



QUEENSLAND
COURTS

OFFICE OF THE STATE CORONER

FINDINGS OF INQUEST

CITATION: **Inquest into the death of Peter Raymond FENTON**

TITLE OF COURT: Coroners Court

JURISDICTION: Brisbane

FILE NO(s): COR 2011/4260

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FINDINGS OF: Mr Terry Ryan, State Coroner

CATCHWORDS: CORONERS: maritime accident, loading provisions onto ship from barge, crane, insulated container, chain and slings, job hazard analysis, work health and safety.

REPRESENTATION:

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Mr Fenton's family: Mr SE Kerin
(Kerin Lawyers)

Bowen Tug and Barge Pty Ltd:

Mr A E Herbert
(Instructed by Hopgood and
Ganim)

Workplace Health and Safety Queensland,
Inspector Tollenaere and Dr Grigg:

Mr G Lee and Mr P Hurrey

BP Shipping and crew of the *British Beech*:

Mr C Chowdhury (instructed
by Thynne & McCartney)

Maritime Safety Queensland:

Ms K Philipson

Contents

Introduction	1
The investigation	1
The Inquest	2
The evidence	3
Personal circumstances	3
The British Beech and Crew	3
The Kiandra and BT7	4
Job Hazard Analysis.....	8
Delivering provisions to the British Beech	9
Evidence from the Master and crew of the British Beech	9
Medical attention and aftermath	19
Autopsy results	19
Selected Investigation findings	19
<i>Causal factors</i>	20
<i>Contributing factors</i>	21
Conclusions.....	23
Risk management policies and procedures	24
Findings required by s. 45.....	26
Identity of the deceased.....	26
How he died.....	26
Place of death.....	26
Date of death	26
Cause of death	26
Comments and recommendations.....	26

Introduction

Peter Fenton was 67 years of age when he died on the afternoon of 15 December 2011. He had been working on and around boats for 52 years.

On 15 December 2011, Mr Fenton was the master of the tug, *Kiandra*. He had been engaged to provide stores to the *British Beech*, an oil tanker that was berthed at Pinkenba in Brisbane. The crew of the *British Beech* were unloading stores from an unpowered barge (BT7), which had been positioned alongside the port side of the ship by the *Kiandra*. The *British Beech* crew were using a provision crane located on the *British Beech*'s port side deck.

At approximately 2:20pm on 15 December 2011, a large insulated plastic stores container was being returned from the ship to the barge. It came away from the slings that were used to support it and fell 12-13 metres to the barge below. Mr Fenton was directly below the falling container, which struck him causing severe chest, spinal and head injuries. Despite emergency efforts from his crew and ambulance paramedics he died from his injuries while being transported to hospital.

These findings set out the findings required by s. 45 (2) of the *Coroners Act 2003*; namely the identity of the deceased, when, where and how he died and what caused his death; and consider

- the adequacy of policy and procedures for the hoisting and return of provisions on both of the vessels involved and, more generally, on similar vessels in the Port of Brisbane;
- the extent to which those policies and procedures were followed; and
- whether any changes to procedures or policies could reduce the likelihood of deaths occurring in similar circumstances or otherwise contribute to public health and safety or the administration of justice.

The investigation

An investigation into the circumstances leading to the death of Mr Fenton was conducted by Workplace Health and Safety Queensland (WHSQ), Maritime Safety Queensland (MSQ), the Queensland Police Service (QPS), the Australian Maritime Safety Authority (AMSA) and the Australian Transport Safety Bureau (ATSB). The range of investigations reflects the complex matrix of Commonwealth and State laws that regulate safety in the environment in which Mr Fenton was working.

The first investigator to arrive at the scene was Kym Tollenaere from the agency then known as Workplace Health and Safety Queensland. She showed commendable initiative in gaining access to, and quickly interviewing, the key crew members of the *British Beech* involved in the incident.

AMSA took the lead role in the investigation with respect to the *British Beech*. WHSQ led the investigation with respect to the barge *BT7* and the tug *Kiandra* (both of which Mr Fenton was master).

MSQ took the role of reporting on the maritime incident and investigating regulatory compliance issues relating to the *Kiandra* and *BT7*. The MSQ investigation report submitted by Mr Servin is of particular note for its thoroughness, detail and helpful conclusions.

I am satisfied that all relevant information has been put before the court and I thank each of the investigating agencies involved for their co-operation and assistance.

The Inquest

As the *British Beech* was due to depart Brisbane shortly after Mr Fenton's death the inquest was commenced by the former State Coroner on 19 December 2011 to enable evidence to be taken from five members of the crew, including the captain. A view was also conducted by the State Coroner on the *British Beech* on 19 December 2011.

Mr Johns was appointed as Counsel Assisting and leave to appear was granted to the operator of the *British Beech* and several of its crew; the family of Mr Fenton; the operators of the *Kiandra* and *BT7*, and to some of the regulatory authorities charged with overseeing the regulation and investigation of maritime, workplace and/or transport related events.

Until the inquest was commenced (with some limited exception) the crew had exercised their right to claim privilege against potential self-incrimination and had not provided accounts of the relevant events to investigators. On 19 December 2011 the crew members called again claimed privilege and were directed to give oral evidence pursuant to s39(2) of the *Coroners Act 2003*.

Following this initial day of evidence each of the investigating agencies continued their investigations and ultimately submitted a report to the Office of the State Coroner.

The inquest resumed at Brisbane on 14 May 2014. All of the statements, records of interview, medical records, photographs and materials gathered during the investigation were tendered at the inquest. Oral evidence was heard from:

- Craig Servin - MSQ Compliance Investigator
- Kim Tollenaere - WHSQ Investigator
- Steven Cox - Deckhand on the *Kiandra*
- Lyndsay Marquart - Deckhand on the *Kiandra*
- Dr Frank Grigg - Forensic engineer

I am satisfied that all the material necessary to make the requisite findings was placed before me at the inquest and I thank those given leave to appear for their assistance and helpful written submissions, which were provided after the conclusion of evidence.

The evidence

Personal circumstances

Peter Raymond Fenton was born on 11 December 1944 and was 67 years of age when he died. His maritime experience was extensive. He commenced work as a deckhand aboard ships in Moreton Bay at the age of 14 and continued in similar roles for the next 20 years. In 1964 Mr Fenton qualified as a master/engineer and from that time had been operating ships along the eastern Australian coast and as far north as Port Moresby.

Mr Fenton was a heroic figure during the 2011 Brisbane floods. Together with Doug Hislop he operated the tugboat, *Mavis*, to manoeuvre a 300-tonne slab of concrete of the Brisbane City Riverwalk that had been torn from its foundations by the flooding river. Their efforts prevented the walkway from colliding with the Gateway Bridge, amid concerns that the Riverwalk could cause the bridge to collapse and damage other port infrastructure. He was awarded a posthumous commendation for bravery.

Mr Fenton held formal qualifications relevant to tug skippering and barge operations. These included a Queensland restricted master class 4 certificate of competency, a Queensland marine engine driver grade 1 certificate of competency and a slewing mobile crane operator's licence.

Mr Fenton commenced work with Bowen Tug and Barge (BTB) in 2000 and was employed by them as a master for the subsequent 11 years. He also held the role of Workplace Health and Safety Officer for BTB. It is clear that he was widely respected within his workplace and, properly, seen as a senior member of staff.

