



Report 96-115

P35 Shunting Service

Shunter fell into path of wagon

Palmerston North

6 September 1996

Abstract

On Friday, 6 September 1996, at about 0200 hours, P35 Shunt operated by Tranz Rail Limited was shunting in Palmerston North Yard. During a propelling movement to place wagons the shunter fell under the wagons and was killed instantly. Safety issues addressed in the report are the frequency of shunting fatalities, and the effectiveness of compliance monitoring of recently certified and relatively inexperienced staff.

Transport Accident Investigation Commission

Rail Accident Report 96-115

Train type and number:	Palmerston North Yard Shunt P35
Date and time:	6 September 1996, 0200 hours
Location:	Palmerston North
Type of accident:	Fall under a moving train
Persons involved:	Shunting Crew: 2
Injuries:	Shunting Crew: 1 fatal 1 nil
Nature of damage:	Nil
Investigator in Charge:	R E Howe

1. Factual Information

- 1.1 On 6 September 1996 Shunt P35 was a rostered Tranz Rail Limited (Tranz Rail) shunting service operating in Palmerston North Yard.
- 1.2 The shunting service on that day was supplied by DSG 3236, a remote controlled locomotive controlled by a Remote Control Operator (RCO) with one shunter making up a two-person shunting gang. (Both staff members were classed as Rail Operators but are referred to throughout the report by their respective roles at the time.)
- 1.3 The three wagons remaining on the shunt at approximately 0155 hours were for delivery to Carter Holt siding. Entry to the siding was from the end of the industrial backshunt (refer Figure 1) which allowed shunting by hauling wagons to the end and propelling¹ them to their destination.
- 1.4 The short backshunt beyond the Carter Holt siding points could not hold the total length of shunt P35 and the RCO had broken the train on the industrial backshunt and placed wagon KS18212 on the approach curve to Carter Holt siding first (A on Figure 1) with the RCO and shunter riding in on the locomotive footstep. This was the last time the RCO saw the shunter before the accident. The shunter remained with the KS wagon while the RCO returned with the locomotive to bring up the rest of the shunt.
- 1.5 The RCO had boarded the locomotive at B (refer Figure 1) and stood on the right side of the leading footplate. He remained in this position during the coupling of the shunt to KS18212 and until the shunt came to rest following the accident.
- 1.6 The consist of the shunt was then KS18212 (leading), UK14179, UK2769 and DSG 3236.
- 1.7 The position of the shunter during the propelling movement that followed was not established, although he was likely to have been riding on the leading wagon.
- 1.8 The shunter was controlling the shunt movements by radio, as he called it forward to stop clear of the points of the turnout leading to the Mainfreight siding (C on Figure 1). The turnout was set for the Mainfreight siding and the shunter had to pull the hand lever over to reset the route for the Carter Holt siding. The RCO stated that the shunter called down the wagons in the normal manner, “two, one, a half, steady, stop,” to stop the shunt clear of the points.
- 1.9 Some “3 or 4 seconds” after the shunt had come to rest the shunter called the RCO to say “Right to come in”, meaning the points were set and to proceed forward.
- 1.10 The siding was on an approximate 1 in 200 downgrade and the RCO stated he had only to release the brake and use “notch one” throttle to move off. Some “three or four seconds” later he heard “a whole lot of static” over the radio. He immediately released the “push to operate” control on the transmitter control box, moved his thumb to the brake control and applied locomotive braking. He estimated the speed of the shunt as “not even walking pace” at the time he heard the static.
- 1.11 The leading end of the shunt came to rest 23 m beyond the points of the Mainfreight siding.
- 1.12 The RCO tried to contact the shunter on the radio but could get no reply. He then dismounted on the left side of the locomotive and after checking both sides of the shunt discovered the body of the shunter trapped under UK14179.

¹ Propelling is pushing a rake of vehicles with the locomotive at the rear.

