



**Report 96-116**

**Train B02**

**loss of gangway**

**near Opapa**

**25 October 1996**

### **Abstract**

At about 0900 hours on Friday, 25 October 1996, a gangway fell from a Steam Incorporated passenger excursion train being operated by Tranz Rail Limited between Paekakariki and Wairoa. The gangway fell clear of the track near Opapa. The carriage doors on either side were locked as a safety measure and the train continued its journey.

The gangway fell off because it was ineffectively restrained. Safety issues identified were the suitability and dissemination of standards applying to other rail service operators using Tranz Rail Limited's railway line, the lack of procedures for ensuring compliance with such standards, the suitability of the Tranz Rail Limited carriage supplied, and the lack of procedures, training and supervision to ensure that all persons were capable of carrying out their responsibilities within the safety system applicable to rail charter operations.

# Transport Accident Investigation Commission

## Rail Incident Report 96-116

<b>Train type and number:</b>	Steam Incorporated Passenger Excursion, B02
<b>Date and time:</b>	25 October 1996, 0900 hours
<b>Location:</b>	Near Opapa, at 133 km Palmerston North Gisborne Line
<b>Type of incident:</b>	Loss of passenger gangway
<b>Persons on board:</b>	Tranz Rail Crew: 3 Tranz Rail Supervisory: 1  Passengers: 338  Steam Incorporated support staff: 30
<b>Injuries:</b>	Nil
<b>Nature of damage:</b>	Minor
<b>Investigator-in-Charge:</b>	R E Howe

## **1. Factual Information**

### **1.1 The incident**

- 1.1.1 On Friday, 25 October 1996, Tranz Rail Limited (Tranz Rail) operated Train B02 between Paekakariki and Wairoa. Tranz Rail had chartered the train to the organiser, Steam Incorporated.
- 1.1.2 Train B02 left Waipukurau at 0829 hours with a Tranz Rail crew of three (two Locomotive Engineers (LEs) and a Train Manager (TM)), 338 passengers and 30 Steam Incorporated support staff. Also on board was a Tranz Rail acting Supervisor, Training and Operating Practices.
- 1.1.3 At 0900 hours the train was travelling at approximately 60 km/h near Opapa on the Palmerston North Gisborne Line (PNGL) when a Steam Incorporated carriage steward noticed that a gangway had become wedged between its locating pin and the carriage ahead. He was on his way to report this to the TM when a passenger advised him that the gangway had fallen from the train. The carriage doors on either side of the gap were locked and the train proceeded to Napier, where a replacement gangway was fitted.

### **1.2 Train details**

- 1.2.1 Train B02 was made up of Steam Incorporated steam locomotive J 1234 and 11 carriages. All the carriages belonged to Steam Incorporated except one which had been supplied by Tranz Rail at the request of Steam Incorporated. Such requests were normally met by supplying carriages from Wellington.
- 1.2.2 On this occasion Tranz Rail had, for the first time, to supply a carriage from Auckland, so carriage A56544 (carriage A) was delivered to Palmerston North to be included in Train B02. No gangway was supplied with the carriage.
- 1.2.3 When Train B02 arrived at Palmerston North the consist was J 1234 and 10 carriages. The locomotive was taken away for water replenishment with the two leading carriages. The TM went with the locomotive.
- 1.2.4 The leading carriage of the eight remaining carriages was Steam Incorporated carriage A<sup>A</sup> 1783 (carriage B). A Tranz Rail shunting crew attached carriage A to carriage B.
- 1.2.5 Neither carriage A nor B had a gangway already attached to join the two.
- 1.2.6 However, Steam Incorporated carried a spare gangway for this eventuality, so Steam Incorporated's staff pinned it to carriage B. When they came to install the associated alignment bar<sup>1</sup> normally used by them when connecting to Tranz Rail carriages they found it could not be fitted because carriage A did not have locating holes for the alignment bar pins as part of its gangway support plate. (Such holes were a standard feature of carriages supplied from the Wellington Tranz Rail fleet.)

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<sup>1</sup> The function of an alignment bar is to limit the lateral movement of the unpinned end of a gangway. (See Figure 1)



### Carriage

**Figure 1**

Typical installation of an alignment bar used by Tranz Rail when connecting power cars to Wellington fleet carriages

1.2.7 The Tranz Rail Train Examiner Operations (TXO) who accompanied the shunting gang and who was present during the gangway installation stated that he had a quick look at the gangway after it had been installed. He did not see “anything out of the way” and carried on with the rest of the inspection of the train. (The TXO’s Train Inspection duties with respect to gangways were to make sure that the “gangway foot-plate” was “correctly connected” when connecting carriages.)

### **1.3 Personnel**

1.3.1 Two Tranz Rail LEs were in the cab at the time of the incident, one as driver and the other as fireman. Their rostered shift had commenced following a crew change at Waipukurau. The acting Supervisor, Training and Operating Practices was also in the cab in a supervisory capacity.

1.3.2 The driver was a retired LE employed on a contract basis by Tranz Rail and one of a small group of certified steam locomotive drivers. His certification was current and he had the required route knowledge.

1.3.3 The TM was appropriately certified for the duties concerned. He had been carrying out Train Manager’s duties since 1992 and working with Steam Incorporated charter trips since 1993. He was a member of Steam Incorporated.

1.3.4 The TXO was appropriately certified for the duties concerned. He had 16 years rail experience and was also certified as a Train Manager.

