time may be required to submit drawings showing the dimensions of their hatch's, deck structures and gangway position (General Arrangement).

Customers wishing to submit an Application for a vessel that is a new vessel and/or has not previously loaded at PWCS must supply the information detailed in the table below (Vessel Information to be Provided by Customers) in order to determine if the vessel is suitable to load at PWCS.

5.1.1 Vessel Performance Criteria

PWCS is committed to improving the service and value it provides to the Hunter Valley Coal Chain, and the loading performance of vessels is an important component of this. PWCS will continually monitor each vessel's performance to achieve this aim.

Vessels are required to comply with the Port requirements for entry and manoeuvring in the Port as described in Section 5.3 PORT ENTRY AND BERTHING.

In order to achieve and maintain a high level of performance PWCS recommends the following criteria be adopted for all vessels preparing to load at PWCS Terminals (all criteria are for both Terminals unless otherwise stated). Vessels are

assigned to the respective Terminals by the HVCCLT Vessel Planners. Vessels are to be capable of loading at an average load rate of 4,500 tph as a minimum.

- KCT Minimum Vessel Load Rates:
  - Cargo size < 95,000t must be > or = 5,000tph
  - Cargo size > 95,000t must be > or = 5,500tph
- CCT Minimum Vessel Load rates:
  - Single head only (1 shiploader): > or = 1900tph
  - Dual head (2 shiploaders): > or = 3000tph
- PWCS would like vessels to load continuously and not stop loading for deballasting or other operations. For this to be achieved the deballast time should be less than the total load time. PWCS is mindful that some vessels may be able to achieve load rates in excess of 5000tph and still require a deballast stoppage. For these vessels PWCS requests they supply the duration of the stoppage and when it will occur in the loading sequence on the Coal Loading Plan.
- The Interim Draught Survey must be less than 15 minutes.
- For vessels loading multiple cargoes each cargo must be completed in its entirety before commencing the next cargo.
- Recommended minimum cargo size to be 20,000t.
- The vessel must be ready to sail no later than 1 hr from last coal on board.
- Vessels should endeavour to completely fill 2 or more holds in single pours for each hold.

Vessel Information to be provided by Customers

Vessel Data	Guidance on Data
Current Vessel Name	Advise if name change imminent.
IMO Number	
Trading Status	E.g. In Service, Under Construction
Ship Type	E.g., Bulk Carrier, Self Discharging Bulk Carrier
Port of Registry	
Date Built	Or planned completion
Dwt (Deadweight)	Summer only
GRT	Gross Registered Tonnes
Draught (m)	Summer Draught
Breadth (m)	Maximum
Length (m)	Length Overall
Gangway Type	Aft or Midships
Gangway Position (m)	Lower platform distance from bow (m)
Bridge Position (m)	Distance from the bow (m)
#1 Hatch position (m)	Distance from the bow (m)
Ballast Water Capacity (m^3)	Normal Operational Ballast Capacity
Deballast Pumping Rate	M^3/hr
Deballast Time	Based on loading full cargo at 5000tph
Classification Society	
P&I Club	
Registered Owner	Include contact details
Ship Manager	Include contact details
Number of Propellers	Include type (e.g., fixed blade, CPP)
Number of Holds	
Number of Hatches	
Hatch dimensions	Length (m) x Breadth (m)
Hatch type	E.g., Side rolling, butterfly
Deck Gear	Cranes (Yes/No)
Deck Gear Number	Number of cranes

5.2 BERTH ALLOCATION

Vessels shall be berthed and loaded at a Terminal and berth, determined by PWCS taking into account a range of factors including those outlined in Section 4.2 and 4.3.

There is a preference wherever possible for Vessels loading multiple brands of coal to be loaded at PWCS Carrington.

5.3 PORT ENTRY AND BERTHING

Two navigational charts are published for the Port of Newcastle: AUS 207 (Approaches to Newcastle) and AUS 208 (Newcastle Harbour).

The Coal Exporter should provide, or cause the Master of the Vessel or agent to provide, via the PWCS Customer Interface website, updates of the vessel's ETA to PWCS at least 10 days, 7 days, 48 hours and 24 hours before the ETA.

The entrance is subject to swell conditions and on an average of 3-5 days a year, the Port may be restricted due to bad weather. The Port of Newcastle is a tidal port deep draught vessel are subject to tidal conditions.

All vessels in lightship condition upon entering the Port shall be ballasted and trimmed to ensure, where practicable, that the propeller is fully immersed and that the total trim shall not exceed 1% of the LOA. The NPC pilot for that vessel shall determine the suitability with respect to these criteria.

The Master of the Vessel shall also ensure that the Air Draught restrictions (see Sections 4.2.3 & 4.3.3) at the allocated Terminal are not exceeded before and during the loading operation. If loading is stopped due to the vessel exceeding the Terminal's Air Draught limits, then PWCS reserves the right to transfer loading to another vessel until loading can resume on that delayed vessel. Any inquiries concerning the vessel's Air Draught after berthing should be directed to the Wharf Foreman.

5.4 MOORING

Mooring services are provided by the following company and are booked by the vessel's agent. Contact details are:

The Manager
Adsteam Marine
PO Box 103
Carrington NSW 2294
AUSTRALIA
Telephone: +61 1800 804186
Fax: +61 2 49400928
Email: info.newcastle@adsteam.com.au

Mooring lines will be taken ashore by a line's launch, except for springs, which shall use the vessel's heaving lines. First lines should always be of synthetic or similar floating type with a minimum diameter of approximately 72mm. Vessels using heavy wire ropes for the purpose of mooring lines shall have the ends terminated with a rope tail finished with a spliced eye for placing over the bollards and/or quick release hooks. For guidance, the rope tail should be no less than 10 metres long to facilitate manual handling.

All mooring ropes and wires are to have a 3 metre tail of light rope spliced into the eye to facilitate the transfer from on board the launch to the mooring arrangement. The minimum preferred mooring arrangement for all vessel types shall be 3 headlines, 3 sternlines, 2 breast lines and 2 backsprings (forward and aft), except where specific cases may prevent this (ie mooring arrangement).

The attending Mooring Services Company may refuse mooring lines that do not meet the above specification.

No vessel shall be moored or secured to any Terminal berth structure except the bollards, quick release hooks or other securing places provided for that purpose. Vessel lines should not be secured so as to obstruct loading operations, shiploader maintenance or another vessel's lines.

Any reasonable direction given by the NPC pilot in regard to mooring arrangements shall be observed.

Except in cases of extreme emergency (or as directed by the Harbour Master), under no circumstances are lines to be slackened off, shortened up, cast off or otherwise moved by the vessel's crew at PWCS berths.

The Wharf Foreman may, at times, request a line(s) to be slackened off for the shiploader to be moved to its maintenance position at the Kooragang Terminal.

5.4.1 Tending of Mooring Lines

It is the Master of the Vessel's responsibility to ensure the safe mooring of their vessel and that all mooring lines are adequate and in good condition. Mooring lines shall be kept taut and secure at all times at the berth.

The Wharf Foreman may advise the vessel to adjust its lines if deemed necessary.

If loading is stopped due to adverse weather conditions, the vessel may use the storm bollards deployed at the Carrington and Kooragang berth areas for extra security of the vessel, at the Master of the Vessel's discretion.

5.4.2 Hydraulic Interaction at Carrington Terminal

PWCS Carrington Dyke berths No.4 and No.5 are adjacent to the Steelworks Channel (refer to Appendix C – Drawing KSK00032) with passing vessel traffic, and as such, Hydraulic Interaction can be experienced. Passing vessels ranging from Handymax to fully laden Cape class can cause this effect. This means that vessels can move significantly, even to the extent of breaking mooring lines.

PWCS will notify the Master of the Vessel or Chief Officer of vessels passing the PWCS Carrington Dyke berths No.4 and No.5. The normal procedure is for loading to cease whilst vessels are passing these berths. When berthed at PWCS Carrington, the Master of the Vessel is to ensure that the vessel's lines are attended to and on the brake (not tension mode) whilst other vessels are passing in the channel.

The Master of the Vessel shall attend to this advice on each visit to the terminal at Carrington.

Failure to do so may render the vessel liable for the consequences of damages to people and property. Furthermore failure to demonstrate adherence to requirements may result in the vessel being deemed unsuitable to load at the Terminals.

5.5 GANGWAYS

Accommodation ladders are to be placed to avoid obstructing loading operations. During berthing the NPC pilot can advise on the landing point location for gangways and/or accommodation ladders. Vessels fitted with midship gangways may be required to submit gangway positioning data to aid the planning of the loading.

Any apparatus used to support the gangway shall not extend past the extreme breadth of the vessel unless authorised by the Wharf Foreman. Once the gangway is in position and safe for access any apparatus used for the positioning shall be retracted so that it does not extend outside the vessel limits.

