

## **STANDARD V-001**

### ***Requirements for safety management systems for train operators***

#### **Colophon**

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## 0 GENERAL

### 0.1 Authorisation

By initialling the appropriate box below, H.G.D. Cramer, as **author of this standard**, testifies that this standard has been realised in accordance with the requirements of the quality management system of the Corporate Staff of Railned Railway Safety.

By initialling the appropriate box below, the Head of the Railway Inspectorate, as the **external reviewer**, testifies to agree to the contents of this standard.

By initialling the appropriate box below, the **Head of Railned Railway Safety** testifies to agree to the release of this standard.

	Position and name	Date	Initials
Verification	Author of the Standard: drs. H.G.D. Cramer	Sgd. 2 July 1997	
As accorded	External reviewer: Ministry of Transport, Public Works and Water Management, Head of Railway Inspectorate Drs. J.F.P. de Jong	Sgd. 3 July 1997	
Authorisation	Head of Railned Railway Safety: Drs. W.A. Vriesendorp	Sgd. 7 July 1997	

### 0.2 Latest version

When using this standard one should always verify whether the most recent version is used. The version number is stated on the front page of this standard.

The Internet site [www.railned.nl](http://www.railned.nl) presents a table of all published and valid standards. Their text is available there for download.

### 0.3 Purpose and function

This standard aims at:

- Informing train operators about the requirements to be met by the safety management system they must set up and maintain in accordance with the RRV.
- Serving as a guideline for the audits carried out by Railned Railway Safety.
- Providing the basis for the requirements imposed on new train operators by Railned Railway Safety.

### 0.4 Range of application

This standard applies to train operators that have been granted access to the main railway network in the Netherlands. It states the requirements that their rail safety management systems must meet. The word safety in this text always refers to Railway Safety as defined in the RRV: the level of absence of danger in and by the rail transport system.

The standard has been designed for use by all train operators, regardless of the size and nature of their operations.

The standard offers sufficient possibilities to adjust its implementation to fit the specific characteristics of every train operator.

The standard itself does not set any goals or criteria for content, nor instructions for its effectuation. This standard should therefore be applied in connection with the existing statutory regulations (largely contained in the Railway Act and its accessory Regulations, and the RRV) and the Railned Railway Safety plan, that is published each year.

## **0.5 Date of effectuation**

Existing train operators must adjust their operational management to the requirements of this standard before 31 December, 1998.

The audit to determine whether new train operators can receive a safety certificate is based on requirements that have been derived from this standard. A new train operator can not be expected to demonstrate a fully operational safety management system before starting operations. The purpose of the audit is to ascertain whether all necessary preparations have been made. The conditions in the safety certificate will state the period in which the management system must be verifiably fully operational.

## **0.6 Definitions and abbreviations**

The basic terms that are unique for this standard have been defined in the list below.  
The reader is referred to the RRV for definitions of other terms.

### **AUDIT**

A systematic and independent evaluation of how well (parts of) a safety management system functions (function).

### **STANDARDS**

Specifications linked to the RRV that describe the condition and/or method with which a certain category of persons or objects must comply.

### **UNSAFE ACTION**

An action leading to unintentional and undesirable risks.

### **UNSAFE SITUATION**

A state in which unintentional and undesirable risks are present.

### **RISK**

The combination of the chance of an undesirable event occurring on the one hand, and the effects of the occurrence on the other.

### **RISK ASSESSMENT**

All of the activities carried out for the purpose of identifying, evaluating and appraising the risks involved in a certain activity, and the development and evaluation of measures to reduce these risks. The chances and effects of risks may be determined and assessed either qualitatively or quantitatively.

### **RRV**

Reglement Railverkeer (Dutch Railway Rule Book)

### **SAFETY CERTIFICATE**

A statement, issued by the appropriate authority, that the train operator fulfils the safety conditions for participation in railway transport.

### **SAFETY POLICY**

The intentions, principles and the general orientation to be followed with respect to railway safety as officially expressed by the highest level of management, and from which all priorities, objectives and actions are derived.