1.3.5 Steam Incorporated had 30 support staff on the train. These staff were responsible for such tasks as locomotive fuelling support and as stewards in charge of specific carriages. The key designated position was the Excursion Manager who liaised with the TM. Also on board and responsible to the Excursion Manager were:

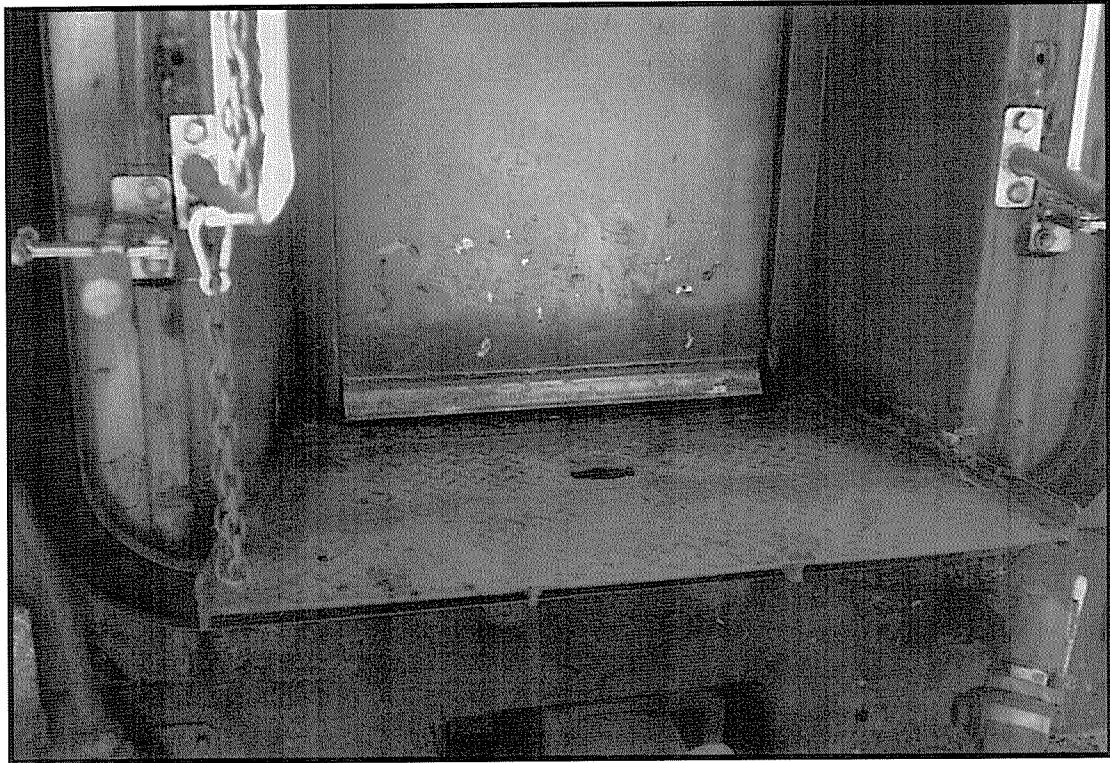
- Fleet Manager
- Steam Motive Power Manager
- Chief Car Steward
- Buffet Manager

The remaining Steam Incorporated staff on the train reported to the relevant one of these managers.

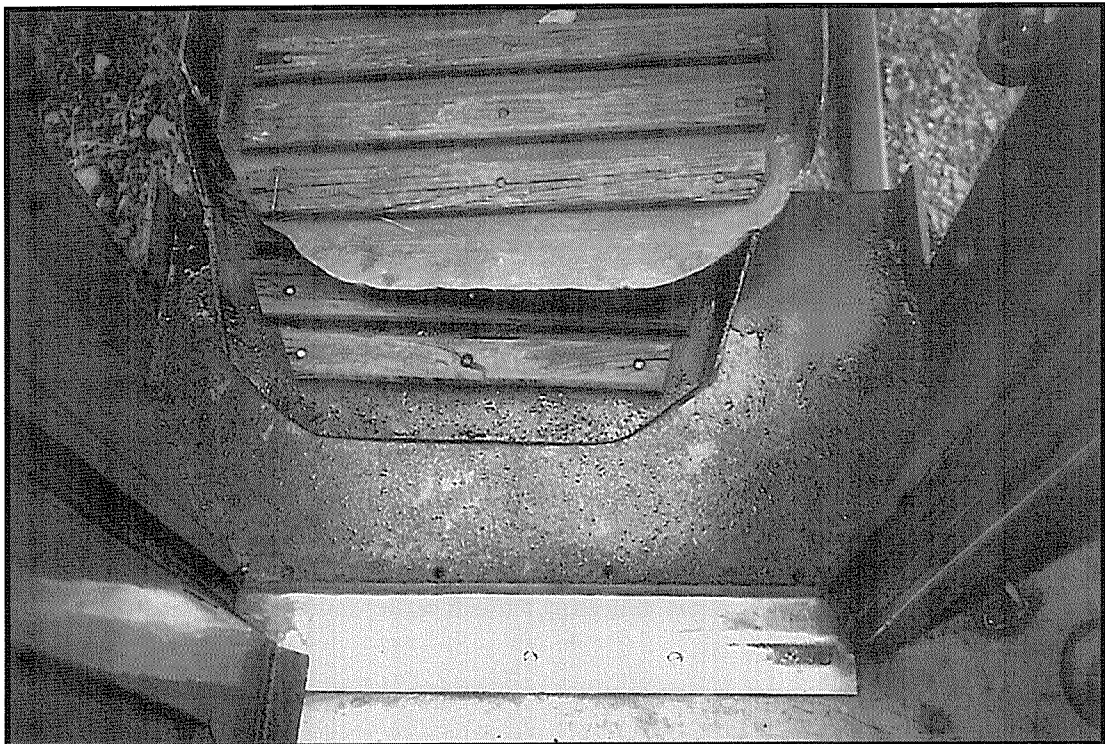
### **1.4 Site information**

1.4.1 Late notification of this incident resulted in the investigation commencing after the carriages had been returned to their respective bases.

1.4.2 Examination of carriage B at Paekakariki showed recent pinhole distortion, and a recently fractured pin segment was found retained below the pinhole. (Also caught below the hole was a heavily corroded broken pin indicating a much earlier failure.)



