CANTERBURY RAILWAY SOCIETY INC.
P.O. BOX 13-039, CHRISTCHURCH, NEW ZEALAND.

Operations Group
Society Procedure

Ferrymead Railway
Safety Case
CSP-001

Date Effective: **Review Date:**		**Approved By:**	
Version Number	**Prepared(P)** **Reviewed(R)** **Amended (A)By:**	**Confirmed By:** **Technical Committee**	**On(Date)**
7.0	P. Rowan (P)	Rules and Regulations Committee	8/7/2007
7.1	R Tucker (R) (A) N Hogg (R) (A)	Rules and Regulations Committee	4/10/2011
7.2	N Hogg (R) (A)	Head's of Department Committee	10/11/2015

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Managers Responsibility: **Managers of the work groups which use this document are responsible for ensuring that only current issues are used by the work groups**

This Document superseded C.R.S. Society Procedure : 7.1

1. Introduction

1a Name, Address, Contact Details

"The Canterbury Railway Society Incorporated"
(Commonly known as the Ferrymead Railway)

Ferrymead Heritage Park
50 Ferrymead Park Drive
Christchurch 8141

P.O. Box 13 039
Christchurch

Phone: (03) 384 9918

Contact as per attached:

Note: Changes Required To Current Operating Safety System

The current Canterbury Railway Society Inc "Operating Safety System" was implemented in 1997, and whilst the Society acknowledges changes are required, it has not been possible to update that document prior to the issue of this document.

References to the "LTSA" or "Land Transport Safety Authority" should be updated to read NZ Transport Agency (NZTA).

References to the "Transport Services Licensing Act 1989" should be updated to read "Railways Act 2005".

References to "National Federation of Rail Societies" should be updated to read "Federation of Rail Organisations of New Zealand".

References to "Tranzrail" should be updated to read KiwiRail train operations or KiwiRail Network track operators as appropriate.

Amendments to documents will be in red.

Ministry of Economic Development
Manatū Ōhanga
Companies Office

CERTIFICATE OF INCORPORATION

THE CANTERBURY RAILWAY SOCIETY INCORPORATED
220065

This is to certify that THE CANTERBURY RAILWAY SOCIETY INCORPORATED was incorporated under the Incorporated Societies Act 1908 on the 7th day of April 1966.

Neville Harris

REGISTRAR OF INCORPORATED SOCIETIES NEW ZEALAND

Neville Harris
Registrar of Incorporated Societies
7th day of April 1966

For further details relating to this company check www.companies.govt.nz

Certificate printed 28 Jan 2005 17:03:54

1b Nature of Activities

The Ferrymead Railway is a working railway museum, operating restored heritage locomotives and rolling stock, primarily for the carriage of passengers, between stations within the Ferrymead Heritage Park.

The Railway carries out the restoration and maintenance of a large selection of heritage rolling stock, both passenger and freight vehicles, dating from the 1870's to the present, for operation on the Railway. The Railway is also involved in the restoration and maintenance of rail heritage buildings.

The Railway has a fully interlocked signalling system, including mechanical and relay systems controlling both lever operated and remote controlled powered turnouts. Train movements are controlled by a signalling system using both semaphore and colour light signals. Tablet control working is also used to control the movement of trains. There is an extensive internal phone system throughout the Railway.

Trains operate on approximately 4 kilometres of mainline, yards and sidings. Track gauge is the New Zealand standard gauge of 1067mm.

Trains may operate on any day throughout the year as required.

A large team of competent volunteers carries out all activities on the railway, including the restoration, maintenance and operation. The Ferrymead Railway has been successfully operating rail services, on this railway, for over 50 years.

The Ferrymead Railway has a rail connection with the national rail system, at the 5km peg, Main South Line, which at present is only used for the transfer of rolling stock between the two systems. At present no passenger or freight services use this connection.

Motive power used on the Railway includes: steam locomotives, diesel mechanical locomotives and railcars, diesel electric locomotives, 1500 volt dc electric locomotives and self propelled inspection and maintenance vehicles.

All rail operations on the Ferrymead Railway are carried out in accordance with the Canterbury Railway Society Incorporated "Operating Safety System" Section 4.1.

