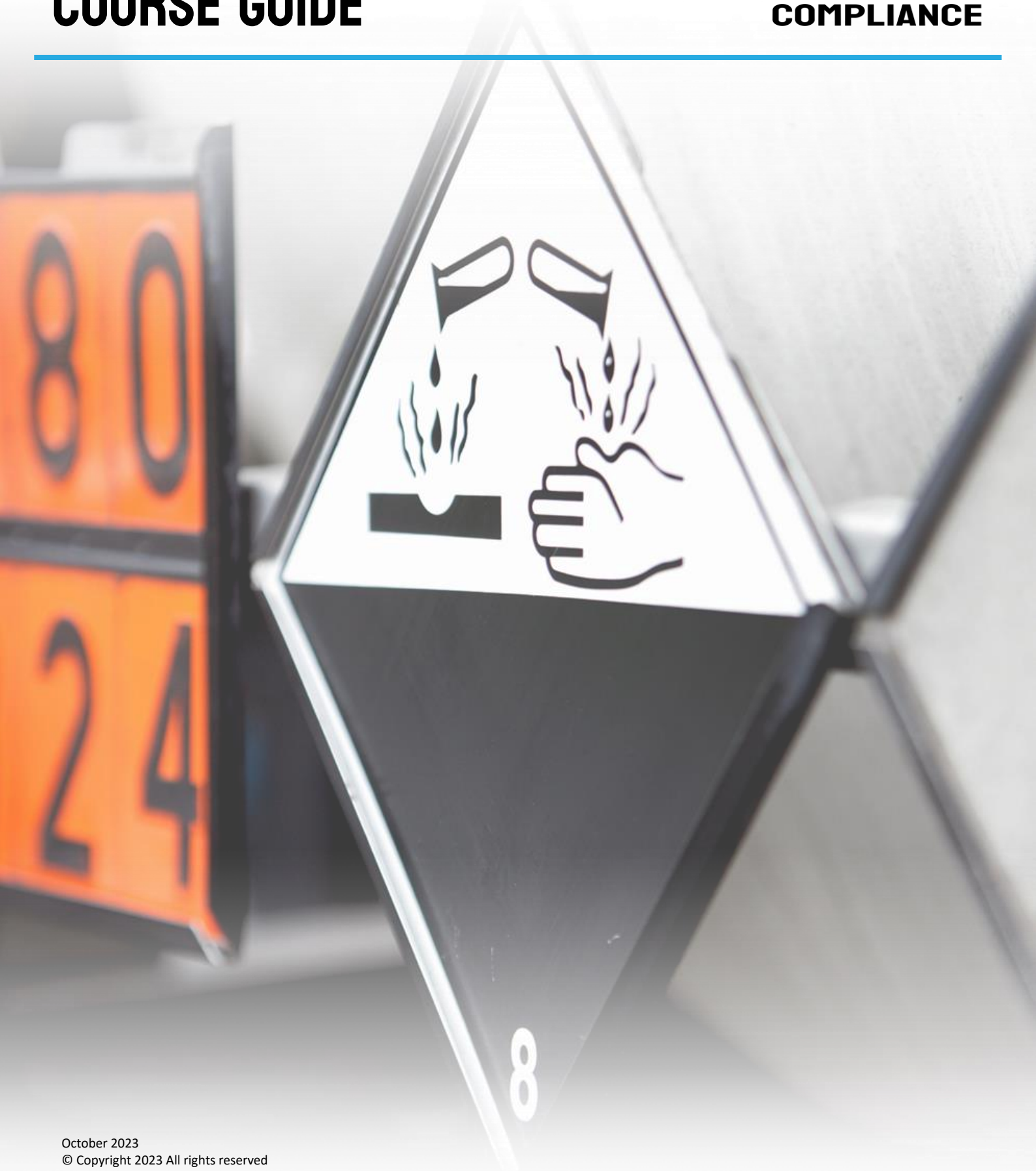
ADR
COURSE GUIDE

CONSULTANCY TRAINING ANALYSIS
COMPLIANCE



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Mi Compliance Ltd. Managing Director: William Birch *AIIRSM DGSA FCILT Tech IOSH*
Registered Office: Riverside House, 1-5 Como Street, Romford, Essex RM7 7DN
Company No. 14651499 Registered in England and Wales

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ABOUT US

Mi Compliance Ltd. (Mi Compliance) is a Company founded on the values of integrity and professionalism. At Mi Compliance, we firmly believe that **if you are going to do something, it should be done properly**.