**Figure 2**  
Carriage A. Note lack of drilled holes for scissored type gangway (and alignment bar) location and scuff marks on door/upstand area, right side



**Figure 3**  
The gangway used on 25 October 1996 laid on top of a type "X" gangway (with a common datum) to illustrate length and profile differences

- 1.4.3 Witness reports indicated that the gangway originally jammed on carriage A on the right side in the direction of travel. Examination of the carriage at Auckland showed evidence of gangway scuffing on the inside of the door recess and on the 50 mm upstand on the side of the extended gangway plate on this side (see Figure 2).
- 1.4.4 The gangway was recovered by the crew of Steam Incorporated excursion Train F03 running from Waipukurau to Napier on the morning following the incident. It was reported to have been found about two metres from the track on the left side in direction of travel at approximately 133 km PNGL. The track approaching the site was a 400 m radius right hand curve leading to the 1 in 46 down grade of the Opapa bank.
- 1.4.5 The recovered gangway had a rounded end. The end was asymmetrical and worn where it rested on the support carriage, as distinct from the squarer and symmetrical profile of an unworn gangway (see Figure 3). The lug on the locating pin had sheared (the piece missing was that found below the hole on carriage B) and the weld holding the pin to the gangway had failed.

## 1.5 Gangways

- 1.5.1 From about 1920 New Zealand railway passenger carriages used drawbridge gangways of a length dependent on the coupling type and car end details. Two versions of drawbridge gangways were still used on Tranz Rail passenger trains:

- Type “X” (1020 mm from hinge line to leading edge)
- Type “Y” (850 mm from hinge line to leading edge)

The code of practice requiring identification by type and defining the particular situation in which each could be used was obsolete and there were no standards or procedures in place covering their use.

- 1.5.2 At the time of the incident all Wellington-based carriages had been modified with extended platforms to incorporate scissors-type gangways (see Figure 4) which superseded the drawbridge type gangways. The holes in the platform required to locate these gangways were also used to locate the alignment bar when using a type “X” gangway to connect a carriage to a power car. No other gangway types were required or held in Wellington.
- 1.5.3 The Auckland charter fleet had not been modified and carriage A did not have an extended platform. Tranz Rail advised that Auckland practice was to use type “X” gangways between unmodified carriages and type “Y” when required to connect an unmodified carriage to a modified one.
- 1.5.4 The Steam Incorporated carriage fleet required gangways as long as or longer than type “X” depending on carriage and coupling details. Steam Incorporated held spares of these and all excursion trains were intended to be equipped with them. Steam Incorporated also held a shorter gangway which they stated was supplied to them with a guard’s van purchased from New Zealand Railways. On the day of the incident that shorter gangway was the only spare gangway held on Train B02. It did not conform to any standard length although it appeared to have been derived from a modified and cut back type “X”, with a length from hinge line to leading edge of 940 mm.





**Figure 4**

Standard Tranz Rail scissors-type gangway used with Wellington-based carriages.  
(Note one of four locating pins at bottom left. These pinholes were also used to locate the alignment bars when coupled to a power car)



- 1.5.5 Tranz Rail's Standards for gangways for other rail service operators using Tranz Rail's railway line were defined in paragraph 10 of Company Procedure C/024, "Private Rail Vehicle Interoperability Standards", issued 15 October 1995, and in particular in Tranz Rail drawing 11040612 issue A forming part of that procedure. This drawing, entitled "Gangway and Handrail Standards", included a diagram of a carriage end and the following notes:

The Intercar gangway ramp is to be of the drawbridge type. Refer drawing y 6109 (adapted if required). The Intercar gangway ramp is to be restrained by the use of an alignment bar. Refer drawing 13040394. The leading edge must not extend more than 150 mm beyond nor less than 75 mm short of the Tranz Rail vehicle headstock with drawgear tension and compression free.

- 1.5.6 Drawing y 6109 detailed a type "X" gangway. Drawing 13040394, titled "Intercar Gangway Alignment Bar", did not exist at the time of the incident and there were no procedures or guidelines for the use of alignment bars.
- 1.5.7 Tranz Rail advised that Company Procedure C/024 was intended to cover only the case of an unmodified carriage, assumed to belong to another operator, coupled to a modified Tranz Rail carriage. There were no standards or procedures in place to cover the connection of two unmodified carriages, as was the case on Train B02.
- 1.5.8 Tranz Rail further advised that the connecting of an unmodified Tranz Rail carriage to an unmodified private carriage was covered by the "accepted practice" of using a type "X" gangway without an alignment bar, and that "accepted practice" also covered the use of drawbridge gangways with the Auckland charter fleet.

## 1.6 Operating agreement

- 1.6.1 The latest formal operating agreement relating to the running of other than "New Zealand Government Railways" ("NZGR")<sup>2</sup> passenger rolling stock on "NZGR" line was ratified in 1978 (Appendix A).
- 1.6.2 Steam Incorporated considered this agreement was valid between themselves and Tranz Rail at the time of the incident. This view was supported by the National Federation of Rail Societies Incorporated, and by the New Zealand Railways Corporation<sup>3</sup>. The Corporation advised, inter alia:

Provided the 1978 agreement (amended, varied or otherwise) was still in effect at 28 October 1990 its administration and performance was vested in New Zealand Rail Limited (now Tranz Rail Limited (TRL)) - refer clause 3 (2) (a) (iii) The New Zealand Rail Limited Vesting Order 1990.<sup>4</sup>

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<sup>2</sup> "NZGR" is used here as a general term for New Zealand Government Railways and all its successors arising from reorganisation associated with corporatisation and privatisation.

<sup>3</sup> The Corporation, constituted under the New Zealand Railways Corporation Act 1981, has overseen the transfer of rail assets to private ownership and is now co-lessor of the land required by the current Rail Service Operator, Tranz Rail.

<sup>4</sup> The Corporation made it clear when offering this view that it had not been referred to the Corporation's solicitors for investigation.

- 1.6.3 The Tranz Rail perception of the status of this agreement was apparently at variance with the “Excursion Operator”<sup>5</sup> signatories. The President of the National Federation of Rail Societies advised he was aware that during negotiations following the incident Tranz Rail had stated that the 1978 Agreement was no longer in effect. When asked by the Commission to clarify their understanding of the status of the agreement Tranz Rail replied, inter alia:

Tranz Rail’s understanding on the current situation of the document is that neither party has terminated the agreement. With the change in ownership of the railway it is not known what the current legal status of the 1978 agreement is.

- 1.6.4 The charter arrangements for Train B02 were negotiated by exchange of letters. The only specific conditions applied to the charter were by way of Tranz Rail’s “Charter Agreement - Terms and Conditions” (Appendix B) which was included in the Tranz Rail offer and accepted by Steam Incorporated.