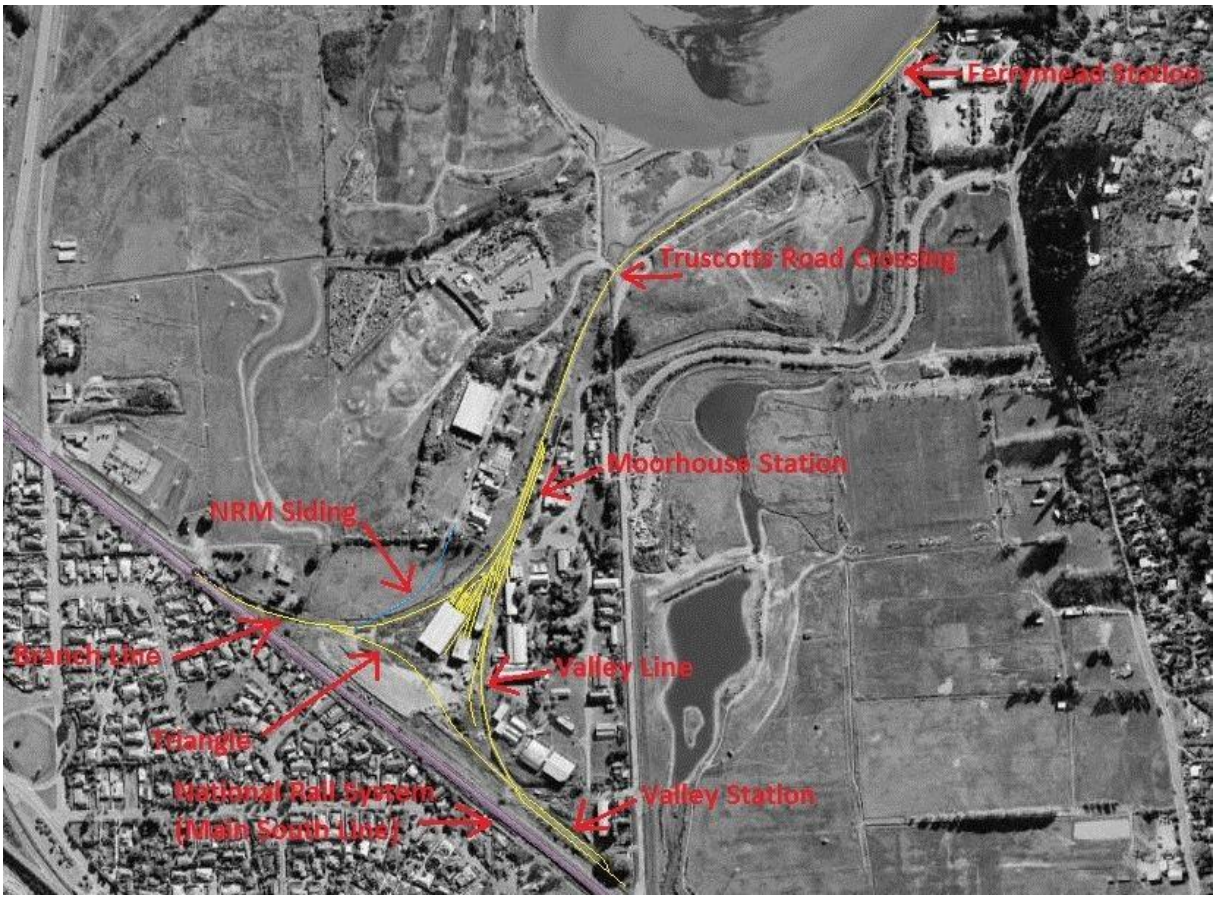
Details of the rolling stock fleet employed are as per the Canterbury Railway Society Incorporated "Operating Safety System" Section 3.7.

Rolling stock operating on the Ferrymead Railway consists of restored vintage vehicles. They are operated at low speed on a gently graded line. The majority of this equipment is former New Zealand Railways equipment. As such it is designed to a variety of New Zealand Railways specifications. While most of the rolling stock used on passenger trains is fitted with Westinghouse automatic air brakes, a few items of heritage rolling stock are only piped for airbrakes and have never been fitted with operational air brakes and special conditions apply to the operation of these vehicles.

The carriages and guards vans used for the carriage of passengers are former New Zealand Railways vehicles with both steel and wooden underframe with mostly wooden bodies.

Public access is permitted to guards vans where these have been modified to provide standard car gate protection at entry points.

System Map



Key:

Ferrymead Railway
Track owned by the National Railway Museum
National Rail System

1c Safety Policy and Objectives

The Canterbury Railway Society Incorporated's aim is to implement and maintain procedures that provide as safe as possible environment on the Ferrymead Railway for its members, staff and the general public.