Our unwavering commitment to this principle is at the very root of every service we offer, setting us apart, ensuring that our customers receive nothing short of an exceptional service.

We are here to support you through the sometimes-complex rules, legislation, and guidance keeping you up to date with changing requirements.

If you have any questions, queries or just want to bounce something off of us, contact us and we will try our absolute best to help.

Mi Compliance is recognised by the **Driver and Vehicle Standards Agency** (DVSA) to deliver the course and examinations both at its own site and mobile sites such as customer premises.

COURSE INTRODUCTION

The ADR Certificate must be held by all drivers who transport dangerous goods by road. This course is **recognised** by **DVSA** and is required to enable drivers to attend the examinations, gaining the certification as required.

This course forms part of the Dangerous Goods suite of courses offered by Mi Compliance.

NOTE: This course is **classroom-based**. However, candidates will have the opportunity to practise basic first aid and fire safety procedures using training equipment provided on the course.

DRIVER CPC

Candidates can gain up to **28 hours Driver CPC** for attending the ADR. This is irrespective of a passing the examinations.

drivercpc
GETQUALIFIEDSTAYQUALIFIED
APPROVED CONSORTIUM MEMBER OF AC02546

COURSE SUMMARY

COURSE TITLE	ADR (Drivers Course)
DESCRIPTION	Recognised course enabling drivers to obtain the ADR Certificate in order to legally drive a vehicle transporting dangerous goods.
SUITABILITY	This course is suitable for drivers wishing to gain the ADR Certificate in order to legally drive vehicles transporting dangerous goods by road.
TRAINING RATIO	20:1 (candidates to trainer)
DURATION	Up to 5 days (Core, Packages, Tanks, Class 2-6, 8 & 9) *Class 1: Explosives & Class 7: Radioactive specialised courses*
VENUE(S)	- Mi Compliance, Grays, Essex - Mi Compliance, South Ockendon, Essex - Customer Site(s) - Online (Remote)
PREREQUISITIES	None Note: It is recommended for candidates to be in possession of at least a Cat. B (Car/Van) driving licence to be able to utilise the ADR certificate.
RESOURCES REQUIRED	None Note: All resources are provided on the course
LEARNING OUTCOME	The course and learning outcomes are based on: - Training requirements drawn up by the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (as amended) which apply the provisions of ADR Agreement concerning the International Carriage of Dangerous Goods by Road Council Directive (as amended) - Best Practices and recommendations published by the Health and Safety Executive (HSE) and other official sources. On passing the ADR examinations, candidates will obtain the ADR Certificate allowing them to transport dangerous goods in the modules sat and passed.
ASSESSMENT	Multiple Choice Examinations

COURSE STRUCTURE

The course is made up of the following **modules** split into three groups:

MODULE	DESCRIPTION
CORE *(Mandatory)*	This module is mandatory for all candidates. The module will give an introduction and overview of hazards involved in the transportation of dangerous goods including basic procedures to be followed in the event of incidents or emergencies.
PACKAGES *(Either Packages module and/or Tanks module must be taken)*	This module is required by drivers who transport dangerous goods in packages or bulk containment other than tanks. The module includes requirements including the approval, tests and markings of packages. The module also includes various exemptions and limitations (Excepted Quantity, Limited Quantity and Small Load Transport Limits).
TANKS *(Either Packages module and/or Tanks module must be taken)*	This module is required by drivers who transport dangerous goods in tanks. The module includes requirements including the approval of tanks and tank-vehicles, markings, loading and discharging, and cleaning requirements.
CLASS 1: EXPLOSIVES *(Specialised)*	This module is required by drivers who transport dangerous substances classified as Class 1. This includes goods such as Ammunition, Fireworks and Flares.
CLASS 2: GASES *(At least one Class module must be taken)*	This module is required by drivers who transport dangerous substances classified as Class 2. This includes Class 2.1 Flammable Gas, Class 2.2 Non-Toxic Non-Flammable (Compressed) Gas or Class 2.3 Toxic Gas substances.
CLASS 3: FLAMMABLE LIQUIDS *(At least one Class module must be taken)*	This module is required by drivers who transport dangerous substances classified as Class 3. The most common substances classified as Class 3 are fuels such as Petrol or Diesel/Gas Oil.
CLASS 4: FLAMMABLE SOLIDS *(At least one Class module must be taken)*	This module is required by drivers who transport dangerous substances classified as Class 4. This includes Class 4.1 Flammable Solids, Class 4.2 Spontaneously Combustible or Class 4.3 Dangerous when Wet substances.
CLASS 5: OXIDISERS *(At least one Class module must be taken)*	This module is required by drivers who transport dangerous substances classified as Class 5. This includes Class 5.1 Oxidising Agent or Class 5.2 Organic Peroxide substances.
CLASS 6: TOXICS *(At least one Class module must be taken)*	This module is required by drivers who transport dangerous substances classified as Class 6. This includes Class 6.1 Toxic and Class 6.2 Infectious Substances. The most common substances classified as Class 6 are Clinical Wastes.
CLASS 7: RADIOACTIVES *(Specialised)*	This module is required by drivers who transport dangerous substances classified as Class 7 i.e. Radioactive material.
CLASS 8: CORROSIVES *(At least one Class module must be taken)*	This module is required by drivers who transport dangerous substances classified as Class 8. This would include acids and bleaching agents.
CLASS 9: MISCELLANEOUS *(At least one Class module must be taken)*	This module is required by drivers who transport dangerous substances classified as Class 9. Class 9 covers substances and articles which although dangerous, do not fall into any of the other classes. Examples include asbestos, bitumen and lithium batteries.