## **1.7 Statutory requirements**

- 1.7.1 The statutory requirements for other rail operators using Tranz Rail’s railway line were defined in the Transport Services Licensing Act 1989 and amendments (TSL Act). In particular, Section 6B “Proposed safety system” required that:

- (2) Every proposed safety system shall contain the following:
  - (a) Standards proposed as part of the safety system:
  - (c) Procedures for ensuring compliance with such standards by other rail service operators, using the same railway line:

and Section 6C “Matters to be taken into account in considering proposed safety system” required that:

- (2) The Director<sup>6</sup> shall not approve any proposed safety system unless he or she is satisfied that -
  - (c) The proposed system will provide a programme of training and supervision which will ensure that all persons for whom the operator is responsible are capable of carrying out their responsibilities within the proposed safety system.

## **1.8 Status of rail operators involved**

- 1.8.1 At the time of the incident Tranz Rail held a rail service licence issued by the Land Transport Safety Authority (LTSA) in December 1995. This had been issued following approval of Tranz Rail’s proposed safety system by the LTSA.
- 1.8.2 Steam Incorporated held a rail service licence, granted under Section 9A (2) of the TSL Act covering the rights of existing rail service operators, which did not require approval of a proposed safety system. Steam Incorporated’s proposed safety system was not approved until early 1997, in common with the safety systems of most “Excursion Operators”.

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<sup>5</sup> The term “Excursion Operator” is used to describe a rail operator such as Steam Incorporated which uses Tranz Rail lines to run locomotives and/or passenger carriages.

<sup>6</sup> Director means the Director of Land Transport Safety.

## **1.9 Application of Company Procedure C/024**

- 1.9.1 Tranz Rail Company Procedure C/024 was approved on 15 October 1995 as a controlled document. The fact that gangway standards in the Procedure only applied to Tranz Rail modified carriages was not stated although the diagram on drawing 11040612 was of a modified carriage (it had an extended platform). The distribution list did not include area operating staff and the TXO on duty at Palmerston North on 25 October 1996 stated he was not aware of the Procedure and had not been made aware of the leading edge of the gangway to headstock overlap requirements.
- 1.9.2 The distribution list for Procedure C/024 supplied by Tranz Rail included five "Excursion Operators", one of which was Steam Incorporated. The list did not include the National Federation of Rail Societies Incorporated.
- 1.9.3 Tranz Rail advised that they had sent a letter with controlled copies of Procedure C/024 to Steam Incorporated, together with other "Excursion Operators", in November 1996. Steam Incorporated advised that they had not received the letter concerned or the accompanying document. However, other operators had received the letter and the accompanying document in March 1996. The letter from Tranz Rail included advice that Procedure C/024 was being issued at that time to assist operators in completing their safety systems and that it was expected that C/023 "Operation of Private Passenger Rail Services on Tranz Rail Limited railway lines", and the Operating Agreement, would be issued shortly.
- 1.9.4 The National Federation of Rail Societies Incorporated advised that they had been supplied with a copy of Procedure C/024 from Tranz Rail in late 1995 with no covering letter. They understood it had been released to them for information and would not become effective until document C/023 was implemented. They circulated C/024 to selected members, including Steam Incorporated, for comment. In replying to members' comments in early 1996 the Federation stated:

C/024 will not become effective until C/023 is implemented. In fact some sections of C/024 will not come into effect for some time after C/023. You will note that some requirements mentioned in C/024 are prefaced with "from the date in the operating agreement". This means from a date arranged between you and Tranz Rail in the operating agreement that you will have with them.

- 1.9.5 Tranz Rail Company Procedure C/004 "Tranz Rail Limited Safety Manual", approved 16 November 1995, included in clause 4.14 "Other Operators" the following reference to Procedure C/023 and Procedure C/024:

Company Procedure C/023, "Operation of Private Passenger Rail Services on Tranz Rail Ltd railway lines" contains procedures covering the operations of private railway vehicles on Tranz Rail Ltd's network, and Company Procedure C/024 "Inter-Operability Standards" defines key standards.

- 1.9.6 Procedure C/023 was not issued at the date of the incident and was still not issued as at June 1997.

## **1.10 Incident reporting**

- 1.10.1 The incident was first notified to LTSA by Steam Incorporated on 31 October 1996, six days after the event.



- 1.10.2 The TM of Train B02 stated that he notified the LE at the time of the loss of the gangway. This was not confirmed by the LE who stated he was unaware of the loss of the gangway until he overheard a conversation at Gisborne the next day. The TM's standard "Chartered Service Check List/Report Form", completed by him on 29 October 1996 and forwarded to the Charter Manager, Auckland, included details of the incident.
- 1.10.3 The Train Control Officer (TCO) on duty on 25 October 1996 was not advised by the crew of Train B02 of the loss of the gangway. At approximately 1030 hours on 25 October 1996 a Tranz Rail TXO at Napier became aware of the loss of the gangway and telephoned the TCO to arrange for the next train through the section to look out for it. This was done and the LE of Train 624, the next train through the section, reported later that he had not seen anything unusual. No occurrence log entry was generated by the TCO.
- 1.10.4 The recovery of the gangway by a crew member on Train F03 on 26 October 1996 was not reported to Train Control and again no occurrence log was generated.
- 1.10.5 Tranz Rail management in Wellington were unaware of the incident until follow-up to the Steam Incorporated notification to LTSA brought it to their attention.

## **2. Analysis**

### **2.1 Gangway failure**

- 2.1.1 The gangway was free to rotate about the locating pin on carriage B. The leading edge of the gangway was approximately level with the headstock of carriage A (see Figure 5). The restraint to lateral movement of the gangway was the upstand on the side of the protruding platform from carriage A, and this restraint was lost when the train drawgear was extended.
- 2.1.2 Marks on the upstand and the gangway leading edge indicated that as this restraint was lost jamming had occurred on the right side in the direction of travel, due to the worn and irregular profile of the gangway. It is likely that this occurred as the carriage was traversing the right-hand curve at the top of the Opapa bank, and the train began braking to descend the 1 in 46 grade. As the drawgear was compressed under braking the gangway was squeezed between the two carriages, shearing the locating pin and ejecting the gangway on to the left side of the track where it was found the next day.
- 2.1.3 Passengers could have been injured or killed by:
- the gangway falling off while it was occupied, or;
  - passengers falling through the 600 mm gap between carriages, or;
  - derailment of Train B02 had the gangway fallen foul of the running gear on the trailing carriage.