The "Heads of Department" (HOD) committee will be responsible for setting and reviewing safety policy for the Railway. Each department head will be responsible for enforcing safety policy within their portfolio. Safety policy will be implemented by any of the following means:

- Staff training;
- Issue of train advice, notice in newsletter, or other written instruction;
- Safety briefings.

The "Heads of Department" committee will be responsible for monitoring Key Performance Indicators. Each department head will be responsible for gathering the performance indicators from within their portfolio area for internal/external audit. The key performance indicators are:

- Heads of Department: Attendance of each head of department to the 11 scheduled meetings per year. Where a department head is unable to attend due to other commitments they shall furnish a report to the HOD (either written or orally via another department head) in their absence.
- Operations: All accidents and incidents (whether reportable to the NZTA or not) shall be recorded. Members not reporting or later than 30 minutes for their rostered duty shall also be recorded. Trains 30 minutes late or more into service shall be reported.
- Training: The proportion of overdue or failed examinations shall be reported to HOD quarterly.
- Signals: Any in service signal, points or level crossing alarm failures shall be reported.
- Mechanical: Any in service failure requiring a vehicle to be withdrawn from service shall be reported.
- Track: Any in service failures (e.g. derailment, heat buckle, point run through) shall be reported.
- Electric: Any in service failure of the electric overhead shall be reported.
- Workshop: All accidents requiring medical treatment to be reported.

Key Performance Indicators (KPI's) will be considered by the Heads of Department committee at each meeting. The KPI's will be collated by the Internal Auditor. The KPI's will be included in the annual Safety Performance Report which will be sent to the NZTA. The internal audit process will also review the performance of the various Department Heads.

2. Management and Organisation

2 a Management

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 1.1.

The management of the Canterbury Railway Society Inc. are an elected committee. The committee will appoint, after each annual general meeting, persons to the following positions of management.

This group are the managers of the Ferrymead Railway. They are charged by the committee with the operation of the Ferrymead Railway, in accordance with the Canterbury Railway Society Incorporated's "Operating Safety System" and the Ferrymead Railway's Rail Service Operators License.

Management Structure of the
Canterbury Railway Society Inc. / Ferrymead Railway.

Elected by members:
Committee of the Canterbury Railway Society Inc.

Appointed by Committee:
General Manager

Appointed on recommendation of General Manager
Department Heads

Internal Auditor

Appointed by the NZTA
External Safety Assessor

The General Manager and each of the Departmental Heads will be given a copy of their job description and an outline of their rights and responsibilities under the Ferrymead Railway's Safety System and this Safety Case. They will also be given an updated copy of the Safety System.

These documents, when signed by the manager concerned and the General Manager, will remain in force for one year. At the end of that year the Canterbury Railway Society Committee and the Ferrymead Railway General Manager will review the position.

Performance and adherence to the Safety System will be used as a guide when considering re-appointment.

The Safety Liaison officer who is authorised to act as the primary contact with the NZTA shall be the Ferrymead Railway's General Manager.

2 b Personnel Training and Competence

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.4.

All staff on the Railway are skilled volunteers drawn from the membership of the Canterbury Railway Society, they are trained and certified in accordance with the Canterbury Railway Society Incorporated's "Operating Safety System". These Members are of a wide range in ages, skills and experience.

Training shall ensure that all staff on the Ferrymead Railway are qualified and competent to carry out their tasks in a way that minimises hazards to staff, passengers and visitors to the railway.

Tasks will be performed using traditional and time proven railway practices and/or industry best practice.

2 c Risk Management

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.0.

The Canterbury Railway Society has over 50 year's experience in operating and running the Ferrymead Railway, with no major incidents / accidents occurring during this period.

Risk analysis is an ongoing process on the Railway. All significant or changing activities will require a full risk analysis before changes are implemented.

The Canterbury Railway Society Inc. Department Managers at their regular meetings will identify any risks involved with the operation of the Ferrymead Railway and formulate measures to eliminate, minimise or isolate these risks.

External audits are conducted annually, internal audits are also conducted annually but times to fall 6 months before or after and copies of these audit reports will be made available to the NZTA.

Refer appendix 1 attached:

2 d Occurrence Management

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 8.0.

The person responsible for contacting the NZTA shall be the Train Controller on the day, and shall operate in accordance to the Ferrymead Railways "Accident and Incident Procedures".(CSG-005)

The purpose of reporting, recording and investigating accidents is to avoid repetition of the event.