The Master of the Vessel is responsible for the safety of all personnel using and adjusting the vessel's gangway to prevent damage to it and/or the berth structure. The Master of the Vessel shall also be held responsible for any damage or loss to the berth structure or supplied brows. For vessels berthed at the PWCS Carrington Terminal, when vessels are passing in the Steelworks Channel (refer to Appendix C – Drawing KSK00032), the gangway should be raised clear of the berth to avoid possible damage.

Wherever possible, gangways should be supported at the top and bottom by a fixed structure. Where this is not possible a secondary support is required to be employed. Davit points extending onto the gangway shall be positioned to provide appropriate clearance for persons using the gangway and also be highlighted to identify any hazard.

Gangways shall be fitted with safety nets at handrail height and on the underside. All persons using the gangways will utilise 3 points of contact (ie hang onto handrails). All persons (including vessel crews) using the gangway shall wear a lifejacket.

The Master of the Vessel shall ensure that gangways are to be maintained in a good and serviceable condition.

5.6 VESSEL EQUIPMENT

All vessel equipment including stores cranes, deck cranes and deck machinery shall not at any time extend beyond the extreme breadth of the vessel on the berthed side unless authorised by the Wharf Foreman.

For the purpose of storing, the vessel will inform the Wharf Foreman of the need to use the vessel's stores crane, the use of which, will not delay shiploading operations.

5.7 PERSONAL PROTECTIVE EQUIPMENT (PPE Requirements)

For the safety of your crew, PWCS Occupational Health and Safety Policy requires that when entering PWCS operational areas, ie leaving the vessel, the following equipment must be worn:

- Eye protection on all wharf areas.
- Enclosed footwear on all wharf areas.
- A safety helmet on all wharf areas.
- High visibility long sleeve and long trouser clothing (safety vest or other high visibility clothing) on all wharf areas.
- Lifejackets shall be worn when accessing or egressing the vessel or on the Wharf Aprons.
- Any other safety equipment that may be required in the area being visited or when directed by a PWCS employee.

5.7.1 Crew Requirements

- Your crew shall provide their own Personal Protective Equipment.
- PWCS will not provide Personal Protective Equipment
- Vessel crew shall wear the appropriate equipment when on all berth areas in PWCS terminals. (This shall include transiting from the gangway to a vehicle and back).
- The equipment may be left at the security gate or taken with the crew member when not on PWCS property. The Security Officer will register the equipment being left in the container for storage at the gatehouse.
- PWCS will only provide Personal Protective Equipment in circumstances where crew members are joining the vessel for the first time. This Personal Protective Equipment shall be returned prior to the vessel sailing.

All PWCS employees are required to wear the appropriate personal protective equipment whilst on board a vessel. PWCS recommends that the vessel crew adhere to this policy, including hearing protection, when near a shiploading operation.

5.8 GENERAL ACCESS

Any Vessel Agent, Coal Exporter, contractor, visitor or other person having business with the owners and/or Master of the Vessel or in connection with a vessel shall undertake and agree to comply with all PWCS safety requirements and comply with and obey all lawful instructions which may be issued or given by PWCS (including PWCS Safety Induction Training) and indemnify PWCS against loss or damage incurred. Any Vessel Agent, Coal Exporter, contractor, visitor or other person refusing to give such an undertaking and enter into such agreement will be refused access to the Terminal.

Whilst transiting Terminal sites in vehicles all crew shall follow the designated directions as outlined in Appendix C – PWCS Berth Access Maps (Kooragang and Carrington). No pedestrian access is allowed through PWCS facilities.

All visitors, vessel crew, subcontractors, vessel agent and any other person who have not either received an identification card or undertaken the PWCS Safety Induction must present themselves to the wharf security gatehouse to obtain authority to enter the site. The nominated vessel will be contacted and an Inducted person (eg Vessel Agent) will be required to meet the visitor at the security gatehouse where the visitor shall be escorted to the vessel. Closed circuit TV cameras are in place to monitor movements on and near the wharf areas.

The wharf area is an operational area and no other activity other than that pertaining to Terminal or vessel operations shall be allowed in the wharf area. For example, fishing is not permitted from any PWCS wharf structure.

PWCS is a Maritime Security Port Facility and the requirements of the Maritime and Offshore Security Transport Act apply.

5.9 DRAUGHT SURVEY

Draught Survey is used by Coal Exporters to determine final cargo weight in total. To facilitate the conduct of the draught survey, access ladders shall be placed at the location of the draught marks on the outboard side of the vessel, and the Master of the Vessel should also ensure that a safety harness and adequate lighting is in place for the draught surveyors use.

Draught marks on all vessels must be legible.

Every vessel should possess trim correction tables for all tanks, failing which, all ballast tanks should be either full or empty during the draught survey. The Port draught surveyors recommend that tank soundings be taken when the vessel attains at least 1 metre trim by the stern at completion of de-ballast operations.

5.10 WATER DENSITY AT TERMINAL

During periods of normal to dry weather water density can be expected to be approximately 1023kg/m^3 (by Draught Survey Hydrometer calculated in air) or 1025kg/m^3 (by Loadline Hydrometer calculated in a vacuum, Australian Standard AS2026-1994). This will not relieve the Master of the Vessel of his responsibility to constantly check the water density using the appropriate standard practices during the loading process.

During periods of excessive fresh water flow following heavy rains in the catchment area water density has been known to reach 1000 kg/m^3. This will largely depend on the tidal movements at the time of surveying.

5.11 CARGO WEIGHT DETERMINATION

The mass of coal loaded into a vessel as a ship consignment shall be the mass determined by a draught survey of the vessel. Conveyor weightometer readings are available as a guide only due to the dynamic operational environment. Reference to

these will not relieve the Master of the Vessel of the responsibility for adequately maintaining draught checks and supervising the loading of the vessel.

In the event of more than one coal brand being loaded into a vessel, conveyor weightometers are used to calculate tonnages during loading.

Both Terminals have conveyor weightometers installed on all shiploading conveyor streams and the readings of the conveyor weightometers may be used for determining total and partial mass of coal pass during loading. The Wharf Foreman at the Completion of Loading will supply final conveyor weightometer figures to the Master of the Vessel on the Shiploading Certificate/Mates Receipt and Deviation Advice or other agreed documents as designated by the Coal Exporter.

5.12 LOADING PROCEDURES

The Master of the Vessel is accountable for the safe loading of the vessel at all times. Reference can be made to IMO Code Of Practice for safe loading and unloading of Dry Bulk Carriers.

PWCS expects to commence loading no more than twenty (20) minutes after the previously submitted Coal Loading Plan (clause 5.12.2) has been confirmed by the vessel and the Wharf Foreman. In order to ensure this target is met procedures have been developed, which are detailed in Appendix A, Guidelines for Vessel Coal Loading Plans.

5.12.1 Wharf Foreman

Immediately after the Vessel berths a Wharf Foreman will meet with the Master of the Vessel/Cargo Officer to establish liaison, confirm the previously submitted Coal Loading Plan (see also 5.12.2), arrange for the commencement of loading upon completion of the initial draught survey and agree to the Ship/Shore Safety Checklist.

PWCS will, in consultation with the Master of the Vessel/Chief Officer, agree to load and deliver the nominated tonnage that has been signed for in compliance with these guidelines.

The Master of the Vessel will be supplied with the current edition of PWCS' Coal Terminals Information Handbook.

The Wharf Foreman will discuss the contents of the Handbook and the Master of the Vessel will confirm (by signature) that they understand and agree to comply with the content.

5.12.2 Coal Loading Plan Guideline

PWCS' procedure for communicating the preparation of a Coal Loading Plan for vessels visiting its berths require that the Master of the Vessel:

1. Submit a Coal Loading Plan no later than ten (10) days prior to the vessel's ETL and,

2. Reach agreement with PWCS on the Coal Loading Plan no later than two days prior to Vessel berthing.

Details of these guidelines are contained in Appendix A.

Vessels will be loaded according to the Master of the Vessel's requirements and in accordance with the Shipment Contract between PWCS and the Coal Exporter/Customer (ie Needs to take into account the contracted tonnes between PWCS and the Coal Exporter/Customer).

Coal is reclaimed from the Terminal stockpiles to the vessel by reclaimers or transferred direct from the rail receival stations at the discretion of PWCS.

Vessels are expected to load on a continuous basis at the Terminal's most efficient nominated loading rates.

Vessels are expected to load and depart on the closest tide to the estimated time of loading completion. Vessels that are tide restricted for sailing shall sail on the first available high water.

The trim and stability of the vessel remains the responsibility of the Master of the Vessel at all times.