### **SAFETY OBJECTIVES**

A level of railway safety that the organisation aims at, expressed in measurable quantities.

### **SAFETY DEFICIENCY**

Any deficiency observed and that puts or may put the railway safety in danger.

### **SAFETY MANAGEMENT**

The aspect of the total management function that determines and implements safety policy.

### **TRAIN OPERATOR**

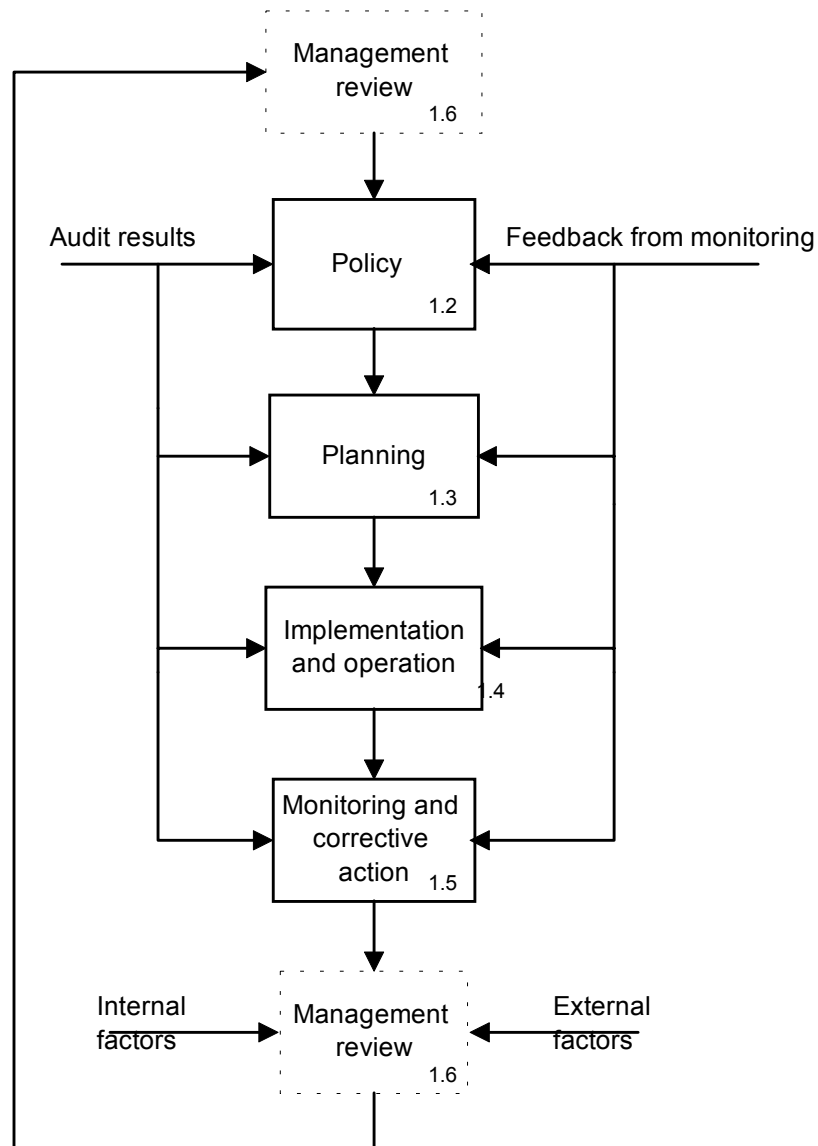
The organisation that, on its own responsibility, performs transport by rail on the national rail network.

### **MANAGEMENT SYSTEM**

The organisational structure, responsibilities, procedures, processes and facilities for ensuring that a certain aspect of the total management function is properly assured.

## 0.7 Outline of the standard

The numbers in the flowchart refer to paragraphs in the text



## **1 TEXT OF THE STANDARD**

### **1.1 General provisions**

The train operator sets up and maintains a safety management system that complies with the requirements described in paragraphs 1.2 to 1.6.