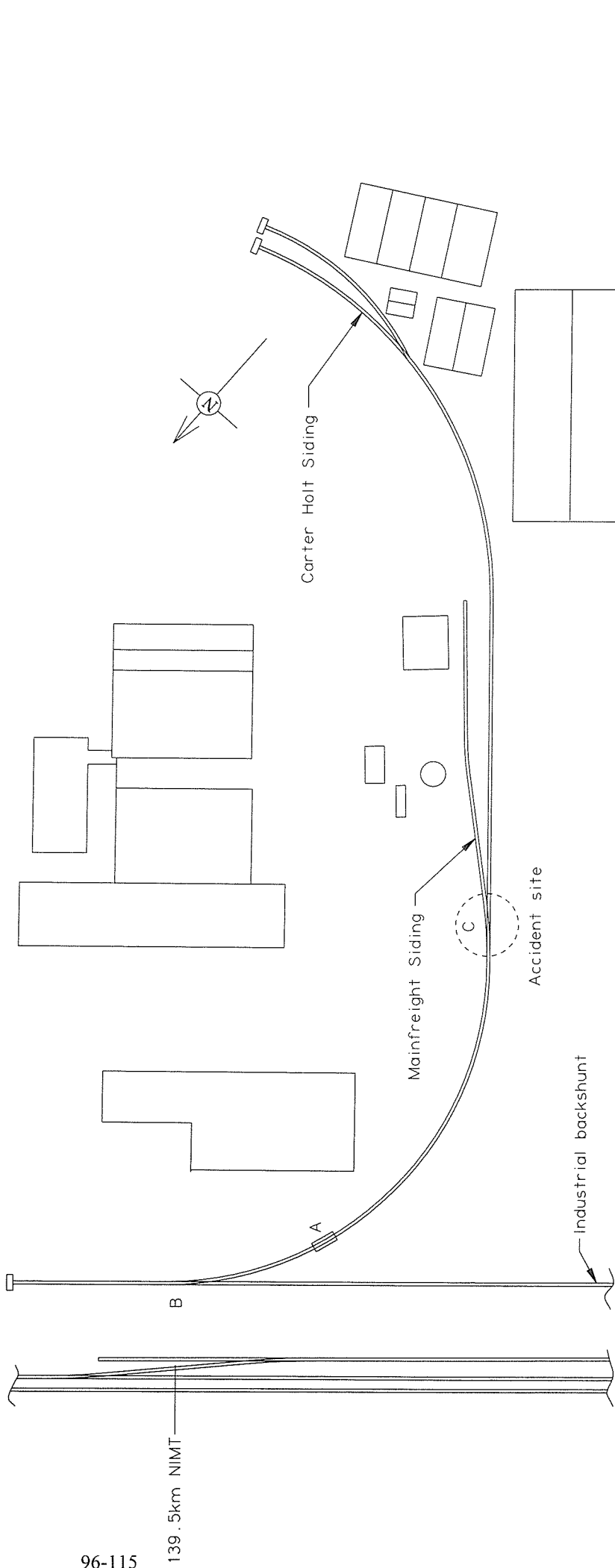


Figure 1 - Locality diagram (not to scale)

