

KEITH McMURRAY D.G. CONSULTANTS

Transportation of Dangerous Goods by Road

National Road Traffic Act 93/1996

Driver Training and other important
compliance issues 2009



082-8282847 / 044-3840677

011-6732128 -
keithmc@mweb.co.za



DANGEROUS GOODS LEGISLATION

DRIVER TRAINING

 LEGAL REQUIREMENTS – NRTA AND SANS 10231-2006

 COURSE CONTENT AND SANS 10231-2006 REQUIREMENTS

 THE VALIDITY OF ACCREDITED DRIVER TRAINING

 AARTO AND THE DRIVER – AN IMPORTANT WARNING

 DRIVER TRAINING – BENEFITS

DANGEROUS GOODS LEGISLATION

⊗ LEGISLATION ISSUES

- ⊗ Qualified Persons – Definition and Intention – Nomination in terms of the NRTA and SANS 10231-2006**
- ⊗ Packaging and IBC'S – Importance of certification and marking – SANS 10229 / 10233 – The use of non compliant packaging**
- ⊗ Vehicle design requirements – SANS 1518 – Warning on compliance**
- ⊗ Operational Documentation – Declarations and Tremcards – SANS 10231**
- ⊗ Freight Containers – Need for packaging certificate – SANS 10231**
- ⊗ Special PBLO provisions**
- ⊗ Operational agreements / procedures and the link to Section 74 – Consignors and Consignees – SANS 10231/NRTA**

Driver Training – NRTA 93/96 / SANS 10231

- ③ Regulation 280 of the National Road Traffic Act requires that the operator ensures that the drivers of the vehicles of which he or she is the operator that has to obtain a professional driving permit undergo training at an approved training body
- ③ The date determined by the Minister in compliance with Regulation 280(1) and Regulation 117(e) was 1/7/2008
- ③ The syllabus for the driver training must contain
 - ③ The interpretation and implementation of the instructions on a tremcard.
 - ③ General duties of the driver before proceeding on a route including
 - ③ Condition of the vehicle
 - ③ Documentation
 - ③ Route planning
 - ③ Warning Signs for the vehicle
 - ③ Fire extinguishers on the vehicle
 - ③ Protective Clothing to be carried






Driver Training – NRTA 93/96 / SANS 10231

- ③ The syllabus for the driver training must contain
 - ③ General Behaviour of the driver
 - ③ Planning of Stops for deliveries
 - ③ Checking of tyres and vehicles
 - ③ Procedure in the event of stops
 - ③ Periods of driving allowed
 - ③ Action to be taken in the event of an incident occurring
 - ③ General procedure to be followed by the driver on reaching his or her destination and procedure to be followed when loading or offloading dangerous goods

Driver Training – NRTA 93/96 / SANS 10231

- ③ Drivers are required to be trained both for the specific class of dangerous goods to be transported and practical training, by an accredited body for the specific type of vehicle that he or she shall drive**
- ③ Drivers must be issued with a certificate for the successful completion of the training for purposes of Regulation 117(e)**
- ③ In terms of Regulation 280(2) each approved training body must submit a syllabus for approval (and accreditation) and where relevant legislation or SANS specifications are amended which influences the training material the approved bodies must resubmit the syllabus within 90 days of the amendment for re-approval.**
- ③ The initial assessment of training material was done by the Transport Education Training Authority on behalf of the NDOT.**

Driver Training – NRTA 93/96 / SANS 10231

-  It would appear that this relationship has ceased and industry is currently unsure of who the assessment party is. The Minister has been approached for clarity.
-  It would also appear that given the major changes to legislation, affecting driver training, that the requirements of Regulation 280(2) for resubmission is not being monitored by the NDOT.
-  This assumption is based on obsolete training material used by certain approved providers up to early in 2009.
-  It would also appear, based on information from reliable sources, that training certificates are obtainable from certain accredited providers without training.
-  The need to validate training material and the credibility of the training provider is vital

Driver Training – The Benefits

- ③ Regulation 277(2) of the NRTA makes provision for the nomination of qualified persons, by the Operator, Consignor or Consignee in the circumstances and with respect to the tasks pertaining to the transportation of dangerous goods as determined in the standard specifications
- ③ Qualified Persons are defined as a person nominated and trained to perform a specific task under Regulation 277.
- ③ Drivers of dangerous goods vehicles will in addition to the statutory syllabus be required to train to perform specific tasks during the loading or offloading of dangerous goods which could be allocated in terms of any operational arrangement between the Operator, Consignor and Consignee.