COURSE SYLLABUS

CORE

LEARNING OBJECTIVE		AREAS TO BE COVERED	
C.1	**The general requirements governing the carriage of dangerous goods***	C.1.1	Regulations concerning the need for training of all persons involved, to mention the Health & Safety at Work Act (Section 2 — general duties of employers to their employees).'
		C.1.2	Employers' responsibility to conduct a risk assessment.
		C.1.3	The driver's duty to transport dangerous goods safely through knowledge, skill and careful driving and their legal duty of care.
		C.1.4	GHS and UN Model Regulations, ADR, RID, IMDG, ICAO & Domestic Regulations. Information on multi-modal transport operations, the interrelation of road/sea/rail/air Regulations and operations at points of interchange.
		C.1.5	How these relate to the duties of the driver including the duty to attend training.
		C.1.6	Hierarchy of control of all parties involved including, responsibilities of Consignors, Carriers, Drivers, Consignees and the role of the DGSA.
		C.1.7	The main hazards of substances in Classes 2, 3, 4, 5, 6, 8 and 9 and Classes 1 and 7 Specialist training requirements.
		C.1.8	The allocation and purpose of UN Numbers and proper shipping names.
		C.1.9	The allocation and purpose of Packing Groups and where packing groups are not allocated.
		C.1.10	The allocation and purpose of Transport Categories and Exemptions, which apply with, regard to the load thresholds and other exemptions.
	***Training note**:	This section must include a suitable video clip or DVD to cover 'The main hazards of substances in Classes 2, 3, 4, 5, 6, 8 and 9'. (Mandatory for initial and refresher courses).	
C.2	**Information on environmental protection in the control of the transfer of wastes**	C.2.1	The disposal of dangerous substances articles and wastes.
		C.2.2	Domestic Regulations and International Conventions on the transfer of wastes.
		C.2.3	Documentation which must accompany the waste.
		C.2.4	Environmentally hazardous substance mark.
C.3	**Driver responsibilities during the carriage of dangerous goods**	C.3.1	Documents relating to the vehicle, the load (transport document, waste consignment note and Instructions in Writing), and the driver (ADR Certificate).
		C.3.2	Vehicle markings and responsibilities of all involved.
		C.3.3	The miscellaneous equipment to be carried by on a vehicle as per ADR and mentioned in Instructions in Writing.
		C.3.4	Procedures at the vehicle loading point including load security.
		C.3.5	Purpose and method of operating vehicle technical equipment.
		C.3.6	Checks before setting out and during the journey.
		C.3.7	Traffic restrictions in tunnels, instructions on behaviour in tunnels and tunnel codes.
		C.3.8	Vehicle supervision and parking.
		C.3.9	Actions to be taken in the event of a breakdown.
		C.3.10	Procedure to be taken at the vehicle unloading point.

