



COMMONWEALTH OF AUSTRALIA

**JOINT PARLIAMENTARY
COMMITTEE**

on

PUBLIC WORKS

Reference: East Coast Armament Complex, Point Wilson, Victoria

BRISBANE

Monday, 15 June 1998

OFFICIAL HANSARD REPORT

CANBERRA

JOINT COMMITTEE ON PUBLIC WORKS

Members:

Mr Tuckey (Chair)

Senator Calvert
Senator Ferguson
Senator Murphy

Mr Richard Evans
Mr Forrest
Mr Ted Grace
Mr Hatton
Mr Hollis

WITNESSES

**BLACK, Mr Peter Rex, Chief Executive Officer, Rockhampton Port
Authority, PO Box 9, Rockhampton, Queensland 4700 560**

JOINT COMMITTEE ON PUBLIC WORKS

East Coast Armament Complex, Point Wilson, Victoria

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Present

Mr Tuckey (Chair)

Senator Calvert

Mr Richard Evans

Mr Hollis

Committee met at 2.52 p.m.

Mr Tuckey took the chair.

BLACK, Mr Peter Rex, Chief Executive Officer, Rockhampton Port Authority, PO Box 9, Rockhampton, Queensland 4700

CHAIR—I declare open this public hearing into the ECAC, which is a continuing inquiry. The purpose of this inquiry is to put on the record the correspondence from the Rockhampton Port Authority regarding the suitability of the Port Alma facilities for the transshipment particularly of class 1 explosives imported by the Department of Defence. I welcome Mr Black, who is a representative of the Rockhampton Port Authority. I would welcome a brief overview of your facilities and, in particular, the means by which you already handle explosives, and the licence capacity of your port, et cetera.

Mr Black—The Rockhampton Port Authority operates Port Alma, which is approximately 64 kilometres by road from Rockhampton. In general terms, we handle approximately 200,000 tonnes of cargo each year; last year, for example, through 77 ships. Cargoes include salt exported, beef and tallow exported, lime exported, scrap metal exported and the occasional smaller general cargo; and ammonium nitrate and explosives imported. With respect to explosives and ammonium nitrate—two dangerous cargoes—we specialise in this area. The port is isolated from other areas, being approximately 20 kilometres from the nearest township and mostly surrounded by salt flats and mangrove area. We have taken advantage of that over the years and tried to specialise in dangerous cargoes.

Last year we imported approximately 50,000 tonnes of ammonium nitrate. It is a product that I mention because of its association with explosives. It is a class 5 product under the IMDG code. We treat it as an explosive product, and we are authorised to handle shipments of up to 15,000 tonnes. With explosives, or class 1 products, we are authorised to have a ship in the port area with up to 1,500 tonnes NEM, net explosive mass, which is equivalent to NEQ—what you deal in—net explosive quantity.

Our method of being authorised is that, under the Transport Operations (Marine Safety) Act, we have sought authorisation to handle those quantities in a per ship per port basis. To that effect we did a risk study, a copy of which I think we have provided to the committee. It studied that. Through that mechanism of doing a risk study, we have been authorised to handle those quantities, under the act I referred to, on a per ship basis.

We ourselves as the Rockhampton Port Authority have what we term a ‘port authority limit’, which refers to the total quantity we can have at the berth at any one time, and because our study was based on 1,500 tonnes of class 1 explosives or 15,000 tonnes of class 5 ammonium nitrate, we use that as the total limit we allow at any one time in the port. So if there are two ships with 1,000 tonnes wanting to come in together, we would have to say no to that because it would total 2,000 tonnes in the port at one time. I might add that that is very unusual, that while the limit is there, it is yet to be applied. But they are high numbers in terms of these cargoes.

I will not dwell on the ammonium nitrate, but it may be interesting to note, too, that in our studies we treat two tonnes of ammonium nitrate as being equivalent to one tonne of explosive, therefore we are effectively looking at a limit of 7½ thousand tonnes of class 1 explosives, if we wanted to. So the 1,500 tonne level which was in fact set is really based on the market more than on what the limitation of the port is. In other words, we could probably seek to increase it and probably succeed, given that we have already set a level much higher for ammonium nitrate.