Vessels should plan for a maximum of one interim draught survey requiring a cessation of loading, subject however to the Master of the Vessel's instructions.

All coal contained on the out-loading conveying system must be run off into the vessel at the completion of loading. The Wharf Foreman will provide an estimate of the quantity to be expected.

5.13 VESSEL TRIMMING PROCEDURE

Masters of Vessels are advised that the procedure below shall be followed to assist in achieving an efficient loading operation.

1. The vessel shall be loaded in accordance with your instructions and in line with the loading plan/sequence agreed to with the Terminal at sign up.

2. A Marine Surveyor must be engaged to provide assistance during the trimming of the vessel. This will be at the vessel's cost.

3. At the interim draught survey stage, calculation of the final trim tonnage requirement will be determined and you will be normally expected to load this trim tonnage in **TWO** complete passes into separate hatches. The tonnage will also be of a single coal type, not multiple coal types.

4. If extra trim passes are requested after delivery of the two complete passes following the interim draught survey, and whether or not these additional passes are supplied by the Terminal, you may be provided with a ***Preliminary Advice of Unsatisfactory Vessel Performance.***

5. No tonnage under 200 tonnes will be able to be loaded due to equipment constraints.

5.14 DE-BALLASTING REQUIREMENTS

The Wharf Foreman shall inform the vessel before loading commences of the Terminal's Air Draught limits and indicate the visual limits on the shiploaders (see Appendix B – Air Draught Diagram). Where these limits are exceeded before and/or during loading PWCS will stop loading until the Air Draught is at an acceptable level (see Section 4.2.3 and 4.3.3).

Ballast is to be discharged so that water does not flow onto the berths.

All vessels undertaking ballast operations shall comply with the Australian Ballast Water Guidelines as set out by AQIS.

De-ballast rates, total de-ballast time and anticipated delays must be advised on the Coal Loading Plan.

5.15 BUNKERING

Bunkering arrangements should not interfere with loading operations and should be scheduled not to delay vessel departure after the completion of loading.

All bunkers shall be transferred via road tanker, as no barge or shore facilities are available.

Prior to bunkering operators being provided access to PWCS wharves, a permit must be issued from NPC.

PWCS must be informed before berthing of any bunkering operation that will take place so that it can be taken into account in planning for the vessel's loading. Details can be recorded on the Coal Loading Plan. The Wharf Foreman must be informed before any bunkering is to commence.

5.16 STORING

Storing should not interfere with loading operations and should be scheduled not to delay the vessel departure after the completion of loading.

Storing will remain the responsibility of the vessel's crew, and no PWCS labour shall be supplied.

The Wharf Foreman must be informed before any storing operation is to commence.

Any Vessel lifting device shall be used for vertical lifts only.

5.17 FRESHWATER

Freshwater is available at all PWCS berths.

Any freshwater hoses used for provision of freshwater are to be provided by the vessel, and are to be removed prior to the vessel leaving the berth.

5.18 VESSEL REPAIRS

Maintenance and repair works to vessels will require clearance for safe working from the Harbour Master. It is mandatory that all hot works be cleared prior to commencement, and agreed upon, with Hot Work Permits being issued by the NPC. PWCS should be informed of any repairs that may be undertaken which may impact on the loading or departure of the vessel.

Any vessel repairs that will extend the normal time at the berth will be subject to approval by PWCS.

No vessel repairs shall be carried out whilst alongside a PWCS berth that will immobilise the vessel or involve the turning of the propeller, other than using the turning gear.

5.19 AUSTRALIAN MARITIME SAFETY AUTHORITY (AMSA)

All bulk carriers that visit Australian Port's are required to comply with the BC Code, Australian Marine Order's Part 34 (Cargo & Cargo Handling – Solid Bulk Cargoes) and use as guidance the BLU Code.

All vessels may be subject to Port State Control inspections by AMSA surveyors. In some instances the severity of any deficiencies may result in the vessel being Provisionally Detained until repairs are affected. This can at times result in the vessel being delayed from sailing. Depending on the nature of the rectification work required, it may be necessary to cease loading operations until repair work is completed at the berth or to have the vessel moved to a suitable other holding berth for the repair work to be completed, at the vessel owner's cost.

PWCS must be notified in writing of any vessel Provisionally Detained at the Terminals.

Contact details for AMSA in the Port of Newcastle are:

Senior Marine Surveyor
Australian Maritime Safety Authority
Level 2, 8 Denison Street
Newcastle West NSW 2302
AUSTRALIA
Telephone: +61 2 4961 2997
Fax: +61 2 4961 2694
Email: sydney@amsa.gov.au

5.20 POLLUTION

All vessels at PWCS Terminals shall comply with MARPOL 73/78 (Annex's I – VI) and Marine Order's Parts 90 – 95 inclusive.

At no time shall a vessel discharge a substance that will contravene this legislation. Garbage arrangements are available through consultation with the vessel's agent.

5.21 GAS FREEING VESSELS

It is expected that in accordance with good seamanship, the Masters of OBO vessels will ensure that prior to presenting for loading at PWCS Terminals their vessel is Gas Free with a valid Gas Free Certificate. The International Safety Guide for Oil Tankers and Terminals (ISGOTT) details the recommended procedures to be followed. The Master of the Vessel is advised they may be required to establish their vessel (OBO) is gas free during an inspection by AMSA.

The Gas Free Certificate is to have been issued by an authority acceptable to the Terminal. A Gas Free Certificate signed only by the Master of the Vessel will not be acceptable.

Slop tanks which are pressed up or fully inert and sealed must not be opened up whilst the vessel is at, or near the Terminal.

5.22 INDEMNITY AND RELEASE

5.22.1 Indemnity

The Owner, Master of the Vessel and Agent, jointly and severally, will indemnify PWCS, its employees, agents, licensees, contractors and sub-contractors against all claims which PWCS, its employees, agents, licensees, contractors and sub-contractors may incur or which may be brought against or made on PWCS, its employees, agents, licensees, contractors and sub-contractors, arising out of or in connection with the following:

(a) any claim arising out of or in any way related to:
- the breach of any rule contained in this Handbook;
- PWCS taking steps to ensure compliance with any rule contained in this Handbook; or
- any injury, death, damage or loss caused by the vessel or a person associated with the vessel, related directly or indirectly to the vessel berthing, unberthing or being, or intending to be, at the Terminal or otherwise arising out of or in any way related to this Handbook and caused by an act or omission of the Owner, Master of the Vessel or Agent or their employees, agents, licensees, contractors and sub-contractors; and

(b) any claim arising out of or in any way related to any wilful, negligent or unlawful act or omission of the Owner, Master of the Vessel or Agent or their employees, agents, licensees, contractors and sub-contractors, except to the extent that such breach, injury, death, damage, or loss is caused by PWCS' own negligence.

Subject to the above, it is recognised and agreed that PWCS has responsibilities for routine repair and maintenance of the Terminal, and this may result in it incurring a loss in respect of damage to the Terminal. In any proceedings by PWCS relating to damage or loss in respect of routine repair and maintenance to the Terminal, PWCS will be taken to have incurred the relevant damage or loss itself.

5.22.2 Release

On and from the date of issue of this Handbook and in return for PWCS allowing a vessel to use the Terminal, each Owner, Master of the Vessel and Agent of the vessel hereby releases PWCS, its employees, agents, licensees, contractors and sub-contractors from all claims whatsoever which the Owner, Master of the Vessel or Agent have or may have had against them, whether arising out of or in connection with this Handbook, to the fullest extent permitted by law, including without limitation claims for any injury, death, damage, or loss arising out of anything which PWCS does or fails to do in relation to a vessel or relating to a vessel berthing, unberthing or being at the Terminal.

5.23 RESPONSIBILITY FOR DAMAGE CAUSED

The parties acknowledge and agree that:

(a) to the extent any damage is caused to a Vessel by PWCS equipment (whether before, during or after the berthing process) PWCS will, on request from the Owner of that Vessel and presentation of valid receipts, reimburse the Owner of that Vessel the full value of the cost of any repairs to the Vessel required as a result of that damage; and

(b) to the extent any damage is caused to PWCS berths or associated equipment (including but not limited to wharf fenders, wharf decking, shiploaders, etc) by a Vessel (whether before, during or after the berthing process) the Owner of that Vessel will, on request from PWCS, immediately reimburse PWCS the full value of the cost of any repairs to the berth required as a result of that damage.

5.24 WEATHER

Where, in the opinion of either PWCS or the Master of the Vessel, weather conditions make loading perilous, PWCS shall cease loading and record the occurrence and period(s) of non-working due to weather in the vessel loading delay statement.

Exceptional conditions caused by adverse weather or excessive fresh water flow in the Port following heavy rains, may occasionally preclude vessel movements in the Port area. Entry and sailing times may be changed (through the Vessel's Agent and in consultation with PWCS) to allow for these conditions.