### **2.2 Causal factors**

- 2.2.1 Two factors combined to create the situation which resulted in the loss of the gangway:
- The use of a gangway shorter than normally used by Steam Incorporated.
  - The supply of an unmodified carriage.

- 2.2.2 Although the gangway was shorter than those normally used by Steam Incorporated it complied with the leading edge overlap required by Tranz Rail's Procedure C/024 and would have been suitable for use with a modified carriage using alignment bar restraint. Conversely had a type "X" gangway, the normal Steam Incorporated spare stock, been used with the unmodified Tranz Rail carriage it would have been suitably restrained.
- 2.2.3 The presence of the shorter gangway as a spare on the day resulted from an oversight by Steam Incorporated. Although key members were aware that the gangway was shorter than that normally used there were no procedures in place to ensure that gangways unsuitable for use when connecting unmodified carriages were eliminated from spare stock.
- 2.2.4 The need to use the shorter gangway arose because carriage A was not supplied with a gangway at either end. There were no specific procedures requiring a gangway to be provided but it appeared to have been standard practice when Tranz Rail carriages had been supplied previously to supplement Steam Incorporated charter trains.
- 2.2.5 The assistance given to Tranz Rail by Steam Incorporated staff in fitting the gangway was normal practice. Responsibility for ensuring the gangway was "correctly connected" lay with the TXO. He was satisfied by his visual inspection that the gangway was "correctly connected".
- 2.2.6 The gangway could have been pinned to either carriage A or carriage B. Pin and support details were identical and since neither carriage was capable of accepting an alignment bar or providing its restraint the choice for pinning had no effect on the incident.
- 2.2.7 Had the shorter gangway been used with a modified Wellington Tranz Rail carriage, Steam Incorporated staff would have been able to install the alignment bar which would have provided effective restraint in accordance with the standard.

### **2.3 System factors**

- 2.3.1 The Commission considers that Steam Incorporated was a "rail service operator(s) using the same railway line" (1.7.1) in the charter operation run on 25 October 1996, and this is reflected in the findings and recommendations forming part of this report. This view was not supported by the LTSA whose response to the safety recommendations was based on their view that Tranz Rail had full responsibility for Train B02 and therefore clause 6 B (2) (c) of the TSL Act did not apply.
- 2.3.2 The combination of events leading to the loss of the gangway resulted from deficiencies in the Tranz Rail safety system covering other operators using their railway line.
- 2.3.3 There was obvious confusion regarding the operating agreement underpinning charter trips such as that of Train B02. Although an interoperability standard had been issued covering gangways, the standard only applied when connecting to modified Tranz Rail carriages. The standard had not been disseminated effectively by Tranz Rail internally or externally, and those people actively involved in its implementation on the day were not aware of the requirements. In addition there was confusion with regard to the status of the standard.
- 2.3.4 There were no drawings, procedures or guidelines in place covering the use of the alignment bar required by the standard. These deficiencies were directly related to the lack of adequate procedures for ensuring compliance with standards.

- 2.3.5 The lack of an agreed formal policy covering “Excursion Operators”, and of adequate procedures to define clearly individual responsibilities for such operations, resulted in an inability to provide a programme of training and supervision to ensure that each operator was capable of carrying out their responsibility as required by the Act.
- 2.3.6 The LTSA advised that the rail service licences involved were granted on the understanding that a long-standing operating agreement was in effect and underpinned such operations. They were aware that Tranz Rail had not issued Procedure C/023 but were satisfied that existing long-standing procedures were adequate.
- 2.3.7 Although the investigation focused on the use of mixed rolling stock and the related standards and procedures, it also revealed that Tranz Rail’s Auckland charter fleet’s unmodified carriages did not have standards or procedures in place covering the use of drawbridge gangways and relied on “accepted practice” for their use.

### **3. Findings**

- 3.1 The gangway fell off because of an inappropriate combination of gangway and carriages.
- 3.2 There were no procedures in place detailing the responsibility for supplying gangways for mixed consists.
- 3.3 The Tranz Rail standard governing gangways for mixed consists did not cover the combination of carriages used for Train B02, and referred to a drawing which did not exist.
- 3.4 The Tranz Rail standard governing gangways for mixed consists was not brought to the attention of all Tranz Rail field staff responsible for its implementation.
- 3.5 The standard was distributed to “Excursion Operators” in a manner which left doubts as to its status and application.
- 3.6 Tranz Rail’s procedures for “Excursion Operators” using Tranz Rail lines were inadequate. In particular Tranz Rail Company Procedure C/023 had not been introduced, and “Excursion Operators” had therefore not been able to fully develop their own procedures to ensure safe integrated operation.
- 3.7 There were no standards or procedures in place covering the use of an unmodified carriage as supplied by Tranz Rail for Train B02.
- 3.8 The hazard created by the combination of a shorter than normal gangway and an unmodified Tranz Rail carriage was not appreciated by the Steam Incorporated and Tranz Rail staff who installed the gangway and checked its installation.
- 3.9 Deficiencies in the Tranz Rail safety system for “Excursion Operators” running on Tranz Rail lines caused the lack of appreciation of the hazard created by the gangway used.
- 3.10 The lack of an operating agreement to which both parties were committed, and the lack of operating procedures, adversely affected the ability of both parties to “provide a programme of training and supervision which will ensure that all persons for whom the operator is responsible are capable of carrying out their responsibilities within the proposed safety system”. (Section 6 C (2) (c) TSL Act.)



- 3.11 Adequate procedures for ensuring compliance with standards by other rail operators using the same railway line were not in place at the time LTSA approved Tranz Rail's safety system in 1995.
- 3.12 The late reporting of the incident to LTSA could have compromised the effectiveness of the Commission's investigation. It also indicated the parties' doubts as to their individual responsibilities for charter operations.