2 e Occupational Safety and Health

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.0.

Requirements of the Health and Safety in Employment Act will be met by the Railway as required. At the present time the Ferrymead Railway does not employ any paid staff, teams of skilled volunteers carry out all work. We encourage and enforce safe working practices at all times.

Drugs and alcohol policies are enforced on the railway.

Rule 107 of the Railway Operating Rules and Regulations states:
No member shall be allowed to take any duty if-

(a) They show signs of illness and/or fatigue which is likely to render them unfit to carry out their duties;
(b) They show any effects whatsoever of having consumed alcoholic liquor or taken harmful drugs;
(c) It is known that they have recently consumed alcoholic liquor or taken harmful drugs; or
(d) It is known that they have in their possession alcoholic liquor or harmful drugs.
(e) They show signs of impaired judgement and/or other unusual behaviours due to having taken prescribed medications, which may affect them in the performance of their duties.

All locomotive drivers are required to have an appropriate medical certificate.

2f Consultation with Membership/Staff

All members are encouraged to participate in all areas of operation of the Railway, including the safe operation of our trains.

If they are concerned with any area of the operation of the Railway they are encouraged to liaise with their team leader/activity supervisor. If they are dissatisfied with any response they are encouraged to express their concerns to senior members of the management team.

Any proposed change to the Safety Case or Operating Safety System will be discussed at a Heads of Department meeting. Upon consensus being reached at the HOD meeting, the proposed amendment/s shall be displayed on the staff notice board for at least one month after which any comments will be reviewed by a HOD meeting prior to the amendment being enacted.

2g Safety Maintenance and Improvement

Department Head's will continuously review safety within their portfolio. Safety and risk will be discussed and reviewed at Heads of Department meetings with an aim of making safety improvements where possible. The Heads of Department will be responsible for developing plans or measures to improve safety. The Heads of Department will also be responsible for reviewing the Safety Case and Safety System. Formal review of selected sections of these documents shall take place at least annually but in no case shall exceed 5 years for any part of either document.

2h Heads of Department Meetings

Heads of Department meetings will generally be held monthly, except for January, and will be attended by each Department Head. Where a Department Head is unable to attend they will either provide a written report or send someone in their place. The General Manager will be responsible for calling Heads of Department meetings and for producing an agenda to be distributed prior to each meeting. The standing agenda will be as follows, with other items added each month as required:

Apologies
Minutes of previous meeting
Matters arising from minutes
Correspondence
Outstanding Items
Reports
- *Traffic*
- *Site*
- *Ways and Works*
- *Signals*
- *Training*
- *DTG*
- *Safety*
- *Electrics*
- *Workshop*
- *Loco*
- *Rolling Stock*
- *Auditor*

General Business

A Minutes Secretary will be responsible for recording the minutes of each meeting. Where a safety issue is raised at a meeting the minutes shall record what action is to be taken and by whom. Such items are to be recorded as an "Outstanding Item" in subsequent minutes until recorded as being resolved.

The General Manager will provide a report of each Heads of Department meeting to the elected committee of the Canterbury Railway Society each month.

3. Rail Operations

3 a Operating Limits

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 4.1.

Operating limits for all trains operated on the Ferrymead Railway are set out in the Canterbury Railway Societies "Working Time-table"

Trains on the Ferrymead Railway may operate at speeds as laid out in the "Ferrymead Railway Working Time-table". The maximum speed of any train on the Ferrymead Railway does not exceed 35 kilometres per hour.

3 b Network Control

As per the Ferrymead Railway Working Timetable.

At present signalling on the Ferrymead Railway is standard New Zealand Railways semaphore and colour light operated by a signal box at the Moorhouse Station and a smaller signal panel in the Ferrymead Station. As track extensions are completed the signalling system will be extended as required.

Tablet Working is used on the mainline between Ferrymead and Moorhouse while Open Section Regulations apply between Moorhouse and the Valley, Moorhouse Branch Line, and Triangle Wye as described in the Ferrymead Working Timetable.

3 c Interoperability

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 7.0.

If locomotives and/or other rolling stock arrive on the Ferrymead Railway via the KiwiRail Network mainline connection in passenger or freight service, eg. part of an excursion train trip or shunting service, then that equipment will be deemed to have met with the owners Safety Case/Safety System and have met KiwiRail Network's Safety requirements and therefore will comply with this Safety Case. The General Manager may accept the equipment without further inspection, subject to any restrictions deemed necessary.