Maximum Tidal range:	0.1 m to 2.1 m
Minimum LHW:	1.1 m
Maximum HHW:	2.1 m

	Summer (Dec-Feb)	Autumn (Mar-May)	Winter (Jun-Aug)	Spring (Sept-Nov)
Mean Daily Max Temp (^oC)	25	22	17	22
Mean Daily Min Temp (^oC)	19	15	9	14
Mean Monthly Rainfall (mm)	94	117	96	72

5.25 SAILING

The NPC sets sailing times based on available vessel movement opportunities to meet advice from PWCS on the completion of loading times.

The Master of the Vessel is requested to ensure preparation for sea is completed soon after the completion of loading, in accordance with good seamanship practice so that the timetable of vessel movements set by the NPC can be met.

5.26 SAILING DRAUGHT GUIDELINES

The following maximum sailing draughts have been calculated for the designated sailing tide using a 15.2 m channel depth (at Chart Datum) departing from the Terminal berths with approval from the NPC Harbour Master.

Height of Tide (m)	Maximum Draught (m)
0.0	13.83
0.1	13.92
0.2	14.01
0.3	14.10
0.4	14.19
0.5	14.29
0.6	14.38
0.7	14.47
0.8	14.56
0.9	14.65
1.0	14.74
1.1	14.83
1.2	14.92
1.3	15.01
1.4	15.11
1.5	15.20
1.6	15.29
1.7	15.38
1.8	15.47
1.9	15.56
2.0	15.65
2.1	15.74

6 WHARF FOREMAN SHIP/SHORE SAFETY CHECKLIST

PWCS procedures comply with the BLU Code Ship/Shore Safety Checklist as detailed:

Check List Item	Subject	PWCS Procedures
Item 1	Depth of water and Air Draught	Section 4.2.3 Carrington and Section 4.3.3 Kooragang
Item 2	Mooring	Section 5.4 Mooring
Item 3	Emergency departure	Subject to Harbour Master direction
Item 4	PWCS PPE Requirements	Section 5.7 Personal Protective Equipment (PPE requirements)
Item 5	Vessel/Terminal communications	Emergency Procedure as per page 2
Item 6	Liaison contact person	Section 5.12.1 Wharf Foreman by introduction
Item 7	Personnel for emergency	Emergency Procedure as per page 2
Item 8	Bunkering and Stores	Section 5.15 Bunkering Section 5.16 Storing
Item 9	Intended works/repairs alongside	Section 5.18 Vessel Repairs
Item 10	Reporting/recording damage	Section 5.23 Responsibility for Damage Caused
Item 11	Vessel provided with details of terminal procedures	Issue of this Handbook is registered
Item 12	Master of the Vessel provided with properties of cargo	Coal Exporter's responsibility to provide prior to commencement of loading
Item 13	Safe atmosphere in enclosed spaces	Section 5.21 Gas Freeing (PWCS personnel do not enter enclosed spaces)
Item 14	Cargo handling capacity	Section 4.2.4 and 4.3.4 Loading Facilities
Item 15	Coal Loading plan	Section 5.12.2 Coal Loading Plan Procedure and Appendix A
Item 16	Coal Loading Plan (hatch sequence)	Section 5.12.2 Coal Loading Plan Procedure and Appendix A

Check List Item	Subject	PWCS Procedures
Item 17	Trimming of cargo	Section 5.13 Vessel Trimming Procedure
Item 18	Stops for de-ballasting	Section 5.14 De-Ballasting Requirements
Item 19	Final trim	Section 5.9 Draught Survey
Item 20	Time to prepare for sea	Section 5.25 Sailing

APPENDIX A. GUIDELINES FOR VESSEL COAL LOADING PLANS

PWCS

Guidelines for Vessel Coal Loading Plans for Loading at PWCS - Carrington and PWCS – Kooragang, Port of Newcastle, Australia

The Master of the Vessel has the final decision in defining the Coal Loading Plan. These Guidelines have been prepared in accordance with the principles of the IMO's Code of Practice for Safe Loading and Unloading of Dry Bulk Carriers to assist in achieving an optimum loading time.

1 PRE-ARRIVAL REQUIREMENTS / PLANNING

1.1 Coal Loading Plan

1.1.1 Vessels are requested to submit a Coal Loading Plan at least ten (10) days prior to ETL. This should address the following:

- All first passes within a hatch should be as large as possible, rounded to the nearest thousand tonne ('000) where possible, unless completing the hatch.
- All first passes should be the same size, unless completing hatch.
- A maximum of two passes per hatch plus two trim passes.
- Coal types should be completed as a continuous sequence of passes. If this is impractical, the first coal type may be used as the completion coal type. Also refer to Section 3 of these Guidelines.
- One draught survey at approximately 97% of coal being loaded prior to the two trim passes.
- Trim passes shall be of one coal type.
- The first trim pass is to be the larger of the two trim passes.
- Departure draughts, expected departure tide and de-ballast time.
- Notification of possible de-ballast loading delays.

- Notification of timing of interim draught surveys.
- Notification of bunkering or stores scheduled.
- Notification of Marine Surveyor engaged to perform interim draught survey and to assist in the trimming of the vessel.

1.2 De-ballast Operations

1.2.1 If de-ballasting is unable to keep up with loading then loading may cease until the vessel is then able to resume loading until completion without further stoppages. PWCS shall be notified of any intended de-ballast delays.

1.2.2 PWCS may transfer loading operations to another vessel if the vessel intends to stop loading to continue de-ballasting.

1.2.3 PWCS may transfer loading operations to another vessel if in the view of PWCS the delay cannot be explained and a resumption time cannot be given.

2. CARGO MAXIMUMS AND MINIMUMS

2.1 Where a Vessel is contracted to carry a cargo maximum or minimum, whether it is individual coal type or total tonnage, it shall remain the responsibility of that vessel, in cooperation with the draught surveyor, to load in accordance with that agreement and Section 1 of these Guidelines.

2.2 PWCS will not be accountable for tonnage differences when a vessel is contracted to carry a cargo maximum or minimum cargo.

3. DUAL SHIPLOADER LOADING AT PWCS - CARRINGTON

3.1 Vessels loading at PWCS - Carrington shall, provide a Coal Loading Plan for single shiploader operation. A Coal Loading Plan for dual shiploader operation shall be provided upon request.

3.2 The Wharf Foreman will advise vessels of the availability of a second shiploader prior to commencing loading. Consideration will be given to de-ballast rates.

3.3 Vessels loading multiple brands of coal should allow for a different coal type from each shiploader.

3.4 The hatch pass tonnages should be equal and paired for dual shiploader operation.

3.5 One shiploader will load the last 8,000 tonne of any coal type depending on operational constraints.

3.6 Trimming will occur with one shiploader unless otherwise agreed upon.

4. REVIEW

4.1 PWCS will confirm agreement of the Coal Loading Plan after reviewing it against the vessels' previously submitted Coal Loading Plan and these Guidelines.

4.2 PWCS may request the Master of the Vessel to amend the Coal Loading Plan, where sailing change (tide), coal availability, stockyard conflict or breakdown issues exists.

4.3 PWCS will seek confirmation of final tonnages, loading sequence and sailing draught when advising two (2) days prior to vessel berthing.

5. ENGAGEMENT OF A MARINE SURVEYOR

5.1 The vessel must, at its cost, engage a Marine Surveyor to attend the loading of each vessel from the commencement of the loading pass performed immediately prior to the interim draught survey through to the completion of the loading of the vessel.

5.2 The engagement of the Marine Surveyor is to include performing the interim draught survey and provide advice and assistance to the Vessel Master with the vessel trimming procedure.

5.3 The Vessel Representative must ensure the Marine Surveyor has access to the vessel and all necessary information to enable them to properly carry out their functions and duties.

5.4 The advice and results of the Interim Draught Survey are to be provided to the PWCS Representative prior to the completion of the loading of the vessel.

6. LOADING

6.1 PWCS will, in consultation with the Master of the Vessel/Cargo Officer, agree to load and deliver the nominated tonnage that has been signed for on the Coal Loading Plan, Shiploading Certificate/Mates Receipt and Deviation Advice in compliance with these Guidelines.

6.2 Coal flow is planned to start 20 minutes after the Vessel berths and when the vessel and the Terminal have confirmed the Coal Loading Plan.

6.3 Coal flow will be planned to be maintained at maximum flow rates or rates previously agreed at berthing.

6.4 Coal in the conveyor system will be cleared at approximately 97% of coal to be loaded according to belt weightometer tonnages to allow for an interim draught survey (ie after the final pass prior to the commencement of the two trim passes).

6.5 Any problems identified during the draught survey concerning vessel trim are expected to be corrected with a maximum of two passes.