## **4. Safety Actions**

### **4.1 Steam Incorporated**

- 4.1.1 Steam Incorporated advised that immediately following the incident they had adopted procedures to ensure that spare gangways suitable for all coupling and carriage combinations and at least two alignment bars were stored on board any Steam Incorporated train before departure from their depot at Paekakariki, and that all short-length gangways were destroyed.

### **4.2 Tranz Rail**

- 4.2.1 In January 1997 Tranz Rail prohibited the running of mixed consists on its track until further notice and in July 1997 advised the Commission "the company has reached the view that they [i.e. mixed consists] will no longer be supported, [i.e. not allowed on Tranz Rail track]."
- 4.2.2 The Auckland charter fleet is being modified to fit scissors-type gangways in a programme which Tranz Rail expect to be complete by September 1997.
- 4.2.3 Tranz Rail advised that Company Procedure C/024 will be clarified when reissued. In the interim the gangway leading-edge requirements for the use of drawbridge gangways between Tranz Rail modified carriages and "Excursion Operator" carriages have been redefined and advised to operating staff by Train Advice notice.
- 4.2.4 Tranz Rail has also defined the requirements for gangway overlap when connecting two unmodified carriages and advised operating staff of these by Train Advice notice.
- 4.2.5 Tranz Rail advised that it is giving priority to developing a policy to formally address the responsibility issues associated with "Excursion Operators" using Tranz Rail railway lines.

### **4.3 Land Transport Safety Authority**

- 4.3.1 At the time of the incident a number of "Excursion Operators" had submitted safety systems to LTSA and these were being considered for approval. Following the incident LTSA advised "Excursion Operators" that their safety systems would require a suitable interoperability agreement before their safety systems could be approved. LTSA's approval of Steam Incorporated's safety system contained the following condition:

That you submit safety system variations, for LTSA consideration, setting out the precise responsibilities and accountability for the operation of your rail service vehicles and staff on the system of any other rail service operator. This safety system variation is to be approved by LTSA before the next such operation occurs.

#### 4.4 Summary

- 4.4.1 Irrespective of the applicability of clause 6 B (2) (c) of the TSL Act to Train B02 (2.3.1) the interim action taken to date by all parties will avoid any similar occurrence on mixed consists.

### 5. Safety Recommendations

- 5.1 It was recommended to the Director, Land Transport Safety Authority, that he:

- 5.1.1 Review all relevant safety systems submitted for rail service licences to ensure that they include safety standards covering other rail service operators using the same railway line, and adequate procedures to ensure compliance with such standards, (029/97) and;
- 5.1.2 Require Tranz Rail's safety system to include procedures which ensure compliance by other rail services operators with the requirements of Company Procedure C/024 "Private Rail Vehicle Interoperability Standards" and any other appropriate standards covering other rail service operators using Tranz Rail's railway line, (030/97) and;
- 5.1.3 Ensure that all such procedures for ensuring compliance with standards by other rail service operators using the same railway line clearly define the respective rail service operators' responsibilities with regard to safety and thus allow the relevant safety systems to provide a programme of training and supervision which ensures that all persons for whom each operator is responsible are capable of carrying out their responsibilities within the system. (031/97)

- 5.2 The Director, Land Transport Safety Authority, responded as follows, inter alia:

- 5.2.1 The Land Transport Safety Authority (LTSA) considers Tranz Rail Ltd was operating the train and as a consequence the responsibility for train management and inspection lay solely with that company. We note that Tranz Rail supplied the additional carriage (without a gangway) and a Tranz Rail shunting crew carried out the attachment of the carriage, but the gangway was fitted by Steam Incorporated personnel. Subsequent to this it would appear that the Tranz Rail TXO did not adequately inspect the gangway installation to ensure that the work had been carried out to the Tranz Rail standards.

Notwithstanding the references to interoperability in the report, the significant issue would appear to be lack of Tranz Rail's procedures for coupling of carriages and ensuring compliance with those standards by their staff or others. Therefore we suggest the recommendation on LTSA regarding interoperability should be revised to focus on Tranz Rail's procedures and compliance with regard to train make up and inspection, irrespective of ownership of the rail vehicle/s. As you have noted in your report LTSA has already required rail service operators to address the interoperability issues highlighted by this incident.

- 5.3 It was recommended to the Managing Director of Tranz Rail Ltd that he:
- 5.3.1 Review the suitability of procedures for disseminating the requirements of standards to those responsible for compliance, and take such steps as are necessary to ensure that the relevant Tranz Rail persons are aware of and capable of carrying out their responsibility within the system to achieve the intent of such standards, (050/97) and;
  - 5.3.2 Review the procedures for incident reporting to ensure that incidents such as the loss of a gangway are immediately reported to allow the necessary timely notification to the Land Transport Safety Authority. (055/97)
- 5.4 The Managing Director of Tranz Rail responded as follows:
- 5.4.1 050/97  
Tranz Rail is completing its current review of the procedures and necessary standards for private operators when using the rail network.
  - 5.4.2 055/97  
A review is underway to reinforce procedures that are currently in place when an occurrence is required to be notified to LTSA.


18 August 1997


Hon. W P Jeffries  
**Chief Commissioner**

## Appendix A

THIS AGREEMENT made *the FIRST* day of *OCTOBER* 1978  
BETWEEN THE MINISTER OF RAILWAYS acting by and through the :::::  
General Manager of Railways (hereinafter called "the Department")  
of the first part and NATIONAL FEDERATION OF RAIL SOCIETIES :::::  
(INCORPORATED) a duly incorporated Society having its registered  
office at Auckland (hereinafter called "the Federation") of the :  
second part and the Societies and trusts named and described in :  
the Schedule hereto which Societies and trusts have entered into:  
and executed those presents (hereinafter called "the Operating ::  
Societies") of the third part WHEREAS the parties of the first ::  
second and third parts hereto are desirous of entering into an ::  
agreement for the operation of the passenger rolling stock owned:  
by either of the parties of the second or third parts on the New:  
Zealand Government Railways system AND WHEREAS the parties hereto  
have agreed that this agreement shall be set forth in writing :::  
NOW THEREFORE IT IS HEREBY JOINTLY AND SEVERALLY AGREED AND :::::  
DECLARED BY THE PARTIES HERETO AS FOLLOWS:

(1) Subject as hereinafter appears the Department agrees to :::::  
permit the Federation and the Operating Societies to run their ::  
passenger rolling stock as part of a tour train or trains on such  
part of the New Zealand Government Railways system as shall from  
time to time be agreed between the Federation and the General ::  
Manager subject to the payment hereinafter provided.

