



قطر للبترول  
Qatar Petroleum

REGULATION FOR TRANSPORTATION OF  
DANGEROUS GOODS AND HAZARDOUS MATERIALS  
BY ROAD IN INDUSTRIAL CITIES

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## **1.0 OBJECTIVE**

This regulation defines the Industrial Cities Directorate's requirements for the Transportation of Dangerous Goods and Hazardous Materials by road and sets minimum obligations for QP, Industrial Cities, End Users and Contractors to ensure that:

- Risks to people, environment and assets associated directly or indirectly with transportation of dangerous goods and hazardous materials are adequately assessed and managed in accordance with the legal requirements of State of Qatar, requirements of UN Transportation of Dangerous Goods Standard and policies and procedures of QP.
- A consistent system for managing transportation of dangerous goods and hazardous materials is established and implemented across the Industrial Cities Directorate in Dukhan Concession Area (DCA), Mesaieed Industrial City (MIC) and Ras Laffan Industrial City (RLC).

## **2.0 SCOPE**

This regulation refers to the UN Transportation of Dangerous Goods by Road (ADR), laws of State of Qatar and QP's Requirements, which provides details on all aspects of dangerous goods transport, from road tankers to training requirements of individuals. This regulation provides for duty holders (participants) with specific responsibilities. Such responsibilities are listed in the ADR, and will be detailed in this document.

This regulation shall be applicable in Dukhan Concession Area (DCA), Mesaieed Industrial City (MIC) including both secured and open areas and Ras Laffan Industrial City (RLC) Open areas.

## **3.0 DEFINITIONS & ABBREVIATIONS**

### **3.1 Definitions**

<b>Definition</b>	<b>Description</b>
Carcinogenic	Substances which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence
Consignee	The enterprise or the assigned party taking charge of the dangerous goods at arrival.
Consignor	An enterprise which consigns dangerous goods either on its own behalf or for a third party.
Container (Primary Containment)	A tank, can, barrel, IBC, sack or other Container that is in direct contact with the stored Hazardous Material
Corrosive	Substances, which may destroy living tissue on contact with hazardous substances.
Dangerous Good / Hazardous Material	A material that is a health hazard (e.g. carcinogenic), a physical hazard (e.g. flammable), or a hazard to the environment (e.g. marine pollutant).
Drip Tray	A shallow container placed under the Hazardous Materials container(s) that collects minor leaks and drips from the container(s).
Flammable/Highly Flammable/Extremely Flammable	As different definitions apply, the material must be treated as flammable if identified as such in the MSDS. Where there is any doubt any liquid with a flashpoint of 55°C or below should be treated as flammable.

<b>Definition</b>	<b>Description</b>
Harmful	Substances which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
Participant	Any person or Company involved in the carriage of dangerous goods by road including any person involved in the activity of loading, unloading, packing and filling, and includes consignor, carrier, consignee, driver, vehicle crew, End User, Contractor or any person with a duty under the Regulations.
Placards	Large hazard labels used on vehicles/tanks
Primary Containment	See Container
Secondary Containment	A means to prevent Hazardous Material released from Primary Containment from reaching the environment. Secondary Containment may be provided by bonding, either as an integral part of the container or as an impermeable walled surface surrounding the container(s), or by placing the container(s) within a drainage system that is closed to the environment (this includes discharge to sumps/tanks and the cuttings reinjection wells offshore, but excludes discharge to caisson). Containment will be sufficient to retain 110% of the volume of the largest container.
Segregation	Effective separation (by distance or the use of physical barriers) so that incompatible materials cannot interact dangerously in the event of a reasonably foreseeable accident.
Shall	A mandatory action.
Should	A preferred course of action or activity.
Tank	A shell including its service and structural equipment. When used alone the term means tank-container, portable tank, demountable tank, fixed tank and tanks forming elements of a vehicle
Toxic	Substances which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks or even death
Transport equipment	Includes vehicles, tanks, tank-containers, portable tanks, demountable tanks, tank swap bodies, tube trailers, bulk containers, intermediate bulk containers, containers, packaging, packages, receptacles and aerosols, and any other item used or intended for use in the carriage of dangerous goods by road.

### 3.2 Abbreviations

<b>Abbreviation</b>	<b>Definition</b>
ADR	European Agreement regarding the international carriage of dangerous goods by road
ALARP	As low as reasonably practicable
COSHH	Control of Substances Hazardous to Health
DCA	Dukhan Concession Area
ERCC	Emergency Response Control Centre



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Abbreviation	Definition
HSSE	Health, Safety, Security and Environment
IBC	Intermediate Bulk Container
IH(D)	Manager, Health, Safety, Security and Environment (DCA)
IH(L)	Manager, Health, Safety, Security and Environment (RLC)
IH(M)	Manager, Health, Safety, Security and Environment (MIC)
IHS(D)	Head, Safety (DCA)
IHS(L)	Head, Safety (RLC)
IHS(M)	Head, Safety (MIC)
IM(D)	Manager, Dukhan Concession Area
IM(L)	Manager, Ras Laffan Industrial City
IM(M)	Manager, Mesaieed Industrial City
IMDG	International Maritime Dangerous Goods
MEGC	Multiple Element Gas Container
MEMU	Mobile Explosive Manufacturing Unit
MIC	Mesaieed Industrial City
MME	Ministry of Municipality and Environment, State of Qatar
MOI	Ministry of Interior, State of Qatar
MSDS	Material Safety Data Sheet
QP	Qatar Petroleum
RLC	Ras Laffan Industrial City
RPO	Radiation Protection Officer
UN	United Nations
VI	Executive Vice President, Industrial Cities

## **REGULATIONS**

The Participants in the carriage of dangerous goods shall respond appropriately according to the nature and the extent of foreseeable dangers, to avoid damage or injury and, if necessary, to minimise their effects. They shall, in all events, comply with the requirements of this regulation, State of Qatar Laws and applicable International Requirements in their respective fields. When there is an immediate risk that public safety may be jeopardised, the Participants shall immediately notify the respective QP Industrial Cities Emergency Response Control Centre (ERCC) and shall make available to them the information they require to take action. This general provision means that all participants must ensure that they take all necessary actions to reduce the risk of an incident involving dangerous goods. A separate medical fitness is not required for the drivers, provided, they are holding a valid Residence Permit of Qatar.

## **4.0 ROLES & RESPONSIBILITIES**

### **4.1 Participant**

A Participant must:

- a. Ensure that a person employed by him or her, whose duties concern the carriage of dangerous goods, has received the appropriate training;
- b. Keep records of such training;
- c. Comply with specified legal duties;
- d. Take appropriate measures to avoid damage or injury;
- e. Notify ERCC of an immediate risk to public safety.

### **4.2 Consignor**

The consignor is the person or organization handing over (or has control of) the dangerous goods prior to transportation.

The consignor must in particular:

- a. Ascertain that the dangerous goods are classified and authorised for carriage in accordance with this regulation;
- b. Furnish the carrier with information and data and, if necessary, the required transport documents and enclosed documents (authorisations, approvals, notifications, certificates, etc.). The consignor must ensure that a carrier is informed in advance of the nature of the dangerous goods to be picked up and, when a driver arrives on site, ensure that all necessary documentation is provided;
- c. Use only packaging, large packaging, intermediate bulk containers (IBCs) and tanks (tank-vehicles, demountable tanks, battery-vehicles, MEGCs, portable tanks and tank-containers) approved for and suited to the carriage of the substances concerned and bearing the markings prescribed by ADR;
- d. Ensure that even empty, un-cleaned and not degassed tanks (tank-vehicles, demountable tanks, battery-vehicles, MEGCs, portable tanks and tank-containers) or empty, un-cleaned vehicles and large and small bulk containers are appropriately marked and labelled and that empty, un-cleaned tanks are closed and are leak-proof to the same degree as when they are full;
- e. Comply with MOI security measures as appropriate;
- f. Ensure that on handing dangerous goods over to a driver, he is carrying an appropriate driver training certificate and Industrial Cities Security Gate Pass;
- g. Ensure emergency procedures are in place;
- h. Ensure all employees are appropriately trained in advance of work involving dangerous goods.