LEARNING OBJECTIVE		AREAS TO BE COVERED	
C.4	**The prohibitions on mixed loading in the same vehicle or container**	C.4.1 C.4.2	The general and specific rules on the segregation of dangerous substances. How to segregate dangerous substances.
C.5	**Enforcement Action.**	C.5.1	Enforcement Agencies, non-compliance and penalties.
C.6	**Security and 'High Consequence Dangerous Goods'***	C.6.1 C.6.2 C.6.3 C.6.4	Security and High Consequence Dangerous Goods and when this applies. Use of the Dangerous Load Card and driver's advice sheet. Reporting irregularities, suspicious activities and security incidents. Photographic Identification and compliance with security checks.
	***Training note**:	This section must include the DfT Lockdown video or DVD (Mandatory for initial and refresher courses).	
C.7	**General information concerning civil liability**	C.7.1 C.7.2	The concept and application of the responsibility for civil liability and duty of care by Consignors, Carriers and drivers. The basic differences between Criminal Law (Statute Law) and Civil Law.
C.8	**Basic knowledge about the use of personal protective equipment (PPE) and Respiratory Protective equipment (RPE)***	C.8.1 C.8.2 C.8.3	Types of personal protective equipment including respiratory protective equipment. Uses and limitations depending on risk assessment and dangers involved. Decontamination procedures to be followed.
	***Training note**:	This subject to include video clip, DVD or instructor demonstration on the safest way to put on and remove personal protective equipment and how to decontaminate it. (Mandatory for initial courses).	
C.9	**The administration of emergency first aid to include CPR and recovery position***	C.9.1 C.9.2 C.9.3 C.9.4 C.9.5 C.9.6 C.9.7 C.9.8	Assess the situation including any dangers to the driver, casualties and bystanders, as detailed in the Instructions in Writing. Treatment and/or avoidance of the following dangers as listed in the Instructions in Writing: Asphyxiation Chemical and general burns Frostbite Chemical contamination (including poisons and corrosives) Eye irrigation Control of Bleeding Participation of CPR and Recovery position
	***Training note**:	This outcome to be achieved by instruction, demonstration and practice, using a suitable resuscitation model, and other members of the class as appropriate.	

LEARNING OBJECTIVE		AREAS TO BE COVERED	
C.10	**Fire Prevention***	C.10.1	Fire Triangle.
		C.10.2	Vehicle maintenance and preventative measures.
		C.10.3	Different types of fire extinguishers.
		C.10.4	Identification, correct and practical use of fire extinguishers.
		C.10.5	Associated risks of fire and incident control.
	***Training note**:	This subject to include a suitable video clip or DVD for initial and refresher courses. (Practical exercise is not mandatory for refresher courses).	
C.11	**What to do in the case of an incident or accident***	C.11.1	General actions ensuring personal safety.
		C.11.2	Informing and co-operating with the emergency services.
		C.11.3	Using and safe guarding the transport document and Instructions in Writing.
		C.11.4	Attending to the injured where relevant.
		C.11.5	Actions to be taken in the event of fire.
		C.11.6	Preventing the escape of dangerous goods and environmental damage.
		C.11.7	Reporting procedures and notification of occurrences involving the transport of dangerous goods, informing the Carrier.
		C.11.8	The requirements for reporting serious accidents and incidents to the Competent Authority.
	***Training note:**	This subject to include an exercise based on a written scenario to be completed individually. (Mandatory for initial and refresher courses).	

PACKAGES

LEARNING OBJECTIVE		AREAS TO BE COVERED	
P.1	**The general requirements governing the carriage of dangerous goods in packages and bulk**	P.1.1	Packaging requirements, marks and exemptions related to excepted and limited quantities.
		P.1.2	Awareness of the UN Packaging scheme, the performance testing and certification.
		P1.3	The purpose and types of packages regarding their containment, integrity, durability, and pressure retention, including the need for ullage and relieving excess pressure.
		P.1.4	The marks and labels required for packages, IBCs and overpacks.
		P.1.5	Definition of the carriage in bulk and bulk carrying vehicles.
		P.1.6	The allocation and purpose of transport categories and exemptions related to quantities carried per transport unit including different transport category loads.
		P.1.7	Correct and safe handling of all loads, including loading, stowage, restraining and unloading.
		P.1.8	Segregation methods and responsibilities of all persons involved.
		P.1.9	The correct marking and placarding of vehicles carrying packages, bulk and containers subject to ADR, IMDG and Domestic regulations.