Most of the cargo handled is both import and export. The port itself has three berths; one of those berths is what is called a 'dolphin berth'; it is not suitable for road transport on it, so we do not use it for handling dangerous cargoes, but we do use berths 1 and 2. These are concrete berths which provide easy access for trucks and vehicles on and off. We have no rail into or out of Port Alma; the nearest rail connection is approximately 26 kilometres away.

These berths are ideal for handling general cargoes, including ammonium nitrate and explosives. We also have a 25-tonne shore crane which is quite capable of lifting typical container loads of the cargo and which does provide a stable capacity with which to handle the cargo.

CHAIR—Is that 25-tonne crane fully extended?

Mr Black—The 25-tonne operates at its maximum length of 110 feet, so it does not suffer the limitations of mobile cranes where one has to take into account the length of the boom. When we handle the explosives—and I will focus on that now rather than the ammonium nitrate—we close the immediate port area off to a distance of around a few hundred metres of, if you like, length of area. We maintain a road watch while the cargo is being handled, so we have a very tight control over activities while we are handling those particular cargoes.

At the moment, we do not allow any storage of ammonium nitrate or explosives at the port itself, so anything coming in or out has to be delivered. If it is to be exported, it has to be delivered to the port and the ship ready to receive it, or, for imports, the ship arrives and unloads straight onto the vehicle and it leaves the port. Usually, in our case, it is destined for the state government owned magazine for explosives at Bajool, which is about 26 kilometres away, or, in some cases, transported direct to the magazine at places like Helidon or other destinations, or it can be transferred to rail at Bajool. I will stop there, Mr Chairman, unless you wish me to continue in this manner.

CHAIR—I think it might be a good idea if you continue and refer to some of the other facilities that exist at the port and the risk they represent to the unloading procedure, or what risk the existence of the ship represents to them.

Mr Black—I think it might be appropriate if I answer that by telling you about the way in which we carried out a risk study. Also at the port, on the shore side, is a meat freezer where Australian Meat Holdings store frozen beef prior to exporting by ship every few weeks to the United States. Tallow is stored there by Australian Meat Holdings Pty Ltd and the Consolidated Meat Group Pty Ltd companies that operate in Rockhampton. Tallow is the beef fat, so it looks just like that. There are heat sources associated with each of those storages: an LPG gas storage for AMH to heat the tallow and a diesel fuel storage to heat the CMG product.

Elsewhere in the port we have a salt stockpile which a dozer operator may be working on from time to time. Slightly further away from the berth, we have two fuel terminals, neither of which is operating at the moment. We hope that one will recommence operations this year with fuel—that is the ex-Ampol terminal. We do not think the other one, the ex-Mobil terminal, is likely to recommence with fuel, but it could have a flammable cargo in it.

In doing our risk study, we look at the two major points of risks: the risk to an individual and the societal risk. They are the two probability calculations. We also look at consequential risk. Consequential risk is where, if there is an explosion, it will cause a certain level of damage at various radiuses outward from the source of the danger. In ideal circumstances, one has no personnel in that consequential area, or at least minimal risk. The probability calculation takes into account that there are people there but the operation can proceed if the risk level is below an accepted criteria.

When we do a study, for example, of the Ampol terminal, which we took into account as operating when we did the study, we took the case where the tanks had ruptured and the whole bund area was alight—in other words, the tanks had failed—and calculated the level of heat that would occur where the explosives were being handled. That was calculated to be below the accepted threshold level. We took into account reasonable wind conditions that might occur. We did equivalent calculations with the other heat sources as well—the other smaller diesel tankage. This was all done through a professional consultant. We do not profess to have that expertise in-house, so we prefer to rely on consultants.

CHAIR—Just to clarify, you are saying that if they caught fire in that situation, the heat generated would not be sufficient with the distances involved to put at risk the cargo on a ship that was unloading.

Mr Black—That is correct. In practice, under such circumstances we would evacuate the ship because, with a few rare exceptions, we require any ship handling dangerous cargo to be able to leave the berth at any time, unlike a conventional cargo ship which may be trapped at the berth—if I can use that term—through a low tide. Dredging at a berth is deeper than the surrounding channel; however, we generally require the ship to be able to leave the berth at any time for that purpose.