It is evident that Mr Fenton was loved, respected and now very much missed by his family, friends and colleagues. I extend to them my sincere condolences.

The British Beech and Crew

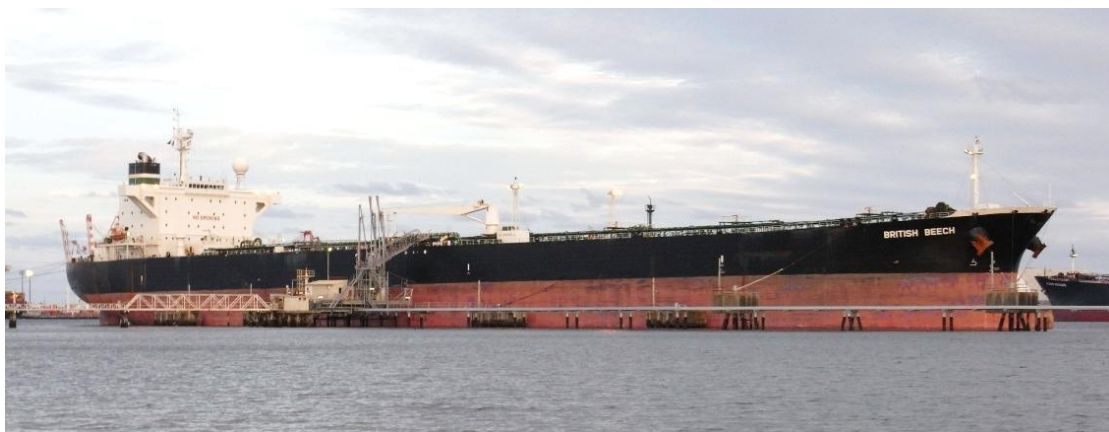


Figure 1.

The *British Beech* (Figure 1) is an oil tanker that was built in 2003 by the Tsuneishi shipyard in Japan. It has an overall length of 240.5 m, a breadth of 42.0 m and a deadweight of 106,138 tonnes at a summer draught of 14.85 m.¹

At the time of Mr Fenton's death, the *British Beech* was managed and operated by BP Shipping, United Kingdom (UK). On 15 December 2011 it was moored at the BP Terminal at Luggage Point on the northern bank of the Brisbane River and within the Port of Brisbane.

The master of the ship was Umesh Dalvi, an Indian national with more than 20 years maritime experience. He told the court that the *British Beech* had a crew of 25 Indian nationals and had arrived in Brisbane on the afternoon of 14 December 2011 after sailing from Malaysia.

Umesh Dalvi held an Indian master's certificate of competency, which was issued in 1998. He had sailed with various companies as master and chief mate and had also worked as a marine superintendent. This was his third assignment on board the *British Beech* and he had joined the ship around five weeks before 15 December 2011.

The Kiandra and BT7



Figure 2

BTB was a business providing a range of marine and marine support services. BTB was the trading name for a group of associated companies. Significant for these findings, BTB was the owner as at 15 December 2011 (via two associated companies) of the tug *Kiandra* and the dumb barge *BT7*. The business was operated primarily from a depot at Murarrie.

¹ Exhibit G4

The tug *Kiandra* (figure 2) has an overall length of 15.16 metres, breadth of 4.57 m and a depth of 2.51 m. The vessel was a commercial tug boat and its area of operations was the Brisbane River and Moreton Bay.

The *British Beech's* stores were being loaded from the barge BT7. It is pictured in figure 2 adjacent to the *Kiandra* in figure 2. BT7 was 23.56m long and had a beam of 6.1m. It had no propulsion of its own and was dependent upon tug assistance for all movement. BT7 was also owned and operated by BTB and was mainly used for provisioning ships at berth in the port of Brisbane.

On 15 December 2011, the tug and barge combination was crewed by Mr Fenton and deckhands, Steven Cox and Lyndsay Marquart. Usually, the resupply of a ship within the port by barge would require a tug and barge crew of a master and one deckhand. However, as the number of lifts was expected to be more than 30, an extra deckhand was assigned to the barge.

Mr Cox had been employed by BTB for four years and Mr Marquart 14 years at the time of Mr Fenton's death. Both had been trained by, and worked closely with, Mr Fenton during those periods.

The inquest also had access to evidence from two former employees of BTB, Mr George Brown and Mr Arnold Tillgren. They were interviewed by the WHSQ investigator, Ms Tollenaere, in relation to their knowledge of any similar incidents to that which led to the death of Mr Fenton.

Mr Brown worked for BTB between 2002 and 2006. He recalled an incident in late 2003 or 2004 during which he and Mr Fenton were aboard a barge supplying provisions to a ship moored at the Caltex Refinery. This involved a container and lifting mechanism like those involved in the incident on 15 December 2011.

On the occasion recalled by Mr Brown, as the crane aboard the ship began the process of returning an empty container to the BTB owned barge, the container clipped the rail of the ship causing it to tilt. This led to the container falling from the slings holding it and crashing onto other containers on the deck of the barge.

Mr Tillgren worked for BTB from 1980 to 2005. He recounted an incident whereby a similar empty container became unsteady due to strong winds while being returned to the deck of a BTB operated barge with he and Mr Fenton aboard. This container also slipped out of the slings designed to hold it, falling around four metres to the deck of the barge without causing any injury. Mr Tillgren recalled this incident occurring in 2002 while provisioning a BP operated ship in the Brisbane River.

These incidents are recorded only to inform the discussion later in these findings about the significance of Mr Fenton remaining in the "drop zone" of the BT7 as a container was being lowered.

I note that BTB ceased all business operations prior to the conclusion of the inquest.

The stores crane



Figure 3

The *British Beech* was fitted with a non-luffing² Sekigahara Seisakusho stores crane (Figure 3), which had a slewing radius of 7.2 m. The crane was mounted about 2.5m from the ship's port side and plumbed over the ship's side a maximum distance of about 4m. The maximum hoist height was 24m with a safe working load of 3.0 tonnes.

The crane was driven from the deck of the *British Beech* using a remote control pendant, which was linked to the crane by an electrical "umbilical" cord. The pendant reached to, and was used from, a position at the handrail outboard and just aft of the crane pedestal. From this position, the operator could monitor both the deck of the ship and over the side while controlling the crane.³

As the crane jib could not be luffed, any load to be lifted or landed using this crane had to be positioned under the hook. Therefore, any supply barge or vehicle had to be repositioned if multiple loads were involved.

The crane and rigging equipment were inspected on 15 and 16 December 2011 by Craig Servin and engineer, Dr Frank Grigg. I am satisfied on the basis of their evidence that both the stores crane and the rigging equipment used to move the stores container were serviceable and that neither the crane nor the rigging equipment contributed to Mr Fenton's death.

² To raise or lower the boom of a crane or derrick.

