Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Transport of Dangerous Goods **29 November 2023**

Sixty-third session
Geneva, 27 November-6 December 2023
Item 12 & 13 of the provisional agenda
Implementation of the Model Regulations and, Dangerous Goods Training and Capacity Building

Status Report on South Africa DG Supply Chain Task Group progress for revision of National Standards and Regulations, revision of the National Unit Standards to Skills based Training curriculum to address multi-modal DG Training, and DG Awareness Raising activities for Transport Month.

Submitted by the Responsible Packaging Management Association of Southern Africa (RPMASA)

I. Introduction

1. RPMASA has previously reported to the Sub-committee on the formation of a multi-regulator Dangerous Goods Task Group following the Beirut disaster with 5 Expert Working Groups to address -

Legal – to identify all applicable Dangerous Goods related Regulations along the Supply Chain and which Regulators Monitor and Enforce what, to reduce replication by different Regulators, and fill gaps, as well as to identify the need for, and action revision of Regulations to keep up with revisions of the UN Model Regulations, and the Modal Regulations.

Identify which Regulations require Risk Assessments to rationalise across regulations, and identify where mandatory Risk Assessments should be re-introduced.

Dangerous Goods Awareness Raising and Training – to improve Public awareness of what dangerous Goods are and what the vehicle placards mean, and to introduce mandatory Dangerous Goods Training for Industry in line with the UN TDG, IMDG and ICAO Training requirements, recognising that all Transport starts by road, hence with today's increasing complexity of supply chains, Industry needs to understand and implement the required Training at the source.

II. Actions taken and in progress

2. **Revision of Regulations** – the Road Traffic Act is currently under revision. Chapter VIII for Transport of Dangerous Goods refers to several National Standards for Dangerous Goods where the original intent of referring to these was to keep up to date and aligned to the latest revision of the *UN Model Regulations.* This has not happened and the SA Bureau of Standards had reverted to their general practice of 5 yearly reviews instead of following the 2 yearly UN approach, hence these Standards had fallen well behind International changes, of particular concern not keeping up with new UN numbers and packaging changes.

3. It has recently been agreed that the National DG Standards be re-named from Transport for Road and Rail to Multi-modal Transport, and that they will be reviewed 2 yearly and refer directly to the latest revision of the UN Model Regulations, as well as refer to all relevant South African Regulations, and include mandatory Training.

4. **Risk Assessments** – work on aligning these is being progressed by the relevant Competent Authorities that have overlapping regulations.

Route Risk Assessments are also going to be re-introduced to the National Standards to strengthen the current need for route plans e.g. to identify Risks along proposed road transport routes which could then indicate the need to take alternate routes. and hopefully prevent serious accidents as happened when an LPG Tanker got stuck under a bridge and BLEVE'd killing 41 people and seriously injuring many others.

5. **Awareness Raising –** the DGSC and DOT have embarked on Dangerous Goods Awareness Raising campaigns for both the Public and Industry launched in October as part of Transport Month – see attached.

6. **Training –** Mandatory Training is being introduced by reference to the National Standards and Regulations in line with Ch 1.3 of the UN Model Regulations and the IMDG Code. The ICAO and IATA DG Regulations are already incorporated into the SA Civil Aviation Regulations which were revised in March 2023 to include competency Training, but these are not yet well understood by Industry packing for air Transport.

7. The existing SA system of Unit Standards for Dangerous Goods Training expired in June 2023 and Unit Standards for all Sectors are now being replaced by the QCTO - Quality Council for Trades & Occupations in developing skills and knowledge programmes.

We, as the DGSC Task Group and DOT are currently working in conjunction with the TETA – Transport and Education Sector Authority to develop curriculum and content for multi-modal Dangerous Goods Qualifications for South Africa. These are based on the UN Model Regulations and the Modal Regulations, and are being fast-tracked to be available in the 2nd quarter of 2024, ready for use when the current DG qualifications expire in May/June 2024. These new Curricula and Skills programmes will address knowledge and skills, and include improved requirements for Dangerous Goods knowledge and experience, in order to be qualified as DG Trainers.