CHAIR—In other words, the tide has to be such that the ship could get away.

Mr Black—Yes. Again, if we depart from that, as with all our procedures, we go through a special process. We would consult with the chief inspector of explosives and the harbour master and address it. Generally, that is our practice. In that particular case, operations would stop if that event occurred. It would possibly block evacuation, but there are alternative arrangements for that.

Speaking of evacuation, we have an evacuation plan in place. We can evacuate people to approximately five kilometres from the port, which is sufficient even for the large 15,000 tonne ammonium nitrate event. A control document is sent out to any party that could be required to be aware of it. It is sent out as a control document, which means that people have to sign that they accept it and send it back.

At the port there are people other than our own staff and stevedores directly involved in the operation. We close the port off, as I mentioned earlier, and we keep out the vast majority of people who have no role to play in handling the dangerous cargoes, but we do allow, for example, one operator of Australian Meat Holdings to be there to attend the freezer or the bulldozer operator to work on the salt stockpile. With that number of people there, we still come well below the criteria which, on recollection, is 50 in one million, and we are operating at around two in one million. It is a fairly conservative calculation at that.

The logic of that is that, no matter where this dangerous cargo goes, at some point it is always near the public anyway, and we simply follow a similar logic at the port. So it is the standard practice. To give more examples of how we operate: prior to a dangerous cargo being handled, we will send, by facsimile, a notice to approximately 22 organisations advising them that we will be closing the port and that a dangerous cargo will be being handled.

Those people include the emergency services, of course, but they can also include bodies such as the electricity board so that they know not to send their meter reader down because we will not allow him in. It includes the main roads people, so it suits them not to work on the road that day so that there is no impediment to the vehicles handling the cargo on the 26-kilometre road down to the port. The notice will also go to the air force so that they do not overfly the port. These are all precautionary steps, but they are part of the process we go through to control the safety.

CHAIR—In terms of access to the port site, from personal observations your current point of closure is within the immediate port area. If, for instance, a decision was taken to put a road block out further up the road, am I correct in saying that it would then be impossible for anybody to access the port from any other position, because the road travels through swamp land and you could not drive around it and there is no other road access to the port site if it were blocked somewhere further away from the port from where it is blocked now?

Mr Black—That is correct in that there is only the one road access in. For people to circumvent that access on the land side, you would deliberately have to drive down the salt flats to access it, which would be unusual. People could access, in principle, from the sea side if they come down by launch or vessel from any other site. There would not be great numbers. It would effectively isolate the port.

Mr HOLLIS—In relation to the isolation of the port, what about the recreational fishermen? They would also be excluded at that time.

Mr Black—I cannot comment in that we have never taken that step to exclude the recreational fishermen. I will just explain that there is a boat ramp at the port. The boat ramp is not operated by us. It is owned by the Queensland state government transport body. There would be some issues in terms of the social impact of closing off a boat ramp. That would need to be addressed.

Mr HOLLIS—When you talked about these experiments that have been carried out, you had a consultant to do the studies. Were they or are you aware of the NATO principle like the arcs—the purple arc, the yellow arc, et cetera? Are you familiar with that at all?

Mr Black—I have seen the tables of the NATO distances. I cannot be 100 per cent sure here, but I would be reasonably confident that the calculations that our consultant uses to determine the various distances at which certain over pressures, effects of a blast, occur would be very similar, if not identical, to the NATO principles.

CHAIR—Are you able to put on the record the name of that consultant?

Mr Black—Bill Danaher.

CHAIR—What is his company name?

Mr Black—He has a new company at the moment.

CHAIR—You might do us the favour of notifying us. It may be in that document you gave us.

Mr Black—Unfortunately, he was working for a previous company then. I think you would have the name Gibson & Associates. Rather than guess, I will send you his current company name.

Mr HOLLIS—As I understand it, often dedicated ships to explosives come in to Port Alma. There is a certain amount taken off them and then the remainder usually goes to Point Wilson in Victoria. Is that right?

Mr Black—That certainly does happen, yes.

Mr HOLLIS—Are you familiar with what they are bringing in there? How do they come in? Do they come in containers or what?