If the consignor uses the services of other participants (packer, loader, filler, etc.), he or she must respond appropriately to ensure that the consignment meets the requirements of this regulation.

### **4.3 Carrier**

The carrier is the person or organization performing the actual carriage of dangerous goods in or on a vehicle, for example, a logistics company, courier, vehicle owner/operator (who may also be the consignor or driver, as a self-employed vehicle owner/operator). The carrier must in particular:

- a. Ensure that the dangerous goods to be carried are authorised for carriage in accordance with this regulation (by means of confirmation from the consignor, or otherwise);
- b. Ensure that all information prescribed in this regulation related to the dangerous goods to be carried has been provided by the consignor before carriage and that the prescribed documentation is on board the transport unit.
- c. Ensure visually that the vehicles and loads have no obvious defects, leakages or cracks, missing equipment, etc. In addition, ensure this is carried out by putting in place a monitoring/audit procedure to assess vehicles and equipment.
- d. Ensure that the date of the next test for tank-vehicles, battery-vehicles, demountable tanks, portable tanks, tank-containers and MEGCs has not expired. As in (c) above, build inspection checks into regular monitoring/audit function;
- e. Verify that the vehicles are not overloaded;
- f. Ensure that the danger labels and markings prescribed for the vehicles have been affixed;
- g. Ensure that the equipment prescribed in this regulation is on board the vehicle. This must also take account of fire extinguisher requirements
- h. Comply with MOI security measures as appropriate;
- i. Ensure emergency procedures are in place;
- j. Ensure both driver and vehicle crew are suitably trained in advance of any work involving dangerous goods and fully aware of the dangers of dealing and precautions for handling them. Drivers must also hold an appropriate driver-training certificate.

Where appropriate, this should be done on the basis of information provided by transport documents and accompanying documents, or by a visual inspection of the vehicle or the containers and, where appropriate, the load. Documented procedures including periodic audits will ensure the vehicle and other transport equipment are in a suitable condition for use.

If the carrier observes an infringement of the requirements of this regulation, he or she must not forward the consignment until the matter has been rectified.

If during the journey, an infringement, which could jeopardise the safety of the operation, is observed, the consignment must be halted as soon as possible, bearing in mind the requirements of traffic safety, of the safe immobilisation of the consignment and of employees and public safety. The transport operation may only be continued once the consignment complies with applicable regulations.

### **4.4 Driver and Vehicle Crew**

The driver is the participant who is in immediate control of the vehicle and fulfils the driving function. Crew members also have responsibilities and all crew members must have appropriate training in line with their duties and responsibilities. Note that if any crew member also drives the vehicle he must hold an appropriate driver-training certificate. Drivers and/or crew members must in particular:



- a. Ensure drivers carry Dangerous Goods driver training certificate and all crew members have their Industrial Cities Security Gate Pass;
- b. Ensure that they have read and understood transport documentation provided in advance of any transport operation. If an issue does arise with the documentation the crew members must raise and rectify any matter prior to driving the vehicle;
- c. Keep written emergency instructions readily available in the cab of a vehicle;
- d. Check to ensure all vehicle safety equipment and PPE is provided and raise immediately any deficiency or missing items with the carrier;
- e. Check and ensure the vehicle is properly plated, placarded and marked. Ensure orange plates, placards and marks are kept clean;
- f. Ensure that damaged or leaking packages are not loaded;
- g. Ensure they do not drive a vehicle they suspect is not in compliance with national legislation or this regulation and raise and rectify any issues prior to driving the vehicle;
- h. Ensure that apart from members of the vehicle crew, no passengers are carried in transport units carrying dangerous goods;
- i. Ensure that members of the vehicle crew know how to use the fire-fighting extinguishers;
- j. Not open a package containing dangerous goods;
- k. Ensure that any torch or lighting apparatus used does not exhibit any metal surface liable to produce sparks;
- l. Ensure that smoking is prohibited during handling operations in the vicinity of vehicles and inside the vehicles;
- m. Ensure that the engine is shut off during loading and unloading operations, except where it has to be used to drive the pumps or other appliances for loading or unloading the vehicle;
- n. Ensure that no vehicles carrying dangerous goods are parked without the parking brakes being applied. And that trailers without braking devices are restrained from moving by applying at least one wheel chock;
- o. If responsible for tank filling or emptying, ensure as may be appropriate (e.g. for flammable liquids) that there is a good electrical connection to the earth prior to the emptying or filling operation;
- p. Ensure no dangerous residues of the filling substance adhere to the outside of tanks filled or emptied;
- q. If involved in the loading operation, initially or during the transport operation, ensure dangerous goods are properly secured to the vehicle. If released to unload part of the shipment, remaining dangerous goods must be re-secured to the vehicle;

#### **4.5 Packer**

The packer (an individual or organization) is the participant who is responsible for the final packaging of dangerous goods prior to transportation.

The packer must in particular:

- a. Comply with requirements concerning packing provisions, or mixed packing provisions;
- b. Comply with the requirements concerning marking and labelling of the packages when preparing packages for carriage.

#### **4.6 Filler**

The filler is the participant (individual or organization) who is responsible for filling tanks or containers (for carriage in bulk) with dangerous goods prior to transportation. The filler must in particular:

- a. Ensure prior to the filling of tanks that both they and their equipment are in a satisfactory technical condition;
- b. Ensure that the date of the next test for tank-vehicles, battery-vehicles, demountable tanks, portable tanks, tank-containers and MEGCs has not expired;
- c. Only fill tanks with the dangerous goods authorised for carriage in those tanks;
- d. In filling the tank, comply with the requirements concerning dangerous goods in adjoining compartments;
- e. During the filling of the tank, observe the maximum permissible degree of filling or the maximum permissible mass of contents per litre of capacity for the substance being filled;
- f. After filling the tank, check that the closing devices are leak-proof;
- g. Ensure that no dangerous residue of the filling substance adheres to the outside of the tanks filled by him;
- h. Ensure that, in preparing the dangerous goods for carriage, the orange plates and placards or labels prescribed are affixed on the tanks, on the vehicles and on the large and small containers for carriage in bulk in accordance with the requirements;
- i. Ensure that, when filling vehicles or containers with dangerous goods in bulk, the relevant provisions of ADR Chapter 7.3 (bulk provisions) are complied with.

#### **4.7 Loader**

The loader is the participant (individual or business) who is responsible for loading dangerous goods onto a vehicle prior to transportation. The loader must in particular:

- a. Hand the dangerous goods over to the carrier only if they are authorised for carriage.
- b. When handing over for carriage packed dangerous goods or un-cleaned empty packaging, check whether the packaging is damaged. He must not hand over a package if its packaging is damaged, especially if it is not leak-proof and there are leakages or the possibility of leakages of the dangerous substance, until the damage has been repaired.
- c. When loading dangerous goods in a vehicle, or a large or small container, comply with the special requirements concerning loading and handling (ADR 7.5.11).
- d. After loading dangerous goods into a container, comply with the requirements concerning danger markings conforming to ADR Chapter 5.3.
- e. When loading packages, comply with the prohibitions on mixed loading taking into account dangerous goods already in the vehicle or large container.
- f. The loader may, however, in the case of (a), (d) or (e), rely on information and data made available to him or her by other participants.