Annexes 1, 2, 3

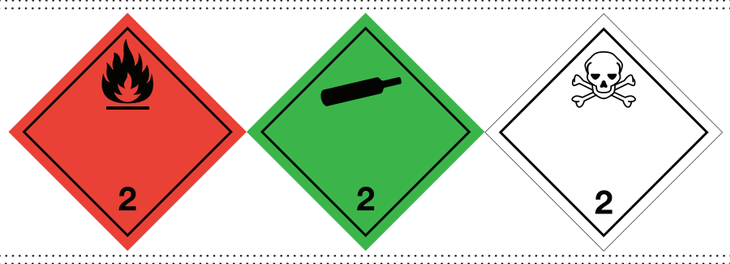
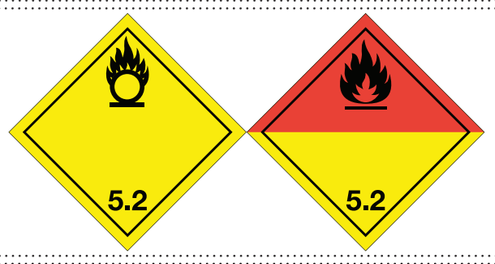
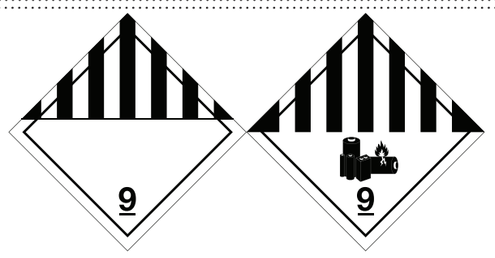
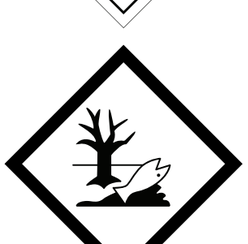
SAFE MULTI-MODAL TRANSPORT OF DANGEROUS GOODS

PUBLIC TAKE NOTE

Keep away from these on the road if any accident, incident or spill occurs!

DO YOU KNOW what the following HAZARD WARNINGS MEAN?

HAZARD CLASSES

	**CLASS 1**	**EXPLOSIVES**	May explode, leading to property damage, severe injuries, and even fatalities.
	**CLASS 2**	**GASES** 2.1 Flammable 2.2 Non-Flammable & Non-Toxic 2.3 Toxic	Stay away from items with these warnings: Red ones can explode due to flammability, and white ones can be deadly if inhaled. Examples are cylinders not handled correctly.
	**CLASS 3**	**FLAMMABLE LIQUIDS**	Prone to ignite and potentially explode.
	**CLASS 4**	**FLAMMABLE SOLIDS** 4.1 Flammable solids 4.2 Liable to spontaneous combustion 4.3 Emits flammable gas in contact with water	DO NOT use water to clear a spill or combat a fire!
	**CLASS 5**	**5.1 OXIDIZERS** **5.2 ORGANIC PEROXIDES**	Mixing them with other chemicals can result in fires and explosions. Temperature control is crucial for safety in Class 5.2.
	**CLASS 6**	**6.1 TOXIC** **6.2 INFECTIOUS**	HAZARDOUS TO HEALTH: Can cause severe health hazard and even death.
	**CLASS 7**	**RADIO-ACTIVE**	Can cause severe health hazard and even death.
	**CLASS 8**	**CORROSIVE**	May cause severe burns to the skin and damage to eyes.
	**CLASS 9**	**MISCELLANEOUS DANGEROUS GOODS, INCLUDING LITHIUM BATTERIES**	Miscellaneous, be cautious with lithium batteries. Avoid overcharging or overheating, as they can explode. Never dispose of used batteries by putting them in a fire.
		**ENVIRONMENTAL HAZARDS & MARINE POLLUTANT**	These pollutants should be avoided, as they can also be toxic to humans.

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DGSC-TG
Dangerous Goods Supply Chain Task Group

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SAFE MULTI-MODAL TRANSPORT OF DANGEROUS GOODS

INDUSTRY TAKE NOTE

DO YOU KNOW THAT?

DANGEROUS GOODS ARE CHEMICALS AND ARTICLES

TRANSPORT SAFETY

TRAINING to ensure correct Classification and UN Number:
Proper Shipping Name – PSN, Packaging, Marking, Labelling, Loading, Documentation, Compatibility and Securing – ILO/IMO/UNECE Container Packing Code of Practice.

This includes TRAINING and AWARENESS for ALL involved in the Supply Chain of Dangerous Goods, regarding:

- The 9 Classes of Dangerous Goods
- UN numbers and PSN – Proper Shipping Name
- Compliant packagings, marking and labelling
- Requirements for multi-modal documentation
- Job Specific Training
- CTU – Container Transport Unit Packing Code of Practice
- Safety

Initial training and periodic refresher aligned to regulatory updates.
Records to be kept for Authorities to refer to in case of accidents or incidents.