Mr Black—For those particular shipments, such as the one we have next Saturday, the explosives are typically in containers. So standard 20-foot containers are taken off, put straight on to truck and out by road transport from the port.

Mr HOLLIS—You do not know what is in there—detonators, gelignite?

Mr Black—Not without looking at the manifest to be particular. We see that information come through. From our point of view, we set up our port to handle the worst case of class 1. So we treat everything as a worst case. Offhand I cannot tell you exactly what is in there.

Mr HOLLIS—I think we were told yesterday that there was an explosive officer or explosive person in Rockhampton that comes out when each ship comes in. Is that right?

Mr Black—Yes. There is a Rockhampton based explosives inspector. This is working under the state government regime. He will, whenever possible, which is in nearly every case, attend the port when there is a ship in port. He is one of those people whom we also fax information to, as well as his own sources of information. He comes down and inspects the cargo from his point of view. We are very pleased to see him there. We welcome him.

Mr HOLLIS—Given the fact that you have specialised at that port in items of cargo that other ports, for one reason or other, might not particularly welcome, if we suddenly said or the government said, ‘Okay, on those ships that come in we’re proposing to put across’—what would it be, Chair?—‘20 or 30 extra containers a year?’

CHAIR—The total is probably closer to 100 per annum.

Mr HOLLIS—If, for example, the government suddenly decided, instead of leaving those containers on the ship, that they would take them off at Port Alma, do you see any difficulties in the port being able to handle that? I guess there may be industrial or environmental problems about that. Would you see from your position any difficulty with that at all?

Mr Black—From the information I have at the moment—that is, additional class 1 product—no. I would expect that most likely there would just be so many more containers handled on the day than are already handled, put on trucks and taken out of the port.

Mr HOLLIS—So all it would mean as far as you are concerned would be extra employment at the port rather than any problems. The facilities would be there to handle that?

Mr Black—I would expect so. Like any cargo, if the cargo is different from what we have handled before, we might run it by a consultant. We might seek some advice from even your own organisations, but I would be very surprised if it could not just be treated as so many more containers on the day. To be honest, under that arrangement we would barely notice it.

CHAIR—Can I ask you again for the record to confirm that, in terms of risk assessment, it is basically the cargo that is on the ship that represents the risk to the surrounding area, not the individual containers that are running up the road one by one on and two by two on the back of a semi-trailer.

Mr Black—Our focus is on the total quantity of explosives that are in the port at the one time on the assumption that, if one did for some reason detonate, it would be likely to trigger the others. While handling itself can increase the risk compared to storage, our focus is certainly on the port itself and the total quantity that is there at one time, while at the same time, of course, making sure that how it is handled is as safe as it can be.

CHAIR—From your knowledge, when the specialist chartered class 1 ships come alongside, they are quite frequently carrying the defence requirement to be unloaded in Port Wilson. So it sits there throughout your current unloading operation.

Mr Black—As far as I understand, yes.

Mr HOLLIS—Given the fact that this cargo is potentially dangerous, are the personnel at the port given any special training? Are there any special safety regimes in place to deal with these cargoes? Is there any special training that these people receive in order to handle this cargo?

Mr Black—Yes. For example, recently stevedores handled an explosives shipment, and they had not handled explosives before. To my knowledge, there is no formal licence that they have as stevedores to handle explosives, but we arrange for our port manager, who is quite well experienced in dangerous cargoes, to work with them and show them key points of how to handle explosives. Also, on numerous occasions in the past, the explosives inspector, again from Rockhampton, has taken interested parties, including my own staff and the stevedores through the exercise of what explosives are and how they are different, to the point of letting off minor charges in an isolated area near the port just to demonstrate the impact.

Mr HOLLIS—Would you elaborate on that a little? As I understand, he takes, what?

Mr Black—I could not tell you the size, but we are talking about a very small charge. For example, I went to one which we did at the magazine a number of years ago where we demonstrated the different types of explosives to give people an appreciation of them. We actually discharged a detonator. We used a rubber glove filled with ordinary red meat to simulate a hand to demonstrate how even just a detonator will completely destroy a hand. We then let off a charge of a small amount of normal class 1 explosive. I might add that it is a very impressive way of training because a quantity of that size still blows the air past you when you are standing 200 metres away. It is one of our most effective training mechanisms for people handling 20 tonnes of explosive in one go. Incidentally, our largest shipment of class 1 explosives was 1,200 tonnes, which we exported a few years ago.