#### **4.8 Unloader**

The Unloader is the participant (individual or organization) who is responsible for the removal of dangerous goods from a vehicle, or the unloading or discharge of dangerous goods from a tank, container or vehicle. The Unloader must in particular:

- a. Ensure that the correct goods are unloaded by comparing the relevant information on the transport document with the information on the package, container, tank, MEMU, MEGC or vehicle;
- b. Before and during unloading, check whether the packaging, the tank, the vehicle or container have been damaged to an extent, which would endanger the unloading operation. If this is the case, ensure that unloading is not carried out until appropriate measures have been taken;
- c. Comply with all relevant requirements concerning unloading;
- d. Immediately following the unloading of the tank, vehicle or container:



- e. Remove any dangerous residues which have adhered to the outside of the tank, vehicle or container during the process of unloading; and
- f. Ensure the closure of valves and inspection openings;
- g. Ensure that the prescribed cleaning and decontamination of the vehicles or containers is carried out.

#### **4.9 Consignee**

The consignee is the participant (QP, End User, Contractor or Subcontractor) who takes charge of the dangerous goods when delivered. The consignee has the following obligations:

- a. Not to defer acceptance of the goods without compelling reasons and to verify, after unloading, that the requirements of this regulation placed on the consignee have been complied with;
- b. If, in the case of a container, this verification brings to light an infringement of the requirements of this regulation, the consignee must return the container to the carrier only after the infringement has been remedied; and
- c. If the consignee makes use of the services of other participants (Unloader, cleaner, decontamination facility, etc.) he must respond appropriately to ensure that the requirements of (a) and (b) have been complied with.
- d. Authentication letter shall be provided by the Consignor to the Consignee, prior to obtaining the declaration form, to overcome any conflicts.

#### **4.10 Participant's Safety Officer/Advisor**

The role of the safety office / advisor is to help control the risks inherent in such activities with regard to persons, property and the environment. The main duties of a Safety Officer / Advisor are as follows:

- a. Monitoring compliance with the requirements governing the carriage of dangerous goods;
- b. Advising on the carriage of dangerous goods;
- c. Conduct periodic and random inspections and audits to ensure that transportation of dangerous goods carried out in compliance with this regulation as per attachment #5.

## **5.0 TRAINING AND TRAINING RECORDS**

All persons, whose duties concern the carriage of dangerous goods, must be trained in the requirements governing the carriage of such goods appropriate to their responsibilities and duties. Employees must be trained before assuming responsibilities, and such training will be in the areas of general awareness, function specific training, and safety training. Employees must only perform functions for which required training has not yet been provided under the direct supervision of a trained person. Records of all training received (including refresher training) must be kept by the employer and made available to the employee or the Industrial Cities HSE Department upon request. The employer must retain records for a period of one year after the employee has left the company. A copy of training records must be provided to employees. Training records must be verified upon commencing new employment.

### **5.1 General Awareness Training, Function Specific Training, Safety and Security Training**

Personnel must be familiar with the general requirements of the provisions for the carriage of dangerous goods. Personnel must also be trained to a level directly commensurate with their duties and responsibilities under the requirements of the regulations concerning the carriage of dangerous goods. Where the carriage of dangerous goods involves a multi-mode transport operation, the personnel must be made aware of the requirements concerning other transport modes. Personnel must be trained in the hazards and dangers presented by dangerous goods to a level commensurate with the degree of risk of injury or exposure arising from an incident involving such dangerous goods. The training provided must aim to make personnel aware of the safe handling and emergency response procedures. Training must include elements of security awareness, including addressing the nature of security risks, recognizing security risks, methods to address and reduce such risks and actions to be taken in the event of a security breach. It must also include awareness of security plans (if appropriate) commensurate with the responsibilities and duties of individuals and their part in implementing those plans.

All training must be supplemented periodically with refresher training to take account of changes in regulations, i.e. at least every two years to coincide with each new edition of the ADR or State of Qatar law.

Training may be conducted by the organization if it is competent to do so, or provided by a commercial training company approved by the authorities concerned. Details of the content of the training must be recorded and made available for inspection.

### **5.2 Driver Training and Examination**

Drivers of vehicles carrying dangerous goods must hold a training certificate issued by the competent authority or the appointed agent. Drivers must have participated in a training course (mandatory) and passed an examination on the particular requirements that have to be met during carriage of dangerous goods. Drivers must undergo refresher training and examination every two years.

## 6.0 DANGEROUS GOODS CLASSIFICATION

All substances must be classified prior to transportation by road or any other mode of transport. The classification or identification of dangerous goods is the most important step in the transport chain. ADR provides for the classification of all dangerous goods into one of nine main hazard classification groups, some of which are subdivided; These are set out in **Attachment 1**, with a corresponding class or hazard label. The classification criteria for the carriage of dangerous goods by road are provided in the ADR (Part 2, Chapter 2), and, where required, further classification criteria are set out in the associated UN Manual of Tests and Criteria. These documents facilitate the classification of any substance, mixture or article, **including wastes**. The nine main hazard classification groups will therefore cover thousands of individual substances many of which are identified in ADR, or if not individually identified, then by generic group identification. Each individual substance or group of substances is given a unique number known as the “UN” number. For example, petrol is a flammable liquid, “Class 3” and is assigned the unique UN number UN 1203. Substances are further categorized according to how dangerous they are by designating a “**packing group**” or “**PG**” as indicated below.

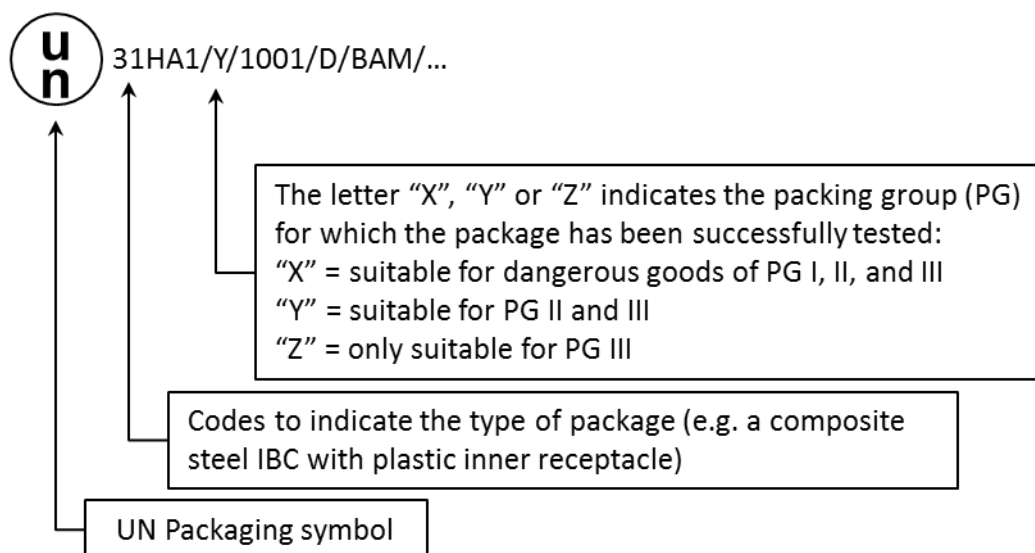
PG I	High Danger
PG II	Medium Danger
PG III	Low Danger

## 7.0 **PACKING, MARKING AND LABELLING**

It is the responsibility of the consignor to ensure that packaging, and subsequent marking and labelling of such packaging, is appropriate and suitable for the substances, mixtures and articles consigned for carriage by road. It is recommended to seek the advice of a Safety Officer when carrying out this task.

### 7.1 **Packing and Marking**

The ADR specifies the correct way to package dangerous goods, be it in a box, drum, container, or when carried in road tankers or other systems of containment. Packaging provides a safeguard for people and the environment during loading, transport and unloading of dangerous goods and must therefore be appropriate for the dangerous goods concerned. All packaging must be UN approved and will be identified with a series of marks, as indicated below.



