RAILWAY SAFETY REGULATOR

RAIL SAFETY ON THE RIGHT TRACK

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MHI WORKSHOP
EMPERORS'S PALACE, BOKSBURG

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Introduction

Railway Safety Regulator (RSR) is an independent regulatory body, established in terms of The National Railway Safety Regulator Act No. 16 of 2002 (as amended)

RSR is mandated

a) **overseeing safety within the railway transport industry**

b) **promote improved safety performance in the railway transport industry in order to promote the use of rail as a mode of transportation**

c) **monitor and ensure compliance with this Act;**

Co-operative Governance

The RSR must co-operate with other organs of state in order to:

- Ensure the effective management of safe railway operations;
- Ensure the effective overseeing of safe railway operations;
- Co-ordinate the exercise of such functions;
- Minimise the duplication of such functions and procedures; and
- Promote consistency in the exercise of such functions

Railway Regulatory Tools

❑ **National Railway Safety Regulator Act**

➢ 3 types of Railway Operators:

“Network Operator” means the person or persons who have the ultimate accountability for one or more of the following:

(*a*) the safety of a network or part thereof including the proper design, construction, maintenance and integrity of the network;

(*b*) ensuring compliance of rolling stock with the applicable standards of the network; or

(*c*) for the authorising and directing of the safe movement of rolling stock on the network;

“Station Operator” means a person in control of a station, and the management of a station

“Train Operator” means a person or persons who have the ultimate accountability for—

(*a*) the safe movement of rolling stock on a network;

(*b*) safety and integrity of rolling stock; and

(*c*) safety of freight or persons being conveyed;

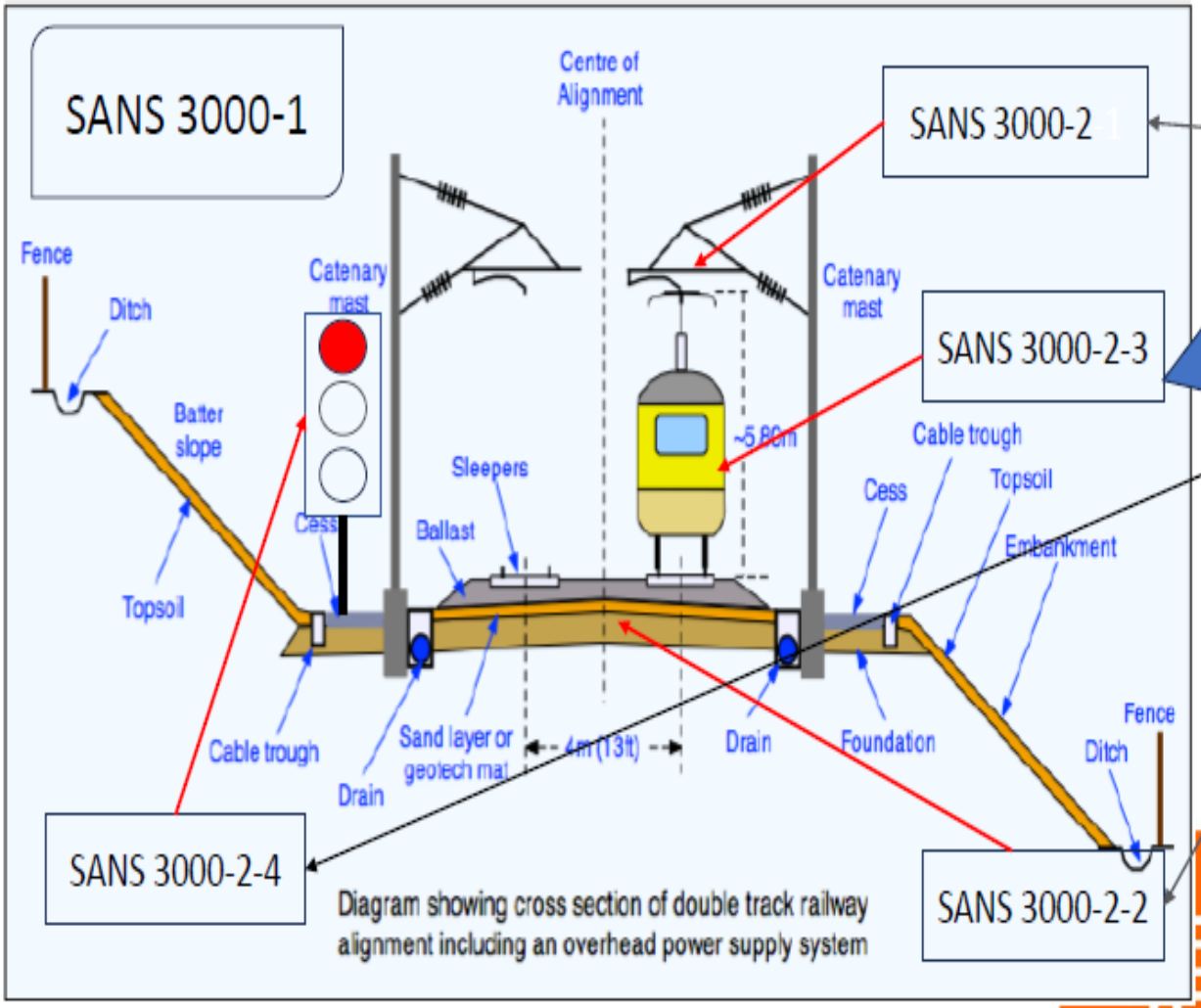
➢ **Safety permit**: Railway undertakings requires safety permit issued by the RSR