³ Exhibit G4, page 2

The stores container

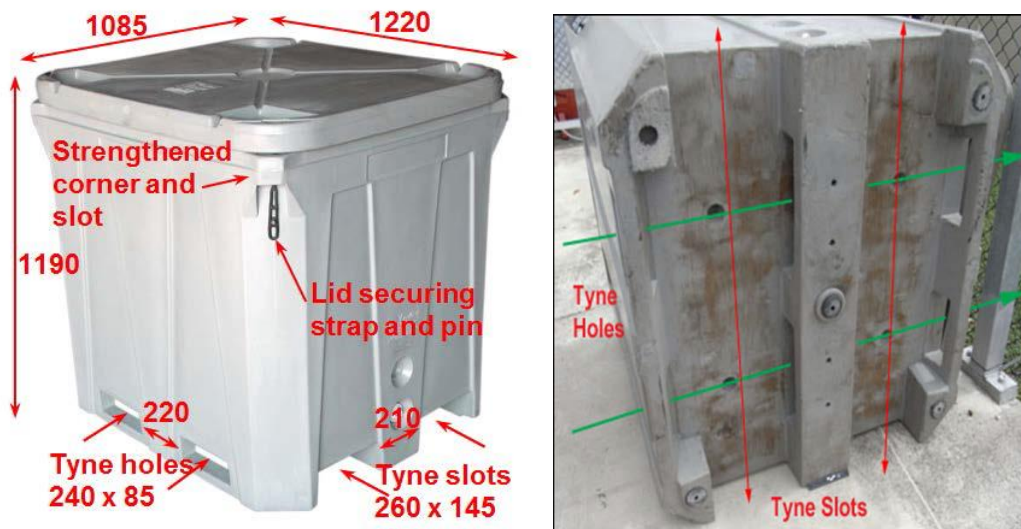


Figure 4

The plastic insulated stores container involved in this incident (Figure 4) was of a design, which had been in production since the mid-1970s. It was made of food grade polyethylene in a sandwich construction of varying thickness. The container had a capacity of about 1 cubic metre and 1,000 kg. The empty container was weighed after the incident at 98 kg, of which the lid weighed about 16 kg.⁴

The base of the container included four way 'fork entry' in the form of two slots and two holes. The 'tyne' slots were slightly tapered vertically, about 260 mm wide and 145 mm high and open to the ground. These slots were separated by about 210 mm in the base moulding and allowed forklift and hand pallet lifting equipment tyne entry under the containers. The tyne holes, perpendicular to the slots, were about 240 x 85 mm in size, separated by about 220 mm of material. The holes allowed the container to be lifted and rotated to quickly empty its contents.⁵

The upper four corners of the container were also strengthened, with the original intent to be able to use these corners to fit slings or some other arrangement to allow top lifting. Slots in the corner, about 75 x 25 mm in size, also allowed the lid securing strap to pass through to the retaining pin. There were no markings on the container to indicate slinging points or lifting methods.⁶

It was common ground at the inquest that the grooves with the tyne holes were designed for the insertion of straps, which are then attached to the hook of the crane. This has the effect of ensuring that the container, even if tipped while being lifted, cannot come loose from the straps (as long as the straps are, in turn, secured properly to the hook of the crane). The tyne slots serve the purpose of enabling forklifts to insert their prongs with more stability than would be the case with a flat base.

⁴ Exhibit G4

⁵ Ibid

⁶ Ibid

The evidence of Mr Cox, Mr Marquart and the former employees of BTB established that it was in fact a regular, if not exclusive, practice to place the straps used for lifting these containers through the open tyne slots. This had the benefit of being far easier and quicker than slotting the straps through each enclosed end of the alternate grooves. However, it had the major detraction of enabling the container to fall if enough lateral force was applied.

Job Hazard Analysis

Captain Dalvi's evidence was that the usual steps involved in re-provisioning the ship were followed on 15 December 2011. This involved him giving orders via the Chief Mate to the relevant Third Mate to supervise the re-provisioning.

It also entailed the Captain authorising a Job Hazard Analysis (JHA). This document was based on a pro-forma or "common" JHA and the contents are to be discussed with all crew members involved in the prospective task during a planning meeting. The meeting for this particular re-provisioning task had occurred earlier on 15 December 2011. Each of the crew involved signed the JHA acknowledging they had read it.

The JHA focused on the lifting phase of the transfer from the barge and included the following recommended actions and procedures to mitigate hazard:

- *Always remind the boat person to stay clear from the weight to be lifted.*
- *Always keep the tag line tight and keep adjusting the tag line to avoid swinging of the stores/provision and/or pallet.*

According to the ATSB report⁷, BTB's documentation included a safety management system, including a document entitled *Job Hazard Analysis Task loading and unloading ships stores*. Included in this JHA were the following:

- *Please be aware of containers or other hazardous items falling or being knocked from the ship.*
- *You must at all times be wearing your lifejacket and helmet.*
- *When stores are lifted off deck all persons are to retire to a safe distance in case of a spill.*
- *At no stage should any persons stand under or near an empty container being returned from the ship to the deck of the barge until it has reached below shoulder height.*
- *At all times a crew member from the ship should observe the lifting and lowering operation.*

Relevant content of the JHAs is discussed later in these findings.

⁷ <https://www.atsb.gov.au/media/4086981/MO-2011-011-Final.pdf>

Delivering provisions to the British Beech

The *British Beech* had arranged via its agent, Inchcape Shipping Service, for the delivery of provisions via barge while it was moored in the Port of Brisbane. Inchcape contracted with BTB to provide that service.

On the morning of 15 December 2011, Mr Fenton met with Mr Cox and Mr Marquart to discuss their tasks for the day. After completing another job, the men began loading the *BT7* with stores for the *British Beech*. This primarily consisted of items loaded onto timber pallets, which were then shrink-wrapped. The load also included two large plastic insulated containers containing frozen food. The barge, transported by the tug *Kiandra*, set off for the *British Beech* at approximately 1:00pm and came alongside at around 2:00pm.

The inquest heard that there was radio communication between crew members when the *Kiandra* came along the *British Beech*. However, after the *BT7* was secured by ropes to the rear port section of the *British Beech* there was no radio contact between the vessels. All communication was subsequently effected by way of hand signals. On pulling alongside, the deck of the *BT7* was approximately 12 metres below the deck of the *British Beech*. Its motors continued to run and its rudders were directed to enable the *KT7* to maintain its position next to the *British Beech*.

Several crew of the *British Beech* had been assigned to the task of collecting the stores, unpacking them and returning any empty containers. There were two Third Officers involved as the task progressed, Amitosh Fnu and Vinay Sharma. This led to confusion about who, if anyone, was in charge of the job. Operating the crane was the most senior non-officer, the older and more experienced Bosun, Alexio Masceranhas.

Evidence from the Master and crew of the British Beech

As noted above, the master and relevant crew members of the *British Beech* gave evidence on 19 December 2011. The following is a summary of their evidence.

Umesh Dalvi

The master of the ship was Umesh Dalvi. He said that the ship had docked in Brisbane on 14 December 2011 at 1:24pm after travelling from Malaysia. His evidence was that the Bosun, officers and ordinary seamen on the ship were trained to operate the port side crane on the ship. The seamen received training ashore at various institutes, and also received specific training from BP, with training on board being the responsibility of the chief officer.

Mr Dalvi said that loading stores from a barge onto the ship was a recurrent and routine job and took place both at sea and while the ship was anchored. The ship received different types of packages, and the crew were trained in handling the loading of stores. His evidence was that the crew had undergone training for the loading of provisions, had all operated the cranes on the ship, and understood their jobs in loading and unloading.

Mr Dalvi said that the port side crane was used at least once each month for loading provisions, but the crane was also used for other operations on board the ship. After he joined the ship he did an audit of the ship and its equipment, and he did not find any problems in the crane or its operation. The crew were trained in all the ship's lifting equipment, not just the port side crane. A crew member's training needed to be refreshed at least once a year.