### 7.2 **Labelling**

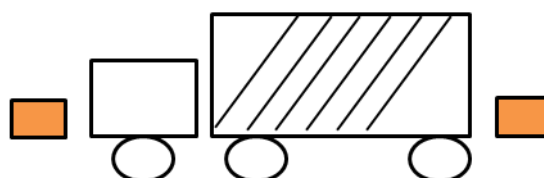
Labeling is applied to dangerous goods packages and provides an instant visual warning to everyone, not least those handling the goods and emergency services. Labels are placed on the outside surface of packages, and must conform to the specification set in ADR (e.g. minimum dimensions of 100mm x 100mm). In addition to the class label(s), ADR requires to apply the substance UN number. Packages generally require labels, appropriate mark(s) and a UN number only once on the outer surface of the package. Ideally, if the package size allows, all labels should be displayed on one side, without overlapping or being obscured by other labeling. For IBCs and large packages (450 liters to 3,000 liters capacity), the labels and marks are required on two opposite sides.

## 8.0 VEHICLES MARKING AND LABELLING

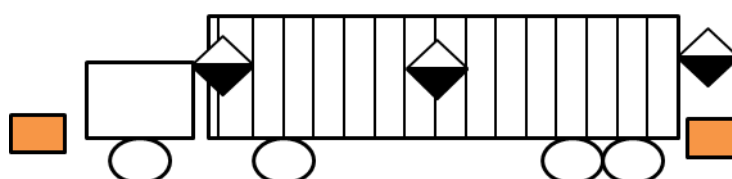
Some vehicles used to transport dangerous goods are highly specialized (e.g. vehicles used to transport explosives and road tankers). It is the responsibility of carriers to ensure the correct vehicle is used and that appropriate marking is applied. Drivers may also share in the marking duties (e.g. their responsibilities include the removal/covering of ADR “orange plates” when all dangerous goods are unloaded). When vehicles are transporting dangerous goods, they are marked with ADR orange plates (front and rear). When vehicles are carrying containers, the freight container must also be labelled or “placarded” with the appropriate class label on all four sides.

When carrying goods in bulk (unpackaged loose material) the vehicle must also be labelled or “placarded” with the appropriate class label on both sides and rear. Bulk vehicles must also identify the goods by using the numbered orange plates on both sides of the bulk container in addition to blank orange plates at the front and rear.

Curtain Sided Vehicles



Containers



## 9.0 TANKS MARKING AND LABELLING

Tanks (tank-container, portable tank, fixed tank, demountable tank, battery-vehicles and MEGCs) are subject to periodic testing and certification. Examination and testing must be carried out by an accredited tank. These matters are the responsibility of the carrier/tank operator. For the carriage of dangerous goods in tanks, ADR requires marking of both the vehicle and tank (e.g. numbered orange plates at the front and rear of the vehicle, hazard placards and other marks as required on each side of the tank and at the rear). Alternative marking methods are specified in ADR. Blank orange plates may be used at the front and rear of the vehicle with numbered orange plates on each side of the tank.

## 10.0 VEHICLES SAFETY EQUIPMENT

Safety equipment is essential for personal protection whether during routine activity or in the event of an emergency. ADR specifies both personal protective equipment for drivers and crew and safety equipment to be carried on vehicles for use by the crew. It is the responsibility of carriers to supply safety equipment and ensure it is provided and maintained in good working order.



## 10.1 Mandatory Equipment

The following equipment is mandatory for each vehicle:

- A suitable wheel chock;
- Two self-standing warning signs;
- Eye wash bottles (2x 500ml – not required for goods with danger label numbers 1, 1.4, 1.5, 1.6, 2.1, 2.2 and 2.3).

For each member of the vehicle crew:

- A warning vest;
- Torch;
- Protective gloves; and
- Safety glasses.

Additional equipment classes:

- An emergency escape mask for each crew member in vehicles carrying goods with danger label numbers 2.3 or 6.1;
- A shovel, drain seal and plastic collecting container in vehicles carrying goods with danger label numbers 3, 4.1, 4.3, 8 and 9.

In addition to the above items the driver should carry a first aid kit and any other safety items identified by risk assessment (e.g. chemical spill kit, chemical over suit, protective overalls, safety boots, hard hat, etc.)

## 10.2 Fire Fighting Equipment

Every transport unit shall be equipped with at least one fire extinguisher for the inflammability class A, B and C with a minimum capacity of 2 kg of dry powder suitable for fighting a fire in engine or cab of the transport unit. The below Table outlines the specific fire extinguisher requirements for various transport units:

Scenario	Requirement
All transport units	Minimum of a 2 kg dry powder (or equivalent) extinguisher – suitable for fighting a cab or engine fire
Units with max. permissible mass of more than 7.5 tons	One or more portable fire extinguishers with minimum total capacity of 12 kg dry powder (or equivalent) – at least one extinguisher being minimum of 6 kg capacity
Units with max. permissible mass of more than 3.5 tons up to and including 7.5 tons	One or more portable fire extinguishers with minimum total capacity of 8 kg dry powder (or equivalent) – at least one extinguisher being minimum of 6 kg capacity
Units with max. permissible mass of up to and including 3.5 tons	One or more portable fire extinguishers with minimum total capacity of 4 kg dry powder (or equivalent)

Extinguishers must be maintained and inspected on regular basis. They must be stowed securely in/on the vehicle and be readily accessible, i.e. not locked in storage compartments in the vehicle.



## **11.0 LOADING AND UNLOADING**

Loading, unloading and handling operations apply to all packages and dangerous goods in bulk, including the placing (and subsequent removal from) of any container, bulk container, tank-container or portable tank onto a vehicle.

### **11.1 Loading**

Checks prior to loading and transportation of dangerous goods must be carried out in all circumstances and if any of the following do NOT comply with the regulatory provisions, loading should not commence:

- Documentation (Section 12.0)
- Vehicle and its load (from visual inspection of the vehicle itself), packaging, container, tank-containers, bulk container, portable tank, etc.
- Driver (training certificate)
- Transport and safety equipment carried on the vehicle, including PPE.
- Orientation arrows on packages are pointing in the right direction
- As far as possible liquids are loaded below dry goods
- Load distribution – ensure weight is as evenly distributed as possible
- Goods are protected while stacking and no over stacking
- All dangerous goods are secured to the vehicle: unsecured packaged goods must not be loaded on or in a vehicle or container. Packages can be secured to prevent movement by use of strapping and/or by blocking and bracing. Goods should not move in any direction during normal transport conditions. When using straps care should be taken not to damage or deform the package.

### **11.2 Unloading**

Unloading must not be carried out if an inspection of the vehicle, driver, load, transport or safety equipment reveals deficiencies that might affect the safety or security of the unloading. Such deficiencies must be remedied before the commencement of unloading. In general, the operator must:

- Verify which goods are to be unloaded;
- Check security of load and for damage to packaging;
- Re-secure dangerous goods not unloaded.

### **11.3 Mixed Packing Restriction**

Different dangerous goods or dangerous goods and other non-dangerous goods may be packed together in combination packaging (together in the same package, i.e. inner packages contained within an outer package), provided that they do not react dangerously with one another. **(Attachment 7)**

### **11.4 Mixed Load Restriction**

Mixed loading restrictions apply to certain dangerous goods. This means that packages of certain goods may not be loaded on to the same vehicle/container. This only affects Class 1 (explosive substances), and both Class 4.1 (flammable solids) and Class 5.2 (organic peroxides) if they have a secondary explosive hazard, i.e. Class 4.1(1) and Class 5.2(1). Such substances may not be loaded on to the same vehicle with other dangerous goods, and substances within these classes and in different compatibility, groups may additionally not be permitted together in the same vehicle.