6.6 Following completion of cargo loading, the vessel will be deemed to have "Completed Loading" based on the trim tonnage delivered to the vessel as determined by the Terminal belt weightometers.

6.7 Final draught surveys are expected to be completed and the vessel ready for sea prior to the earliest revised sailing time based on the first available Port movement after completion of loading.

6.8 The Terminal may deliver additional coal requested by the vessel after the completion of loading, provided that it does not interfere with other vessel loading programs. No tonnage less than 200 tonnes will be supplied. This may require a minimum of twenty (20) minutes for the coal to be delivered based on the location of stockyard machines.

6.9 PWCS will not be held responsible for any short shipments as a result of the vessel calling for additional coal that cannot be delivered to the vessel.

7. SAILING

7.1 Sailing shall be in accordance with the NPC's Ship Handling Safety Guidelines.

7.2 All Cape classed vessels that are deemed to be tidal restricted at the time of sailing shall sail on the first available high water whether it is the lowest High Water or the highest High Water of the day (re: Harbour Master Directive**,** Port Custom – Cape Class Coal Vessels, 26th November 1997).

8. SPECIAL INSTRUCTION

8.1 Master of the Vessel seeking exemption from these Guidelines should provide in writing, to customer.service@pwcs.com.au information factually supporting their claim for exemption at least ten (10) days prior to ETL.

APPENDIX B. AIR DRAUGHT DIAGRAM

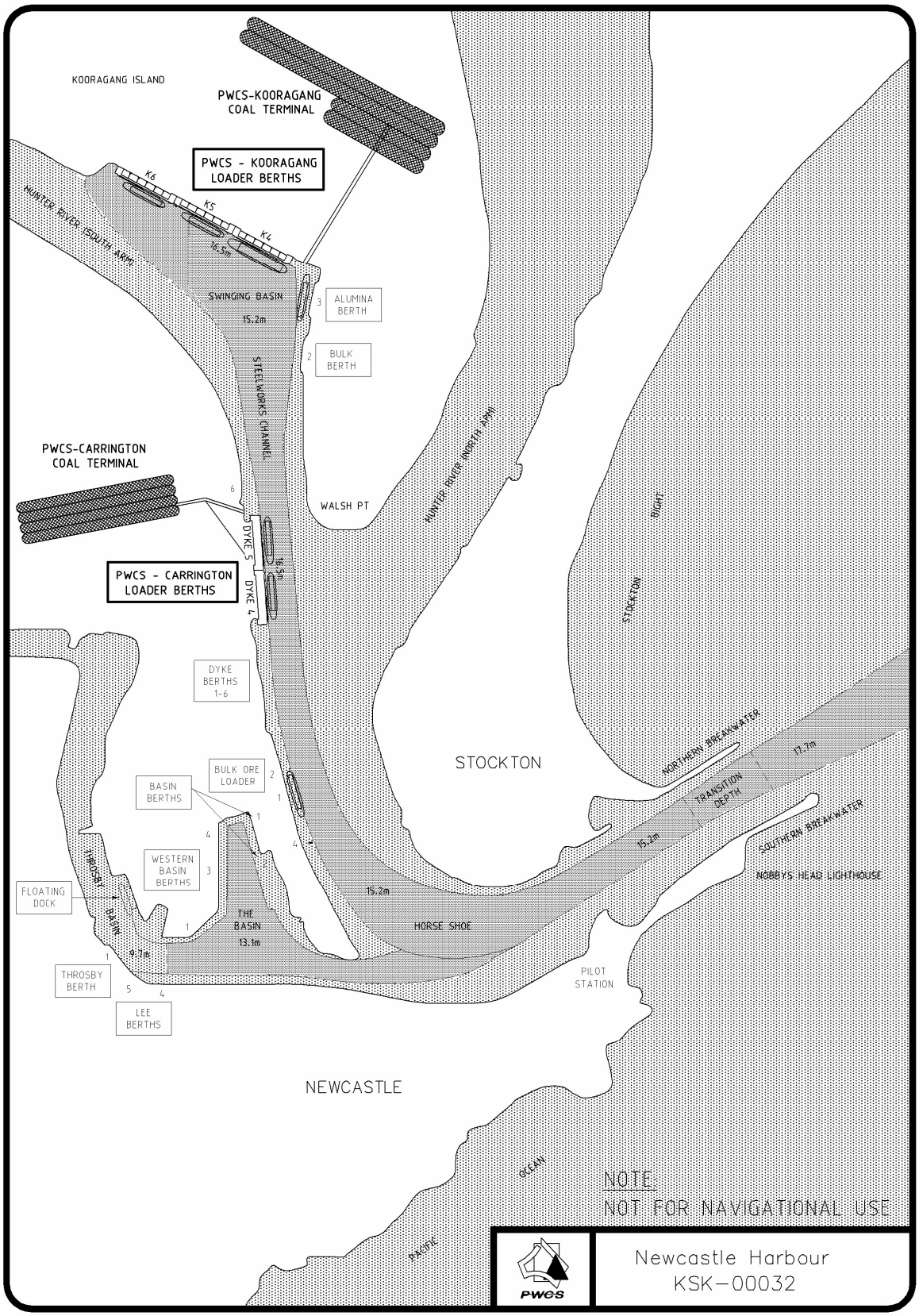
VESSEL AIR DRAUGHT = HEIGHT OF HATCH COVER FROM KEEL – DRAUGHT + TIDE

(Air Draught must be calculated from Chart Datum)