TANKS

LEARNING OBJECTIVE		AREAS TO BE COVERED	
T.1	**The specific additional provisions applicable to the use of Tanks**	T.1.1	The definitions of tanks and structural equipment as defined in 1.2 of ADR, in terms of construction and size.
		T.1.2	The responsibilities of employers to provide training on specific vehicles, equipment and mechanisms, and with specific loads.
		T.1.3	National and international requirements for tanks and vehicles to be inspected and certified. The documentation, plating of tanks and vehicles, and the information to be displayed on the data plate.
		T.1.4	The scope and applicability of national and international (ADR, IMDG, RID) requirements to the operation of tanks and tank containers.
		T.1.5	The requirements for vehicles to carry fire extinguishers and miscellaneous equipment.
		T.1.6	The requirement for vehicles to carry documentation, including Instructions in Writing. ADR Driver Training Certificate, transport document, and 'Certificate of Approval'.
		T.1.7	The safety precautions to be taken in the course of loading, unloading and during the journey, including segregation of loads, checks of the vehicle and load including the secure fastening of containers, and the use of any relevant equipment.
		T.1.8	The placarding and marking as required in accordance with Domestic regulations, ADR and IMDG.
T.2	**The specific requirements of the vehicles**	T.2.1	The types of loads for which tanks may be designed, taking into account the physical state of the substance or mixture, temperature and pressure requirements.
		T.2.2	The materials from which tanks and tank containers may be constructed, including stainless steel, mild steel, aluminum, nickel, fibre reinforced plastic, and the various linings, which may be used.
		T.2.3	The construction of tanks and tank containers; atmospheric and pressure tanks, compartments and baffles.
		T.2.4	The construction and approval of tanks and tank vehicles to AT and FL requirements.
		T.2.5	The requirements for maximum and minimum filling ratios and ullage space.
		T.2.6	The significance of not exceeding the Maximum Allowable Working Pressure (MAWP) during loading and unloading procedures.
		T.2.7	The purpose, operation, precautions and drivers' responsibilities in relation to all service and safety equipment.
T.3	**The procedures to be followed in relation to the operation of tanks and tank containers***	T.3.1	Procedures at the loading point.
		T.3.2	Checks during the journey.
		T.3.3	Procedures at the unloading point.
		T.3.4	The causes and effects of Boiling Liquid Expanding Vapour Explosions (BLEVEs).
		T.3.5	The causes of static electricity, and the specific precautions to be taken.
		T.3.6	The avoidance of overloading and overfilling.
		T.3.7	The cleaning and purging of tanks and ancillary equipment.
		T.3.8	Using appropriate routes including tunnel codes.
	***Training note:**	This outcome may include a video clip or DVD on static electricity.	
T.4	**Knowledge of the various and different filling and discharge systems**	T.4.1	Advantages and disadvantages of open and closed filling.
		T.4.2	Top and bottom filling and discharging by gravity, pumps, pressure and vacuum operated (waste tanks) including the use of pumps or compressors, either on the vehicle or external to it.
		T.4.3	The use of and precautions to be taken whilst operating tipping tanks.

LEARNING OBJECTIVE		AREAS TO BE COVERED	
T.5	**The behaviour of vehicles, tankers and tank containers on the road, including movements of the load***	T.5.1	Anticipation of product movement whilst cornering, braking and accelerating, and the need for the driver to adjust his driving techniques accordingly.
		T.5.2	The roles and limitations of baffles and rules on minimum loading ratios.
	***Training note:**	This outcome must include a suitable video clip or DVD on Rollovers mandatory for initial and refresher training courses.	
T.6	**What to do in the case of an incident or accident***	T.6.1	General actions ensuring personal safety
		T.6.2	Informing and cooperating with the emergency services
		T.6.3	Using Instruction in Writing and any other relevant documentation.
		T.6.4	Attending to the injured where relevant.
		T.6.5	Actions to be taken in the event of a fire.
		T.6.6	Prevent the escape and or containment of a spillage of dangerous goods.
		T.6.7	Reporting of injuries and dangerous occurrences to the relevant competent authorities via the carrier.
	***Training note:**	This outcome to be achieved by a tanker exercise based on a written scenario completed individually. (Mandatory for initial and refresher courses).	

CLASSES

LEARNING OBJECTIVE		AREAS TO BE COVERED	
1.1	**The definition of explosives, and the classification into Division and Compatibility Groups – Class 1***	1.1.1	The distinctive characteristics of an explosive.
		1.1.2	Detonations, shock waves, deflagrations and pyrotechnics.
		1.1.3	The Class 1 divisions, the risks of each division, and examples of each division.
		1.1.4	The compatibility groups, the rules relating to mixed loads, and the allocation of responsibilities.
		1.1.5	Restrictions on the carriage of certain loads e.g. Group K.
		1.1.6	Definitions of substance, article, and net mass of explosive.
	***Training note:**	This section must include a suitable video clip or DVD to cover 'The main hazards of Class 1 substances. (Mandatory for initial and refresher courses).	
1.2	**The packaging and labelling of explosives – Class 1**	1.2.1	The regulations governing packaging and labelling.
		1.2.2	UN approved packaging scheme, their performance criteria, certification and net contents of explosive.
		1.2.3	Marking and labelling requirements for inner and outer packaging including overpacks.
		1.2.4	Labelling for subsidiary hazards.
		1.2.5	Checking packages and containers for soundness and security.
		1.2.6	Marking and placarding of vehicles and containers.
		1.2.7	The relationship between Domestics regulations, the IMDG code and ADR.