All elements of the safety management system must be demonstrably present and structurally implemented in the normal course of operations.

The extent to which the various elements are relevant and how they could be worked out in detail strongly depends upon the nature and size of the operations, the activities carried out and the risks involved.

### **1.2 Safety policy**

The general management of the train operator determines the policy regarding railway safety and in doing so commits itself to:

- Continuously strive at reducing the risks, with the legal and other requirements (RRV and the rules mentioned in the RRV) regarded as a minimum.
- Making its safety policy known, creating support for its safety policy and implementing the policy on all levels within the organisation.
- Providing the necessary means for implementing the policy.
- Introducing railway safety as an indicator for the performance of the operational management.

The policy offers sufficient ground for establishing safety objectives and reviewing the results achieved.

### **1.3 Planning**

#### **1.3.1 Risk assessment**

The train operator

- summarizes the critical activities in his organisation in terms of safety, and
- subjects these to a risk assessment.

The interfaces with other processes and systems in the railway system should receive special attention.

Major changes in general operations and other appropriate moments are causes for a reconsideration of the summaries and risk assessments made.

#### **1.3.2 Legal and other requirements**

In addition to his risk assessment, the train operator is to summarize the legal and other requirements that apply to him, any agreements and generally accepted work methods in the railway system.

#### **1.3.3 Objectives**

The train operator stipulates the safety objectives for the separate levels (depending upon its size) of his organisation in writing.

When establishing and adapting these objectives, the train operator takes into account:

- the results of the risk-analysis;
- the legal and other requirements;

- the technological, financial and operational possibilities;
- the Railned Railway Safety plan;
- measures resulting from safety investigations and audits carried out by Railned Railway Safety;
- the results of his own safety investigations and audits.

#### **1.3.4 Organisation of the operational management**

The train operator includes the results of the risk assessments and the summary of legal and other requirements in his operational planning (applied techniques, processes, work instructions, procedures, criteria, etc.).

He organises his operations in such a way that:

- Unsafe actions and unsafe situations are avoided as far as possible;
- The consequences of unsafe actions/situations are as minor as possible.

The train operator takes into account the state of technology, any existing agreements and the generally accepted work methods in the railway system.

Railway system interface processes with other organisations in the must be attuned with those companies.

#### **1.3.5 Annual railway safety plans**

The train operator makes an annual railway safety plan.

This plan must at least include:

- Which activities are to be carried out;
- Who in the organisation of the train operator is responsible for these activities;
- A time schedule.

### **1.4 Implementation and operational management**

#### **1.4.1 Structure of the organisation and responsibilities**

The responsibility for the railway safety ultimately rests with highest management of the train operator. It is important at this level of management that active involvement in improving the railway safety is shown continuously.

The distribution of responsibilities and qualifications for railway safety is put into writing by the train operator and is made known within his organisation.

Executives and employees on all levels of the organisation must be familiar with their responsibility for railway safety and they must be aware of how their actions influence railway safety.

The train operator appoints an official who has specific responsibilities and qualifications with respect to:

- Setting up and maintaining the safety management system in accordance with this standard;
- Reporting on the performance of the safety management system, for the purpose of adjusting and improving it where necessary.

This official has direct access to the highest level of management.

#### **1.4.2 Control of operations**

The train operator:

- Ensures that his employees are always informed of the instructions, procedures, criteria and agreements for co-operation with other organisations in the railway system, that apply to them;



- Provides his employees with the necessary means and powers required to comply with the above;
- Ensures that operations are carried out in accordance with the above.

#### **1.4.3 Requirements on staff**

The train operator specifies the requirements to be met by executive and operational staff. The train operator also determines the need for primary training and periodical re-training. The train operator ensures that each employee whose work has an important influence on the railway safety disposes of the required personal characteristics, education and experience.

#### **1.4.4 Requirements on rolling stock**

The train operator ensures that the risks involved in the use of his rolling stock are as low as reasonably possible.