The Motive Power Supervisor or Rolling Stock Supervisor will evaluate other visiting rolling stock in relation to the appropriate sections of Canterbury Railway Society Incorporated's "Operating Safety System". This evaluation may take the form of physical inspection and/or examination of the vehicle owner's repair and certification documentation. When the visiting rolling stock is deemed suitable for operation on the Ferrymead Railway, the General Manager will be advised and approval to run, including any operational restrictions or recommendations, may be issued.

The Canterbury Railway Society on a regular basis uses locomotives and rolling stock, owned and restored by the Diesel Traction Group Incorporated, which is based at Ferrymead. These locomotives are deemed to be in compliance with the Canterbury Railway Society Incorporated's "Operating Safety System" as long as the Diesel Traction Group provides the proof that they hold a rail service operator's license and these locomotives and rolling stock are maintained in accordance with their Safety Case.

KiwiRail Network Connection – Trains from the Ferrymead Railway's lines must not proceed beyond the "ALL TRAINS STOP" Board situated near KiwiRail's siding safety points unless permission has been obtained from the KiwiRail National Control Centre to do so.
A Train Advice issued by the Traffic Manager of the Ferrymead Railway shall control all movements of locomotives and/or rolling stock requiring the passing, in either direction, of the "ALL TRAINS STOP" Board at the interchange between KiwiRail and the Ferrymead Railway.
Contact persons regarding the use of this interchange shall firstly be the General Manager, Ferrymead Railway or secondly, the Traffic Manager, Ferrymead Railway.

The National Railway Museum of NZ (NRM) has a siding connected to the Canterbury Railway Society's Branch Line and owns some rolling stock. As the NRM does not hold a Rail Licence the Canterbury Railway Society will be responsible for certifying their track and any rolling stock as fit for purpose under this Safety Case.

4. Infrastructure

4 a Track and Formation

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.3.

All track will be maintained and receive regular maintenance in accordance with and at periods as defined by the Ferrymead Railway's Safety System. Track will be inspected by appropriately qualified/competent inspectors. The requirements for maintenance and inspection personnel are defined in the Ferrymead Railways Safety System.

Track on the Ferrymead Railway is laid at a gauge of 1067mm (3'6"). There are several grades of line in operation. The main line handles regular passenger trains operating at speeds of up to, but not over, 35 km/h. The yard area, where trains are operated at lower speeds, is used for the marshalling of trains, as well as the storage of locomotives and rolling stock. Track access is provided to several workshops and storage sheds.

The Ferrymead Railway at present has three controlled road crossings and one pedestrian crossing.

4 b Bridges and Structures

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.3.

All bridges and structures will be maintained and receive regular maintenance in accordance with and at periods as defined by the Ferrymead Railway's Safety System. Bridges and structures will be inspected by appropriately qualified/competent inspectors. The requirements for maintenance and inspection personnel are defined in the Ferrymead Railways Safety System

The railway has a number of small bridges and culverts that carry the line over small streams and drains; they are built to standard New Zealand Railway design or designed by a competent person.

Alongside the mainline there are traction poles, which carry the 1500-volt dc overhead supply for the electric locomotives and also poles that carry the Ferrymead Park's internal telephone systems lines.

4 c Signalling and Communication

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.3.

Signalling and communications will be maintained and receive regular maintenance in accordance with and at periods as defined by the Ferrymead Railway's Safety System. Signalling and communications will be inspected by appropriately qualified/competent inspectors. The requirements for maintenance and inspection personnel are defined in the Ferrymead Railway's Safety System.

Signalling at the Ferrymead Railway is standard New Zealand Railways semaphore and colour light operated from the signal boxes.

Signal maintenance is undertaken according to the Ferrymead Railways "Signals Code". (S-005)

4 d Electric Traction Systems

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.6.

The electric traction system will be maintained and receive regular maintenance in accordance with and at periods as defined by the Ferrymead Railways Safety System. Electric traction systems will be inspected by appropriately qualified/competent inspectors. The requirements for maintenance and inspection personnel are defined in the Ferrymead Railways Safety System.

The electric traction system consists of the power supply, the distribution and service lines, the contact wire and the electric locomotives.

The objectives of the "Safety Case" are to ensure that the 1500v DC electric traction system is maintained in a safe condition that minimises hazards to staff, passengers and visitors to the railway.

