



Submission to

The Standing Committee on State Development –
Inquiry into Port Infrastructure in New South Wales

Contents

1	Summary	3
2	Introduction.....	5
3	Terms of Reference	8
4	Attachment – Patrick Corporation Annual Report 2003	22

1 Summary

Patrick Corporation (Patrick) has an interest in three shipping terminals in New South Wales, two in Sydney Harbour, and one at Port Botany. The two terminals in Sydney harbour are at Glebe Island and Darling Harbour. Glebe Island is an automotive terminal, owned by Australian Amalgamated Terminals (AAT), a joint venture between Patrick and P&O.

Patrick supports the NSW Government Ports Growth Plan. The gradual closure of wharves in Sydney Harbour is part of a trend that began over 30 years ago, with the container revolution. Containerisation, which is still growing at 6% per annum, has had a profound effect on shipping, stevedoring and NSW's ports.

As more cargo is containerised there is less requirement for the older wharves in Sydney Harbour and greater need for container capacity at Port Botany. The commercial viability of general stevedoring is also being impacted by the high value of harbour-side land, which translates to high lease costs.

Patrick believes there is a continuing requirement for the roll-on/roll-off terminal at Glebe, which handles motor vehicles and other motorised equipment with deliveries to metropolitan Sydney. Further investment is required to accommodate all roll-on/roll-off traffic when Darling Harbour closes in 2006. Security of tenure is needed until at least 2023 to justify this investment.

Employment of traditional stevedores in Sydney harbour will decline when Darling Harbour is closed. This is expected to be offset by increased employment in Port Kembla and possibly at Port Botany.

Darling Harbour is poorly situated as a future cargo facility, with pressure from new developments, no connection to B-double truck routes and no rail access to take congestion away from the roads.

Glebe Island is connected to a B-double route and can access rail. Motor vehicles are delivered from Glebe throughout metropolitan Sydney.

Port Kembla has access for both B-doubles and rail. Patrick will endeavour to rail as much cargo as practical from Port Kembla.

Port Botany container terminals will have a minimum capacity of 3M twenty-foot equivalent units (teus) including the Government's proposed Port Botany upgrade. At the present rate of growth, Sydney will not reach capacity until at least 2020. Patrick has undertaken a number of significant initiatives for improved connections to road and in particular, rail.

Patrick aims to have over 50% of containers moved by rail by 2008 but this depends on planning permission proceeding at the Ingleburn inland rail terminal.

2 Introduction

Patrick Corporation (Patrick) has been trading continuously in Sydney Harbour since 1919 when it was the operator of four coastal ships. Patrick has survived by adapting to the changing needs of its clients as shipping evolved from sail to the modern container and roll on/roll off cargo ships of today.

Patrick is now a New South Wales based integrated logistics provider, with national operations in shipping terminals, road, rail and air transport. (*Please see Patrick's 2003 Annual Report at **Attachment A***). Patrick's New South Wales shipping terminals are split between Sydney Harbour and Port Botany. Their details are as follows:

- Patrick's container terminal at Port Botany comprises four deep-water berths, 6 container cranes and 44.2ha of back up land.
- A general cargo terminal at Darling Harbour incorporates four berths with 16.2 ha of back up land including 26,000 m² of warehouse space.
- Patrick has an interest in the Automotive Terminal at Glebe Island through Australian Amalgamated Terminals Pty Ltd (AAT), a joint venture with P&O. The terminal has two berths and 12.3 ha of land.

Patrick owns and operates a number of businesses that provide integrated support services for its shipping terminals in Sydney and elsewhere, including road and rail transport and container and automotive depots.

As a result of the closure of White Bay, Patrick has entered into a facility sharing agreement with P&O at Darling harbour.

Patrick's three New South Wales shipping terminals combined handle approximately 480,000 containers, 250,000 tonnes of general cargo and 215,000 cars per annum.¹

Definitions

There appears to be some confusion about the definition of a container ship and container terminal in the public arena. The following notes are provided to assist with this paper:

A container ship is a purpose built vessel with cells that allow containers to be stacked in the hold up to eight deep. Each cell has steel guides that hold the containers in place when the ship is at sea. Containers are also carried on the weather deck up to 6 high and secured by pins and lashings. Container ships do not usually have their own cranes and rely on container terminals' gantry cranes to handle the containers.

