Transport of UN No. 1971, METHANE, COMPRESSED (biomethane) by road under ADR

What type of equipment is used to transport biomethane?

Biomethane can be transported by road using:

- a battery vehicle;
- a multiple element gas container (MEGC);
- a tank (this does not include Annex C tanks which are limited to the carriage of liquefied gases).

ADR 1.2.1 defines battery vehicles, MEGCs and tanks as follows:

> ***"Battery-vehicle"*** means a vehicle containing elements, which are linked to each other by a manifold and permanently fixed to this vehicle. The following elements are considered to be elements of a battery-vehicle: cylinders, tubes, bundles of cylinders (also known as frames), pressure drums as well as tanks destined for the carriage of gases as defined in 2.2.2.1.1 with a capacity of more than 450 litres;
>
> ***"Multiple-element gas container"*** (MEGC) means a unit containing elements which are linked to each other by a manifold and mounted on a frame. The following elements are considered to be elements of a multiple-element gas container: cylinders, tubes, pressure drums or bundles of cylinders as well as tanks for the carriage of gases as defined in 2.2.2.1.1 having a capacity of more than 450 litres;
>
> ***NOTE:*** *For UN MEGCs, see Chapter 6.7.* [1]
>
> ***"Tank"*** means a shell, including its service and structural equipment. When used alone, the term tank means a tank-container, portable tank, demountable tank or fixed tank as defined in this Section, including tanks forming elements of battery-vehicles or MEGCs (see also *"Demountable tank", "Fixed tank", "Portable tank"* and *"Multiple-element gas container"*).

Does the transportable pressure equipment directive (TPED) apply to this equipment?

Yes, the battery vehicle, MEGC or tank used to transport the biomethane comes under the transportable pressure equipment directive (TPED)[2] and should be Pi (π) marked. It is thus subject to conformity assessment and periodic inspection (and for tanks, intermediate inspection) by a **notified body**. This is also the case for the elements (for example, cylinders, tanks) of the battery vehicle or the MEGC. For information on TPED, see Transportable Pressure Equipment.

Notified bodies that can inspect Pi (π) marked equipment are shown on the European Commission's information system, NANDO.

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[1] **Note:** UN MEGCs generally meet the definition of container under the CSC (International Convention for Safe Containers) and are included with portable tanks in ADR Chapter 4.2 (for use) and ADR Chapter 6.7 (for design construction and inspection). UN MEGCs are generally manufactured for land and sea journeys. The provisions for inspection, including inspection intervals, are the same in ADR Chapters 6.7 and 6.8.

[2] OJ L 165/1 30.6.2010

What certificates do I need for this equipment?

The certification requirements for a battery vehicle, MEGC or tank to transport biomethane by road are shown in Table 1.

Table 1: Certificates

Battery vehicle / MEGC	Elements of battery vehicle / MEGC (for example, cylinders)	Tanks (including tanks which are the elements of a battery vehicle / MEGC)
Certificate of conformity	Certificate of conformity	Type Approval
Certificate of initial inspection	Certificate of initial inspection	Certificate of initial inspection
Vehicle certificate of approval		Vehicle certificate of approval

How often does the equipment need to be inspected?

A battery vehicle is required to be periodically inspected at not more than 5 year intervals (see ADR Chapter 6.8). If the elements of the battery vehicle are cylinders, tubes, pressure drums or bundles of cylinders, they are required to be inspected in accordance with P200 (see ADR 4.1.4.1). If the elements of the battery vehicle are tanks, they are required to be inspected in accordance with ADR 6.8.2.4.2 and 6.8.2.4.3.

An MEGC is required to be periodically inspected at not more than 5 year intervals (see ADR Chapter 6.8). If the elements of the MEGC are cylinders, tubes, pressure drums or bundles of cylinders, they are required to be inspected in accordance with P200 (see ADR 4.1.4.1). If the elements of the MEGC are tanks, they are required to be inspected in accordance with ADR 6.8.2.4.2 and 6.8.2.4.3.

Intermediate and periodic inspections of tanks need to be carried out according to ADR Chapter 6.8.

A battery vehicle, MEGC and tank is required to have an annual vehicle certificate of approval.

The inspection requirements are summarised in Table 2.

Table 2: In-service inspection certificates

	Inspection certificates	Inspection interval
Battery vehicle	Periodic inspection certificate	Not more than 5 year intervals in accordance with ADR 6.8.3.4.12 to 6.8.3.4.18
	Vehicle certificate of approval	Annual
MEGC	Periodic inspection	Not more than 5 year intervals in accordance with ADR 6.8.3.4.12 to 6.8.3.4.18
	The MEGC trailer requires a vehicle certificate of approval	Annual

Tanks (including tanks which are the elements of a battery vehicle / MEGC)	Periodic and intermediate inspection certificates	In accordance with ADR 6.8.2.4.2 and 6.8.2.4.3
	Vehicle certificate of approval (tank-vehicle or trailer as appropriate)	Annual
Elements of battery vehicle / MEGC (for example, cylinders)	Periodic inspection certificates	In accordance with the provisions of ADR 4.1.4.1, P200

If the equipment was previously inspected by a UK notified body before the end of the transition period on 31st of December 2020, can it be used in Ireland?

Yes - if the battery vehicle, MEGC, tank or cylinders were previously inspected by a UK notified body listed on NANDO before the UK exited from the EU, the equipment can continue to be used in Ireland. However, subsequent inspections will need to be carried out by an EU27 notified body. For information on the impacts of Brexit for TPED, see Brexit and Transportable Pressure Equipment.

Can equipment which is not Pi (π) be reassessed for conformity for use in Ireland?

If the equipment was placed on the market and put into service before the date of implementation of Directive 1999/36/EC on transportable pressure equipment[3], then it may be suitable for reassessment of conformity.

To determine if your equipment is suitable for reassessment of conformity, you will need to seek the advice of a type A notified body accredited to carry out this work in accordance with Annex III of TPED.

The relevant dates for placing on the market are shown in Table 3.

Table 3: Implementation dates of the TPED

Type of transportable pressure equipment	Directive 1999/36/EC	National Regulations (for the purposes of placing on the market)
Cylinders, tubes, cryogenic receptacles	1 July 2001	1 July 2003
Pressure drums, bundles of cylinders, battery vehicles, MEGCs, tanks	1 July 2005[4]	1 July 2007

[3] OJ L 138/20 1.6.99

[4] Based on Commission Decision 2003/525/EC

For further information on reassessment of conformity under TPED, see Article 1(2)(c), Article 13 and Annex III.

Do I need to appoint a dangerous goods safety adviser (DGSA)?

Yes, companies transporting dangerous goods, such as biomethane in battery vehicles, MEGCs and tanks do not fall within the activities listed in ADR 1.8.3.2. They are thus required to have a DGSA appointed and actively fulfilling the role. For information on the appointment and duties of a DGSA, see DGSA Information.

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