Mr Dalvi had approved the Job Hazard Analysis for receiving and shifting of provisions and stores. Once approved, it was the duty of the chief officer to explain it to the crew. When there was a job involving this task, the chief officer would go through the Job Hazard Analysis with the crew.

Mr Dalvi said that when the ship arrived at its berth at Pinkenba, he held a "safety moment" where he briefed the crew on operations to be done while the ship was at berth. That included the operation where stores would be received from a barge. The crew were advised of the procedures and guidelines to be followed.

While Mr Dalvi accepted that the Job Hazard Analysis did not have a specific provision for returning containers to the barge, he said that "picking up the stores and landing is part of the same thing" and "it's the same process in the reverse order". Mr Dalvi said he had never used a radio for communication between a barge and ship while loading provisions. His evidence was that there was a standard system of hand signals used when the crane was operated.

Mr Dalvi said that he was on the bridge at the time of the incident and was informed of it by the Chief Officer.

Murali Munisamy

Mr Murali Munisamy held the position of ordinary seaman. He had been on the *British Beech* for six months and had worked as a seaman on ships for about eight years. His main duties were cargo watch and deck maintenance and he was involved in the loading of provisions onto the "*British Beech*" on 15 December 2011. His role was to remove the provisions from the containers when they came on board, and to put them into the galley.

Mr Munisamy's evidence was that the other crew involved in the operation were the Bosun, who was controlling the port side crane, and two third officers. He recalled some communication between the ship and the barge concerning the need for a heavy line.

When asked whether he had any opinion as to how the container that fell onto Mr Fenton came free, he conceded that there might have been a mistake in the position of the sling. He said that he had received training in respect of lifting gear on the *British Beech*. That involved training in slings, lifting gear, chain block, and he received a lifting gear certificate. However, he had not been trained on attaching slings or chains to items.

When he was shown the Job Hazard Analysis⁸, Mr Munisamy agreed that he had signed it on 15 December 2011. He was adamant that he signed the form prior to the lifting of provisions on that date, and recalled that the procedure was that he sign the Job Hazard Analysis form and then there was a toolbox meeting to discuss the job. He agreed that he did not read the JHA at this time as he had read it before.

Mr Munisamy said that when the container fell, the Bosun was operating the crane, and he was standing at the ship's rail. On each occasion stores are to be loaded on board, there is a toolbox meeting beforehand. In that meeting the points of the Job Hazard Analysis are discussed. The toolbox meeting was conducted by the chief officer.

Mr Munisamy said that a blower was operating close to where they were working at the time. It was loud and made it difficult for him to hear.

Vinay Sharma

Vinay Sharma was a third officer on board the ship. He said that there was a meeting with the captain before they arrived in port where the operations that would occur were discussed, including the loading of provisions from a barge.

Third Officer Sharma's evidence was that he had used similar cranes on other ships. He arrived after the loading operation had commenced. When the first container was being sent back to the barge, he noticed that it became unbalanced when it was lifted off the deck. He told the Bosun to put the container back on the deck, and he went and adjusted the slings.

The chief cook returned some boxes of fish as they were spoiled. The boxes were put back into the container. He saw the Bosun lift the container off the deck, and when it was clear of the railing the container was swung over the side of the ship. At that point he turned to assist other crew with emptying the second container on the deck.

According to Third Officer Sharma, the container being returned to the barge did not clip the railing at all. He considered it to be the Bosun's job to make sure that the deck of the barge below was clear for lowering the container.

Third Officer Sharma said that after he heard a "big sound", he ran to the railing and saw that the container had fallen off the slings and was on the barge with a person lying beneath the container. He saw that the slings appeared intact and that they were positioned between the deck of the *British Beech* and the deck of BT7.

Third Officer Sharma accepted that it was normal to have a "toolbox meeting" before each operation, including the loading and unloading of provisions but he did not attend the "toolbox meeting" in this case because he came along afterwards.

⁸ Exhibit D7

In respect of the Job Hazard Analysis not making any specific mention of returning containers to a barge, Third Officer Sharma said that *"It's commonly understood that if a box, barge box is coming on board that it has to go down The barge won't leave unless we give the box back."* It was a common practice and *"the same precaution while picking up the container being carried out while lowering the container."*⁹

Third Officer Sharma stated that he assisted the Bosun with the slinging of the empty container to be returned to BT7. He recalled that the slings could be either passed through the closed holes on the bottom of the container or through the open slots going in the other direction. He had never been given any training or instruction with respect to slinging that particular container.

Third Officer Sharma's evidence was that he had been involved in this operation many times before and accepted that it was his responsibility as the senior officer present to make sure that the Job Hazard Analysis was complied with and, in particular, that a warning was given to persons on the barge that a container was being returned. He accepted that he did not ensure that the warning was given on this occasion and that he had left this to the Bosun. He agreed that no one had called out to the crew of the barge warning that the container was being returned.

Third Officer Sharma told the inquest of his observations when questioned by Counsel Assisting:

Well, tell us what you observed then?-- Then the container was lifted off the deck and the Bosun was - when it was about the height of the railing, he swing the - of the ship and when so it was clear of the railing then I thought of [indistinct] and is quite clear of the deck and it can be lowered. So I turned and came to - near to the second container towards these other guys.

All right. I'll just ask if he can be shown photograph 13, please? So the crane swung the container out, over the side of the ship?-- Yes, sir.

As it was doing that, did you see it clip the railing at all?-- No. No, sir.

You're quite sure that definitely didn't happen or could it have happened?-- No, sir. It was - it didn't happen.

Amitosh Kumar Fnu

Amitosh Fnu was the other third officer on board the ship. His evidence was that he had been at sea for a long time, and he had never heard of having an officer in charge of a provision lifting operation. In this case, the Bosun was operating the crane, and was directly in touch with the operation, and therefore there was no need for any officer to supervise.

⁹ Transcript, 1-96, Line 20

Third Officer Fnu said that the first container's chains were too long and that both he and the Bosun had communicated to the barge crew by use of hand signals to have them adjusted. After the chains had been shortened the container still only just cleared the railing of the ship.

The containers did not have any markings to indicate how they should be slung and he had never dealt with this type of container before. Third Officer Fnu's evidence was that he believed that the slings should have been passed through the closed tyne slots on the bottom of the container. He could not explain why this was not done and had not taken any notice of how the slings were placed on the container by the barge crew. He left this to the Bosun, who he considered had superior knowledge of and greater experience in lifting operations.

Third Officer Fnu said that the crane had the capacity to jerk when it is swung or pivoted around and that this was likely to occur if the operator of the crane was not careful using the remote operating pendant.

Before the first container was taken off the deck, Third Officer Fnu asked Murali Munisamy to place some boxes of spoilt fish back in the container. One of those boxes was full, which he estimated to weigh 5-6 kgs. The second box was 2-3kgs in weight. He first became aware that the container had fallen to the barge when he heard the other third officer yelling out.

He went to the side of the *British Beech* and looked down and saw a person lying flat on the barge and the other barge crew members running towards the injured person. After speaking to the chief officer via radio he asked the Bosun how the container could have fallen from the sling. The Bosun did not reply but simply hung the remote control unit of the deck crane onto the deck railing.