General cargo ships come in many forms but are built to carry a range of different cargoes, including: loose single units, unitised lifts and large project items such as boilers and transformers, dry bulk and some containers. General cargo ships usually carry their own cargo handling equipment.

Ro-ro ships are designed with horizontal decks, which are connected by a series of internal ramps. Cargo is loaded and unloaded across stern and midships ramps that fold out on to the wharf. They can carry a range of cargoes but are particularly suitable for wheeled or tracked vehicles. Most of Sydney's car imports arrive in ro-ro ships known as pure car-carriers (PCCs).

¹ Includes P&O volumes at Glebe and Darling Harbour

Container terminals are capital intensive, high technology purpose built facilities that load and unload container ships. All Sydney's container berths are now in Port Botany. The surviving container cranes in White Bay are unsuitable for modern container ships.

Container statistics are collected differently by different organisations. Two separate measures of container volumes are frequently used:

- TEU - Twenty foot equivalent unit

A 20' container handled generates one TEU but a 40' container counts as two TEUs.

- Containers or 'lifts'

A container or lift is recorded as a single unit whether it is a 40' or 20' container.

A rule of thumb used to convert 'containers' to 'TEUs' by Patrick at Port Botany is:

$$\text{Containers} = \frac{\text{TEUs}}{1.35}$$

The 40 foot container trade is growing and by 2020 Patrick expects the factor to be TEUs/1.47.

3 Terms of Reference

(1) the NSW Government Ports Growth Plan, including any planned closure of shipping freight facilities in Sydney Harbour

Patrick Supports the NSW Government Ports Growth Plan. The gradual closure of shipping freight facilities in Sydney Harbour is part of a trend that began over 30 years ago with the first container ships. The Ports Growth Plan recognises that Sydney's trade requirements are changing and identifies the way forward for Sydney's ports that will accommodate growth into the future.

Background

The Maritime Services Board of NSW established its first container terminal at White Bay in 1969 to service the world's first purpose built container trade to Europe. A second terminal was opened at Glebe Island in 1972.

Before containerisation, general cargo ships were stevedored at more than 40 berths in White Bay, Glebe, Pyrmont, Darling Harbour, Walsh Bay, Circular Quay, Woolloomooloo and by lighters in Snails Bay.

Container shipping is very efficient. When the first container ships were built they carried 1,000 containers and one ship did the work of four conventional ships. Modern container ships are four to six times the size of the first container ships.

Containerisation has had a profound effect on international shipping, Sydney's port infrastructure and the people it employs:

- The number of waterside workers employed in Australia has declined from 9,000 in 1989 to less than 3,000 today;
- A single modern container ship with a crew of 16 now does the work of 24 conventional ships which once employed more than 2,000 seafarers;
- The number of stevedoring companies in Sydney has fallen from 16 in 1965 to 2;
- All the old timber built wharves in Sydney Harbour are now closed to shipping.

Containerisation of general and even bulk cargo is continuing, driven by more efficient container ships and container terminals. This results in lower container freight rates, which in turn make containers attractive to more shippers. Container freight rates have fallen substantially in absolute and real terms over the past twenty years. For example: A container of wet salted hides to the UK that cost \$3,200 in 1982 now costs \$2,000, a decline of \$1,200 in absolute terms and \$7,070 in 2004 dollar terms.ⁱⁱ

Container rates for wet salted hides to the UK			
	Year	Rate A\$	2004 A\$
	1982	\$ 3,200	\$ 9,070
	2004	\$ 2,000	\$ 2,000
Absolute decline		\$ 1,200	
Real decline¹			\$ 7,070
¹ 1982 \$ adjusted for RBA All Groups CPI			

Containerisation grew rapidly in the 1970s and it was obvious that Sydney would need better container wharves with large areas of backup land for container stacking and marshalling. The Maritime Services Board started to develop container terminals at a more suitable location in Botany Bay. The first berths were completed in 1979 and over the next ten years the majority of the container trade moved to Port Botany.

ⁱⁱ Source – Shipping Australia

Sydney Harbour was left with some container shipping, the declining general cargo business, purpose built car carriers, bulk ships serving factories and oil refineries and passenger ships. The Glebe Island Container Terminal was closed in 1992 and converted into a car terminal. White Bay was closed last November.