5. Mechanical Engineering

5 a Rolling Stock Fleet

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.2.

All rolling stock will be maintained and receive regular maintenance in accordance with and at periods as defined by the Ferrymead Railway's Safety System. Rolling stock will be inspected by appropriately qualified/competent inspectors. The requirements for maintenance and inspection personnel are defined in the Ferrymead Railways Safety System.

Rolling stock operating on the Ferrymead Railway consists of restored heritage vehicles. The majority of this equipment is former New Zealand Railways equipment; as such it is designed to a variety of New Zealand Railways specifications.

5 b Design, Construction, Inspection and Maintenance

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.1, 3.2.

Passenger access between vehicles is by standard New Zealand Government Railways connections. These consist of an articulated walkway between the vehicles and telescopic handrails. The handrails are held in place by retaining clips that must be held back to allow the hook to lift clear of the mounting eye.

The safety procedures for these vehicles are designed to ensure that the main hazards are minimised and managed: i.e. Loss of, or diminished braking capacity; Mechanical failure or defect leading to derailment of vehicle; Injury associated with fixtures and fittings of vehicle; Persons falling from the vehicle; Injury associated with the electrical equipment on the vehicle.

5 c Locomotives and Railcars

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.1.

All locomotives and railcars will be maintained and receive regular maintenance in accordance with and at periods as defined by the Ferrymead Railway's Safety System. Locomotives and railcars will be inspected by appropriately qualified/competent inspectors. The requirements for maintenance and inspection personnel are defined in the Ferrymead Railways Safety System.

The Ferrymead Railway operates using restored locomotives, including steam locomotives, diesel mechanical locomotives and railcars, diesel electric locomotives, 1500 volt dc electric locomotives and self propelled inspection and maintenance vehicles.

5 d Passenger Cars

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.2.

All passenger cars will be maintained and receive regular maintenance in accordance with and at periods as defined by the Ferrymead Railways Safety System. Passenger cars will be inspected by appropriately qualified/competent inspectors. The requirements for maintenance and inspection personnel are defined in the Ferrymead Railways Safety System.

The carriages and guards vans used for the carriage of passengers are former New Zealand Railways vehicles with both steel and wooden underframe and mostly wooden bodies.

Public access is permitted to some guards vans and these have been modified to provide standard car gate protection at entry points

While most of the rolling stock used on passenger trains is fitted with Westinghouse automatic air brakes, a few items of heritage rolling stock are only piped for airbrakes and have never been fitted with operational air brakes and special conditions apply to the operation of these vehicles.

5 e Road/Rail Vehicles

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.3.

The Ferrymead Railway does not own any road/rail vehicles at the present time.

Outside contractors occasionally use road/rail vehicles on the Ferrymead railway of track repairs etc.

Road vehicles are not used to move rail vehicles.

5 f Service and Maintenance Vehicles

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 3.3.

All service and maintenance vehicles will be maintained and receive regular maintenance in accordance with and at periods as defined by the Ferrymead Railway's Safety System. Service and maintenance will be inspected by appropriately qualified/competent inspectors. The requirements for maintenance and inspection personnel are defined in the Ferrymead Railway's Safety System.

The Ferrymead Railway has two rail mounted hand operated cranes. As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 9.

Former New Zealand Railways self propelled, rail mounted, tower wagons are operated for the installation and maintenance of the electric overhead.

A number of hand and motor propelled inspection trolleys are also operated.

6 Document Control and System Review

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 6.0.

The Heads of Departments at their regular meetings shall hold reviews of the Safety System and Safety Case. The Internal Auditor will present a copy of their report to the Heads of Departments along with their recommendations.

7 Safety Assessment and Internal Audits

As per the Canterbury Railway Society Incorporated's "Operating Safety System" Section 6.0

Every twelve months or as required by the NZTA the Internal Auditor will audit all sections of the Safety System and related documentation. He/she will produce a full written report to the General Manager. This report will cover all aspects of operation and will also point out any areas of risk where improvements in safety and/or quality could be made.

The internal audit will be timed to be 6 months apart from the annual external audit so that progress on implementation of any external auditor recommendations can also be evaluated.

Audit reports will be discussed at Heads of Department's meetings and notes of actions taken minuted.

Every twelve months or as required by the NZTA the external safety assessor will audit all sections of the Safety System and Safety Case and relevant documents. This report will cover all aspects of the railway's operation and will also identify any areas of risk where improvements in safety and/or quality could be achieved.