Because of the classes of goods involved, this restriction is likely to affect relatively few dangerous goods shipments. All other dangerous goods may be carried in one vehicle (e.g.

gas cylinders with corrosive liquids and flammable solids, or any other combination falling outside the restriction).

## **12.0 DOCUMENTATION**

The following documents must be carried on the transport unit:

- The transport document detailing all the dangerous goods carried; **(Attachment 6)**
- When appropriate, the large container or vehicle packing certificate;
- The instructions in writing;
- Means of identification (Security Gate Pass and QID), which include a photograph, for each member of the vehicle crew;
- The annual vehicle certificate of approval;
- The driver's training certificate

### **12.1 Transport Document**

The transport document must be provided by the consignor, and must set out the following information for each dangerous substance, material or article carried:

- a. The UN number preceded by the letters "UN";
- b. The proper shipping name supplemented, when applicable, with the technical name in brackets;
- c. The hazard label model numbers given in Column (5) of Table A in ADR Chapter 3.2 or, when multiple hazard label model numbers are given, the numbers following the first one must be given in brackets;
- d. Where assigned, the packing group for the substance, which may be preceded by the letters "PG" (e.g. "PG II");
- e. A copy of a most recent MSDS is a part of the Transport Document.
- f. The number and a description of the packages when applicable. UN packaging codes may only be used to supplement the description of the kind of package (e.g. one box (4G)).

**Note 1:** It is not required to indicate the number, type and capacity of each inner package in a combination packaging.

- g. The total quantity of each item of dangerous goods bearing a different UN number, proper shipping name or, when applicable, packing group (as a volume or as a gross mass, or as a net mass as appropriate);

**Note 2:** For dangerous goods in machinery or equipment specified in ADR, the quantity indicated must be the total quantity of dangerous goods contained therein in kilograms or liters as appropriate.

- h. The name and address of the consignor;
- i. The name and address of the consignee(s).
- j. The declaration of dangerous goods.

### **12.2 Large Container or Vehicle Packing Certificate**

If the carriage of dangerous goods in a large container precedes a voyage by sea, a container-packing certificate conforming to Section 5.4.2 of the IMDG Code must be provided with the transport document. The functions of the transport document and of the container-packing certificate may be incorporated into a single document; if not, these documents must be attached one to the other. If these functions are incorporated into a single document, the inclusion in the transport document of a statement that the loading of the container has been carried out in accordance with the applicable mode regulations

together with the identification of the person responsible for the container-packing certificate will be sufficient.

### **12.3 Instructions in Writing**

A copy of the instructions in writing (Appendix 3) must be supplied by the carrier to the vehicle crew in a language understood by the driver and crew. This document is commonly referred to as the TREM-card (transport emergency card), and must be kept readily available in the cab of the vehicle. These instructions set out emergency actions to be performed by the driver/crew; dangerous goods hazard characteristics, additional guidance and a list of the general and personal equipment to be carried on a vehicle. Before the start of the journey, the members of the vehicle crew must inform themselves of the dangerous goods loaded and consult the instructions in writing for details on actions to be taken in the event of an emergency.

## **13.0 TRANSPORT EQUIPMENT INSPECTION AND CERTIFICATION**

All transport equipment (see Definition) should be subjected to regular general inspections (e.g. visual inspection prior to filling, packing, loading and vehicle safety equipment checks etc.). All transport equipment requires certification and are subject to periodic inspection. All inspection and certification regimes must be in accordance with Qatar Traffic legislation. Accredited inspection bodies may only carry out inspection.

## **14.0 SECURITY PROVISIONS**

In relation to the transport of dangerous goods, security means measures or precautions to be taken to minimize theft or misuse of dangerous goods that may endanger persons, property or the environment. All persons engaged in the carriage of dangerous goods must consider the security requirements commensurate with their responsibilities. Dangerous goods must only be offered for carriage to carriers that have been appropriately identified and transporting route is clearly marked. This means procedures must be put in place to verify companies and persons to whom hand over dangerous goods.

It also means that areas within temporary storage terminals, temporary storage sites, vehicle depots, berthing areas used for the temporary storage during carriage of dangerous goods must be properly secured, well lit and, where possible and appropriate, inaccessible to the general public. Drivers and vehicle crew must carry with them means of identification (ID or Passport and Security Gate Pass) during carriage of dangerous goods.

## **15.0 HIGH CONSEQUENCE DANGEROUS GOODS**

"High consequence dangerous goods" are those which have the potential for misuse in a terrorist incident and which may, as a result, produce serious consequences such as mass casualties or mass destruction.

The table in Attachment 2 provides a list of goods, which are considered high consequence dangerous goods when carried in quantities greater than those indicated therein. Carriers, consignors and other participants engaged in the carriage of high consequence dangerous goods must adopt, implement and comply with a security plan.

### **15.1 Explosives and Radioactive Materials**

The Participants under this regulation shall advise Industrial Cities Directorate HSE and Security Departments of the arrival and detail, the type and quantity of pyrotechnics to be



transported or disposed of, using 24 hour notification and dangerous goods declaration form (Attachment 6).

The transportation of radioactive materials shall be carried out in strict compliance with Qatar Decree Law No. 31 (2002) and the Ministry of Environment Regulation (By Laws) 2 and 4 (2007) concerning Radioactive Protection. The transportation process of Radioactive Materials shall be inspected by Participant's competent Radiation Protection Officer (RPO) prior accepting it on site and copy of the report shall be sent to QP Industrial Cities Chief Safety Officer (Attachment 4).

## **16.0 EMERGENCY ACTION**

Emergency action will depend on the circumstances of a particular incident. The most important aspect of any procedure is the training provided, whether it be dealing with a spill during unloading or a vehicle roll over spilling the load across a busy carriageway. Training (along with supporting documentation) is given to drivers who have undergone formal Dangerous Goods driver training. It is important, however, that all persons involved in the carriage of dangerous goods receive training in line with their role and responsibility. Note that under general health and safety legislation, all employers have a responsibility to carry out a risk assessment and put in place procedures to minimize and control hazards. This should be supported by written procedures, information, supervision and training.

Organization that consign, store and/or carry dangerous goods must have procedures as appropriate to deal, amongst others, with the following:

- Chemical spills;
- Fire/explosion;
- Road traffic incidents involving dangerous goods;
- Personal and/or environmental contamination;
- Security incidents/Loss of dangerous goods.

Such organizations must notify the Industrial Cities Directorate emergency services of any immediate risk to public safety, property or the environment.

Under each foreseeable emergency, the following shall be considered within the procedures:

- Outlining the emergency;
- Identifying employee(s) with responsibilities (e.g. coordinator, primary contact);
- Key actions, (e.g. notifying QP Industrial Cities Emergency Communication Center/local authority/medical, etc.)
- Collecting information and taking appropriate action;
- Notifying insurance company;
- Reviewing actions (accident investigation including a formal incident) and planning for resumption of normal business.

## **17.0 DECLARATION OF DANGEROUS GOODS**

Consignee shall complete the Declaration of Dangerous Goods (Attachment 6) entering the Industrial Cities. This Declaration shall be submitted to the QP Industrial Cities Safety Representative in charge of the area at least 3 working days prior to the planned movement of the goods along with the following copies:

- Packing Certification
- Emergency Response Information
- MSDS
- Compatibility Chart



## REGULATION FOR TRANSPORTATION OF DANGEROUS GOODS AND HAZARDOUS MATERIALS BY ROAD IN INDUSTRIAL CITIES

DOC. No. VI-HSE-REG-005

Rev. 06

- Vehicle Technical Inspection Certificate
- Driver Fitness Test Certificate
- Driver's Licence
- Driver's Dangerous Goods Training Certificate
- Route Plan/ Route Map
- Risk Assessment

QP Industrial Cities Safety Representative in charge shall make a decision to authorize or reject the Declaration based on the information provided by the Consignee.