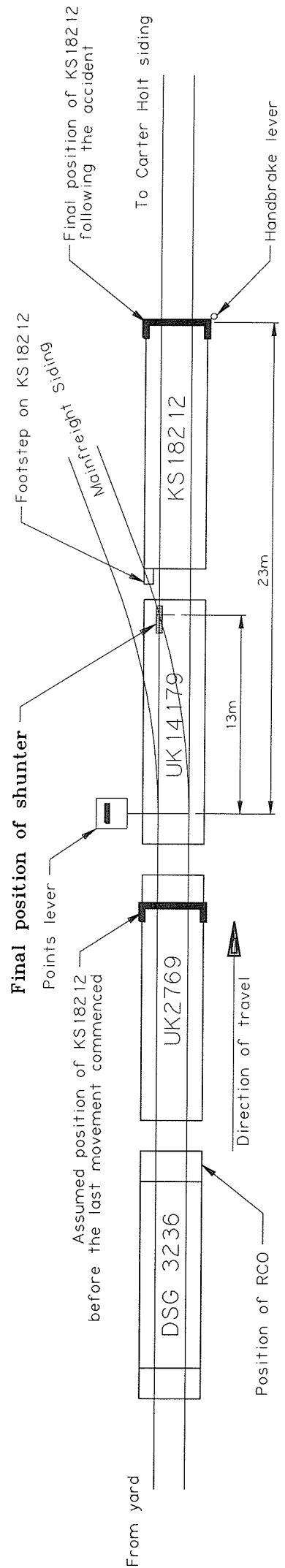


Figure 2 - Site details (not to scale)

1.13 Emergency services attended but it was found that the shunter had died instantly.

Site details

1.14 Underfoot conditions between the industrial backshunt and Mainfreight siding included drainage ditches on one or both sides of the track and relative ground levels which precluded a shunter from signalling propelling movements from a position on the ground.

1.15 From the Mainfreight siding towards the Carter Holt siding a drainage channel ran close to the right side of the track, creating unsuitable underfoot conditions. The ground on the left side of the track was level.

1.16 The surface level between the rails was at sleeper level (approximately 170 mm below rail level) from the points of the Mainfreight siding for 4 m in the direction of shunt travel. The ballast level then rose to 50 mm below rail level over 500 mm.

1.17 Measurements were taken immediately following the accident to locate the following items and marks found between the rails of the Carter Holt siding:

- shunter's torch 4 m beyond the points
- shunter's pen 5.4 m beyond the points
- shunter's hat 6.1 m beyond the points
- drag marks in the ballast between 4.5 m and 8.4 m beyond the points.

1.18 The shunter's body was found under the leading bogie of UK14179 and approximately 13 m beyond the points of the Mainfreight turnout at the turnout crossing. It was between the rails of the Carter Holt siding, and nearer the left rail.

1.19 The locality was illuminated by pole-mounted lighting immediately adjacent to the Mainfreight turnout points.

1.20 Carter Holt siding, the intended destination of the propelling movement, was illuminated by permanent and sensor-operated lighting with additional indirect lighting from an adjacent property.

Weather conditions

1.21 The weather was clear and cold in the early morning of 6 September. No rain had fallen since 1800 hours the previous evening when the shunter commenced his "tack-on shift". The atmosphere was described as damp with a moist film on surfaces such as rails, foot rests and points boards, but with no surface water apparent.

Track details

1.22 The approach to the Carter Holt siding from the industrial backshunt was by a tight (100 m radius) left-hand curve resulting in a 5 km/h speed restriction over the siding.

1.23 The siding was laid in 70 pound per yard rail on timber sleepers. Track conditions were satisfactory. A full measure-up following the accident showed the track to be within the geometric standard expected in sidings.

Rolling stock details

- 1.24 KS18212, the leading wagon in the propelling movement exhibited a “Fit for service” certificate which showed that it had been inspected by a Train Examiner Operations on 26 June 1996. (A revised Mechanical Code issued on 12 June 1996 removed the need for three monthly inspections and such certificates although one had been attached in this case.) The outside corner of the approximately 280 mm x 160 mm footstep on the left side trailing end had previously been bent down 60 mm, creating a curved and potentially hazardous footing surface. The amount of distortion was sufficient to warrant the wagon being taken out of service for repairs.
- 1.25 The under-slung brake rodding in the centre of KS18212 had a clearance of between 135 mm and 150 mm above rail level. Inspection following the accident showed traces of material on the rodding, and a fresh scrape mark on the underside of the brake spreader bar of the trailing wheelset at approximately 300 mm above rail level.
- 1.26 The normal brake dust and associated dirt on the leading end of KS18212 showed recent scuff marks, just above buffer height, on the left side and in the centre. There was no indication as to the age of the marks or whether they were related to the accident.
- 1.27 The second wagon in the propelling movement was UK14179. The under-slung brake rodding in the centre of UK14179 under the leading bogie had a clearance of between 85 mm and 100 mm above rail level.
- 1.28 Braking tests were carried out at the site with a remote-controlled shunt of similar consist to that of P35 on 6 September 1996. Braking distance at a speed of 5 km/h was 4 m and at 10 km/h it was 8 m.
- 1.29 A further site test was carried out to check the available room for a shunter standing on a footstep between wagons on the inside of the 100 m radius curve leading to the Mainfreight siding (this was the position of the footstep on KS18212). The closing of the gap between the wagon corners when negotiating the curve left marginal clear standing room.