Driver Training – The Benefits

- ③ Training is a casualty in the current economic climate but effective driver training in terms of legislated knowledge or practical driver training adds up to
 - ③ Vehicle sympathy in terms of fuel usage, tyres and general running costs which convert into cost savings
 - ③ Reduction in risks at loading and offloading sites
 - ③ Effective emergency response during an incident involving dangerous goods
 - ③ Better understanding of the dangerous goods requirements will reduced exposure to law enforcement and insurance claim repudiation
- ③ In terms of SANS 10231 – 2006 light vehicle drivers also require annual training by an accredited provider

AARTO and the Driver

- ⊗ Although the implementation of AARTO appears to have stalled once again it is important for operators to consider the impact and controls required to manage the system when it becomes effective.
- ⊗ According to press releases the points demerit system will only be implemented in 2010.
- ⊗ AARTO does not differentiate in terms of point demerits for professional drivers.
- ⊗ A combination of points for both private infringements and commercial fines could translate into a suspension in a short period.
- ⊗ Company proxies must have full details of drivers at all times.


AARTO and the Driver


- ③ AARTO will have to managed effectively to avoid driver and operator suspension.
- ③ Drivers will need to declare all fines to the proxy and companies need to assist drivers if they receive notices.
- ③ Proxies can obtain permission to access points and history of the driver
- ③ Proxies require training to understand the legislation

SANS 10229 / SANS 10233

- ③ Marking for transportation on both normal packaging and IBC'S is stipulated in the applicable standards and requires as a minimum
 - ③ Proper Shipping Name
 - ③ UN Number
 - ③ Applicable Class Diamond
 - ③ Name and Address of the packer, agent or consignor
- ③ Compliance assessments indicate that markings on dangerous goods packaging in general is illegal as not all the required markings are displayed.
- ③ Drums and Containers which have fallen from vehicles present a major problem to emergency responders when marking is not available
- ③ Imported packaging without English marking also compounds the problem

SANS 10229 / SANS 10233

-  **As a general observation it appears that industry needs to pay more attention to the requirements of SANS 10233 as many Intermediate Bulk Containers are either illegal for product or past the inspection period.**

-  **Unfortunately, although we have a legal requirement for container reconditioning and inspection through SANS 10406 the registration process for reconditioners still appears to be a problem**

SANS 1518 – Design Criteria for Heavy Vehicles

- ❖ When the legislation was published SABS 1398 for petroleum based flammables and SABS 1518 for other tankers where the design criteria for all road tankers manufactured after the implementation date.
- ❖ In 2004 new codes were published.
 - ❖ SANS 1518 Part 1 – Generic requirements for all dangerous goods vehicles
 - ❖ SANS 1518 Part 2 – Design requirements for tankers
- ❖ In December 2005 – SANS 1518 - was published for heavy vehicle design based totally on the European Agreement for the Transportation of Dangerous Goods by Road - ADR
- ❖ Unfortunately the ADR has many fundamental differences with accepted South African practices.
- ❖ A technical committee assessed the differences and published SANS 1518-2008 (Feb 2008). This standard included South African requirements.

SANS 1518 – Design Criteria for Heavy Vehicles

- ❖ **The European ADR published a revision in January 2009 which became effective in Europe in June 2009. The South African technical committee will have to assess the changes and decide on amendments to SANS 1518**
- ❖ **Important to remember that SANS 10231-2006 indicates that the design and construction of the vehicle used for the transport of dangerous goods shall comply with the design requirements covered by the relevant standard valid at the time of manufacture of the vehicle**

Operational Requirements - SANS 10231

❖ Clause 3.1.9 of SANS 10231-2006 defines a dangerous goods declaration as a document that describes and quantifies the dangerous goods being transported from a consignor to a consignee

Example of a completed dangerous goods declaration (DGD)

DANGEROUS GOODS DECLARATION				Company Logo (optional)		
Consignment Note No: 101 11X						
Consignor: R A Jones, Jones Warehouse, 100 High Rd, Germiston Tel: 011 100 1000				Operator: B Higgins, Higgins Road freight, 200 South Ave, Germiston Tel: 011 200 2000 Reg. no. vehicle: XYZ 200 GP		
Product manufacturer				Consignee: ABC Chemicals, 300 Marine Drive, Durban Tel: 031 300 3000		
Product owner				Additional information on handling/transport/ storage: The package marked with UN XXXX shall be shaded from sunlight		
Product custodian						
Party contracting the operator: R A Jones, Jones Warehouse, 100 High Rd, Germiston Tel: 011 100 1000						
Shipping name	UN No.	Haz class	PG	Quantity & type of packaging	Volume/ gross mass L/kg	Net mass kg
Paint	1263	3	III	2 fibreboard boxes, 4 x 5 L each	52	41.5

DECLARATIONS

"I hereby declare that the content of this consignment is fully and accurately described above by the proper shipping name, and is classified, packaged, marked and labelled/placarded and in all respects in proper condition for transport in accordance with the relevant national legislation."