This involves:

- The admission of rolling stock in compliance with the requirements in the RRV and its accessory standards;
- Monitoring and controlling the condition of the rolling stock using a documented maintenance system, aimed at guaranteeing a permanently safe condition, and based on expertise within his own organisation or external expertise;
- Maintenance of the rolling stock by expert workshops;
- An administration that provides the organisation with records of the history of each vehicle (identification, inspection reports and the technical documentation behind these, vehicle bulletin, changes in construction, etc.);
- The availability of adequate documentation for the operating staff, including documentation for acting safely in case of failures and malfunctions.

#### **1.4.5 Requirements on suppliers and contractors**

The train operator ensures that products and services acquired externally comply with the requirements for ensuring railway safety. For that purpose, the train operator determines the necessary specifications to meet these requirements and to guarantee that the products/services provided comply with the specifications.

#### **1.4.6 Communication**

The train operator promotes:

- effective and open communications with regard to railway safety;
- the involvement of the employees in determining and implementing the railway safety policy.

#### **1.4.7 Documentation**

The train operator is to record:

- the documentation regarding the basic safety management system elements set up on the basis of this standard;
- any references to additional documentation.

The train operator ensures that this documentation is kept up to date and available at all times.

#### **1.4.8 Emergency preparedness**

The train operator makes the necessary arrangements to comply with the requirements for emergency preparedness in the RRV.

Rail Traffic Control (RVL), as the over-all responsible organisation, can include in her general emergency plan additional guidelines for emergency situations.

## **1.5 Monitoring, safety investigations and corrective actions**

### **1.5.1 Monitoring**

The train operator measures the extent to which the policy is observed and its goals are achieved as follows:

- pro-actively, for example by carrying out inspections on a regular basis and the presence of management staff on the work floor;
- retroactively by recording and analysing unusual incidents, accidents, near-accidents, absence due to accidents, etc.

### **1.5.2 Safety investigations and corrective actions**

The train operator investigates observed safety deficiencies and, if relevant, follows the procedure for safety investigations as specified in the RRV.

The train operator assists in safety investigations by Railed Railway Safety and the other organisations involved in the railway system.

The train operator has the expertise to systematically determine underlying causes and specifies procedures that regulate the responsibilities and the methods for investigations. An investigation will be followed up by corrective measures or a reconsideration of the risk-analysis, when it gives cause to do so.

### **1.5.3 Internal audits**

Supplementary to the monitoring, the train operator periodically carries out an audit that evaluates the elements of the safety management system.

The auditor must be an expert in his field and as independent as possible of the activities that are subjected to the audit.

Audits may comprise the entire or only specific parts of the operations.

### **1.5.4 Records**

The train operator keeps records of the results from the monitoring activities, safety investigations and internal audits (1.5.1 to 1.5.3), and of any subsequent measures that may have been taken and, if relevant, will process the information into quantitative indicators.

### **1.5.5 Annual report**

The train operator makes a report with respect to the railway safety each year.

The report includes at least:

- A retrospective view, using the plan for the year under review (1.3.4) as a reference;
- An indication of the safety level that has been realised;
- A summary of the records mentioned in 1.5.4;
- The results of the management review mentioned in 1.6.

## **1.6 Management review**

The highest management level of the train operator, observing its responsibility mentioned in 1.4.1, evaluates periodically, but at least once a year, how effectively the safety management system performs, and determines which actions are necessary to correct any deficiencies.

This evaluation will focus on:

- the general state of affairs regarding safety management;
- the state of affairs with respect to specific elements of the system;
- the results of any internal audits;

- changes in the internal and external circumstances: reorganisations, changes to regulations, new techniques, etc.

Although the safety management system should to a considerable extent be able to withstand change, it will be necessary to make adjustments from time to time.

The management review offers the opportunity to do so and, in addition, may provide information that can be used to improve the pro-active approach to reducing risks and to reduce the costs resulting from incidents.