Driver shall present the copy of the signed/authorized Declaration Form including all attachments to the MOI Industrial Security at the QP Industrial Cities gates.

The authorized declaration form will be valid for the duration of one year from the signature date.

### 18.0 **NOTIFICATION**

Participants shall notify in written the Industrial Cities Directorate 24 hours prior arrival of dangerous goods into city using Dangerous Goods Declaration Form (Attachment 6). The form shall be sent electronically to QP Industrial Cities Chief Safety Officer including Route Plan and Risk Assessment who in turn will inform MOI Security department within QP Industrial Cities accordingly. If MOI security escort is identified by risk assessment, then the request should be submitted electronically to MOI Security Department.

### 19.0 **ENFORCEMENT**

QP Industrial Cities or End User HSE inspectors, RPO and MOI Security officers, except for Class 1 (Explosives) which is controlled by the Qatar Ministry of Interior, primarily undertake enforcement of the regulation governing the carriage of dangerous goods by road.

#### 19.1 **Inspection**

Compliance with the legislation is monitored and enforced by inspection. Inspections are carried out on vehicles at the roadside and at the Security Gates of Industrial Cities. Inspections are generally unannounced and provide inspectors with the opportunity to look more closely at the full range of activities concerning dangerous goods transport. Where enforcement action is necessary this may take the form of a written notice/report of inspection, directions for an improvement plan and/or a contravention or prohibition notice.









## **20.0 REFERENCE STANDARDS AND CODES**

In the event of conflict between this document and the standards / codes referenced herein or other purchase or contractual requirements, the most stringent requirement shall apply.







1. UN Transport of Dangerous Goods Model Regulation Volume II
2. ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road ECE/TRANS/225 (Vol. II) – January 2013.
3. Guide for Using Explosives in the State of Qatar – August 2004
4. International Atomic Energy Agency in Safety Series 115, Radiation Protection Convention, 1960
5. International Maritime Dangerous Goods Code (IMDG)
6. Executive Regulations of 2005 for the Law on Protection of the Environment issued by Law by Decree No. (30) of 2002
7. Decree-Law no. 31/2002 and its Executive Rules (MME Decision No.4-2003)
8. QP Standard for Response to incidents involving Hazardous Materials (QP-STD-S-014)
9. QP Procedure for Safe Handling of Chemicals (IP-SF-008).
10. QP Standard for Managing Naturally Occurring Radioactive Material (NORM) (QP-SAF-STD-002)
11. QP Radiation Safety Standard for Industrial Radiography (QP-STD-S-056 )
12. QP Corporate HSE Guideline for Safe Escort for Transport of Abnormal Loads (QP-RTS-G-001)

## 21.0 APPENDICES

### Attachment 1: UN Classification Codes of Dangerous Goods

Substance	UN class	Hazardous Properties
<b>Explosive substances</b>	1 	A substance which is capable by chemical reaction in itself of producing gas at such a temperature, pressure and such a speed as could cause damage to surroundings or which is designed to produce an effect by heat, light, sound, gas or smoke or a combination of these as a result of non-detonative self-sustaining exothermic chemical reactions.
<b>Gas</b> e.g. Oxygen, propane, nitrogen	2 	At 500C has a vapour pressure greater than 300 kilopascals absolute, or is completely gaseous at 20°C and at a standard pressure of 101.3 kilopascals.
<b>Flammable/ Combustible liquids</b> <b>Liquid</b> E.g. alcohol, acetone, petrol, xylene, Diesel	3 	A liquid with a flash point (a) above 61°C and which is carried at a temperature above its flash point: or (b) of 61°C or below except- a liquid with a flash point equal to or more than 35°C which does not support combustion; a viscous substance; or a flammable gas. (c) Any Combustible Liquids /Materials declared as Combustible as per MSDS, are also required to fall under TDG requirements.
<b>Flammable Solids</b> E.g. sulphur	4.1 	A solid which is steadily combustible, or may cause/contribute towards fire through friction; a self-reactive or related substance which is liable to undergo a strongly exothermic reaction; a desensitised explosive where the explosive properties have been suppressed.
<b>Spontaneously combustible substances</b> E.g. cotton, carbon, phosphorous	4.2 	A substance which is liable to spontaneous combustion under conditions met in carriage or liable to self-heating when in contact with air, and liable to catch fire.
<b>Substance which in contact with water emits flammable gas</b> e.g. lithium, sodium, potassium	4.3 	A substance which in contact with water is liable to become spontaneously combustible or to give off a flammable gas



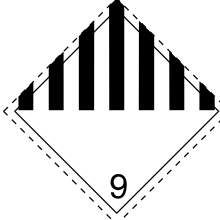
Substance	UN class	Hazardous Properties
<b>Oxidising Substance</b> e.g. Hydrogen peroxide, ammonium nitrate, potassium permanganate	5.1 	A substance other than an organic peroxide, which although not necessarily combustible, may by yielding oxygen or by a similar process cause/contribute to the combustion of other material.
<b>Organic peroxide</b> e.g. polyester resins/fillers	5.2 	A substance which is – (a) an organic peroxide; and (b) an unstable substance, which may undergo exothermic self-accelerating decomposition.
<b>Toxic Substance</b> e.g. lead, arsenic,	6.1 	A substance which is liable either to cause death or serious injury or to harm human health if swallowed or inhaled or by skin contact
<b>Infectious substance</b> e.g. certain bacteria/viruses see section	6.2 	A substance which either contains viable micro-organisms that are known or believed to cause disease in animals or humans, or genetically modified micro-organisms and organisms which may be infectious.
<b>Radioactive Material</b>	7 	A substance, which meets the criteria in section I(l) of the Radioactive Material (Road Transport) Act 1991.
<b>Corrosive Substance</b> e.g. acids, ammonia	8 	A substance which by chemical action will - Cause severe damage when in contact with living tissue; Cause damage to other freight or equipment on the vehicle if leakage occurs.
<b>Other dangerous Goods</b> e.g. Carbon dioxide ice, lithium batteries.	9	A substance which is listed in the ACL, and which may cause a risk to health or safety during carriage, whether or not it has any of the characteristic properties listed above, or a substance which is hazardous to the environment, but excluding any substance which - is an explosive or radioactive material;



**REGULATION FOR TRANSPORTATION OF DANGEROUS GOODS AND HAZARDOUS MATERIALS BY ROAD IN INDUSTRIAL CITIES**

**DOC. No. VI-HSE-REG-005**

**Rev. 06**

<b>Substance</b>	<b>UN class</b>	<b>Hazardous Properties</b>
		possesses any of the hazardous properties of any other classification; or constitutes dangerous goods for any other reason.

**Attachment 2: High Consequence Dangerous Goods**

Class	Division	Substance	Quantity		
			Tank (liters) <sup>c</sup>	Bulk (kg) <sup>d</sup>	Packages (kg)
1	1.1	Explosives	a	a	0
	1.2	Explosives	a	a	0
	1.3	Compatibility group C explosives	a	a	0
	1.4	Explosives <sup>1</sup> of UN No's 0029, 0030, 0059, 0065, 0073, 0104, 0237, 0255, 0267, 0288, 0289, 0290, 0360, 0361, 0364, 0365, 0366, 0440, 0441, 0455, 0456 and 0500	a	a	0
	1.5	Explosives	0	a	0
2		Flammable gases (classification codes including only the letter F)	3000	a	b
		Toxic gases (classification codes including letters T, TF, TC, TO, TFC or TOC) excluding aerosols	0	a	0
3		Flammable liquids of packing groups I and II	3000	a	b
		Desensitized explosives	0	a	0
4.1		Desensitized explosives	a	a	0
4.2		Packing group I substances	3000	a	b
4.3		Packing group I substances	3000	a	b
5.1		Oxidizing liquids of packing group I	3000	a	b
		Perchlorates, ammonium nitrate, ammonium nitrate fertilizers and ammonium nitrate emulsions or suspensions or gels	3000	3000	b
6.1		Toxic substances of packing group I	0	a	0
6.2		Infectious substances of Category A (UN No's 2814 and 2900, except for animal material)	a	0	0
7		Radioactive material	3000 A <sub>1</sub> (special form) or 3000 A <sub>2</sub> , as applicable, in Type B(U), B(M) or C packages		
8		Corrosive substances of packing group I	3000	a	b

<sup>a</sup> Not relevant.