Where the consignor is not the manufacturer, the declaration is based on information received.

Consignor : Product manufacturer / Product owner / Product custodian / Party that contracts the operator :

Signed: R A Jones Date: 2005-06-20

"The consignment described above has been received into my vehicle. My vehicle is correctly placarded and I am in possession of all necessary transport documentation pertaining to the transport of dangerous goods, including information to be followed in case of an emergency."

Driver

Signed: J K Williams Date: 2005-06-20

Operational Requirements - SANS 10231

Clause 3.1.25 of SANS 10231-2006 defines a transport emergency card as

- ❖ A card that lists the hazards and emergency information for a material being transported and that is intended for the use by the driver during an incident, or by emergency services, if required.
- ❖ The transport emergency card can either be generated from the European Council of Chemical Manufacturers' Federation (CEFIC) system, called a TREMCARD, or in accordance with SANS 10232-4, called a TREC
- ❖ **NOTE** The transport emergency card has a validity of three years from the edition date as stated on the card

Operational Requirements - SANS 10231

Cefic Tremcard - Instructions in Writing

Class	3
PG	II
HI No	33
UN	1203

LOAD

Motor Spirit or Gasoline or Petrol

Colourless liquid - Perceptible odour
Immiscible with water
Lighter than water

NATURE OF DANGER

Highly flammable
May form explosive mixture with air, particularly in empty uncleaned receptacles
The vapour may have narcotic effect and in high concentrations may induce unconsciousness which can be fatal may evaporate quickly
The vapour may be invisible. The vapour is heavier than air and spreads along ground
Heating will cause pressure rise with risk of bursting and subsequent explosion.

PERSONAL PROTECTION

Protective gloves
Protective footwear
Eyewash bottle with clean water

INTERVENTION EQUIPMENT

Shove
Broom
Sand or other absorbent
Alternatively, appropriate spill kit.

GENERAL ACTIONS BY THE DRIVER

Stop the engine.
No naked lights. No smoking.
Mark roads with self-standing warning signs and warn other road users or passers-by
Keep public away from danger area. Keep upwind.
Notify police and fire brigade as soon as possible.

ADDITIONAL AND/OR SPECIAL ACTIONS BY THE DRIVER

Any action only if without personal risk.
Stop leaks if without risk.
Contain or absorb leaking liquid with sand or earth or other suitable material.
Avoid direct contact with substance.
Vapour may create explosive atmosphere.
Avoid making sparks.
Prevent liquids entering water courses, sewers, basements and workpits.
If substance has entered a water course or sewer or been spilt on soil or vegetation, inform police
Warn everybody: Explosion hazard.

FIRE (information for the driver in case of fire)

Do not attempt to deal with any fire involving the load.

FIRST AID

If substance has got into the eyes, immediately wash out with plenty of water. Continue treatment until medical assistance is provided.
Remove contaminated clothing immediately and wash affected skin with plenty of water.
Seek medical treatment when anyone has symptoms apparently due to inhalation, swallowing or contact with skin or eyes.
In case of burns immediately cool affected skin as long as possible with cold water.

SUPPLEMENTARY INFORMATION FOR EMERGENCY SERVICES

Keep container(s) cool by spraying with water if exposed to fire.
Extinguish with waterspray or preferably with foam or dry chemical.
Do not use water jet.
Sewers must be covered and basements and workpits evacuated.
Use low-sparking handtools and explosion-proof electrical equipment.

Additional information

EMERGENCY TELEPHONE

@Cefic Prepared by Cefic from the best knowledge available: no responsibility is accepted that the information is sufficient or correct in all cases

Cefic TEC(R) - 30S1203
2006-10-13

APPLIES ONLY DURING ROAD TRANSPORT ENGLISH
Cefic Revision 01/2006 Issue: 2005.1

TRANSPORT EMERGENCY CARD – Road transport

In accordance with SANS 10232-4

UN No.	
Class	
Subsidiary risk	
Packing group	
ERG No.	

PROPER SHIPPING NAME

.....

APPEARANCE

.....