Personnel

- 1.30 The RCO was 31 years old and had 15 years rail operating experience. He was certified as a Rail Operator (Grade 2) and held a current Operating Certificate for Remote Control Operations.
- 1.31 The shunter was 45 years old, of medium build, 1.7 m tall, and weighed approximately 85 kg. He had been employed by Tranz Rail for 11 months and was designated Rail Operator (Grade 7). He held a current Operating Certificate for the duties in which he was engaged.
- 1.32 The shunter was correctly attired for his duties, including high-visibility clothing and approved safety footwear. The boot tread was worn but the heel step profile was relatively unworn.
- 1.33 The shunter was working the second week of roster number 21522 at the time of the accident. Before commencing his normal shift (2300 hours, 5 September, to 0700 hours, 6 September) he had worked a “tack-on” shift commencing at 1800 hours on 5 September. At the time of the accident the shunter had been on duty for 8 hours, with a further 5 hours to complete his shift.
- 1.34 Tranz Rail advised that working of voluntary “tack-on” shifts was not uncommon to cover unplanned disruption to rosters.

1.35 The RCO working with the shunter during the “tack-on” shift from 1800 hours to 2300 hours stated that the natural tendency of the shunter was to go out of his way to make things easier for the RCO. Other statements were made by fellow workers and supervisors regarding the shunter’s practice of running to avoid the need to slow the locomotive movement during propelling operations, where walking was the accepted and normal pace during such movements. The RCO on the “tack-on” shift stated that during the shift the shunter twice ran too close in front of a moving rake² during propelling movements. (When propelling using Remote Control Operation the RCO is not always on the engine, and may take up a position on a wagon, or on the ground, from which the shunter can be seen.) On each occasion he was corrected by the RCO. Tranz Rail’s requirement for this activity was in the Rail Operating Code, Section 5, clause 3.2, “Personal Safety”, which included the instruction:

Never cross the rails in front of a moving vehicle which is closely approaching.

1.36 The RCO working with the shunter on the shift commencing at 2300 hours on the night of the accident did not observe any practices which placed the shunter at risk.

1.37 During the week leading up to the accident the shunter had worked normal eight-hour shifts with a rostered day off on 3 September. He was reported as being in good health and spirits, and having no requirement for any medication that might affect performance.

1.38 In February 1996 a concerned fellow worker wrote to the Terminal Manager regarding the shunter’s work practices. His letter included:

On numerous occasions (the shunter) has fallen dangerously, and when re-instructed on correct procedures has failed to follow out the instructions.

While recognising the shunter’s positive attributes the submission concluded:

but I feel that he needs additional training as currently he is a danger to both himself and the employees working with him.

1.39 The Supervisor Training and Operating Practices (STOPS) at Palmerston North was aware of the worker’s concern, and of the letter. He was also aware of an incident in late 1995 when the shunter fell during shunting movements suffering minor abrasions. He had followed this up at the time by giving additional on-the-job training to the shunter on the correct way of boarding and alighting from moving wagons.

1.40 Following receipt of the letter in February 1996 the Terminal Manager made an immediate personal check of the shunter’s work practices and found him to be complying with operations procedures while he was being watched.

1.41 On 6 March 1996 the shunter was involved in an injury accident. He was attempting to apply a handbrake on a moving wagon during loose shunting. The handbrake was defective and as the shunter continued to attempt to apply it the moving wagon collided with a stationary wagon causing his head to hit the hand-grip. The resulting injury required five stitches. The accident report recorded as an action “shunting staff spoken to re failing to check brake prior to loose shunting”.