<sup>b</sup> The provisions of 1.10.3 do not apply, whatever the quantity is.

<sup>c</sup> A value indicated in this column is applicable only if carriage in tanks is authorised, in accordance with Chapter 3.2, Table A, column (10) or (12). For substances that are not authorised for carriage in tanks, the instruction in this column is not relevant.

<sup>d</sup> A value indicated in this column is applicable only if carriage in bulk is authorised, in accordance with Chapter 3.2, Table A, column (10) or (17). For substances that are not authorised for carriage in bulk, the instruction in this column is not relevant.

<sup>-1</sup> Amended to reflect the contents of Table 1.10.5 of ADR 2013.

### **Attachment 3: Instructions in Writing According to ADR**

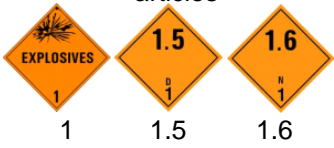




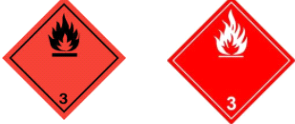
#### **ACTIONS IN THE EVENT OF AN ACCIDENT OR EMERGENCY**



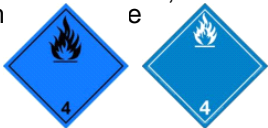




In the event of an accident or emergency that may occur or arise during carriage, the members of the vehicle crew shall take the following actions where safe and practicable to do so:






- Apply the braking system, stop the engine and isolate the battery by activating the master switch where available;
- Avoid sources of ignition, in particular, do not smoke or switch on any electrical equipment;
- Inform the appropriate emergency services, giving as much information about the incident or accident and substance involved as possible;
- Put on the warning vest and place the self-standing warning signs as appropriate;
- Keep the transport documents readily available for responders on arrival;
- Do not walk into or touch spilled substances and avoid inhalation of fumes, smoke, dusts and vapours by staying up wind;
- Where appropriate and safe to do so, use the fire extinguishers to put out small/initial fires in tyres, brakes and engine compartments;
- Fires in load compartments shall not be tackled by members of the vehicle crew;
- Where appropriate and safe to do so, use on-board equipment to prevent leakages into the aquatic environment or the sewage system and to contain spillages;
- Move away from the vicinity of the accident or emergency, advise other persons to move away and follow the advice of the emergency services;
- Remove any contaminated clothing and used contaminated protective equipment and dispose of it safely.

#### **Emergency Contact Numbers:**

- Ras Laffan and Mesaieed in Industrial Cities: 135
- Non Operational Areas : 999
- Dukhan: 401 46999 / 447 11222 - Dukhan Township Medical Emergency: 999
- Offshore / Doha (Alpha 7 Sierra): 401 33999 / 401 34888



<b>Additional guidance to members of the vehicle crew on the hazard characteristics of dangerous goods by class and on actions subject to prevailing circumstances</b>		
<b>Danger labels and placards</b>	<b>Hazard characteristics</b>	<b>Additional guidance</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
<p>Explosive substances and articles</p>  <p>1 1.5 1.6</p>	<p>May have a range of properties and effects such as mass detonation; projection of fragments; intense fire/heat flux; formation of bright light, loud noise or smoke.</p> <p>Sensitive to shocks and/or impacts and/or heat.</p>	<p>Take cover but stay away from windows.</p>
<p>Explosive substances and articles</p>  <p>1.4</p>	<p>Slight risk of explosion and fire.</p>	<p>Take cover.</p>
<p>Flammable gases</p>  <p>2.1</p>	<p>Risk of fire.</p> <p>Risk of explosion. May be under pressure.</p> <p>Risk of asphyxiation.</p> <p>May cause burns and/or frostbite.</p> <p>Containments may explode when heated.</p>	<p>Take cover.</p> <p>Keep out of low areas.</p>
<p>Non-flammable, non-toxic gases</p>  <p>2.2</p>	<p>Risk of asphyxiation. May be under pressure. May cause frostbite.</p> <p>Containments may explode when heated.</p>	<p>Take cover.</p> <p>Keep out of low areas.</p>
<p>Toxic gases</p>  <p>2.3</p>	<p>Risk of intoxication. May be under pressure.</p> <p>May cause burns and/or frostbite.</p> <p>Containments may explode when heated.</p>	<p>Use emergency escape mask. Take cover.</p> <p>Keep out of low areas.</p>
<p>Flammable liquids</p>  <p>3</p>	<p>Risk of fire.</p> <p>Risk of explosion.</p> <p>Containments may explode when heated.</p>	<p>Take cover.</p> <p>Keep out of low areas.</p>

<p>Flammable solids, self-reactive substances and solid desensitized explosives</p>  <p>4.1</p>	<p>Risk of fire. Flammable or combustible, may be ignited by heat, sparks or flames. May contain self-reactive substances that are liable to exothermic decomposition in the case of heat supply, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock. This may result in the evolution of harmful and flammable gases or vapors or self-ignition. Containments may explode when heated. Risk of explosion of desensitized explosives after loss of desensitizer.</p>	
<p>Substances liable to spontaneous combustion</p>  <p>4.2</p>	<p>Risk of fire by spontaneous combustion if packages are damaged or contents are spilled. May react vigorously with water</p>	
<p>Substances which, in contact with water, emit flammable gas</p>  <p>4.3</p>	<p>Risk of fire and explosion in contact with water.</p>	<p>Spilled substances should be kept dry by covering the spillages.</p>
<p>Oxidizing substances</p>  <p>5.1</p>	<p>Risk of vigorous reaction, ignition and explosion in contact with combustible or flammable substances.</p>	<p>Avoid mixing with flammable or combustible substances (e.g. sawdust).</p>
<p>Organic peroxides</p>  <p>5.2</p>	<p>Risk of exothermic decomposition at elevated temperatures, contact with other substances (such as acids, heavy-metal compounds or amines), friction or shock. This may result in the evolution of harmful and flammable gases or vapors or self-ignition.</p>	<p>Avoid mixing with flammable or combustible substances (e.g. sawdust).</p>
<p>Toxic substances</p>  <p>6.1</p>	<p>Risk of intoxication by inhalation, skin contact or ingestion. Risk to the aquatic environment or the sewerage system.</p>	<p>Use emergency escape mask.</p>
<p>Infectious substances</p>  <p>6.2</p>	<p>Risk of infection. May cause serious disease in humans or animals. Risk to the aquatic environment or the sewerage system.</p>	

<p>Radioactive material 7A 7B  7C 7D </p>	<p>Risk of intake and external radiation.</p>	<p>Limit time of exposure.</p>
<p>Fissile material  7E</p>	<p>Risk of nuclear chain reaction.</p>	
<p>Corrosive substances  8</p>	<p>Risk of burns by corrosion. May react vigorously with each other, with water and with other substances. Spilled substance may evolve corrosive vapors. Risk to the aquatic environment or the sewerage system.</p>	
<p>Miscellaneous dangerous substances and articles  9</p>	<p>Risk of burns. Risk of fire. Risk of explosion. Risk to the aquatic environment or the sewerage system.</p>	

**NOTE 1:**For dangerous goods with multiple risks and for mixed loads, each applicable entry shall be observed.

**NOTE 2:**Additional guidance shown above may be adapted to reflect the classes of dangerous goods to be carried and their means of transport.