Mr HOLLIS—And you have never had any incidents happen at the port while you have been handling explosives?

Mr Black—No, we have had no incidences of any sort of detonation or explosion of explosives themselves. We have an incident reporting system, which I mentioned, where any incident at the port—it does not have to be constrained to explosives, for example, it could be a truck wheel catching fire or blokes not wearing helmets, anything at all—is reported by my staff. The report goes through to the directors of the board and then the companies or individuals involved are notified by letter. It is a very powerful tool for providing feedback to companies that their employees at the port may not be complying.

There have been incidences such as where a fire may have started 200 yards away. We have people on a 24-hour patrol of the port. There are more people when the cargo is being handled, but only one person when the hatches are closed. They are there 24 hours a day. In that example, they saw the fire very quickly after it had started and put it out with the fire protection equipment we naturally have there to cope with this sort of cargo.

So those sorts of incidences have occurred, but none actually involving a container being dropped or anything major like that. We have had cases where ships have called at Port Alma, about the only port they could call at, to repack their explosives because they have been damaged. In that case, we will call in the inspector of explosives to seek his advice on how it should be handled, so the port plays a role in that way. There are not too many ports that these ships can call at.

CHAIR—To what extent are you able to advise the committee of the facilities at the Bajool magazine? Have you been inside it?

Mr Black—I have been inside, and I have observed bunkers and buildings that are designed to take explosives with bunker mounds either side in the event of a blast. I have seen storage buildings, and I have seen explosives stored. That is about all I can really say as far as direct observation.

CHAIR—Are you aware of any capacity to park semitrailers if they need to be stored overnight before travelling on to other destinations?

Mr Black—From what I have heard over the years in the job, I understand that is certainly what happens. That is my understanding; I have not observed it myself. Arrangements are made with the chief inspector of explosives for the Queensland government, who supervises the inspector of explosives at Rockhampton, who, in turn, supervises the magazine. I do believe, but I cannot confirm this, that ordnance on vehicles associated with the various operations at Shoalwater Bay have actually been stored that way at the magazine. But I cannot confirm that 100 per cent.

CHAIR—They have military exercises at Shoalwater Bay, which is a Defence training facility.

Mr Black—Yes.

Mr RICHARD EVANS—Has there ever been a time at Port Alma when the defence forces have actually used that facility for a training exercise?

Mr Black—If you mean bringing ordnance through for a training exercise as opposed to a training exercise at the port, last year during Operation Tandem Thrust, the joint exercise with the Americans, the American ordnance was brought in through Port Alma.

Mr RICHARD EVANS—Did they secure the port?

Mr Black—We had our normal operations. Unfortunately, I was away at the time, not actually at the port. I believe the forces may have had their own military personnel there in addition to our operation. From our point of view, though, we ran our normal operation. The only real difference in that case was that the vessel, the *Kilauea*, if I remember it correctly, did not wish to come up to the berth; it chose to anchor some four to 10 nautical miles out from the berth and relay by barge to the wharf. From our point of view, the vessel still came alongside and the equipment was unloaded in the normal manner and put onto vehicles and taken away.

Mr RICHARD EVANS—Why did they choose to do that?

Mr Black—My recollection, and I may be wrong here, is that the captain of the *Kilauea* did not wish to bring the ship into port. In his opinion, he felt it was safer out

there. My recollection again is that that was a navigation issue, not necessarily associated with dangerous cargoes or explosives. If I recall, the ship was of the size that the draught was perhaps close to the limit of the port. It was one of those situations where, prior to the event, it was going to call to the wharves, then it was not, then it was. I am really not too sure.

CHAIR—Can you advise us what size that ship was relative to these chartered vessels that bring the specialised cargoes in? Was it a larger ship?

Mr Black—My recollection is that it was larger.

CHAIR—For the type of vessel that is generally bringing this cargo to Port Alma and Port Wilson, in a normal tidal situation, how many hours a day would it have available to get in and out?