² A number of vehicles coupled together (may be part of a train).

Training, certification and compliance monitoring

- 1.42 In September 1995 the shunter attended a Yard Introductory Course at Palmerston North and on 29 September he was certified as having received instruction and being ready to undertake on-the-job training. Following that training he was certified by the STOPS for shunting duties on 1 December 1995.
- 1.43 On 24 April 1996 the STOPS was being assessed by the Auditor of Training and Operator Practices. As part of that assessment the STOPS was observed carrying out compliance checks on the gang then working in the yard. The shunter happened to be part of this gang and the check sheet showed that he complied with the required shunting practices.
- 1.44 On 5 July 1996 the STOPS carried out a re-certification assessment of the shunter. No non-compliant work practices were recorded and the shunter was re-certified until July 1998.
- 1.45 On 3 August 1996 the shunter was observed at work by the Operations Controller. The simplified compliance check sheet recorded that shunting was carried out in accordance with procedures and that no training issues were identified.

Operating procedures

- 1.46 The Tranz Rail Operating Code included the following requirement covering care in shunting when propelling:

Section 5, clause 1.8

When propelling rakes of vehicles, staff must signal the movement from a position at or near the head of the rake in the direction of travel from which a clear view of the intended route can be obtained.

When carrying out these movements staff must NOT, except in instances of absolute necessity, ride on the leading end of the leading vehicle in the direction of travel. **NOTE: WHEN RIDING IN THIS POSITION, STAFF MUST BE PREPARED FOR SURGES WITHIN THE RAKE.**

- 1.47 Clause 1.8 appeared to the Commission to be open to variable interpretation as to the comparative options open to shunting staff to signal from a position on the rake of vehicles or from on the ground, and the possible effect of this on what was meant by “absolute necessity”. When advised of this, and requested to clarify their understanding, Tranz Rail responded:

When rakes of vehicles were being propelled that staff involved must signal such a movement from a position at or near the head of the rake in direction of travel from which a clear view of the intended route can be obtained. This can be achieved either riding on the rake of vehicles or from the ground depending on the movement being made and conditions pertaining at the time. If it was not possible to do this then staff could as a matter of absolute necessity ride on the leading end of the leading vehicle in the direction of travel.

- 1.48 When interviewed Tranz Rail shunting and supervisory staff at Palmerston North stated that it was normal and understood to be accepted practice to ride on the leading end of the leading wagon when propelling into Carter Holt siding as the curvature of the siding did not allow a position to be taken up on the left trailing side of any wagon. None of the original statements referred to underfoot conditions as a reason for riding on the leading end as an “absolute necessity” and it was clear at the time that curvature was the criterion.

1.49 Tranz Rail were asked what position they would have expected the shunter to take up when propelling from Mainfreight points to Carter Holt siding in the circumstances and conditions applicable on 6 September 1996. They replied that they would agree with a shunter's decision to control the propelling movement from the leading end of the leading vehicle. At a later date Tranz Rail supplied the following additional opinion regarding underfoot conditions over this length:

Tranz Rail's operating staff considers the foot access surface to be uneven and the adjacent ground to be swampy each side of the track therefore making it not suitable for walking especially at night.

Recent fatal shunting³ accidents

- 1.50 The Commission has investigated three fatal Tranz Rail shunting accidents which occurred between May 1995 and September 1996. A check of statistics back to 1988 showed five fatal shunting accidents between 1988 and 1991, with none from July 1991 to April 1995.
- 1.51 Tranz Rail advised that "since 1990 the number of staff principally on Shunting duties has decreased by approximately 40% to the current level of about 400 staff". The Commission is aware that shunting staff levels were decreasing prior to 1990 although no figures were available to quantify this.