<b>Additional guidance to members of the vehicle crew on the hazard characteristics of dangerous goods, indicated by marks, and on actions subject to prevailing circumstances</b>		
<b>Mark</b>	<b>Hazard characteristics</b>	<b>Additional guidance</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
 Environmentally hazardous substances	<p>Risk to the aquatic environment or the sewerage system</p>	
 Elevated temperature substances	<p>Risk of burns by heat.</p>	<p>Avoid contact with hot parts of the transport unit and the spilled substance.</p>



**Attachment 4: Checklist for Inspection of Radioactive Material (VI-HSE-CHK-005-001)**

Location: \_\_\_\_\_  
 Company: \_\_\_\_\_  
 Company Address: \_\_\_\_\_  
 Company's RPO: \_\_\_\_\_  
 Nature of work: \_\_\_\_\_  
 Source type: \_\_\_\_\_  
 Serial No.: \_\_\_\_\_  
 Activity: \_\_\_\_\_  
 Source Storage Location: \_\_\_\_\_

<b>Checklist</b>	<b>Yes</b>	<b>No</b>	<b>N/A</b>
Is the transport container in good condition?			
Is the container labelled properly?			
Do the measured dose rates correspond to the transport labels?			
Does the Company have a valid Special Permit for work with this type of radiation and is it available?			
Are there sufficient RPOs for the work?			
Do they have adequate dosimetry?			
Are there Radiation Procedures and / or Local Rules available?			
Are Emergency Response Plans available?			
Is the equipment listed in the emergency kit available and operating?			
Are suitable and sufficient Controlled Area signs available?			
Are sufficient barrier materials available?			
Are radiation-monitoring instruments appropriate to each type of radiation to be used available? <ul style="list-style-type: none"> <li>• Gamma Dose Rate Meter (x 2 for radiography)</li> <li>• Neutron Dose Rate Meter</li> <li>• Contamination Meter</li> </ul>			
Are the instruments functioning?			
Are test certificates available for the meters?			
Does the Company have documentation with details of the source(s)			
Are there current leak test certificates available for all sources?			
Does the Company have a source movement / accounting record?			

Signed RPO: \_\_\_\_\_





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Print: \_\_\_\_\_

Date: \_\_\_\_\_

If the answer to any of the above is “**No**” then the QP Industrial Cities HSSE Manager and End User HSE Manager should be notified and alternative arrangements must be made that provide the same level of control or safety. The QP Industrial Cities HSSE Manager will decide whether or not to allow the work to go ahead noting any alternative arrangements that have been made.

**Comments:**



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**Attachment 5: Sample Dangerous Goods Inspection Checklist (VI-HSE-CHK-005-002)**

**Location:**

**Date:**

**Time:**

Vehicle Mark and Registration Number:

Trailer/Semi-Trailer Mark and Registration Number:

Driver Name and ID Number:

Consignor Name and Address:

Consignee Name and Address:

Total Quantity of Dangerous Goods per Transport Unit:

Mode of Transport

In Bulk

Package

Tank

**Checklist**

**Yes**

**No**

**N/A**

Instructions In Writing

Certificate of Approval for Vehicles

Driver's / Crew Members Training Certificate

Risk Assessment

Goods authorized for Transport

Vehicles authorized For Goods Carried

Mixed Loading Prohibition

Loading, Securing of The Load and Handling

Leakage Of Goods or Damage to Packages

Package Marking (e.g. UN No.) and Labelling

Tank /Vehicle Placarding

Mandatory Safety Equipment Specified

Equipment According To The Goods Carried

Other Equipment Specified In The Instructions In Writing

Fire Extinguisher(s)

Remarks / Actions:

**Inspector: Name:**

**Company:**

**Contact Number:**



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**Attachment 6: Dangerous Goods Declaration Form (VI-HSE-FRM-005-001)**

**THIS FORM SHALL BE SENT TO QP INDUSTRIAL CITIES SAFETY REPRESENTATIVE IN CHARGE, 3 DAYS PRIOR TO MOVEMENT OF GOODS**

**Dangerous Goods Declaration**

**PART A – DECLARATION**

<b>Consignor (Name /Address / Contact Number):</b>				<b>Consignee (Name / Address/Contact Number):</b>			
<b>Place of Loading:</b>		<b>Departure Date:</b>		<b>Destination:</b>			
<b>Driver Name and ID number:</b>				<b>Vehicle Plate Number:</b>			
<b>Consignor Declaration:</b> I hereby declare that the contents of this consignment are fully and accurately described below by the proper shipping name and I am fully responsible to ensure that they are classified, packaged, marked and labelled in proper condition for transport according to applicable international and national governmental regulations.				<b>Packer / Loader Declaration:</b> I hereby declare that I am fully responsible to ensure that the goods described below are packed/loaded into the container / vehicle in accordance with the applicable provision.			
<b>Name:</b>		<b>Company:</b>		<b>Name:</b>		<b>Company:</b>	
<b>Date:</b>		<b>Signature:</b>		<b>Date:</b>		<b>Signature:</b>	
<b>UN No.</b>	<b>Proper Shipping Name</b>	<b>Class</b>	<b>Packaging</b>	<b>Qty.</b>	<b>Mass (kg/liters)</b>	<b>Container</b>	
<b>Consignee Receipt and Acceptance:</b> I hereby confirm that I am fully responsible to ensure that the vehicle and above number of packages/containers/ trailers will enter QP Industrial Cities in apparent good order and safe condition.							
<b>Name:</b>				<b>Signature:</b>			<b>Date:</b>
<b>Company:</b>				<b>24 Hour Consignee Contact Number:</b>			
<b>PART B – AUTHORIZATION</b>							
<b>QP Industrial Cities Safety Authorization:</b> Based on the information provided along with this declaration form, I hereby authorize the vehicle and cargo to enter the QP Industrial City.							
<b>Name:</b>		<b>Contact Number:</b>		<b>Signature:</b>			<b>Date:</b>
<b>Valid from:</b>				<b>Valid to:</b>			

Attachment 7: Dangerous Goods Compatibility Chart

Substance		Flammable Gases	Non Flammable Gases	Toxic Gases	Flammable Liquids	Flammable Solids	Spontaneous Combustibles	Oxidizers	Toxic Substances	Corrosives	Other Dangerous Substances
	Clas	2.1	2.2	2.3	3	4.1	4.2	5.1	6.1	8	9
Flammable Gases	2.1	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes
Non Flammable Gases	2.2	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Toxic Gases	2.3	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Flammable Liquids	3	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes
Flammable Solids	4.1	No	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes
Spontaneous	4.2	No	No	No	No	No	Yes	Yes	No	No	Yes
Oxidizers	5.1	No	Yes	Yes	No	No	No	Yes	No	No	Yes
Toxic Substances	6.1	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes
Corrosives	8	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes
Other Dangerous	9	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes



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**REVISION HISTORY LOG**

**Revision Number: 06**

**Document Revision Date: 25/07/2018**

<b>Item Revised:</b>	<b>Revision Description</b>	<b>Page No.</b>
2 3.1 4.0 Appendix 1 Appendix 3 Appendix 6 Section 20	a) Section 2.0: Scope is redefined. b) Definition of some substances are re-worded. (ex: Carcinogenic) c) Medical fitness of Drivers under Sec 4.0 is redefined. d) UN Classification of Haz. Chemicals under Attachment I - UN Class 3 is redefined to overcome certain conflicts, which we faced in the operations. e) Emergency Contact Numbers under attachment 3 is updated. f) Attachment 6 - Declaration form is updated. List of reference documents is updated.	
<b>Remarks :</b> Nil.		