

**Comparison of Licensing Requirements for
Vehicles Conveying Liquefied Petroleum Gas (LPG) and Dangerous Goods (DG)**

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
1	Legislation	As required under Reg. 25 of the Gas Safety (Gas Supply) Regulations (Cap. 51 sub. leg.), an LPG road tanker or cylinder wagon should have a valid permit.	As required under Reg. 75 and Reg. 101 of DG (General) Regulations (Cap. 295 sub. leg.), Categories 2 and 5 DG (Classes 2 and 3 DG under the Bill) should only be carried by licensed vehicles. Under the proposed amendments to the Regulations, all vehicles conveying DGs in Class 2 (except LPG) to Class 9 will require a licence. It is anticipated that the future licensing requirements for vehicles conveying Classes 4 – 9 DG should in general not be more stringent than the current requirements for vehicles conveying Categories 2 and 5 DG.
2	Roadworthiness of vehicle	To be certified by Transport Department.	To be certified by Transport Department.
3	Annual vehicle inspection	To be conducted by Electrical and Mechanical Services Department.	To be conducted by Fire Services Department.
4	Licence renewal	Annual.	Annual.
5	Fee for initial issue of licence	LPG cylinder wagon - \$2,420 LPG road tanker - \$11,010	Categories 2 and 5 DG vehicles – currently \$725.
6	Annual licence fee	LPG cylinder wagon - \$600	Same as above.

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
		LPG road tanker - \$3,350	
7	<p>Conditions to be complied with (Note: The list below is not exhaustive and a direct comparison for some aspects is not possible as the conditions imposed are specific to the types of vehicle.)</p> <ul style="list-style-type: none"> • General • Non-combustible material • Flame resistance • Overall height 	<p><u>LPG Road Tanker</u></p> <ul style="list-style-type: none"> ➤ All equipment shall be in good and efficient working order. ➤ The body, chassis, fuel tank and all equipment shall be constructed of non-combustible material. ➤ Any combustible material used in the construction of the vehicle shall be flame-resistant. ➤ The vehicle shall not exceed 4.1 metres in overall height. 	<p><u>Categories 2 & 5 DG Tank Wagon</u></p> <ul style="list-style-type: none"> ➤ Not specified ➤ Similar requirement ➤ Not specified ➤ Not specified

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
	<ul style="list-style-type: none"> • Vessel 	<ul style="list-style-type: none"> ➤ The vessel shall <ul style="list-style-type: none"> ♦ be of a design pressure which includes an allowance to accommodate stress due to horizontal and vertical acceleration and retardation likely to be encountered in operation; ♦ where the vessel has a water capacity of more than 5000 litres, be fitted with baffle plates designed to minimize surge and to allow for complete internal examination of the vessel; ♦ be mounted on the vehicle in a sound manner; ♦ be effectively screened with fire-resisting shields from the interior of the cab, the fuel tank, the electrical generator, the engine, the batteries, switch gear and fuses, the engine exhaust system; ♦ be located not less than 150 mm distant from the nearest part of the fire-resisting shield which screens the interior of the cab of the tanker; and 	<ul style="list-style-type: none"> ♦ be designed, fabricated and tested by a person approved by the Director of Fire Services. ♦ Similar requirement ♦ Similar requirement ♦ Similar requirement ♦ Similar requirement

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
	<ul style="list-style-type: none"> • Pipe or hose • Engine • Fuel tank 	<ul style="list-style-type: none"> ♦ be fitted with quick-closing valves which may be operated by not less than one emergency control fitted to the tanker at a safe distance from the delivery connection. ➤ All section of a pipe or hose of the road tanker which may contain liquid LPG and be closed at each end shall be provided with hydrostatic relief valves. ➤ Not applicable ➤ The engine shall be – <ul style="list-style-type: none"> ♦ a compression-ignition engine; ♦ provided with an air inlet system which prevents over-running of the engine to destruction and flame propagation due to engine back-fire; and ♦ constructed and so situated or protected so as to avoid any danger to any LPG being carried. ➤ The fuel tank shall be – <ul style="list-style-type: none"> ♦ of double case construction; ♦ fitted with a lock to the filling hole cover; 	<ul style="list-style-type: none"> ♦ Similar requirement ➤ Only applicable to vehicle conveying Cat. 2 Cryogenic Gases ➤ Every draw-off pipe to be fitted with an internal valve, and a strong securely screwed cap. ♦ Similar requirement ♦ Not specified ♦ Similar requirement ♦ Similar requirement ♦ Similar requirement

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
	<ul style="list-style-type: none"> <li>• Emergency stop <li>• Electrical apparatus <li>• Voltage 	<ul style="list-style-type: none"> <li>♦ so placed that, in the event of a leak from the tank, fuel can only drain to the ground; <li>♦ separated from the cab; and <li>♦ suitably protected against impact. <li>➤ Not specified <li>➤ A means of cutting off the supply of fuel to the engine and stopping that engine shall be provided in a position which is outside the cab of the tanker, easily accessible and identified by a bilingual notice prominently and legibly stating – “Emergency Engine Stop 緊急停車掣”. <li>➤ All electrical apparatus in the vehicle shall be so constructed and installed as to guard adequately against the risk of short circuit and the outbreak of fire. <li>➤ Certain electrical apparatus shall meet the specified British Standard. <li>➤ Not specified 	<ul style="list-style-type: none"> <li>♦ Not specified <li>♦ Not specified <li>♦ Similar requirement <li>➤ The fuel tank shall be screened from the body by another fire resisting shield. <li>➤ Not specified <li>➤ Not specified <li>➤ Not specified <li>➤ The voltage of the electric current shall not exceed 60 volts.