2. Analysis

- 2.1 The shunter's movements following the detachment of KS18212 at point A were not witnessed. The most likely scenario is that he rode the shunt, on the handbrake lever on the right side of the leading end of the leading wagon, for the 140 m from point A to the Mainfreight siding points, based on the following:
- Riding on the shunt was normal shunting practice in this locality.
 - The restricted space between wagons on the inside of the curve meant it was unlikely that he stood on the footstep on the trailing end of KS18212.
 - There was insufficient room on either side of the curve and unsuitable underfoot conditions, to signal from on the ground.
 - The position was the best for him to see the Mainfreight points clearly as required to call up the shunt.
- 2.2 When considering the shunter's assumed intended movements after pulling the hand lever over, the local staff interpretation of clause 1.8 of the Code appeared to be in conflict with the wording and emphasis of the clause (refer 1.46). A literal interpretation of this clause (supported by Tranz Rail, refer 1.47) required staff to signal from a position on the ground, where this was possible, before considering using the prohibited (but allowed in "instances of absolute necessity") practice of riding on the leading end. Site conditions were such that it was possible to signal from the ground over at least the first 90 m from Mainfreight points lever towards Carter Holt siding. The setting of the Mainfreight siding points meant the propelling movement was carried out in two distinct phases. There appears no doubt that for the first phase, to Mainfreight points, riding on the leading end was the only option available to have a clear view and control the movement. The issue is not so clear when considering the second phase, from Mainfreight points towards Carter Holt siding. All indications were that the shunter decided to ride on the leading end, a decision which Tranz Rail agreed with (refer 1.47). Tranz Rail further advised that they felt it necessary to consider the layout and underfoot

³ The term shunting is used here in the general sense of working with moving locomotives and wagons in a yard situation.

conditions of the whole siding from the industrial line points to Carter Holt. They stated that as the majority of the siding was not suitable for signalling the movement from a position on the ground they accepted that riding on the leading end was the only option available to have a clear view and to control the movement. Given the known facts pertaining at the time they considered the code instruction gave sufficient guidance and flexibility for the shunter to come to a valid decision as to where to control the propelling movement that commenced from the industrial line. Irrespective of the suitability of the position it is assumed the shunter was going to adopt from Mainfreight points it is considered necessary to revise the requirements of clause 1.8 of the Code to reflect more clearly Tranz Rail's intended interpretation, (refer 1.47). It could also be inferred from clause 1.8 that the only position that could be taken up on the rake was at the leading end. Staff should be prepared for surges when riding in any position on a rake, although the effect could be more hazardous when riding on the leading end.

- 2.3 If he was riding on the handbrake lever the shunter would have had to alight from the wagon and cross in front of the rake to operate the points lever before calling the shunt forward. The RCO's recollection of "three to four seconds" from stopping to being called forward is consistent with this scenario.
- 2.4 The location of personal effects in the vicinity indicated that the accident was initiated approximately 4 m beyond the points of the Mainfreight siding.
- 2.5 Assuming KS18212 was stopped one metre before the points to allow the points lever to be reversed, and then accelerated to 5 km/h, the accident occurred approximately four seconds after the shunt commenced moving (this is consistent with the "three to four seconds" estimated by the RCO as the time from being given the right to come in to hearing radio static, except that the triggering of the radio static would have occurred at an indeterminate time after the accident initiation).
- 2.6 Scuff marks and minute clothing particles underneath KS18212 suggested that it had passed over the shunter as he lay in the centre of the track but none of this evidence could be linked to the shunter conclusively. The speed/distance/time evaluation above validated these indications that the shunter was at the leading end of the rake when the accident occurred, and not between the first and second wagons. This validation was considered particularly important as it eliminated the substandard nature of the footstep on the trailing end of KS18212 as a causal factor.
- 2.7 The most likely scenario of the shunter's movements following reversal of the points is that he moved ahead of the leading wagon to cross the shunt with the intention of mounting the handbrake lever on the right side of the leading end of KS18212.
- 2.8 Insufficient time had elapsed for him to have reached the handbrake lever before the accident occurred. The two most likely causes therefore were:
- that he slipped and fell under the advancing wagon; or,
 - that he was hit by the advancing wagon.
- 2.9 The position of the shunter following the accident (between the rails of the Carter Holt siding and closer to the left rail), and the fact that he had fallen clear of the wheels, support this analysis. Any fall from either a footstep or handbrake lever would have been more likely to have placed the shunter outside or across a rail rather than in the centre of the track.
- 2.10 Although the shunter's safety boots were tread worn the important heel step profile was relatively unworn. Tranz Rail had a policy of replacement on an "as required" basis. Examination showed the boots to be fit for purpose but at the stage where replacement was desirable.