INDUSTRY RESPONSIBILITIES

- Ensure all relevant persons are Trained in their DG responsibilities
- Classify their products
- Allocate the Correct Hazard Class
- UN number and Proper Shipping Name
- Ascertain from the UN Dangerous Goods List which Packaging's are Authorised for that UN Number and to only purchase and use UN Certified Packaging's which bear the correct UN Certification Mark
- Pack and label each unit of packaging correctly
- Complete the UN Multi-modal documentation with all required information
- Load and secure correctly – ILO/IMO/UNECE CTU Code of Practice
- Placard the vehicle, Container etc. in line with the Regulations
- Conduct RISK ASSESSMENTS

NON-COMPLIANCE CONSEQUENCES

- Accidents, Incidents
- Harm to persons, property, infrastructure and the environment
- Potential for accidents and sometimes death (Boksburg – multiple fatalities and injuries)
- Environmental impairment – disasters
- Loss and Liability
- High costs for doing things wrong
- Potential penalties for non-compliance
- Reputational damage
- Possible legal proceedings
- Possible impounding in foreign Ports – demurrage and cost of rectifying non-compliances

BE AWARE!

Shipping lines now charge penalties for mis-declared cargo and International Ports are vigilant in identifying non-compliance/s.
All Transport starts by road to rail, sea and air, a Multi-Modal approach is essential for safety of Dangerous Goods in the Supply Chain.

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SAFE MULTI-MODAL TRANSPORT OF DANGEROUS GOODS

INDUSTRY TAKE NOTE

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Have you done your Risk Assessments to prevent accidents?

THE 9 HAZARD CLASSES

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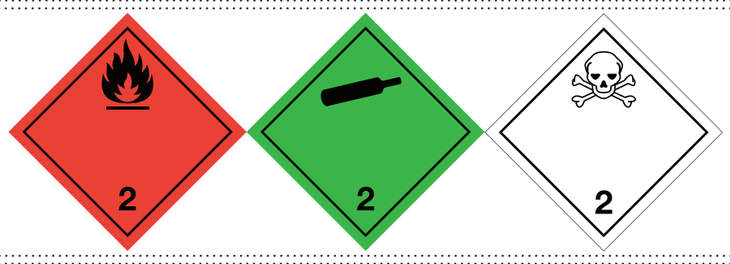	**CLASS 2**	**GASES** 2.1 Flammable 2.2 Non-Flammable & Non-Toxic 2.3 Toxic	Stay away from items with these warnings: Red ones can explode due to flammability, and white ones can be deadly if inhaled. Examples are cylinders not handled correctly.
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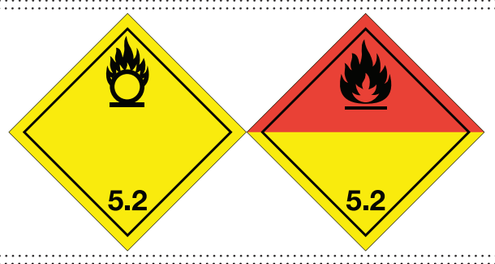	**CLASS 5**	**5.1 OXIDIZERS** **5.2 ORGANIC PEROXIDES**	Mixing them with other chemicals can result in fires and explosions. Temperature control is crucial for safety in Class 5.2.
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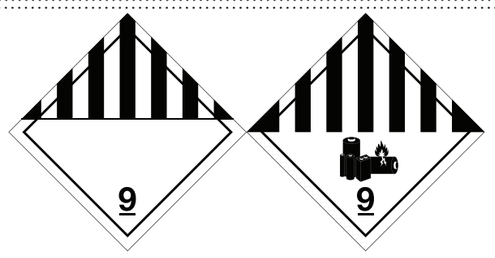
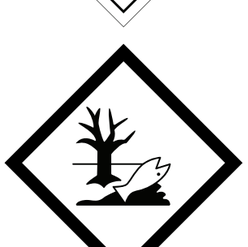
	**CLASS 9**	**MISCELLANEOUS DANGEROUS GOODS, INCLUDING LITHIUM BATTERIES**	Miscellaneous, be cautious with lithium batteries. Avoid overcharging or overheating, as they can explode. Never dispose of used batteries by putting them in a fire.
		**ENVIRONMENTAL HAZARDS & MARINE POLLUTANT**	These pollutants should be avoided, as they can also be toxic to humans.

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