Third Officer Fnu said that there was a conversation with the Bosun and the chief officer about the collection of stores from the barge, and the chief officer directed them to read the Job Hazard Analysis form and sign it prior to commencing the work. He signed it at about noon on 15 December 2011. He said there was no toolbox meeting conducted on the day for the activity. His evidence was that the chief officer had simply told him that the stores had to be picked up.

Third Officer Fnu said there were 2 standard hand signals used in crane operations. The first involved making a circle with one hand and finger pointed down for lowering of the crane. The second involved making a circle with one hand with finger pointing up for raising the crane. He thought that hand signals were generally used when the crane operator was out of sight of where the crane was going and on this occasion did not remember any hand signals being used by the Bosun.

Although Third Officer Fnu was unloading the second container he told the inquest that he observed the initial part of the process by which the first container was returned. He told Counsel Assisting and State Coroner Barnes:

You saw it as it was being raised above the ship's rail, is that correct?-- Yes, sir. They were lifting of the - the last time when I saw it, it was just a [indistinct] the ship's rail. It was just over the ship's rail, half of the box inside the ship----- Yes?-- -----and half of the box outside the-----

And you didn't see any contact between the box and the ship's rail?-- No, sir.

STATE CORONER: But you - you didn't ever see the whole box outside the rail, for example then?-- No, sir. I didn't saw that.

MR JOHNS: Did you make an observation about whether the box was stable at that stage, or was there something about it that-----?-- No, sir. At that time it was stable.

The arrival of the second container aboard the *British Beech* coincided with the arrival of Third Officer Vinay Sharma. Third Officer Fnu assisted the other crew to unload the second container and this saw him carrying items into the interior of the ship and away from the lifting area.

This is significant as the JHA for the task required the most senior person present to take on a supervising or oversight role. It was specified that this person was not to be involved in the work required to carry out the task but was to watch out for hazards and to ensure overall safe operation. It was not clear from the evidence of Third Officer Fnu that he in fact considered himself to be the person in overall charge.

It appears that the arrival of Third Officer Sharma caused a degree of confusion on exactly who was in overall charge and who ought to take on the oversight role (though this was not in fact discussed in any event).

Alexio Mascarenhas

Alexio Mascarenhas was the ship's Bosun. His evidence was that he had been involved in collecting provisions from a barge many times before. He had particular experience in using the port side crane, as all ships have similar cranes.

The Chief Officer had told him that he was to pick up the cargo and that he was to operate the crane. He read the Job Hazard Analysis and signed it on 15 December 2011 before commencing the provisioning.

Mr Mascarenhas said that when the first container was lifted off the barge the chains were too long. He was told by one of the crew on the barge to put the container back on the barge, and they adjusted the chains. He said that there were no problems bringing the second container onto the deck of the ship.

He placed the empty container on the slings and pushed the slings through and out of the other side of the container. On reflection, he thought that the fish boxes placed in the returning container may have caused it to become unstable. He recalled that when he lifted the first container off the deck it appeared unbalanced, and the third officer Sharma adjusted the slings.

Mr Mascarenhas said that he was also holding a “tag line” on the crane to control the container’s lateral movement. He accepted that if the slings had been put through the enclosed holes of the container it would not have fallen. He denied that he was holding the tag line too tight thereby causing the container to jerk free of the slings.

He believed that the persons on the barge were out of the way of the container as it was being lowered as he had seen two crew members move to the aft of the barge. He did not signal to the crew members below on the BT7 to indicate that he was lowering the container. He had assumed that Mr Fenton was watching the operation of the crane from the deck of the BT7.

Mr Mascarenhas’ evidence was that at the time the container was being lowered he was looking at the hook and wire on the crane rather than down at the persons on the barge.

Mr Mascarenhas did not recall how the container was slung when it came up from the barge. He said that he put the slings through the open slots rather than the closed slots and it was “okay when we hooked it up”.

When he was interviewed only hours after the incident by Ms Tollenaere, Mr Mascarenhas did not offer a precise explanation as to why the container had left the slings although offered up the strength of the wind as a possible reason. At the inquest he denied citing this as a reason and it was common ground that the wind was relatively light and most unlikely to have caused any problems. Mr Mascarenhas gave the following evidence when questioned by Counsel Assisting:

Do you remember when you spoke to the lady from Workplace Health and Safety that afternoon, Kym, that - saying - or telling her this, that "the container was connected to the crane", as you've told us, "that it started to move around in the wind"?-- No, I didn't say the wind.

And - you didn't - did you ever discuss the wind with her in any way?-- No, no, no, not the wind.

In relation to what he saw in the moments prior the container falling, Mr Mascarenhas gave the following evidence when questioned by Counsel Assisting:

Well, tell us what you saw happen then?—After swinging it I was lowering it, lowering it and then I was watching the wire and the hook. Suddenly, after that, the Third Officer just said "Bosun", he said and at that time I didn't know what happened and the box slipped, I think, sir.

Which Third Officer said "Bosun"?-- Vinay.

All right. What did you see of the container; did you see it falling?-- No, no, that is the problem. We both didn't see and he didn't see even when I asked him if he have seen it.

Did you mention though what you saw?-- No, I didn't see [indistinct] falling. Like, where it fell, how it fell down and all that.

All right. When's the last time you remember seeing the - the container; where was it when you last saw it?-- Last saw it, maybe it was on - on the barge.

No, sorry. When you were lowering it, were you watching - you say you were watching the hook as you were lowering it?-- Yeah, lowering it.

No doubt you could still see the container itself though, couldn't you?-- Yeah, a little bit. It had gone little bit down.

All right. How far down do you think? How far down from the - from the - from your deck?-- Maybe from the - the ship, like, little bit down below.

Can you say in metres or yards or feet, how low - below your deck it had gone?-- Yeah, below the deck [indistinct] maybe half the ship, like.

Okay. Did you see the container become unstable at any stage?-- No, no, no, I didn't see those.

Mr Mascarenhas was adamant when giving evidence that the container had not struck the railing of the ship while it was being swung over the port side.

Evidence from the crew of the Kiandra

Steven Cox

Steven Cox had been employed with BTB for approximately four years by 15 December 2011. Over that time he worked regularly with Mr Fenton. His evidence was that Mr Fenton was the operations manager as well as the workplace health and safety officer. He said that this meant that Mr Fenton was in charge of providing a safe workplace and ensuring that the policy and procedures were followed. The training he received was “*brief mentions on what to do and what not to do*”.

Mr Cox said that he and Mr Fenton were involved in the provision of stores to ships two or three times each week. He said that the rigging he used to lift the containers onto the *British Beech* was the usual type that they had used. He had not witnessed any objects fall from slings in his time with BTB. However, he said the “*general rule of thumb was just stay clear of anything that may be coming up or coming down*”.

Mr Cox said that the general practice when a load was being lifted was to give the ship's crew a hand signal to start pulling it up. When asked how the barge crew became aware of load was on the way down Mr Cox said that the height of some ships made it impossible to see the deck of the ship but he could clearly see the crew on the *British Beech*. He said frankly:

Some crews would notify you. Sometimes you would see the shadow of something on the barge coming. Other times you might happen to be watching at the time and see it.