- 2.11 Between 4 m and 4.5 m beyond the Mainfreight points the ground level between the rails tapered from 170 mm below rail level up to 50 mm below rail level. At 170 mm a space of 320 mm existed between ground level and the brake gear on KS18212, and 255 mm between ground level and the brake gear on UK14179. At 50 mm a space of 200 mm existed under the KS wagon and 135 mm under the UK wagon. All available evidence indicates that the shunter fell between the rails 4 m to 5 m from the points; that sufficient room was available for KS18212 to pass over him; and that the lower brake gear on UK14179 dragged him approximately 7 m to the crossing where the converging rails further decreased the available space.
- 2.12 The leading end of KS18212 came to rest approximately 18 m beyond the accident point. Allowing for the unknown time at which radio static was generated this is consistent with the stated speed of the shunt of approximately 5 km/h.

Previous history

- 2.13 The shunter was reported as having “taken a tumble” during his on-the-job training in late 1995. Such an occurrence was not unusual and in this particular case resulted in specific follow-up training from the STOPS.
- 2.14 Despite this a fellow worker felt compelled to express his concerns about the shunter in February 1996. Again specific follow-up was initiated in the form of compliance monitoring by the Terminal Manager which revealed no problem.
- 2.15 The accident to the shunter on 6 March 1996 was caused by a defective handbrake and not directly related to his actions. However, inoperative handbrakes are not uncommon and staff are taught to stop trying to apply them and get clear in such circumstances. Experienced staff know this intuitively. Inexperienced and enthusiastic staff, descriptions which were applied to the shunter, would be unlikely to take such intuitive action.
- 2.16 Despite this earlier accident, and the likely beneficial effect of encouraging the shunter (in words of advice given by the Terminal Manager) to “use his head and not his feet”, staff still observed and attempted to correct basic wrong practices, including crossing too close in front of a moving rake. Such attempts at correction occurred on the night before his fatal accident.
- 2.17 The two previous fatal shunting accidents investigated by the Commission which occurred to Tranz Rail staff from May 1995 and for which reports have been published were:

Report 95-111, shunting fatality at Gracefield
Report 96-109, pilot fall from locomotive at Westfield.

In both cases the Commission found that lack of experience of the staff concerned was a contributing factor.

- 2.18 The number of fatal shunting accidents since May 1995 is of concern, particularly when related to the decreased number of staff involved in this activity. While statistics covering two years form a small, and possibly inconclusive, base, the common denominator of inexperience associated with all three accidents is of particular concern.

Training, certification and compliance monitoring

- 2.19 The training and certification of the shunter were in accordance with Tranz Rail requirements. Although several compliance checks were carried out they failed to reveal the reported tendency of the shunter to place himself at risk when going out of his way to support fellow workers, a tendency which was drawn to the attention of his supervisors.

- 2.20 Compliance monitoring is an essential part of an integrated training programme and this was recognised by Tranz Rail and emphasised accordingly. However, such monitoring was generally carried out with the knowledge of the staff member concerned and could lead to a false indication that normal work practices complied with the required standards.