LEARNING OBJECTIVE		AREAS TO BE COVERED	
1.3	**The loading, unloading and carriage of explosives – Class 1**	1.3.1	The responsibilities of consignors, consignees, carriers and drivers.
		1.3.2	The types of vehicles permitted to carry explosives, their characteristics, construction and certification.
		1.3.3	Maximum permitted loads by division and type of vehicle.
		1.3.4	Preparation of vehicles for loading and the loading procedures.
		1.3.5	Stowage, segregation and load security.
		1.3.6	Transport document and description of materials.
		1.3.7	Requirements for vehicle equipment, including fire extinguishers. No difference between Class 1 and other dangerous goods.
		1.3.8	Restrictions on smoking, carriage of sources of ignition and passengers.
		1.3.9	Prohibitions, including certain explosives and certain mixed loads.
		1.3.10	Selection of routes.
		1.3.11	Checks to be made before leaving and during stops.
		1.3.12	Separation distances in convoy and parking.
		1.3.13	Vehicle breakdowns and restriction on repairs.
		1.3.14	The need for completion without delay, and action in the case of non-delivery.
		1.3.15	The prevention of fire on or near a vehicle and protection against accidental initiation of explosives which are sensitive to electro-magnetic radiation.
		1.3.16	Security and High Consequence Dangerous Goods.
1.4	**The safe and correct loading of a vehicle with a mixed load of explosives – Class 1***	1.4.1	The use of mechanical handling equipment.
		1.4.2	Cleanliness of the vehicle load compartment or container.
		1.4.3	Minimising the load height.
		1.4.4	Weight distribution.
		1.4.5	Load restraint.
		1.4.6	The avoidance of friction.
		1.4.7	Basic mixed load of explosive in accordance with the mixing rules.
	***Training note:**	This subject to include an exercise based on a written scenario to be completed individually. (Mandatory for initial and refresher courses).	
1.5	**The special measures to be taken in the event of an accident or incident involving a vehicle carrying explosives – Class 1***	1.5.1	Clear and prompt communication with the emergency services and the carrier.
		1.5.2	Fire prevention and dealing with fires in the vehicle and the load.
		1.5.3	Assessment of the incident.
		1.5.4	Dealing with the public.
		1.5.5	Evacuation and hard cover.
	***Training note:**	This subject to include an exercise based on a written scenario to be completed individually. (Mandatory for initial and refresher courses).	

LEARNING OBJECTIVE		AREAS TO BE COVERED	
2.1	**Preventative and safety measures appropriate to the various types of hazards — Class 2**	2.1.1	Characteristics of Class 2 and the three divisions. Levels of Danger according to their hazardous properties, as packing groups are not allocated.
		2.1.2	Marking and labelling.
		2.1.3	Why gases need to be compressed, liquefied, dissolved, chemicals/articles under pressure, refrigerated and adsorbed gases or a combination of these.
		2.1.4	Special packaging and containment systems.
		2.1.5	Dangers and the precautions to be exercised when transporting gases and actions to be taken in the event of an escape of gas.
		2.1.6	Hazardous properties including toxicity, flammability, corrosivity, oxidation and asphyxiation.
		2.1.7	The effects of low temperature on living tissue and other materials. (Cryogenic)
		2.1.8	Correct handling, storage and transportation of cylinders and avoidance of overheating.
		2.1.9	Segregation methods and responsibilities of all persons involved.
		2.1.10	BLEVE (Boiling Liquid Expanding Vapour Explosion).
		2.1.11	Flammability limits and liquid to vapour volume ratios.
		2.1.12	Appropriate personal protective equipment to include respiratory protective equipment.
3.1	**Preventative and safety measures appropriate to the various types of hazards — Class 3**	3.1.1	Characteristics of Class 3 materials.
		3.1.2	Marking and labelling.
		3.1.3	Dangers and precautions to be exercised when transporting flammable liquids.
		3.1.4	Volatility.
		3.1.5	Vapours above the liquid burn rather than the liquid themselves.
		3.1.6	Vapours are usually colourless and heavier than air increasing the risk of asphyxiation and/or fire.
		3.1.7	Possible subsidiary hazards including toxicity and corrosivity.
		3.1.8	Segregation methods and responsibilities of all persons involved.
		3.1.9	Flashpoint, auto-ignition temperature, flammability limits and liquid to vapour volumes/ratios.
		3.1.10	Combination of vapour, air and ignition source can create fire hazards.
		3.1.11	Miscibility and immiscibility.
		3.1.12	Containment of material and actions on exposure to flammable liquids.
		3.1.13	Sources of ignition.
		3.1.14	Appropriate personal protective equipment to include respiratory protective equipment.
4.1	**Preventative and safety measures appropriate to the various types of hazards — Class 4**	4.1.1	Characteristics of Class 4.1, 4.2 and 4.3.
		4.1.2	Marking and labelling.
		4.1.3	Dangers and precautions to be exercised when transporting Class 4 materials.
		4.1.4	Possible subsidiary hazards including toxicity, explosiveness and corrosivity.
		4.1.5	Drivers duties in relation to temperature control for certain Class 4.1 materials (SADT and SAPT requirements).
		4.1.6	Avoidance of overheating and sources of ignition.
		4.1.7	Segregation methods and responsibilities of all persons involved.
		4.1.8	Containment systems and actions to be taken on exposure.
		4.1.9	Appropriate personal protective equipment to include respiratory protective equipment.