Mr Cox's evidence was that the method used by crews who did notify the barge crew that a load was on the way down was "a noise or a sound or something". He had no expectation on 15 December 2011 about how he would be notified that a load might be returning. He said that each crew was different and "this was a foreign crew so I had no idea". He said that he had not received any training or been given any instruction about one person on the barge assuming the role of keeping a watch on the deck.

Mr Cox could not remember whether hard hats were available but he was not wearing one on the day, and he had not seen Mr Fenton wearing a hard hat previously.

Mr Cox said that a different rigging system involving a steel cage was now in place for the containers that stored frozen goods. He was not aware of any system apart from a cage or slings to hoist the containers like the one that fell from the *British Beech*. He did not see the container fall from its slings on 15 December 2011. After the container was lifted to the ship's deck, Mr Cox had moved to the stern of the vessel and was looking out across the river when he heard Mr Marquart call out "Peter".

Mr Cox spoke of communication difficulties he experienced with foreign crew, but said there had never been a system involving the use of the radios or whistles to signal the movement of cargo. He said that because ships are very noisy visual hand signals were always used. He agreed that no one from the barge had attempted to communicate verbally with the crew of the *British Beech* about the task at hand.

Mr Cox said that Mr Fenton could have moved out of the slew radius of the stores crane and into a position of safety by moving five metres to the bow or on to the stern of the barge. However, he agreed that in the absence of a warning from the crew of the *British Beech* Mr Fenton would not have been aware exactly when the crane would be returning the empty container to the barge.

In terms of rigging the containers, Mr Cox said that he had been instructed "to slide the slings under the cut outs in the container and connect the chains to the end of the slings and, when lifting, hold them as far apart as possible until the weight had come on to properly support it".

Dr Grigg's evidence was that this had the effect of providing the maximum amount of stability to the loaded container as it was lifted, but was not superior to using the slings through the closed in tyne holes.

Lindsay Marquart

Mr Marquart had been employed by BTB for 14 years by December 2011 and had worked with Mr Fenton for over ten years. Mr Marquart held a current Crane Operators Certificate, Dogger's Certificate, Occupational Health and Safety Certificate and Senior First Aid Certificate.

Mr Marquart's evidence was that although Mr Fenton was the workplace health and safety officer at BTB, he had seen him do very little in relation to that role, apart from making sure with workers had personal protective equipment. He said that hard hats were available on the tug but he did not recall either Mr Fenton or Mr Cox wearing them.

Mr Marquart said that he would rig a refrigerated container using the closed tyne holes where they were available. However, on many occasions it was not possible to do so because of the positioning of the container on the barge, and recourse was had to the open tyne channels.

Mr Marquart's evidence was that hand signals were used to notify the crew of the *British Beech* that the first container was ready to be hoisted. He said the normal mechanism to find out a container was on the way back down was for the ship's crew to shout out 'O'. This was the method used on most occasions because it was not practical to use hand signals when the barge was positioned directly under a ship's hull.

Mr Marquart said that no one was assigned the role of lookout on the barge. He had not received any training in relation to safe places on the barge in terms of an exclusion area. He knew that it was risky to stay in the drop zone – the area directly under the crane.

His evidence was that Mr Fenton would also normally leave the drop zone and was unsure why he did not on this occasion. He was in the wheelhouse of the barge adjusting its position at the time the container fell. He was looking out towards Fisherman's Island and not at the *British Beech*. He did not see what caused the container to become free of the slings but in his opinion the container *hit the handrail of the ship while the crane was slewing from the ship out board*.

Mr Marquart said that he was aware of a previous incident in which a container being returned to a barge had fallen out of slings. On that occasion it was caused by the crane slewing too fast and then slewing back, causing a container similar to the one that fell onto Mr Fenton to flip out of slings. He said that Mr Fenton was not present at the time of the previous incident but he spoke to him about it immediately afterwards.

Mr Marquart said that after Mr Fenton's death a steel cage with top lifting capacity was employed to lift containers.

Medical attention and aftermath

On becoming aware that Mr Fenton was injured, Mr Marquart immediately attended to him and then called the Queensland Ambulance Service (QAS). He was provided with instructions on the first aid that he was to give to Mr Fenton. The responding QAS unit travelled to the Brisbane Water Police depot at Whyte Island and from there were transported by boat to the *BT7*.

Mr Fenton was then transported by boat to the waiting ambulance, which then set off for the Princess Alexandra Hospital (PAH). Despite ongoing attempts to stabilise and then revive Mr Fenton it appears he died en route to the PAH and was pronounced deceased on arrival.

Autopsy results

A full autopsy examination was carried out on 16 December 2011 by experienced forensic pathologist, Dr Philip Storey.

The autopsy revealed evidence of severe chest injury. There were multiple bilateral rib fractures with many ribs having been broken in multiple places. This would have resulted in the rib cage being unable to expand and oxygenate the lungs. The autopsy also found blood in both chest cavities. The lungs were collapsed and haemorrhage into both lungs was noted. A right pneumothorax was noted on the CT scan, which would further interfere with the ability of the lungs to supply oxygen to the blood. The severe blood loss and chest injuries resulted in cardiorespiratory arrest.

Dr Storey also found trauma to the back bone with complete fracture dislocation at the level of the intervertebral disc between T3 and T4. This was associated with trauma to the spinal cord and this injury would have resulted in paraplegia.

Dr Storey also noted a laceration to the upper rear of the skull however, no underlying skull fracture was identified.

After considering all of the available information Dr Storey issued a certificate listing the cause of death as:

- 1(a) *Multiple injuries, due to, or as a consequence of;*
- 1(b) *Impact by falling crate.*

Selected Investigation findings

Dr Frank Grigg, a forensic engineer, was engaged by WHSQ to inspect the equipment used on 15 December 2011. He found no defect with the deck crane on the *British Beech*, which would explain the falling container. Dr Grigg ultimately concluded:

There appears to be a high probability that one of the lifting straps became caught under the middle rib on the base of the bin when it was resting on the deck with the straps slack and that this was not noticed so that when the lift commenced the bin was balanced on only one

strap under the middle rib while the other strap was in a slot and hence loose. When lifted in this way the bin would be very insecure and likely to fall out of the slings with only a very minor disturbance, such as a gust of wind or stopping and starting the hoisting (lowering) or slewing of the crane.

In his comprehensive report, the MSQ investigator Mr Servin came to the following (selected) findings:

Causal factors

This investigation has determined the following casual factors for the incident:

- 1. The container was inappropriately slung (by the crews of both vessels) in a manner preventing the load from slipping and falling out of the slings.*
- 2. Peter Raymond FENTON remained within the danger zone during the craning activity.*
- 3. Effective communication between crews was not utilised to alert each other of the crane and load movements.*
- 4. There was no dedicated crew member of the "BRITISH BEECH" performing the function of lookout or spotter during the craning activity as per their JHA procedures.*
- 5. The Bosun of the "BRITISH BEECH" did not follow procedures set out in the JHA to ensure that the load was stable in the slings after adjusting it and before swinging it out over the handrail of the "BRITISH BEECH".*
- 6. The Bosun of the "BRITISH BEECH" did not follow procedures set out in the JHA to ensure that no person was directly beneath the path of the load before swinging the load out over the handrail of the "BRITISH BEECH".*
- 7. There was no situational awareness as to the progress of the operation exercised by any of the Bowen Tug and Barge crew at the time of the incident.*
- 8. One of the following four scenarios developed resulting in the container falling from the sling:*
 - The near empty container, after its slings had been adjusted, had one sling caught under the centre foot of the container and when raised became unstable and subsequently fell from the slings (possibly aggravated by the inclusion of the boxes of fish rejected by the chief cook of the "BRITISH BEECH"); or*