3. Findings

- 3.1 The RCO was operating the shunt normally in response to the shunter's commands and was certified for the duties concerned.
- 3.2 The shunter was carrying out an appropriate shunting movement using correct communication procedures and was certified for the duties concerned.
- 3.3 The most likely cause of the accident was that the shunter attempted to cross too closely in front of the shunt, and either fell or was pushed to the ground by the wagon.
- 3.4 There was sufficient clearance for KS18212 to pass over the shunter but insufficient clearance for UK14179 to do so.
- 3.5 The code requirement for care in shunting when propelling did not clearly address how to assess "absolute necessity" when deciding whether to signal from a position on the ground or to signal from a position on the end of the leading vehicle.
- 3.6 The lighting in the area was adequate for shunting requirements.
- 3.7 The track condition in the vicinity of the accident was to the standard required for yard operations.
- 3.8 The shunter was dressed appropriately for the duties and conditions.
- 3.9 The behaviour of the remote controlled locomotive was to Tranz Rail's performance requirements in terms of response times and actions.
- 3.10 The shunter was particularly enthusiastic and supportive when working in a team situation towards defined deadlines, attributes which resulted in him occasionally placing himself at risk by crossing too closely in front of moving rakes of wagons.
- 3.11 The shunter had received appropriate training and certification and had been subject to adequate formalised compliance monitoring.
- 3.12 Compliance monitoring of the shunter did not detect any undesirable practices requiring follow-up or training.
- 3.13 There was a widely held awareness amongst his fellow workers that the shunter's particularly helpful and enthusiastic attitude resulted in work practices which placed him at risk, and that these did not change following attempts at on-the-job correction.

4. Safety Recommendations

- 4.1 Railway Occurrence Report 95-111, Gracefield, recognised Tranz Rail’s strongly structured approach to the training, certification and compliance testing of operating staff, generally well suited to operational needs. This has been confirmed during this investigation. However, there is a natural tendency for staff to “work to the book” when they know they are being monitored for compliance, without necessarily continuing to conform to this standard when they are not under observation.
- 4.2 In the case of newly-appointed and relatively inexperienced staff the use of non-compliant practices has a greater probability of leading to an accident. A more continuous compliance monitoring regime for these staff would assist in reducing this probability. An appropriate regime for the Palmerston North area may be to form a “shunting review group” made up of senior experienced staff who meet at regular intervals to assess the day-to-day actions of newly-appointed staff rostered to work with them.
- 4.3 It was recommended to the Managing Director of Tranz Rail Ltd that he:
- 4.3.1 Review procedures for compliance monitoring of shunting staff to place more emphasis on an increased level of “unannounced” observation of staff during normal duties and less emphasis on “arranged” monitoring by training staff, (016/97) and;
 - 4.3.2 Formally structure compliance monitoring for newly-appointed staff to include input from experienced shunting staff where appropriate, (017/97) and;
 - 4.3.3 Use a more continuous compliance monitoring regime to ensure that newly-appointed staff are consistently using work practices which do not place them, or others, at unacceptable risk before they are certified for shunting duties, (018/97) and;
 - 4.3.4 Redraft the instructions currently in Section 5, clause 1.8, of the Operations Code, to make it clearer under what conditions “absolute necessity” applies when considering the option to signal the movement from a position on the ground, (026/97).
- 4.4 The Managing Director of Tranz Rail Ltd responded as follows:
- 4.4.1 016/97
Tranz Rail is currently reviewing its procedures in relation to formal compliance monitoring and “unannounced” observations.
 - 4.4.2 017/97
As outlined in our submission dated 14 May Clause 4.2 Tranz Rail explained its enhanced training package for Operations Group Staff involved in train/yard operations. This new package will cover the requirements as outlined in your Safety Recommendation.
 - 4.4.3 018/97
As stated in my previous submission the Safety Recommendation would be more appropriately called a Safety Action taken by Tranz Rail.
 - 4.4.4 026/97
The decision as to where to signal the movement is a judgement call by the Shunter concerned taking in to account all local factors and therefore the need to express ‘absolute necessity’ is taken out of context with the original Code Instruction.

4.4.5 Tranz Rail is reviewing and consolidating the current instruction in relation to riding on vehicles.

11 June 1997

Hon. W P Jeffries
Chief Commissioner