 (2) The term of this agreement is for one year commencing on the  
*FIRST* day of *OCTOBER* 1978  
and so on from year to year unless determined by any of the :::::  
provisions hereinafter appearing.

 (3) (a) The Federation shall supply to the Department a list ::  
setting out particulars of all rolling stock owned or leased by :

it or the Operating Societies which rolling stock is required :::  
from time to time to be operated on the New Zealand Government ::  
Railway lines.

(b) All such rolling stock shall be certified as fit to run  
by an authorised employee of the Department prior to each run of:  
a tour train and shall be subject to an annual inspection by the:  
Chief Mechanical Engineer of the New Zealand Government Railways:  
Department.

(c) The Department has no objection to repairs to rolling :  
stock being carried out by the Federation or the operating :::::  
societies or by an approved contractor approved by the said :::::  
Chief Mechanical Engineer PROVIDED THAT

(i) all repairs shall be inspected by an authorised  
officer appointed by the said Chief Mechanical  
Engineer where rolling stock is involved and all  
costs incurred thereby are to be borne by the  
Federation

(ii) the Federation or the Operating Societies shall  
provide any tools which may be required for such  
repairs and inspection.

(4) The operating on main lines of Tour Trains comprising :::::  
passenger rolling stock owned by the Federation or the Operating :  
Societies shall be subject to the following conditions:

(a) Tours shall as far as practicable be excluded  
from operation in electrified suburban areas.

(b) Rolling stock shall be certified fit as hereinbefore  
provided for operation before each tour.

(c) Trains shall be fully manned by Departmental  
employees and be operated under the control of  
the Department.

(d) No non passenger vehicles shall be included in a Tour Train without the express approval of the Chief Traffic Manager.

(e) Subject to the prior approval of the Chief Traffic Manager being obtained passenger carriages belonging to the Federation or the Operating Societies may be attached to scheduled goods services.

(5) Persons travelling on tours shall indemnify the Department :: against liability arising from any eventuality.

(6) Subject to Clauses (1) to (5) above the Federation shall be :: liable for all costs of tours as fixed from time to time by the :: Department whether operated by the Federation or the Operating :: Societies including incidental costs incurred by the Department as :: a result of delays breakdowns or any other causes whatsoever not :: due to the default of the Department. Similarly the Federation :: shall also bear the full costs involved in the retention by the :: Department of Stores facilities or staff for this purpose and the :: cost of any maintenance or any other work whatsoever undertaken by :: the Department in that respect including overheads. PROVIDED THAT :: nothing in this clause shall prevent any payments which are payable :: pursuant to this agreement being paid direct to the Department by :: any of the Operating Societies.

(7) Whilst on Departmental premises Federation or Operating :: Societies' members must at all times comply with directions or :: instructions given by Officers of the Department.

(8) (a) The Federation and the Operating Societies shall be :: jointly and severally liable for any loss of or damage to any :: property which may be caused by its or the Operating Societies ::

operations under this agreement and shall meet the whole cost of :  
 any compensation or damages which any person may be entitled to ::  
 recover in respect thereof and whether in respect of damage to :::  
 property or consequential losses PROVIDED THAT nothing in this :::  
 clause shall make the Federation or the Operating Societies liable  
 for any compensation or damages in respect of any loss or damage :  
 to the extent to which it may be caused by the negligence of an ::  
 employee of the Railways Department or any member of the Public ::  
 not being a passenger of or connected in any way with the :::::  
 operations of the Federation or the Operating Societies under this  
 agreement.

(b) The Federation and the Operating Societies shall obtain:  
 and keep in full force and effect in an approved insurance office:  
 throughout the term of the contract a Public Liability Policy of :  
 Insurance to be in the sum of not less than \$2,000,000 such :::::  
 policy to be in the names of the Federation and the Operating :::  
 Societies as insured and the Department as Principal PROVIDED that  
 such policy shall be extended to indemnify the parties hereto :::  
 against damage to property caused by or resulting from fire or :::  
 explosion and to accident to any railway rolling stock :::::  
PROVIDED ALSO that such policy shall also be extended to indemnify  
 each of the parties hereto separately in the same manner and to a:  
 like extent as though separate policies had been issued in their :  
 separate names. In particular (but without limiting the :::::  
 generality of the foregoing) the insurance shall indemnify each of  
 the parties hereto in respect of claims made by the other of them:

... ..



or by the servants or agents of the other of them and each party :: shall be separately insured in the same manner and to a like extent as though separate policies had been issued. Such a policy is to be issued in duplicate and the duplicate copy of which is to be :: deposited in the office of the General Manager of Railways at :::: Wellington before the commencement of this agreement.

(9) The Federation shall pay on demand to the Department the :::: amounts fixed in accordance with the provisions of Clause (6) :::: hereof.

(10) This agreement may be terminated at any time by either the :: General Manager of Railways or the Federation giving to the other : twelve months' notice in writing of such termination.

IN WITNESS WHEREOF these presents have been executed the day and :: year first hereinbefore written.

#### THE SCHEDULE

##### Operating Societies

THE NATIONAL FEDERATION OF RAIL SOCIETIES INCORPORATED a duly incorporated society registered under the Incorporated Societies Act 1908 at Auckland with the registered number A.1977/79.

THE RAILWAY ENTHUSIASTS' SOCIETY INCORPORATED a duly incorporated society registered under the Incorporated Societies Act at Auckland with the number A.1958/55.