DANGER

..... (H phrases)

PERSONAL PROTECTIVE EQUIPMENT

..... (PP phrases)

EMERGENCY RESPONSE EQUIPMENT

..... (ER phrases)

DRIVER FIRST ACTIONS – Only if it can be carried out without personal risk

..... (D phrases)

DRIVER SPECIAL/ADDITIONAL ACTIONS – Only if it can be carried out without personal risk

..... (S phrases)

DRIVER ACTIONS IN CASE OF FIRE – Only if it can be carried out without personal risk

..... (F phrases)

FIRST AID

..... (A phrases)

SPECIAL INFORMATION FOR EMERGENCY SERVICES

..... (E phrases)

ADDITIONAL INFORMATION

EMERGENCY TELEPHONE NUMBERS

PREPARED BY from the best knowledge currently available; no guarantee is provided that the information is sufficient or correct under all circumstances.

Date M/Y: 09/2006

Reference:

Operational Requirements - SANS 10231

Clause 8.4.1 of SANS 10231-2006 indicates that when packages that contain dangerous goods are packed into a freight container, the consignor shall provide a container packing certificate specifying the container identifying number and certifying that the packing has been carried out in accordance with the following conditions:

- ❖ The container was clean, dry and fit to receive the goods;
- ❖ Goods that are incompatible have not been packed together in the same container;
- ❖ Packaging complies with the requirements of the relevant national legislation, and international regulations (if applicable)

Operational Requirements - SANS 10231

- ❖ **All packages have been externally inspected for damage or leakage and that only sound packages have been loaded;**
- ❖ **All packages have been properly stowed and secured, with dunnage if necessary, to prevent movement;**
- ❖ **The freight container and all the packages therein have been properly labelled and placarded;**
- ❖ **Drums have been stowed in an upright position.**

The container packing certificate may be combined with a DGD where the inclusion of a signed declaration phrase such as: "It is declared that the packing of goods into this container has been carried out in accordance with the relevant clause of SANS 10231" will suffice.

Operational Requirements - SANS 10231

Special PBLO provisions listed in SANS 10231-2006 – Clause 4.4.3 indicates that during the loading operation requirements of the special P,B,L and O provisions must be adhered to.

Table C.1 (continued)

1	2	3	4	5	6	7	8	9	10	11
UN No.	Proper shipping name	Class	Pack- ing group	Subs. risk	Ex- empt quantities	F	P, B, L and O provisions			
							P	B	L	O
1389	ALKALI METAL AMALGAM, LIQUID	4.3	I		0		1		23	20
1390	ALKALI METAL AMIDES	4.3	II		100	10	1; 12		23	
1391	ALKALINE METAL DISPERSION or ALKALINE EARTH METAL DISPERSION	4.3	I		0		1		23	20
1392	ALKALINE EARTH METAL AMALGAM, LIQUID	4.3	I		0		1		23	20
1393	ALKALINE EARTH METAL ALLOY, N.O.S.	4.3	II		100	10	1; 12		23	
1394	ALUMINIUM CARBIDE	4.3	II		100	10	1; 12	5	23	

Operational Requirements - SANS 10231

Operational Agreements

- ❖ **Written operational agreements or arrangements to cover the loading, transportation and off-loading may be concluded by the responsible parties listed on the DGD, to confirm accepted duties and responsibilities, if deemed necessary by any of the relevant parties.**
- ❖ **Such agreements do not allow parties to contract out of liability but assist as evidence of measures taken to comply by the responsible party.**

Amendment to the National Road Traffic Act

- ③ **NRTA 93/96 – Addition of Section 74 - Consignors and Consignee**
- ③ **In summary the Consignor or Consignee will be responsible for any act or omission of a manager, agent or employee which constitutes an offence in terms of the Act unless**
 - ③ **The Consignor or Consignee did not knowingly attempt or allow such act or omission**
 - ③ **The Consignor or Consignee took reasonable measures to prevent the act or omission.**
 - ③ **The act or omission did not fall within the scope of employment of the manager, agent or employee.**

Amendment to the National Road Traffic Act

- ③ **The conviction of the Consignor or Consignee for any offence in terms of the Act will not absolve the manager, agent or employee from liability or prosecution.**
- ③ **Section 74 adds up to having**
 - ③ **Clearly defined job descriptions**
 - ③ **Standard operating procedures for all aspects of the operation and in particular legal requirements for the loading and offloading of dangerous goods.**
 - ③ **Trained and competent managers, agents and employees to minimize acts or omissions and demonstrate reasonable preventative measures.**

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