LEARNING OBJECTIVE		AREAS TO BE COVERED	
5.1	**Preventative and safety measures appropriate to the various types of hazards — Class 5**	5.1.1	Characteristics of Class 5.1 and Class 5.2.
		5.1.2	Marking and labelling.
		5.1.3	Dangers and precautions to be exercised when transporting Class 5 substances.
		5.1.4	Possible subsidiary hazards including, explosiveness, toxicity and corrosivity.
		5.1.5	Effects of oxidation on combustion even in the absence of air.
		5.1.6	Organic Peroxides contain combustible elements (carbon) and oxygen and the effects of these.
		5.1.7	Drivers duties in relation to temperature control for certain Class 5.2 materials (SADT requirements).
		5.1.8	Avoiding overheating and sources of ignition.
		5.1.9	Segregation methods and responsibilities of all persons involved.
		5.1.10	Containment systems and actions to be taken on exposure.
		5.1.11	Appropriate personal protective equipment to include respiratory protective equipment, and the specific dangers of Class 5.2 and in particular eye damage.
6.1	**Preventative and safety measures appropriate to the various types of hazards — Class 6**	6.1.1	Characteristics of Classes 6.1 and 6.2.
		6.1.2	Marking and labelling.
		6.1.3	Dangers and precautions to be exercised when transporting Class 6 materials.
		6.1.4	Possible subsidiary hazards including flammability, oxidising and corrosivity.
		6.1.5	Entry into the body may be through inhalation, ingestion, absorption, injection and instillition.
		6.1.6	The effects can be either acute or chronic, and the difference between these.
		6.1.7	Category A and B substances for Class 6.2.
		6.1.8	Clinical waste products derived from human or animal treatment and bio-research.
		6.1.9	Segregation methods in particular from foodstuffs, and responsibilities of all persons involved.
		6.1.10	Special Packaging requirements.
		6.1.11	Containment of material and actions to be taken on exposure to Class 6 substances.
		6.1.12	Appropriate personal protective equipment to include respiratory protective equipment.
		6.1.13	Avoiding contamination when putting on and removing personal protective equipment.
		6.1.14	Containment of used sharps.
		6.1.15	The need for rapid decontamination and/or the use of an antidote in the event of exposure to certain Class 6 materials.
7.1	**Specific risks related to ionising radiation – Class 7***	7.1.1	The concept of background radiation, the three main typers of ionising radiation alpha, beta and gamma. How radioactive materials decay, half-life and the need for packaging and personal protection from the different forms of radiation and subsidiary hazards.
		7.1.2	The long and short terms effects of ionising radiation on people, including genetic effects, and the significance of the precautions to be taken.
		7.1.3	The Ionising Radiation Regulations 2017, designation of controlled areas and working in compliance with local rules and other requirements as determined from the radiation risk assessment.
		7.1.4	The concept of radiation dose, the use of personal dose meters and measurements. Including, radiation and contamination, internal and external dose pathways and impact of different physical forms of the radioactive material.
		7.1.5	Recording of personal radiation doses.
		7.1.6	The fact that radioactive materials may have other harmful effects, including toxicity, corrosivity, flammability and oxidising, and the significance of these effects in transporting the materials.