Cargo handled by Patrick at Darling Harbour has declined as follows since 1995:

	Containers (lifts)	General (tonnes)
1995	43,000	393,000
2004	15,000	177,000

Notes:

1 1995 containers were recorded in TEUs and adjusted for containers

2 Volumes exclude bulk cargo, which will be minimal from July this year when the CSR gypsum facility opens at Glebe Island.

Structural changes in the stevedoring industry in 1999 delivered significantly improved productivity at Port Botany. Container moves per net crane hour went from 14 in 1998 to more than 30 today.ⁱⁱⁱ This literally doubled the container handling capability of Port Botany's terminals and released spare capacity, allowing the last of the major container lines to transfer to Port Botany.

Moving the last of the container trade out of Sydney Harbour left the two major general cargo terminals, White Bay and Darling Harbour with insufficient revenue to support their cost structure. This has been exacerbated by high land values on Sydney Harbour, which translates to commercially unsustainably high lease costs and land taxes.

ⁱⁱⁱ Source – 1998 *Waterline*, 2004 Patrick statistics

General Cargo

General cargo stevedoring operations are still consolidating into fewer facilities as a consequence of declining volumes and Patrick allowed P&O access to Darling Harbour when White Bay closed in November 2003. The combined general cargo business of P&O and Patrick now fits comfortably on Patrick's wharves.

Patrick sees the decline of general cargo continuing, although there will always be a need to service specialised general cargo ships which carry cargo that cannot be containerised. Patrick will not be able to maintain a commercially viable operation at Darling harbour against a background of declining volumes and escalating land values and lease costs.

Patrick believes that in the longer term Port Kembla is a more viable location for general cargo and will be working with AAT and the Port Kembla Port Corporation to develop more cost effective cargo facilities to service the trade.

Motor Vehicles

Patrick has an interest in the automotive terminal at Glebe Island through its share of Australian Amalgamated Terminals (AAT). AAT's Glebe Island Terminal handles 200 specialised roll on/roll off car ship calls, which unload 169,000 motor vehicles annually. A further 50,000 cars will have to be moved to Glebe when Darling Harbour closes. In contrast with general cargo, the motor vehicle import trade is expected to continue to grow at approximately 2.5% per annum with a one off increase of 6% in 2005 due to a tariff reduction on imported vehicles. The location at Glebe Island is appropriate for the

motor trade, which is spread throughout metropolitan Sydney. Patrick intends to transfer all of its roll-on/roll-off clients to Glebe by 2006.

The Government's Ports Growth Plan press release stated that Glebe Island will close in 2012, however AAT has an option to extend its present lease until 2017. Substantial investment will be required to accommodate all roll-on/roll-off vessels at Glebe before Darling Harbour closes in 2006. In order to make that investment viable AAT needs security of tenure until at least 2023.

Containers

The container trade is forecast to grow at about 6% per annum. Sydney currently handles 1.3M teus per annum

Patrick estimates the combined capacity of its terminal and the P&O terminal will be 2.6M teus by 2008, when Patrick completes its terminal upgrade programme. The proposed Port Botany extension will add a further 500,000 teus of capacity to that total.

Port Botany's ultimate capacity is estimated at 3,000,000 teus but this number could be extended as new technology evolves. Assuming the growth rate is achieved, Port Botany will not reach full capacity until at least 2020.

Patrick supports the State Government's initiative of securing the former BHP steel site in Newcastle for future development of container terminals as Sydney approaches capacity. Patrick has submitted an expression of interest to the Newcastle Port Corporation for a staged development of the Multi Purpose Terminal. Substantial investment will be required to improve the rail infrastructure between Newcastle and Sydney, which will require a dedicated freight line into Northwest Sydney.

Berth Closures in Sydney Harbour

Darling Harbour is not commercially viable because of high land values, declining volumes and increasing conflict of use through re-development. Patrick accepts that it will be closed to commercial shipping freight operations when the lease expires in 2006.

Glebe Island is well positioned to continue the ro-ro trade with logical connections for delivering motor vehicles to metropolitan Sydney.