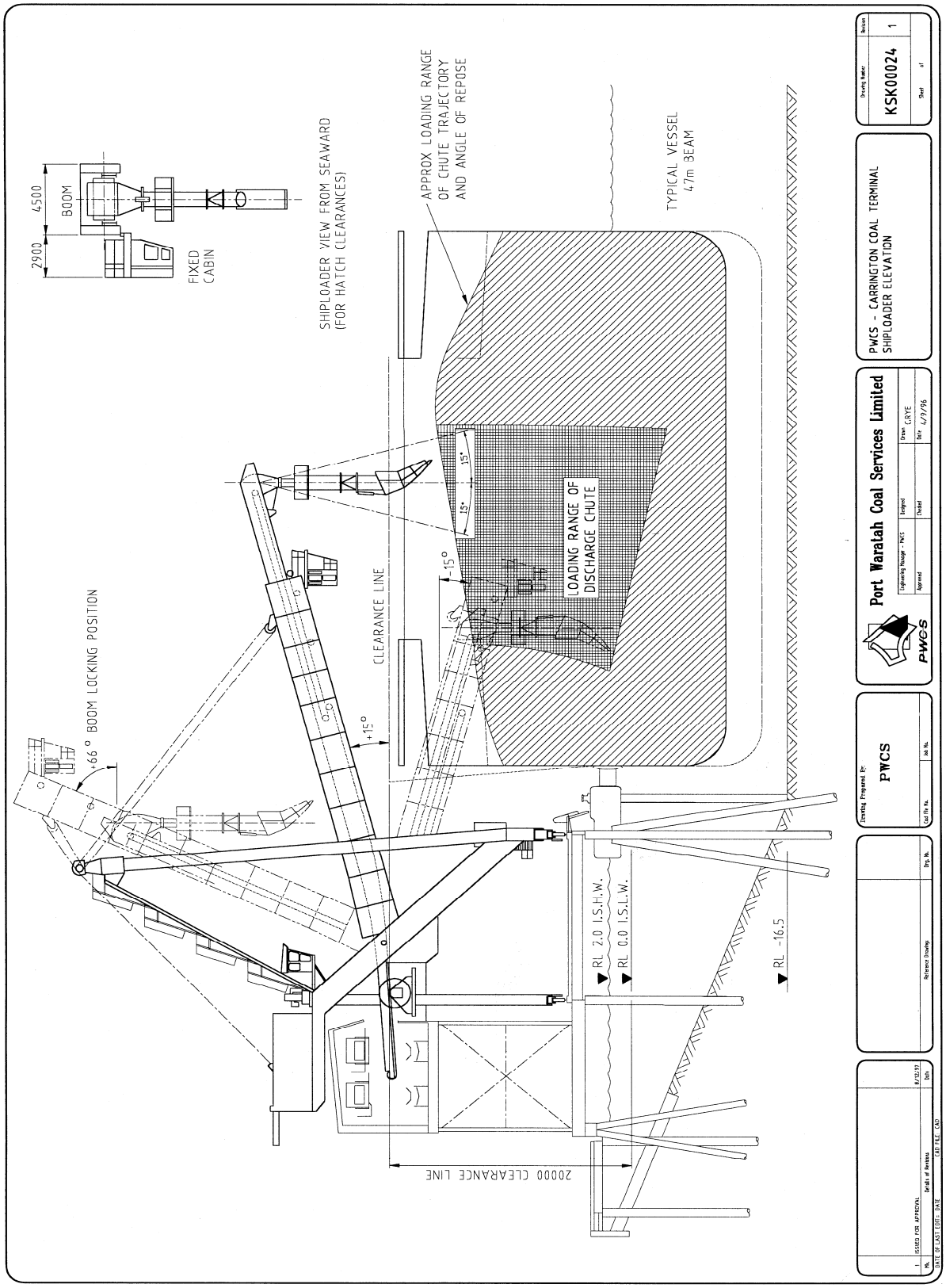
APPENDIX C. TERMINAL DRAWINGS

Drawing Title	Drawing No.
Newcastle Port Chart	KSK00032
PWCS - Carrington Coal Terminal Shiploader Elevation	KSK00024
PWCS - Carrington Coal Terminal Shiploader Air Draught Envelope	KSK00025
PWCS - Carrington Coal Terminal Shiploader and Wharf Plan	KSK00026
PWCS - Carrington Coal Terminal Schematic Layout	KSK00027
PWCS - Kooragang Coal Terminal Shiploader Elevation	KSK00028
PWCS - Kooragang Coal Terminal Shiploader Air Draught Envelope	KSK00029
PWCS - Kooragang Coal Terminal Shiploader and Wharf Plan	KSK00030
PWCS - Kooragang Coal Terminal Schematic Layout	KSK00031
PWCS Berth Access Map (Carrington)	N/A
PWCS Berth Access Map (Carrington)	N/A