- *The near empty container being slung through the open slots, parallel to the feet, had the slings move in towards each other towards the centre of the container, altering its centre of gravity and ultimately making it susceptible to fall from the slings (possibly aggravated by the inclusion of the boxes of fish rejected by the chief cook of the "BRITISH BEECH"); or*
- *The near empty container being manoeuvred over the side of the ship, hit or clipped the hand railing causing it to overbalance and fall (possibly aggravated by the inclusion of the boxes of fish rejected by the chief cook of the "BRITISH BEECH"); or*
- *The near empty container being once manoeuvred over the side of the ship, bounced off the ships side causing it to overbalance and fall (possibly aggravated by the inclusion of the boxes of fish rejected by the chief cook of the 'BRITISH BEECH').*

Contributing factors

This investigation has determined the following contributing factors as to the cause of the incident:

1. *No instructions were placed on the insulated container to identify appropriately safe lifting points and to indicate recommended techniques for safe lifting in compliance with the manufacturer's specifications.*
2. *Peter Raymond FENTON was not wearing personal protective equipment in the form of a hardhat which was compliant with the Australian Standard AS/NZS1801.*
3. *No prohibited or safety zone was created on the deck of the barge to restrict the movements of crew into the danger zone and ensure their safety while loads were being lowered or raised.*
4. *Every crew member of the "BRITISH BEECH" was actively involved in the activity with no person taking on a solely supervisory capacity to oversee the safety of the operation and ensuring adherence to set procedures outlined in their JHA.*
.....
6. *The crew members from the "BRITISH BEECH" involved in the operation did not read the Common Job Hazard Analysis (JHA) which outlined all of the specific risks and procedures.*
7. *Bowen Tug and Barge possessed no written procedures outlining craning operations in either their OH&S Policies or their Safety Management System Plan."*
.....

ATSB Transport Safety Report

The ATSB Transport Safety Report “*Fatality while storing the products tanker British Beech in Brisbane on 15 December 2011*”¹⁰ also identified a number of contributing safety factors, which largely overlap those identified by Mr Servin:

- *The stores container was poorly rigged on board British Beech. As a result, it was easily unbalanced, and toppled free from its slings as it was being lowered to the barge.*
- *Bowen Tug and Barge had identified the need to spread the slings when lifting a stores container. However, there was no process in place to ensure that ships' crews were advised of this to ensure its safe return from the ship. [Minor safety issue]*
- *British Beech's crew did not warn the crew of the barge of the returning container and the barge crew were not paying attention to the operation. As a result, they were not aware that the container was being returned.*
- *The master of the tug and barge was in a position of danger when he remained in the fall zone under the suspended load.*
- *The crane operator did not adequately check the landing area for the load and incorrectly assumed that the tug master was clear of the danger zone.*
- *On board British Beech, there was no agreed person in charge of the operation. As a result, the crane operator was, in the absence of any other clear direction, the person in charge.*
- *The job hazard analyses that had been carried out by Bowen Tug and Barge and the crew of British Beech, were not complied with. This removed multiple defences to the accident and exposed personnel involved in the operation to unnecessary risk. The implications of these decisions had not been considered by the crews.*
- *Bowen Tug and Barge's safety management system guidance for barge storing operations did not designate roles or responsibilities to specific individuals and a system for communicating with the ship's crew was not discussed and established. [Minor safety issue]*
- *Bowen Tug and Barge did not have an effective compliance auditing process in place to ensure that its employees were following the training they had received and the guidance contained in the safety management system documentation. [Minor safety issue]*
- *Compliance auditing on board British Beech had not identified that requirements of the job hazard analysis were not being followed by the crew during storing operations. [Minor safety issue]*
- *The lack of any record of incident reporting by Bowen Tug and Barge, and its employees, indicates an ineffective reporting culture within the company. Hence, the opportunity to learn from previous incidents was lost. [Minor safety issue]*

¹⁰ <https://www.atsb.gov.au/media/4086981/MO-2011-011-Final.pdf>

Conclusions

Subject to the following additional clarifications, I am generally satisfied that all of the causal and contributing factors identified by Mr Servin and set out above are supported by the evidence. I adopt them for the purpose of these findings.

The main area of contention with regard to the findings of Mr Servin listed above was in relation to the second “causal factor”; namely the fact Mr Fenton remained within the danger zone during lifting and descent.

The family of Mr Fenton did not adopt this finding in their submission (as they did others made by Mr Servin) and submitted that more weight should be given to the actions of those aboard the *British Beech* when assessing the cause of Mr Fenton’s death.

On this issue Counsel for BP Shipping and the crew of the *British Beech* submitted:

The inexplicable decision of the deceased to remain in the "danger zone" or "drop zone" was a significant contributing factor. It was said to be a "rule of thumb" amongst the barge crew that they should stay clear of any loads going up to a ship or coming down. Unlike the other barge crew, the deceased did not remove himself from the loading area at any stage. The deceased was also aware of other incidents where contents of containers had fallen whilst being lifted or lowered, and indeed whole containers falling onto the deck. As Mr Cox in his evidence conceded, one cannot rely on the crew on the ship above doing the right thing, but that one must take common sense precautions to avoid risk of injury or death.

The family accepted the submission of Counsel Assisting that Mr Fenton was likely to have been aware of previous sporadic incidents where loads had fallen in similar situations. This supports the finding that Mr Fenton’s positioning, albeit nothing more than a short lapse of concentration, was a contributing factor in the events that led to his death.

The evidence was that there was a clear line of sight between the decks and the crews of the BT7 and the *British Beech*. The Bosun of the *British Beech* was positioned at the rail of the ship. I consider that the Bosun made a gross error of judgement in not checking the area below the 98kg load that he controlled.

The Bosun also failed to communicate in any way the imminent descent of the container to those on the BT7. Having regard to the evidence of those with experience in the industry about the usual positioning of those in Mr Fenton’s situation it seems that the Bosun simply assumed that no one would remain in the loading zone.

However, this does not make the failure defensible because he was required to carry out a visual check and to communicate with the other crew pursuant

to the JHA. Such requirements are properly imposed precisely because it was foreseeable that a person may remain in the danger area notwithstanding the usual practice.

It is also surprising that in 2015 reliance is placed on hand signals and shouting verbal warnings as the primary ways of alerting those who might be at risk from falling cargo. It should not be difficult to engineer an alarm or siren that was triggered, for example, by the activation of the stores crane.

I am not able to reach a conclusion as to the precise cause of the container falling from its slings. In his evidence to the inquest Dr Grigg considered it unlikely that the two returned boxes of fish alone would have caused the container to become dangerously unstable.

It is likely that the boxes exacerbated a situation that was already unstable due to a failure to position the straps in such a way that the container was properly balanced. The crew on the *British Beech* agreed that they did not pay close attention to the manner in which the crew of the BT7 had rigged the containers. They incorrectly assumed that because the fully laden containers were secured through the open tyne holes it was safe to rig the empty containers in the same manner.