The proposed expansion of Port Kembla is contingent on general cargo volumes transferring from Sydney Harbour to Port Kembla. The general cargo trade cannot support two operations.

(2) the economic, social and environmental impact on the State, including on the proposed Port Botany upgrade

Patrick supports the reclamation of Port Botany and the future development of this site, but has not done a detailed economic, social and environmental study of the proposal.

(3) the employment implications for Sydney, the Hunter and the Illawarra regions

Patrick expects that general cargo volumes will continue to decline over the next two years. When Darling Harbour closes in 2006 there will be reduced requirement for Patrick stevedoring employees in Sydney Harbour. Patrick employs 50 full time people at Darling Harbour and Glebe Island. Patrick also draws from a pool of part time and casual employees shared with the Patrick Container Terminal in Port Botany.

Subject to a range of unknown economic and commercial circumstances, reduced employment will be partly or wholly offset by employment in the following areas:

- Continued servicing of Patrick's roll on/roll off clients in Sydney Harbour at AAT's Glebe Island car terminal;
- Patrick's Container Terminal at Port Botany which is expanding but also being partly automated;
- Servicing Patrick clients at the AAT general cargo terminal in Port Kembla.

While traditional stevedoring jobs will move away from Sydney Harbour it is likely that they will be replaced by employment in other areas such as building, tourism and services.

(4) current and future infrastructure needs and social impacts including with respect to the adequacy of existing road and rail infrastructure

Sydney Harbour

Darling Harbour

The effect of closing Patrick's Darling Harbour wharves will be a reduction of heavy trucks carrying Patrick and P&O cargo on Hickson Road, estimated at 42,000 vehicle movements per annum. Development is encroaching on Darling Harbour as old wharves and warehouses are converted for commercial and residential use.

Stevedoring which is a 24-hour operation using heavy machinery, will ultimately come into conflict with new developments. There is no rail connection to Darling Harbour, which could be used to relieve future congestion. Patrick was refused permission for a B-double connection into Hickson Road in 2000.

Removal of heavy traffic from around Darling Harbour will also make way for the new "Spirit of Tasmania" ferry service, which is taking passengers, cars and some cargo with three sailings per week from Berths 5 or 7, Darling Harbour.

Glebe Island

The AAT terminal at Glebe has better transport infrastructure than Darling Harbour. It is connected to B-double truck routes and also has a rail siding on the wharf.

Transport initiatives at Glebe Island:

Rail - Patrick has studied delivering motor vehicles to its automotive terminal at Ingleburn by rail and found it would be a viable alternative to road transport. However it is not possible to proceed with the proposal because of delays to planning permission

for a rail siding into Ingleburn. AAT Glebe generates about 40,000 truck movements per annum.

Road - Patrick Autocare has undertaken a significant initiative to improve transport efficiencies for imported motor vehicles. About 40% of vehicles arriving at Glebe are now processed by the Patrick Autocare workshop at the wharf. On-wharf Processing eliminates the need to take vehicles to an intermediate depot, allowing dealers to receive fully processed vehicles direct from the point of entry.

Port Kembla

The volume of additional cargo at Port Kembla will be equal to the level at Darling Harbour prior to its closure in 2006, with the following possible exceptions:

- Some shipping moving from Darling Harbour to Newcastle
- Cargo moving to containers as a direct result of berth closures in Sydney harbour.

Sydney's industrial 'centre of gravity' is in the Inner Western Suburbs, but it is moving southwestward towards Port Kembla as real estate prices drive industry towards cheaper land. The average cargo journey to and from Darling Harbour is estimated by Sydney Ports Corporation to be within 40 kms of the port. That cargo will have to travel 85 kms from Port Kembla from 2006 onwards.

A high proportion of this cargo is expected to move by road transport, however Port Kembla offers efficiencies that are not available at Darling Harbour:

Rail – a new rail spur has been built by Port Kembla Port Corporation directly into the proposed AAT terminal site. Patrick will be exploring options to move as much cargo from Port Kembla as possible by rail. A train can travel from Port Kembla to Ingleburn

and return within 24 hours. Following planned track upgrades between Enfield and Ingleburn it will be possible for one train to make two journeys in 24 hours. Permission for Patrick's rail connection into Ingleburn is integral to the plan to rail goods from Port Kembla.