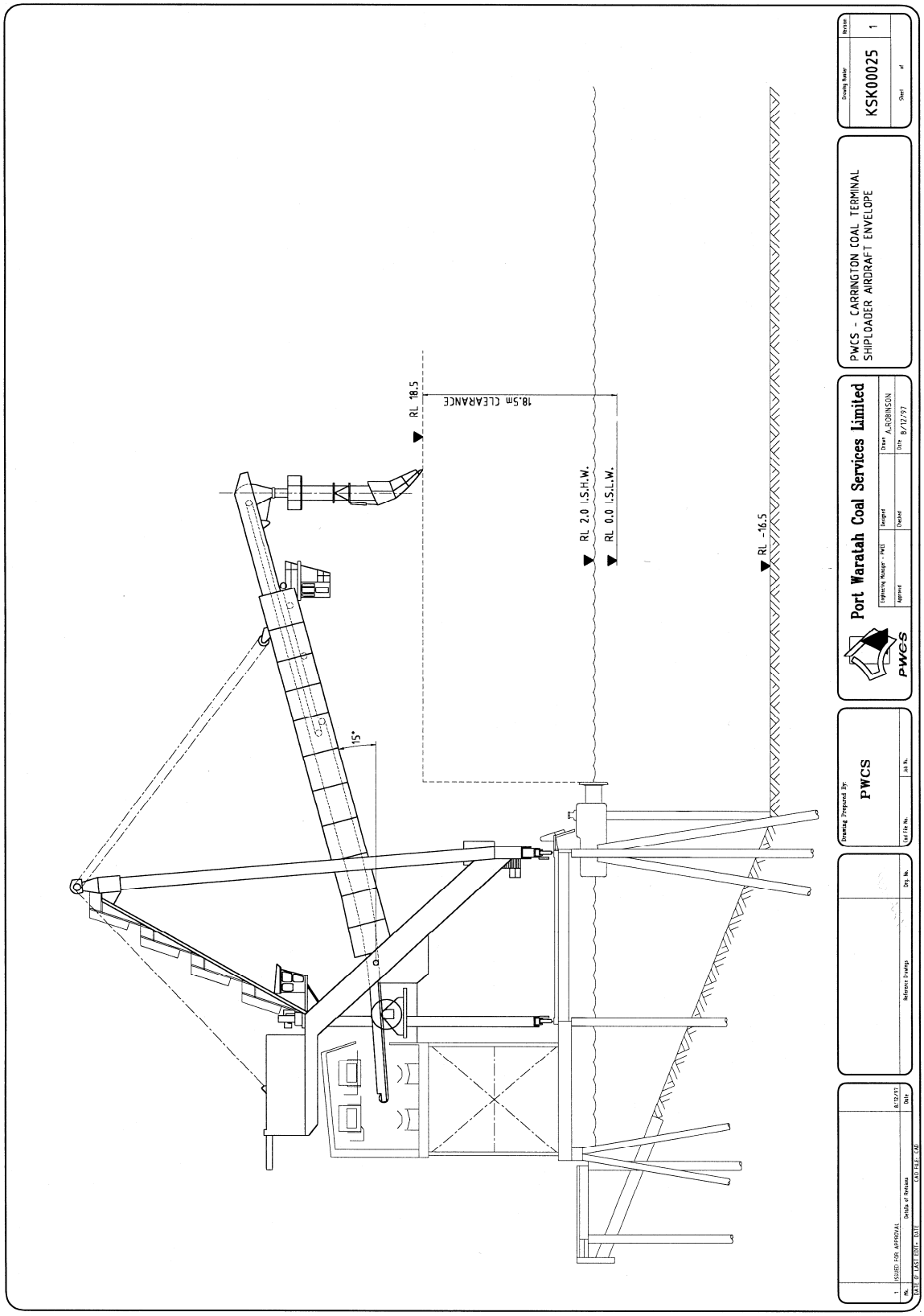
APPENDIX C.1 NEWCASTLE PORT CHART



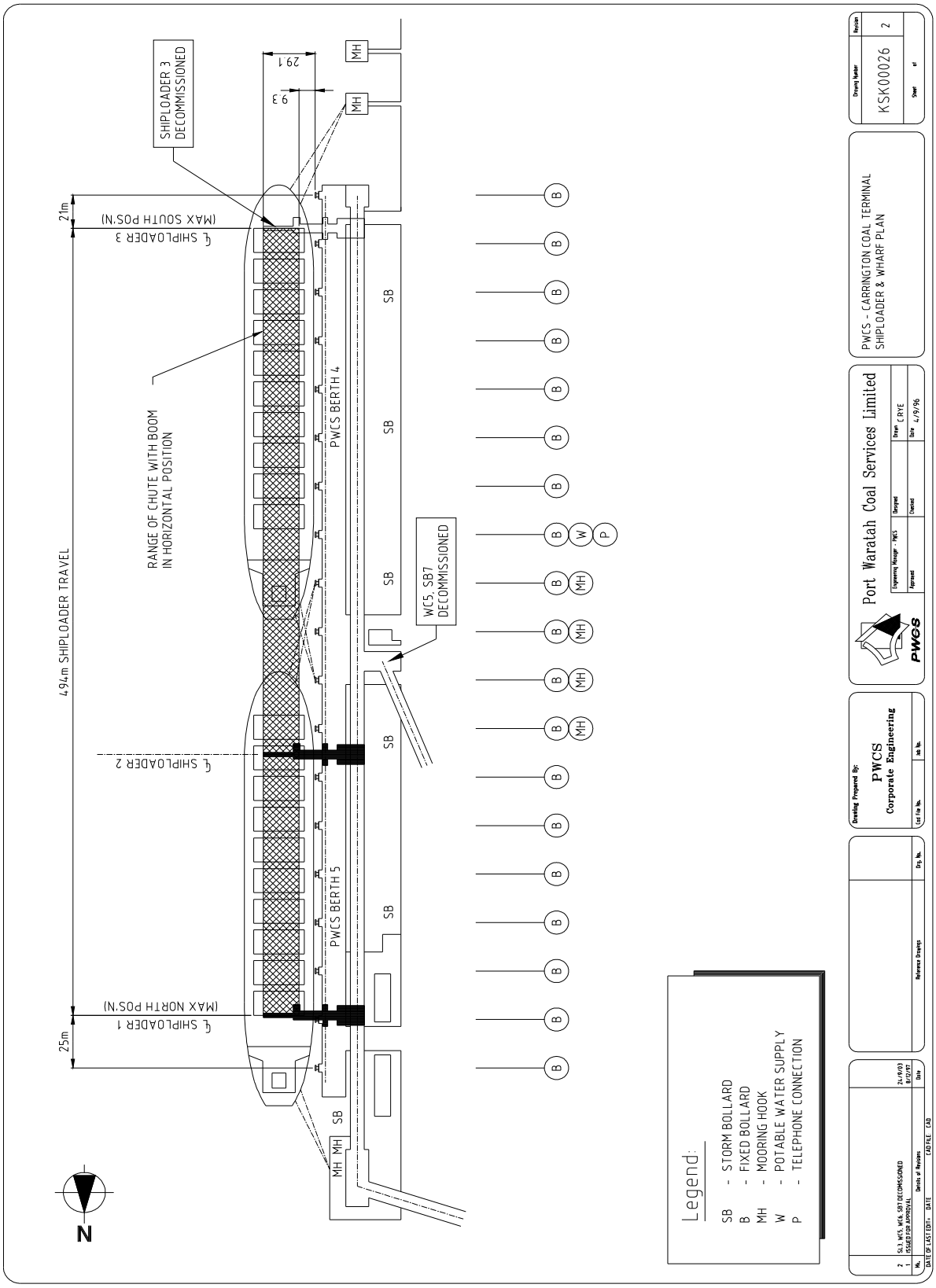
APPENDIX C.2 CCT SHIPLOADER ELEVATION



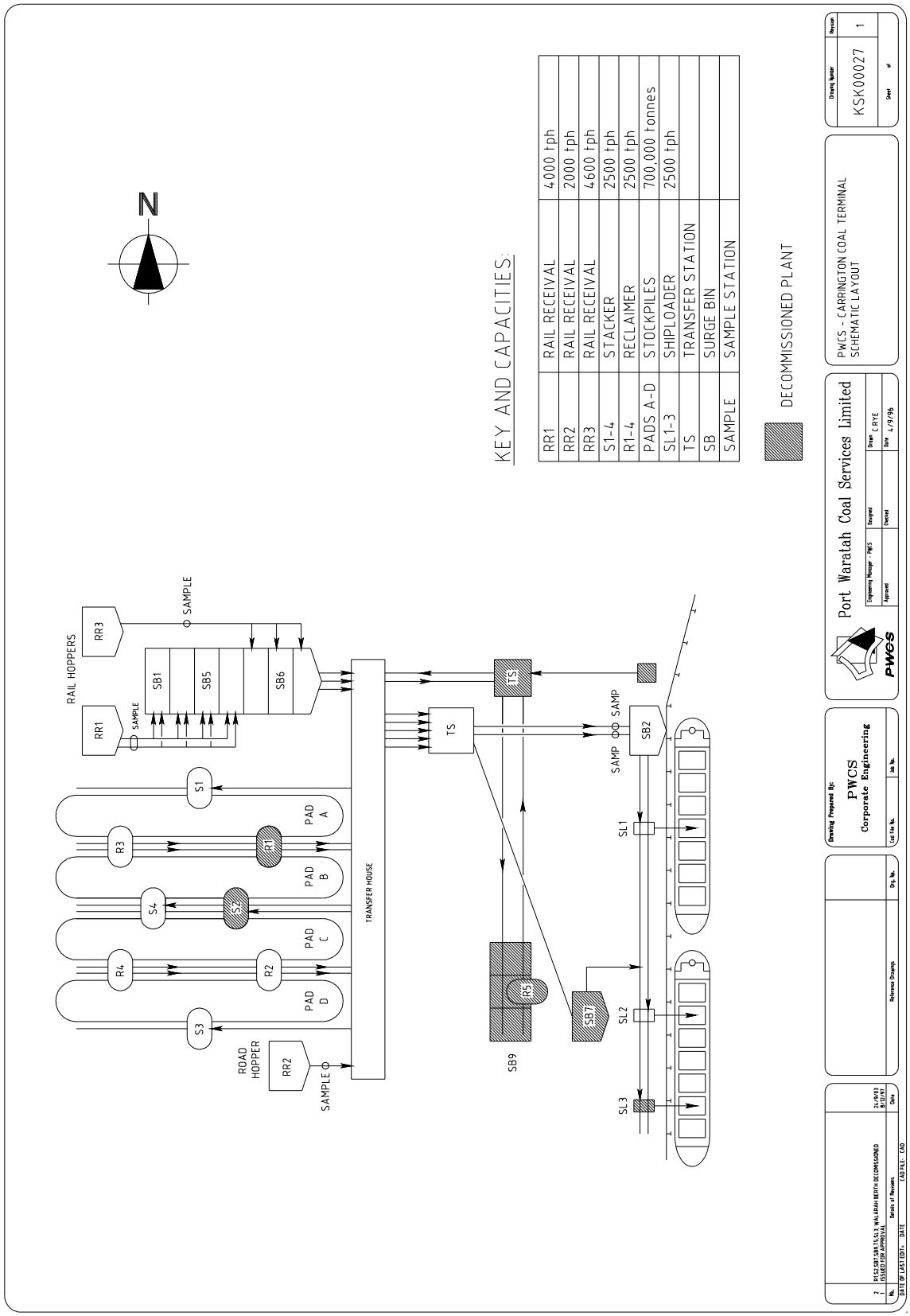
APPENDIX C.3 CCT AIR DRAUGHT ENVELOPE



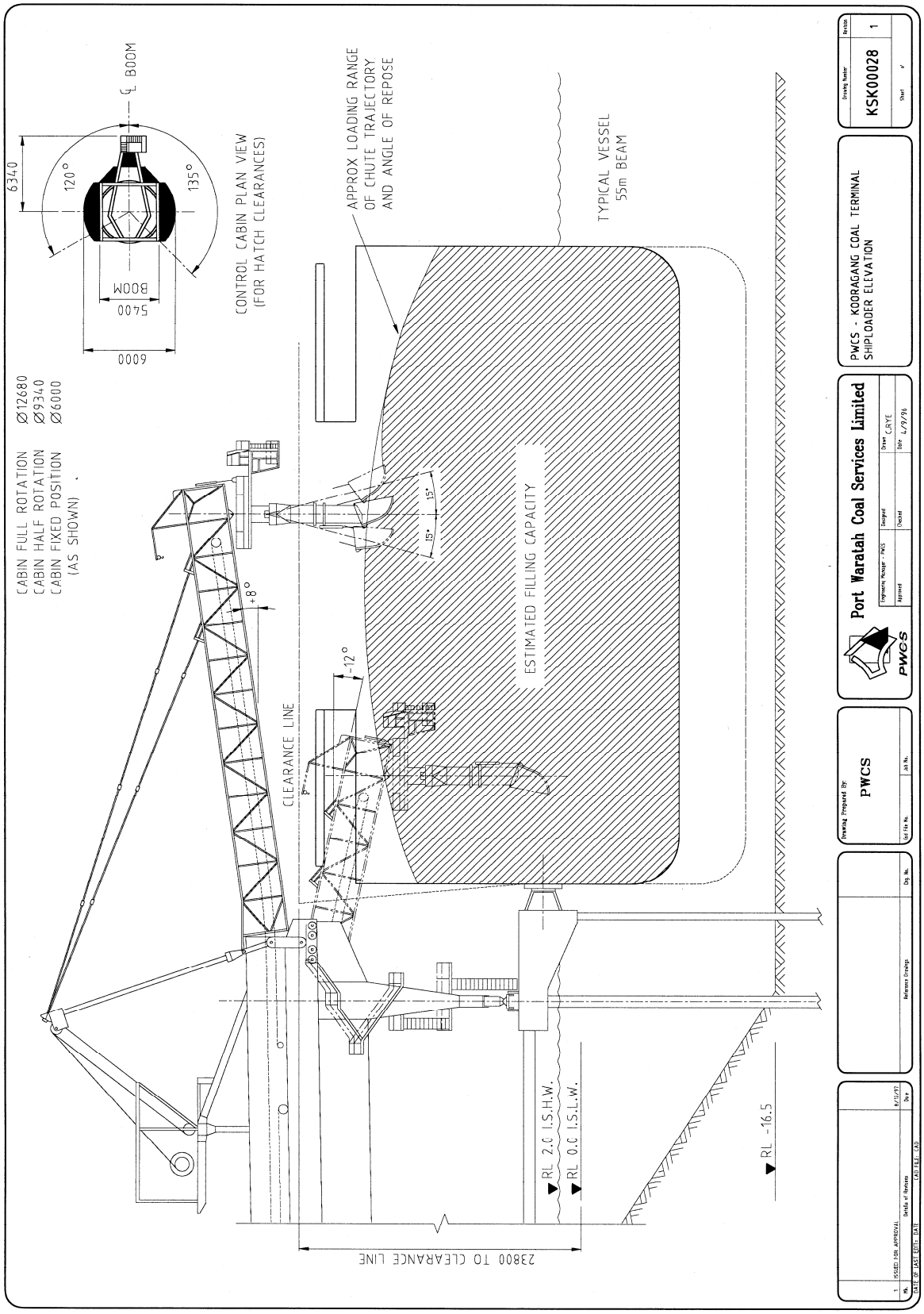
APPENDIX C.4 CCT SHIPLOADER AND WHARF PLAN