➢ National Information Monitoring System (Safety Permit, Annual Safety Improvement Plans, occurrence reporting etc)

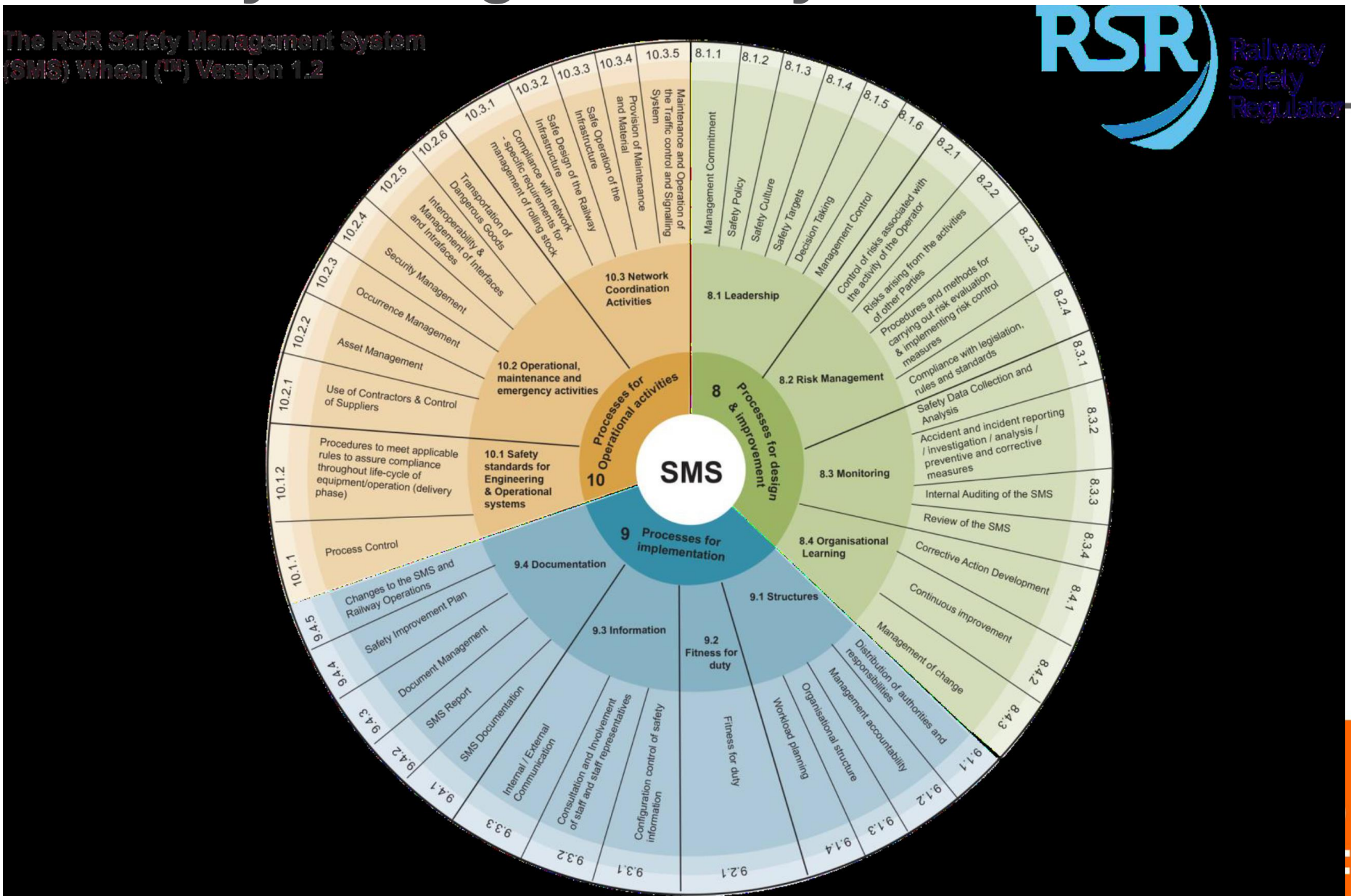
Railway Regulatory Tools

- **Railway Safety Regulations**
  - Regulations regarding infrastructure or activity affecting safe railway operations
  - Railway Safety and Security Regulations
  - Regulations regarding the category and type of all Notifiable Railway occurrences,
  - Penalty Fee Regulations
  - The National Railway Safety Permit Regulations
- **Railway Safety Determination**
  - Safety Management System and Safety Management System Report Determinations
  - Safety Permit Fee Determination
- **Railway Safety Standards**
  - SABS Standards (SANS3000-1, SANS10228, SANS10405 etc)
  - Regulator Standards (Interface Agreement Standard etc)

Railway System



Safety Management System: Wheel



SANS10405: Transport of Dangerous Goods by Rail

- Standard specifies the requirements for the safe transport of dangerous goods by rail in terms of:

a) Operational requirements;

b) Design requirements; and

c) Emergency preparedness.

- This includes classification, packaging, documentation, loading, dispatch, placarding, contingency planning and occurrence management, offloading, security issues and training

Responsibilities Consignor, Operator & Consignee

Employees involved with the transport of dangerous goods:

Training : General Awareness Training

a) identification of the classes of dangerous goods and their related hazards;

b) identify the marking, labelling, and placarding of dangerous goods;

c) packaging, handling and equipment;

d) segregation and compatibility requirements;

e) documentation; and

f) emergency response, procedures for accident avoidance and proper use of PPE.

Responsibilities Consignor, Operator & Consignee

Training: Functional specific training

a) description and classification of the classes of dangerous goods;

b) packaging requirements;

c) labelling and marking requirements;

d) safe handling procedures;

e) compatibility and segregation of the consignment on a wagon;

f)separation and compatibility of wagons transporting dangerous goods;

g) placarding;

Responsibilities Consignor, Operator & Consignee

Training : Functional specific training(Continued)

h) rolling stock suitability and service worthiness;

i) loading and offloading;

j) occurrence management contingency planning and emergency preparedness;

k) railway operators interfacing with train operators transporting dangerous goods;

l) relevant documentation including consignment note and wagon label, vehicle list