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
	<ul style="list-style-type: none"> • Tyres • Notices • Fire extinguishers 	<ul style="list-style-type: none"> ➤ The vehicle shall be fitted with anti-static tyres. ➤ Bilingual notices shall be displayed at the front end, at each side and at the rear end for warning of other road users, for example: <ul style="list-style-type: none"> “CAUTION LPG 小心石油氣” “Dangerous Goods Cat. 5 第五類危險品，勿近 ” “No Smoking 不准吸煙” ➤ The name and telephone number of the person to be contacted in event of an emergency involving the vehicle shall be prominently and legibly displayed in both English and Chinese on each door of the cab. ➤ Each valve fitted to the road tanker, other than a safety relief valve, shall be prominently and legibly identified in the English and Chinese languages. ➤ Dry powder fire extinguishers shall be provided on board. 	<ul style="list-style-type: none"> ➤ Similar requirement ➤ Similar requirement ➤ Not specified ➤ Only applicable to vehicle conveying Cat. 2 Cryogenic Gases ➤ Similar requirement

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
	<ul style="list-style-type: none"> • General • Engine • Fuel tank 	<p><u>LPG Cylinder Wagon</u></p> <ul style="list-style-type: none"> ➤ The vehicle and its equipment shall be in good and efficient working order. ➤ The engine of the vehicle shall be – <ul style="list-style-type: none"> ◆ a compression-ignition engine; ◆ provided with an air inlet system which prevents over-running of the engine to destruction and flame propagation due to engine back-fire; and ◆ constructed and so situated or protected so as to avoid any danger to any LPG being carried. ➤ The fuel tank of the vehicle shall be – <ul style="list-style-type: none"> ◆ of double case construction; ◆ fitted with a lock to the filling hole cover; ◆ so placed that, in the event of a leak from the tank, fuel can only drain to the ground; ◆ separated from the cab; and ◆ suitably protected against impact. ➤ Not specified 	<p><u>Categories 2 and 5 DG Vehicle</u></p> <ul style="list-style-type: none"> ➤ Not specified ◆ Similar requirement ◆ Not specified ◆ Similar requirement ◆ Similar requirement ◆ Similar requirement ◆ Not specified ◆ Not specified ◆ Similar requirement ➤ The fuel tank of the vehicle shall be screened from the body by another fire resisting shield.

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
	<ul style="list-style-type: none"> • Emergency stop • Cargo compartment 	<ul style="list-style-type: none"> ➤ A means of cutting off the supply of fuel to the engine of the cylinder wagon and stopping that engine shall be provided in a position which is outside the cab, easily accessible and identified by a bilingual notice prominently and legibly stating – “Emergency Engine Stop 緊急停車掣”. ➤ The cargo compartment of the vehicle shall – <ul style="list-style-type: none"> ◆ be well-ventilated; ◆ have a fixed roof constructed of fire resisting material; ◆ be effectively screened with fire resisting shields from the interior of the cab, the fuel tank, the electrical generator, the engine, the batteries, switch gear and fuses, the engine exhaust system; ◆ if the vehicle is designed to carry other goods, be situated at the rear-most section of the wagon/ vehicle and separated from any other compartment containing such goods by a partition made of mild steel fitted flush to the floor, roof and sides of the compartment; and ◆ be capable of being locked. 	<ul style="list-style-type: none"> ➤ Not specified ◆ Similar requirement ◆ Similar requirement ◆ Similar requirement ◆ Not specified but only one Category of DG to be carried at any one time ◆ Not specified

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
	<ul style="list-style-type: none"> <li>• Electrical apparatus <li>• Voltage <li>• Notices 	<ul style="list-style-type: none"> <li>➤ All electrical apparatus in the vehicle shall be so constructed and installed as to guard adequately against the risk of short circuit and the outbreak of fire. <li>➤ Certain electrical apparatus shall meet the specified British Standard. <li>➤ Not specified <li>➤ The vehicle shall prominently and legibly display bilingual notices at each side and at the rear for warning other road users, for example: “No Smoking 不准吸煙” or “No Smoking, Dangerous Goods 不准吸煙，危險品” <li>➤ The name and telephone number of the person to be contacted in event of an emergency involving the vehicle shall be prominently and legibly displayed in both English and Chinese on each door of the cab. 	<ul style="list-style-type: none"> <li>➤ Similar requirement <li>➤ Not specified <li>➤ The voltage of the electric current shall not exceed 24 volts. <li>➤ Similar requirement <li>➤ Not specified

Item	Aspects for Comparison	LPG Vehicles	DG Vehicles
	<ul style="list-style-type: none"> • Fire extinguisher 	<ul style="list-style-type: none"> ➤ Dry powder fire extinguishers shall be provided on board. 	<ul style="list-style-type: none"> ➤ Similar requirement