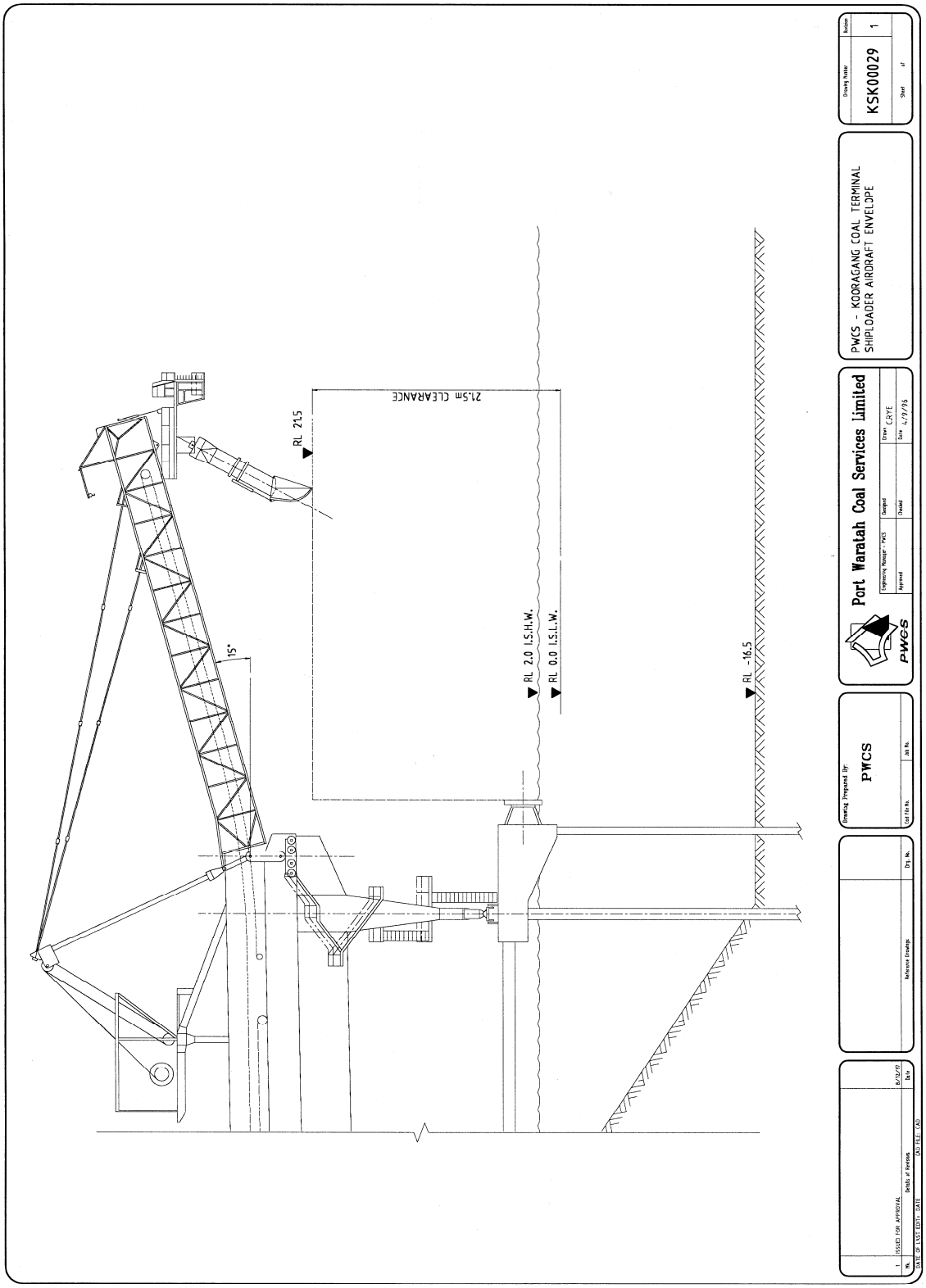
APPENDIX C.5 CCT SCHEMATIC LAYOUT



APPENDIX C.6 KCT SHIPLOADER ELEVATION

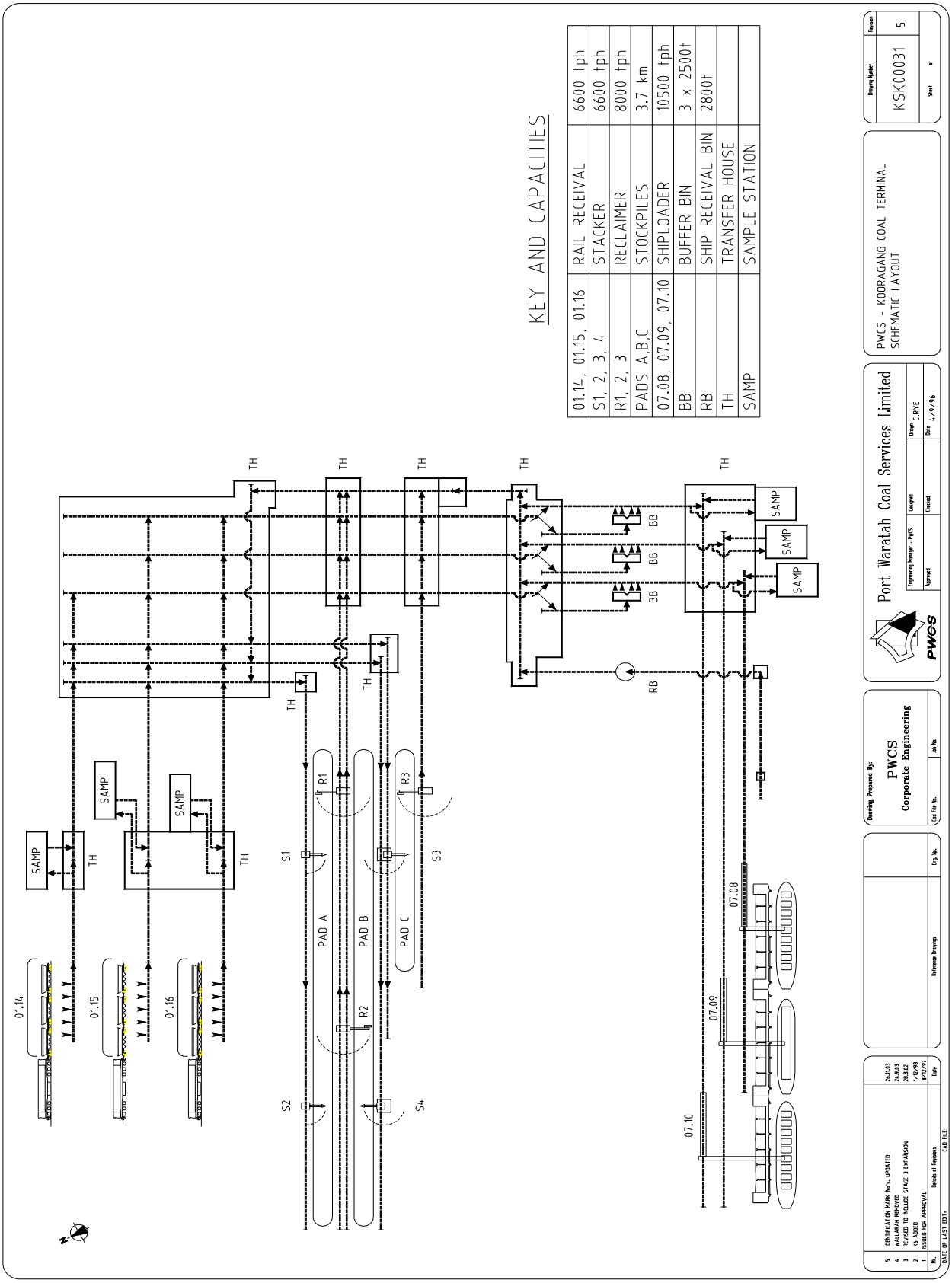


APPENDIX C.7 KCT SHIPLOADER AIR DRAUGHT ENVELOPE



APPENDIX C.8 KCT SHIPLOADER AND WHARF PLAN

APPENDIX C.9 KCT SCHEMATIC LAYOUT



APPENDIX C.10 BERTH ACCESS MAP (CARRINGTON)

APPENDIX C.12 BERTH ACCESS MAP (KOORAGANG)

APPENDIX D. RECEIPT OF COAL TERMINALS INFORMATION HANDBOOK

PWCS

Acknowledgment of Receipt of the Port Waratah Coal Services Limited Coal Terminal Information Handbook

The Coal Terminals Information Handbook, (Revision 4) was issued to:

……

……

- **I acknowledge receipt of the Port Waratah Coal Services Limited Coal Terminals Information Handbook, understand and agree to comply with its contents (unless otherwise agreed in writing with PWCS).**
- **I acknowledge that I am the "Person in Charge" for the safe loading of the vessel.**

Position/Title:

……

Date of Issue:

……

Signature:

……