m) wagon and consignment inspections during transit; and

n) shunting related work.

Documentation

The combined consignment note and wagon label shall contain at least the following information:

- UN No;
- Proper shipping name
- Class
- Packaging group(where assigned)
- Quantity and description of the load
- Details of the consignor, train operator and consignee
- transportation of waste
- the name and address of the consignee
- Declaration


COMBINED CONSIGNMENT NOTE AND WAGON LABEL - DANGEROUS GOODS
CONSIGNMENT NUMBER
40 121913
Date 24 Feb 200
Forward Location TRIC ARDT
Receiving Location FYN LAND (Sdg)
Siding Number 749
Via
Siding Number 6420
Sender Sasol Solvents
Consignee IVS urban
Address ROS BANK
Address
2125
Wagon Number 3850208
Description of Contents HIGH PURITY ETHANOL
Quantity
Quantity
Quantity
Mass Measured *✓ your choice Yes No
Gross 71050
Tare 24800
Nett 46250
Vessel name-number
Permit Number
Seal Numbers 2430
Commodity
Zoning Code
UN Number 1170
UN Class 3
Insurance *✓ your choice Yes No
07 ETA
6F
Packing Grp II
Flash Point
3 8 50 2 08

Vehicle List

- Train No.:
- From:
- To:
- Driver's name and Assistant's name(s)
- Departure date/time
- Scheduled arrival date/time
- Wagon No./Container No.
- Destination
- Gross Mass
- Load Date
- UN No.
- Class
- Packaging group
- Product description

Placarding

- Placards shall be a true reflection of the dangerous goods being transported
- Placards shall be clearly visible and legible
- SANS 10232-1
- Appropriate warning label, UN No, Class

Requirements for loading: Processes and procedures

- Undertaken by competent persons wearing appropriate PPE
- Area is safe, barricades are erected and necessary warning signs displayed
- Loading conducted in a safe manner and not placed at risk by other activities
- Dangerous goods are correctly classified, packaged and labelled
- The packaging is not defective, damaged or unsafe;
- The wagons and containers are suitable for their intended purpose, including that they are clean and fit to load; Compatibility requirements are complied with
- Loads are secured and protected
- Correct placards are displayed

Responsibilities Consignor, Operator & Consignee

The following shall apply for damaged, leaking and contaminated packages for transportation:

- Dangerous goods shall not be:
  - Offered for transport;
  - Accepted to be transported; or
  - Continued to be transported

  If it is evident that the package has been leaking or if is suspected that the package is leaking or been damaged. Restrict access and do risk Assessment.