There was no evidence that fully laden containers slung through the open tynes had ever fallen from slings. The safest way to rig an empty container would have been through the closed tyne holes. At the same time, there was no communication between the crews about how to sling the containers.

Third Officer Sharma admitted that he had made some adjustments to what, he and the Bosun acknowledged, was a situation where the container was unbalanced when first lifted off the ship's deck. In those circumstances, I consider the Bosun and Third Officer Sharma should have had a heightened awareness of the potential instability of the container, and the risk that it might escape from the slings. However, both gave evidence that they were not focused on the load after it cleared the ship's rails.

Risk management policies and procedures

The inquest was provided with extensive documentation from BTB setting out workplace health and safety policies, though none of the current documentation dealt specifically with crane operations as involved here. The evidence from Mr Marquart and Mr Cox was that while they were provided with access to this material, they had only received limited training on matters that pertained mostly to the wearing of high visibility gear, steel capped boots and hard hats.

Insofar as there were practices in place for the wearing of hard hats these were not followed. Mr Cox told the inquest that while he had been initially instructed in the wearing of hard hats he would wear one only occasionally. It is clear from his evidence and that of Mr Marquart that it was usual for no hard hats to be worn during dogging work for BTB.

However, it is clear that the failure to wear a hard hat had no bearing on Mr Fenton's death. The other injuries he sustained were catastrophic and would not have been prevented by a safety helmet.

If there was any instruction on the need for a crew member to act as "look-out" then it was not followed on this occasion. It seems unlikely that it such a practice was regularly adopted. Conversely, I accept from the evidence that, while there was no formal training in relation to "exclusion zones" that it was well known that BTB staff were to stay clear of areas where loads were being raised and lowered.

Notably, Mr Cox told the inquest that sometimes a ship's crew would not give any notification that a load was on its way down to the barge and this was just one reason why it was always his practice (and in his experience, that of the other crew) to stay clear. The evidence of his colleagues was that Mr Fenton usually adopted such a practice, making it all the more puzzling why he chose not to on this occasion.

I accept the submission that the workplace health and safety policies aboard the *British Beech* were adequate insofar as they related to the loading and unloading of provisions via the deck crane. I am also satisfied that the operator of the ship took tangible steps to ensure the crew were aware of the requirements.

It is clear though, that aspects of the policy, which took the form of the JHA were not followed. In particular there was an acknowledged failure to ensure that one member of the crew oversaw the task without becoming actively involved. There was also a failure on the part of the Bosun to check the area below the load before lowering it. In addition he failed to provide any warning to the crew that the load was on its way.

The overwhelming impression left by the events is one of complacency on the part of the Bosun and Mr Fenton. As the most experienced men involved in the movement of goods between the barge and the ship, they are likely to have been involved in thousands of such manoeuvres without incident. This is likely to have led to complacency, which manifested itself in basic errors of judgement from both men, resulting in tragedy.

The same conclusion was reached in the ATSB report into this death:

It is likely that both the ship's and the barge's crew viewed the storing operation as a mundane task and had, therefore, become complacent and developed a false sense of security about the dangers associated with loading and unloading stores. Consequently, the practices followed by both crews during the storing operation resulted in the breakdown of several identified risk minimisation controls contained in the respective JHAs.

Findings required by s. 45

I am required to find, as far as is possible, the medical cause of death, who the deceased person was and when, where and how he came by his death. As a result of considering all of the material contained in the exhibits, I am able to make the following findings:

Identity of the deceased – The deceased person was Peter Raymond Fenton.

How he died - Mr Fenton was struck by a large food storage container, which fell while being unloaded from an oil tanker to an adjacent barge on which he was standing.

Place of death – He died in an ambulance en route to the Princess Alexandra Hospital at Brisbane, in Queensland.

Date of death – He died on 15 December 2011.

Cause of death – Mr Fenton died from multiple injuries, due to, or as a consequence of impact by a falling container.

Comments and recommendations

Section 46, insofar as it is relevant to this matter, provides that a coroner may comment on anything connected with a death that relates to public health or safety, the administration of justice or ways to prevent deaths from happening in similar circumstances in the future.

In many inquests it is difficult to formulate tangible solutions to the key causes of a death. Recommendations may also be made without an appreciation of the likely costs of implementation and the necessary regulatory framework.

Fortunately, one of the proximate causes of Mr Fenton's death can be addressed (and indeed already is being) by a relatively inexpensive engineering solution. The inquest heard that the use of fully enclosed cage systems for the task in which Mr Fenton was involved is now the norm, at least in the Port of Brisbane and on BP ships. This has the benefit of ensuring that an unstable load is unable to fall. The sling mechanism also worked in this way if applied correctly through the enclosed slots of the container; however, the cage system is less susceptible to the adoption of alternate, and unsafe, means of use. In this regard, Mr Servin's report recommends that:

A regulatory requirement is imposed to ensure that the hoisting of pallets, crates or containers from ship to ship; ship to shore or shore to ship be completed by means of appropriately rated caged systems.

Mr Servin's report also contains a number of other practical recommendations, which, if implemented, would significantly enhance safety for workers such as Mr Fenton. These are set out in the attachment to these findings.

However, the complex regulatory environment for workplace safety in the context of the movement of goods between ships, and between ship and shore is evolving. It appears that a National Stevedoring Code of Practice, originally released in May 2013, has only recently been endorsed by Safe Work Australia.

The Australian Maritime Safety Authority also advised me that there are significant changes proposed to Marine Order 32, which was made under the *Navigation Act 1912*. The objective of those changes is to give primacy to work health and safety legislation, and in particular the proposed National Stevedoring Code of Practice. This was said to ensure that stevedoring practices are regulated in a "consistent and appropriate manner".

Having regard to those developments, I do not propose to suggest any prescriptive regulatory solutions. Instead, I recommend that my findings, and Mr Servin's recommendations relating to safety enhancements, be provided to Safe Work Australia for consideration in the development of relevant model work health and safety legislation, including the National Stevedoring Code of Practice.

I close the inquest.

Terry Ryan
State Coroner
Brisbane
19 June 2015

SAFETY RECOMMENDATIONS FROM THE MARITIME SAFETY QUEENSLAND REPORT

1. That Regional Harbour Masters throughout Queensland issue a general direction under the provisions of Section 86(1) of the Transport Operations (Marine Safety) Act 1994 to the effect that all provisioning of vessels using cranes do so with the assistance of radio communications (where voice commands are not effective) in a language common to all persons involved in the operation. The direction should also encourage the use of accepted uniform hand signals and whistles to clarify intentions of crane operators and doggers or riggers to enhance safety.

2. That mandatory provisions be implemented for the placement of clear instructions including the clear marking of appropriate lifting points on all containers/pallets/equipment to assist in the prevention of inappropriate and potentially dangerous rigging and lifting practices.

.....

6. That legislation or compulsory standards be introduced to ensure that the hoisting of pallets, crates or containers from ship to ship; ship to shore or shore to ship be completed by means of appropriately rated caged systems which enhance the safety for craning activities.

7. That the Workplace Health and Safety Queensland publication "Guide for doggers" include specific references about situational awareness and defined exclusion zones underneath loads being hoisted by cranes. Further, that the guide specifically state not to stand directly underneath a load being hoisted.

8. That it be made compulsory through legislation or safety guidelines that all lifting equipment be regularly inspected and tagged by an appropriately qualified inspector to avoid lifting equipment failures.