LEARNING OBJECTIVE		AREAS TO BE COVERED	
	***Training note:**	This section must include a suitable video clip or DVD to cover 'The main hazards of Class 7 substances. (Mandatory for initial and refresher courses).	
7.2	**Specific requirements concerning packing, handling, mixed loading and stowage of radioactive materials – Class 7**	7.2.1	The various methods of radiation protection, including containment, time, (ie limiting exposure), distance, shielding and hygiene.
		7.2.2	The IAEA safety standards and other modal regulations applying to the transportation of radioactive materials, including reference to the most current relevant CDG provisions.
		7.2.3	The responsibilities of consignors, carriers and drivers in relation to packaging, documentation, vehicle marking and supervision. The additional requirements for HCRM in compliance with ADR 1.10.3 and the requirements of Nuclear Industry Security Regulations 2003 (CDG 2009 (19) Reg 18) for certain material. Identify the Class 7 specific derogations and the alternative driver training options included in S12.
		7.2.4	The placarding and marking of vehicles, Freight Containers, Tank Containers and Tankers.
		7.2.5	The methods and standards of packaging for radioactive materials, including, excepted, industrial, Type A, the various Type B, Type C, special form and fissile material.
		7.2.6	The assignment of categories I — WHITE, II — YELLOW and III — YELLOW to all packages, overpacks and containers. The transport and criticality safety indexes, the maximum limits for individual packages and vehicle loads. Special arrangements and the concept of exclusive use.
		7.2.7	Loading and unloading vehicles, the need to segregate certain materials, and the need for minimum handling.
		7.2.8	Vehicle equipment including fire extinguishers same as any other class of dangerous goods.
		7.2.9	The actions to be taken during a journey, including checks before setting out and during the journey. Supervision and parking and checks by customs. Carriage of passengers, breakdown procedures and correct delivery procedures.
7.3	**The special measures to be taken in the event of an accident involving a vehicle carrying radioactive materials – Class 7***	7.3.1	Avoidance of contamination.
		7.3.2	Contacting the emergency services.
		7.3.3	Duties of consignors and carriers with regards to emergency arrangements as required by CDG, to include the link between the Radiation Risk Assessment (IRR17) and the Emergency Plan (CDG 2009 (19) Reg 24 and Schedule 2) and the contingency plans under IRR17.
		7.3.4	Duties of drivers, carriers and consignors in a radiological emergency in accordance with ONR guidance on emergency/contingency arrangements.
		7.3.5	Purpose and function of the NAIR scheme.
		7.3.6	Personal decontamination under specialist supervision.
	***Training note:**	This subject to include an exercise based on a written scenario to be completed individually. (Mandatory for initial and refresher courses).	
7.4	**The safe and correct stowage of a variety of packages containing radioactive materials in a vehicle body – Class 7***	7.4.1	The safe and correct stowage of a variety of packages containing radioactive materials, to include segregation and the maximum transport indexes for both packages and loads.
	***Training note:**	This subject to include an exercise based on a written scenario to be completed individually. (Mandatory for initial and refresher courses).	

LEARNING OBJECTIVE		AREAS TO BE COVERED	
8.1	**Preventative and safety measures appropriate to the various types of hazards — Class 8**	8.1.1	Characteristics of Class 8 materials.
		8.1.2	Marking and labelling.
		8.1.3	Dangers and precautions to be exercised, when transporting Class 8 materials.
		8.1.4	Possible subsidiary hazards including toxicity, flammability, and oxidation.
		8.1.5	Strong chemical reaction with a wide range of materials.
		8.1.6	Chemical reactions of corrosive materials
		8.1.7	The effects on many materials and human tissue may be immediate or delayed depending upon the concentration, duration and temperature.
		8.1.8	May react violently with heat, water and neutralising agents.
		8.1.9	Segregation methods and responsibilities of all persons involved.
		8.1.10	Containment systems and actions to be taken on exposure.
		8.1.11	Appropriate personal protective equipment to include respiratory protective equipment.
9.1	**Preventative and safety measures appropriate to the various types of hazards — Class 9**	9.1.1	Characteristics of Class 9 substances and articles.
		9.1.2	Marking and labelling.
		9.1.3	Principle examples of substances and articles.
		9.1.4	Environmentally hazardous substances.
		9.1.5	Segregation methods and responsibilities of all persons involved.
		9.1.6	Containment systems and actions to be taken on exposure.
		9.1.7	Appropriate personal protective equipment to include respiratory protective equipment.
		9.1.8	Dangers and precautions to be exercised when transporting Class 9 substances and articles.
		9.1.9	Avoidance of overheating and sources of ignition.