Responsibilities of the Train Operator

- Contingency plans in place in terms of SANS 3000-1
- 24-hour contact no.
- Continuous review any significant changes in:
  - classes
  - quantities
  - routes

Loading and offloading of dangerous goods

Loading and offloading of dangerous goods in rail sidings is not permitted under overhead track equipment on a railway network unless the entire section of railway line, from point set to point set, is de-energized.

Security: processes and procedures

Consignor, consignee, train operator shall ensure compliance with the relevant national legislation regarding security issues

- Personnel are adequately trained to deal with security issues
- Security planning to include:

a) Allocation of responsibilities

b) Recording of dangerous goods transported;

- Procedures for reporting incidents, threats or breaches of security;
- Procedures for evaluating and testing of security plans;
- Measures to secure relevant information;
- Communication plans; and
- Measures and procedures to prevent and identify losses and theft.

Compliance Monitoring and Enforcement

Compliance monitoring

- **Assessments of submissions made by the operators**
  (Safety Permit Applications and Technology reviews-change management)
- **Audits**
- **Inspections**
- **Investigations**

Non-compliance

- **Directive**
- **Penalties**
- **Suspend safety Permit**
- **Revoke safety Permit**

Railway Stakeholders Participation (Collaboration)

- **Various Stakeholder Engagement**
- **Training (TETA/QCTO)**
- **DG Awareness sessions**
- **Various DG committees**

Railway Safety standards- SANS

- **SANS 3000-1:** Railway safety management: Part 1: General
- **SANS 3000-2-1:**Railway safety management: Part 2-1: Requirements for systemic engineering and operational safety standards — Electrical distribution and overhead traction systems
- **SANS 3000-2-2:** Railway safety management: Part 2-2: Requirements for systemic engineering and operational safety standards – Track and associated civil infrastructure and installations
- **SANS 3000-2-2-1:**Railway safety management: Part 2-2-1: Requirements for systemic engineering and operational safety standards – Track and associated civil infrastructure and installations – Level crossings
- **SANS 3000-2-3:** Railway safety management: Part 2-3: Requirements for systemic engineering and operational safety standards - Rolling stock

Railway Safety standards- SANS

- **SANS 3000-2-4:** Railway safety management Part 2-4: Technical requirements for engineering and operational standards - Train authorization and control, and telecommunication
- **SANS 3000-2-5:** Railway safety management Part 2-5: Technical requirements for engineering and operational standards – Operational principles for safe movement on rail
- **SANS 3000-2-6:** Railway safety management Part 2-6: Technical requirements for engineering and operational standards - Interface and intraface management, and interoperability
- **SANS 3000-4:** Railway safety management Part 4: Human factors management
- **SANS 10405:**Transport of Dangerous Goods by rail.

Normative Reference: SANS10405

- Applicable SANS 3000 Standards
- SANS 10089-2, The petroleum industry – Part 2: Electrical and other installations in the distribution and marketing sector.
- SANS 10228, The identification and classification of dangerous goods for transport by road and rail modes.
- SANS 10229-1, Transport of dangerous goods – Packaging and large packaging for road and rail transport – Part 1: Packaging.
- SANS 10229-2, Transport of dangerous goods – Packaging and large packaging for road and rail transport – Part 2: Large packaging.
- SANS 10231, Transport of dangerous goods – Operational requirements for road vehicles.
- SANS 10232-1, Transport of dangerous goods – Emergency information systems – Part 1: Emergency information system for road transport.
- SANS 10232-3, Transport of dangerous goods – Emergency information systems – Part 3: Emergency response guides.
- SANS 10233, Transport of dangerous goods– Intermediate bulk containers for road and rail transport.
- SANS 10263-2, The warehousing of dangerous goods – The storage and handling of gas cylinders.

Railway Safety standards- Cont.: Regulator Standards

Regulator Safety Standards are available: www.rsr.org.za

- **RSR 00-2-3-1 – Part 2-3-1:** Requirements for systemic engineering and operational safety standards – Rolling stock – Wheels, axles and bearings.
- **RSR 00-2-7 – Part 2-7:** Requirements for systemic engineering and operational safety standards – Railway Stations.
- **RSR 00-3 – Part 3:** Occurrence Management.
- **RSR 00-4-1 – Part 4-1:** Human factors management – Fatigue management.
- **RSR 02-5-1:** Verbal Safety-Critical Communication
- **RSR Part 2-6-1:** Interface Agreements

Q&A

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Report an incident by contacting our 24-hour helpline on

0800 444 888

RSR Website: https://www.rsr.org.za/