Road - the number of actual truck moves required to handle the cargo will be reduced by the fact that B-double trucks can access the berths. The ratio of B-doubles to conventional trucks will depend on a range of circumstances such as:

- the destination of the cargo (can it be accessed by B-doubles)
- suitability of the destination for the size of the truck
- economics of larger trucks over the route to be travelled

The ratio of B-doubles to conventional trucks at Patrick Port Botany is currently 13% of truck movements, however it should be higher from Port Kembla as the distance travelled is further making B-doubles more economical.

Port Botany

Patrick is undertaking improvements to its terminal infrastructure that will increase its capacity to 1.3M teus by 2008. Patrick recognises the need to improve intermodal connections to support increased capacity and has undertaken a number of initiatives with this aim:

Rail – Patrick is actively fostering rail as a means of accessing its container terminal. Patrick opened a rail shuttle service between Port Botany's container terminals and Yennora in 1999. This service carries both domestic and international containers and operates alongside a number of other operators offering similar services to inland depots. Patrick took over Seatons Transport, which has a service into Parramatta, in

2003. Patrick has a 50% interest in Pacific National. Current rail services and volumes handled are listed below:

Port Botany Rail Volumes			
Service	Destination	Volume (teu)	Comment
Patrick	Yennora	40,000	Includes about 10,000 domestic units
Patrick Seatons	Parramatta	40,000	
Pacific National	Country NSW	110,000	Blaney, Dubbo, Narrabri, Newcastle, Nowra
Pacific National	Brisbane	30,000	PNL Sea-Train service
Pacific National	Chullora	5,000	
BHP Transport	Leightonfield	12,000	
Lachlan Valley	Minto	25,000	Includes some domestic traffic
Total		262,000	26% of moves to Port Botany

Three further rail developments are under consideration:

- Patrick at Ingleburn
- Sydney Ports at Enfield
- Pacific National at St Mary's

Patrick is currently awaiting a recommendation from a Commission of Inquiry and a decision by the Minister with respect to planning permission at Ingleburn, which is a State Significant Development. Patrick plans to spend around \$22M at Ingleburn and considers the development is integral to the better utilisation of rail resources in Metropolitan Sydney.

About 26% of containers moving in and out of Port Botany are presently handled by rail. Patrick's aim is to take this figure to over 50%.

Rail infrastructure initiatives required to achieve this goal are:

- The duplication of freight track between Sydenham and Port Botany (under construction);

- The construction of freight track between Enfield and McArthur, expected to commence later this year;
- Development of Patrick's Ingleburn site as an inland rail terminal

As part of its container terminal upgrade Patrick is installing a series of semi automated rail-mounted gantries to speed rail despatch and cater for increased volumes.

Road – Patrick installed a vehicle booking system to reduce queuing for trucks and allow transport operators to better plan truck movements in 1997. This system has reduced queuing and improved road transport efficiency on and around the terminal. The P&O and Patrick joint information technology initiative, 1-Stop includes a restructured vehicle booking system that will allow transport operators to book time slots for both P&O and Patrick through the same portal.

As part of its current terminal upgrade Patrick is duplicating Penrhyn road to provide improved truck marshalling facilities.

Other initiatives under consideration include ways to coordinate trucks to increase their effectiveness through two-way full running.

(5) the future of public land at Millers Point, Glebe Island and White Bay on which shipping freight operations are currently located

The Glebe Island car terminal will continue in its current use at least until 2017 when AAT's lease expires. In order to justify the investment required to facilitate all ro-ro cargo at Glebe the lease needs to be extended until at least 2023.

The high value of harbour side land at Darling Harbour and White Bay combined with pressure from re-development precludes it from being used for general cargo operations in the future. Patrick believes its Darling Harbour wharves currently leased from Sydney Ports Corporation will revert to the State Government on expiry of the lease in 2006. This land includes Berth 3 Darling Harbour at Millers Point.

The successful transfer of shipping freight operations to Port Kembla is contingent on the closure of White Bay and Darling Harbour to general cargo, as planned. Port Kembla will require active support in moving cargo to the port if it is to be viable in the short term.

4 Attachment – Patrick Corporation Annual Report 2003