THE WELLINGTON BRANCH OF THE NEW ZEALAND RAILWAY & LOCOMOTIVE SOCIETY INCORPORATED a duly incorporated society registered under the Incorporated Societies Act at Wellington with the number W.1967/99

STEAM INCORPORATED a duly incorporated society registered under the Incorporated Societies Act at Wellington with the number W.1972/71

THE OTAGO BRANCH OF THE NEW ZEALAND RAILWAY & LOCOMOTIVE SOCIETY INCORPORATED being registered at Dunedin with the number O.1962/8.

OTAGO EXCURSION TRAIN TRUST being registered at Dunedin under The Charitable Trusts Act 1957 with the number O 1978/3 C.T.

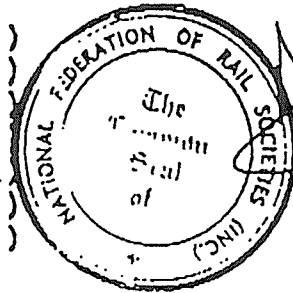
... ..

SIGNED for and on behalf of  
the Minister of Railways by  
IAN CRAWFORD MCGREGOR  
Assistant General Manager,  
New Zealand Government Railways  
Department in the presence of:

*I. Crawford McGregor*

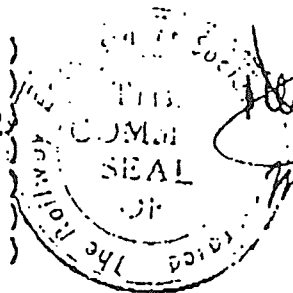
*W. G. ...  
Wellington*

THE COMMON SEAL OF THE NATIONAL  
FEDERATION OF RAIL SOCIETIES  
INCORPORATED was hereunto affixed  
in the presence of:



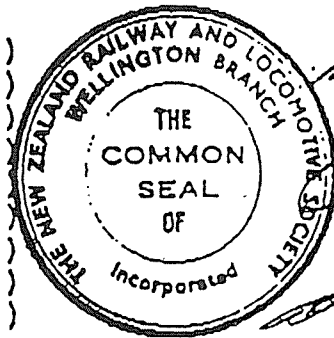
*[Signature]* HON. PRESIDENT  
*[Signature]* HON. SECRETARY

THE COMMON SEAL OF THE RAILWAY  
ENTHUSIASTS' SOCIETY INCORPORATED  
was hereunto affixed in the  
presence of:



*[Signature]* HON. PRESIDENT  
*[Signature]* HON. SECRETARY

THE COMMON SEAL OF THE WELLINGTON  
BRANCH OF THE NEW ZEALAND RAILWAY  
& LOCOMOTIVE SOCIETY INCORPORATED  
was hereunto affixed in the presence  
of:



*[Signature]* HON. PRESIDENT  
*[Signature]* HON. SECRETARY  
*[Signature]* GENERAL MANAGER

THE COMMON SEAL OF STEAM INCORPORATED  
was hereunto affixed in the presence  
of:



*[Signature]* HON. PRESIDENT  
*[Signature]* HON. SECRETARY  
*[Signature]* Treasurer

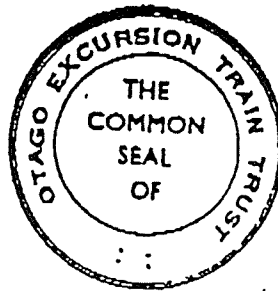
*[Handwritten mark]*

THE COMMON SEAL of THE OTAGO BRANCH  
OF THE NEW ZEALAND RAILWAY &  
LOCOMOTIVE SOCIETY INCORPORATED was  
hereunto affixed in the presence  
of:



*C Radford* Hon Chairman  
*A C Masterton*  
Hon. Secretary  
*W. Lyburn*  
Hon Treasurer

THE COMMON SEAL of OTAGO EXCURSION  
TRAIN TRUST was hereunto affixed  
in the presence of:



*J. B. Larkins* Hon. Secretary  
*G. W. Lusk* Chairman  
*J. Gardner*

## Appendix B

### *CHARTER AGREEMENT*

### *TERMS AND CONDITIONS*

1. TRANZ RAIL LTD will supply a train and/or associated support personnel on a "cost per train" basis. All marketing, ticketing, ticket collection and control of passengers during travel will be the responsibility of the individual or organisation chartering the train, or their representatives unless otherwise negotiated.
2. Direction will be taken from the Guard or Train Manager working the charter in the matter of all operating procedures and safety issues.
3. Control of passengers will be the responsibility of the organisers. Safety of the passengers or the train can not be compromised and if adequate precautions are not taken by the organisers to ensure reasonable behavior or adequate control on the train, the onboard Tranz Rail staff and/or their representatives have the authority to remove disruptive groups or individuals without consultation or influence by the organisers or their representatives.
4. TRANZ RAIL LTD staff working the charter also have the authority to take any measures deemed necessary to protect property both on and off the train where the organisers fail to take adequate precautions to prevent damage to property, the individual or organisation chartering the train will be held liable for any charges for repairs and/or associated costs, including loss of revenue to TRANZ RAIL LTD resulting from the actions of individuals or groups traveling as part of the charter.
5. Alcohol on the service can either be supplied by TRANZ RAIL LTD in which case it will be sold and consumed under the authority granted by the TRANZ RAIL LTD held Liquor License, or the consumption and control on board the train can be the responsibility of the organisers. **TRANZ RAIL LTD will charter the train to the organisers 'dry' and it will be the responsibility of the individual or organisation chartering the train to comply with all rules and regulations set out and governed by the Liquor Licensing Authority and The Sale of Liquor Act.** Any such license issued in no way undermines TRANZ RAIL's authority as detailed in paragraphs 2 and 3 above.
6. All invoices and charges forwarded must be paid within seven days of receipt/notification.
7. A bond may be requested. All charters require a deposit or payment of hire in full prior to departure as determined in the individual quotation provided.
8. Any advertising for your charter before you have received formal notification from TRANZ RAIL LTD that the charter is approved, will be undertaken at your own cost and subsequent risk.

9. TRANZ RAIL LTD will not be responsible for any loss or expense by the organiser/s as a result of the charter to operate or depart or arrive at the scheduled time or location for whatever reason. TRANZ RAIL LTD reserves the right to change the service (service meaning type of carriages supplied or mode of transport used) at any time as operationally required..