Mr Black—We still normally work to the tides, so about 12 hours total time. We do not have tug boats at the port so, as well as coming in on the high tide for depth, it also comes in on the high tide, to use the movement of the tide to swing the vessel and then to power back against the tide to come alongside the berth. Likewise, on leaving, the vessel prefers to power into a tide; it gives it the steerage that it needs to leave. So not only is depth a factor, we also use the movement of the tide to some extent. As a rule of thumb, it is 10 to 12 hours which matches the tide.

CHAIR—But these vessels are relatively small?

Mr Black—Yes. Even in our port, which is a small port, we would call them small vessels.

Mr RICHARD EVANS—What sort of difficulty factor would there be in dredging and making the port deeper?

Mr Black—It would be significantly expensive, we think. At the moment, we have called for a study to do just that. In a month's time, I will know a lot more. I would think many hundreds of thousands of dollars at least, if not more.

Mr HOLLIS—Is it worth that? As I understand it, you have got sufficient water there, even at low tide. What is the draught there?

Mr Black—In the channel, it is 7.3 metres. At the berth, it is 9.3 metres.

Mr HOLLIS—Is that at low tide, high tide or what?

Mr Black—Low tide.

CHAIR—That is all they have at Port Wilson and that is at low tide.

Senator CALVERT—I have a question on firefighting equipment. I will have a look at the outfit tomorrow, so I have not had the benefit of my colleagues. Do you have all the necessary specialised firefighting equipment that you would need in an area where ordnance is being unloaded?

Mr Black—I cannot speak specifically for ordnance as in Defence Force requirements, but part of our study was to question whether what we had was sufficient. We have a salt water pump on berth 3 which pumps by pipeline to berths 1 and 2. That gives us our bulk water supply for fighting a fire. In addition to that, we have some foam equipment and we have a specific 60-kilogram powder extinguisher. That is ideal for fighting an electrical fire on a truck if something caught fire there. We also have a small water tank on a trailer which can put out a small bushfire should it start. To answer your question, those facilities are sufficient and that was audited by our study. Whether defence forces have a specific requirement, I cannot say.

Mr HOLLIS—If you were asked to give us the advantages of the port in regard to this, what would you say they were? Is it the isolation?

Mr Black—The advantages compared to?

Mr HOLLIS—Compared to the disadvantages. I am not an expert on the port, but from having a look at the port, I would say that the advantage would be the isolation of the port. You only have the salt works there, where occasionally a guy comes in with a bulldozer and does a bit of work, and you have a meat works which occasionally employs one person. Would you agree that this would be one of the advantages of the port?

Mr Black—I think the advantages would be as you have described. The isolation leads to the high rating that we have for handling the cargoes. The Port Authority also, if you like, has a disposition where, if for some reason our current authorisation does not cover those cargoes, because we specialise in this area, we would be inclined to solve the problem rather than say it was too hard, because that is our field.

Like everything, what is an advantage in one respect can be a disadvantage in another. We are 26 kilometres away from the magazine, so there is a road distance. We have no rail to the port, which you may choose to see as a disadvantage. There is only one roadway in and out, which is an advantage for isolation and a disadvantage, some might say, in having different transport routes or evacuations. We do have other cargoes at the port, so it would not be a dedicated port, say, that the defence forces might prefer to have.

We have to juggle different cargoes. That is a commercial reality for us. We cannot close down the meatworks because we want to handle a dangerous cargo. So we do

have those other players in the port. We also have to consider the future where other cargoes come along and, again, we have to continually juggle. So we work with these other customers, but I might add that we have had no other complaints from other customers of the port about our dangerous cargo handling. They just operate with that as part and parcel of every day.

CHAIR—Thank you very much. It is greatly appreciated you taking the time to come down. We appreciate the distances involved, but it was pretty important that we get your evidence on the record. I would like to thank all the witnesses who have appeared before the committee and those who assisted with our inspections. I would also like to thank committee members, Hansard and the secretariat.

Resolved (on motion by **Mr Hollis**, seconded by **Senator Calvert**):

That, pursuant to the power conferred by section 2(2) of the Parliamentary Papers Act 1908, this committee authorises publication of the evidence given before it at public hearing this day.

Committee adjourned at 3.28 p.m.