



Section 82 Compliance Guideline

Supply of LPG fuel gas to a gas system

This compliance guideline by the Petroleum and Gas Inspectorates (PGI) is to explain where section 82 of the *Petroleum and Gas (Safety) Regulation 2018* (the Regulation) applies when supplying LPG fuel gas to a gas system. Section 82 stipulates the requirements that are to be complied with before the supply. This compliance guide also includes the requirements of a Fuel Gas Network when section 82 does not apply.

What is a Fuel Gas Network:

A Fuel Gas Network (FGN) is one of two things:

(1) a Distribution System:

(a) which is a system of distribution pipelines and meters and other equipment used in the supply of fuel gas to more than one consumer within a fuel gas market, and

(2) a Fuel Gas Delivery Network (FGDN):

(a) means the supply of fuel gas to or in a container owned or provided (other than by being sold) by a person (a product supplier) to a consumer or another person in the business of distributing fuel gas, and

(b) includes an activity that is part of or incidental to the supply mentioned in paragraph (a) that is carried out by the product supplier or the product supplier's agent.

The activities of an FGDN also extend to the outlet of the first gas pressure regulator through which fuel gas is delivered to a consumer's gas system. The FGDN includes the delivery or supply of fuel gas in a tanker as well as delivery in cylinders.

As this guideline is focused on the section 82 obligations when the operator of a FGDN supplies LPG fuel gas to a gas system, this guideline will not focus on situations where fuel gas is supplied through a Distribution System or the supply of Hydrogen.

What does section 82 of the Regulation say:

Section 82 is detailed below (only subsections 1 and 2 are included for the purpose of this guideline).

82 Requirements to be complied with before supplying fuel gas to a gas system

- (1) This section applies to the operator of a fuel gas network, other than a network that dispenses fuel gas to a vehicle, who proposes to start supplying fuel gas through the network to a gas system if—
 - (a) the gas system has not previously been supplied with fuel gas by a fuel gas network; or
 - (b) for a fuel gas network that is a fuel gas delivery network and to the extent that paragraph (a) does not apply—
 - (i) the fuel gas is LPG or hydrogen; and
 - (ii) the gas system is no longer pressurised because the connection of LPG or hydrogen supplied through the network has been interrupted.

Example for paragraph (b)—a cylinder of LPG or hydrogen is removed from a gas system other than to exchange the cylinder

- (2) Before starting to supply fuel gas to the gas system, the operator of the network must ensure—
 - (a) a test point is installed on, or immediately downstream of, the regulator for the gas system that supplies fuel gas at the pressure mentioned in section 77(2); and
 - (b) the pressure at which fuel gas will be supplied to the gas system complies with section 77; and
 - (c) the gas system is checked in accordance with a relevant method and the check confirms there is no significant leakage of fuel gas from the gas system.

Where section 82 of the Regulation applies:

Section 82 of the Regulation only applies to two scenarios:

1. When the operator of a FGN proposes to start supplying fuel gas to a gas system that has not yet been supplied fuel gas e.g., a new gas system, or
2. If the operator of an FGN proposes to start supplying LPG fuel gas to a gas system and the gas system has been depressurised because the connection to the FGN has been interrupted i.e., the container is no longer connected to the gas system.

Where section 82 of the Regulation is presumed not to apply:

Section 82 does not apply to instances where the depressurisation of the gas system is not caused by an “interruption to the connection of LPG fuel gas supplied through the network”. When supplying LPG fuel gas cylinders to a depressurised gas system, instances where it may be reasonable to presume that the depressurisation was not caused by an interruption to the connection includes:

- Exchanging empty cylinders owned by an operator with full cylinders owned by the same operator; provided there was nothing which would suggest that the empty cylinders had been disconnected since they were originally connected.
- Exchanging empty cylinders owned by an operator with full cylinders owned by a different

operator; provided there was nothing which would suggest that the empty cylinders had been disconnected since they were originally connected.

- Re-filling empty cylinders owned by the operator i.e., insitu fill.

NOTE: An operator of an FGN delivering LPG fuel gas cylinders cannot always presume that depressurisation was not caused by an interruption to the connection to the FGN (i.e., that someone else has not interrupted the connection by disconnecting the cylinders) just because empty gas cylinders are connected to the gas system when they arrive to deliver full cylinders.

The longer the period between deliveries of LPG fuel gas to a gas system, the greater the likelihood that the cylinders, the pigtails, or the connection could be tampered with, interrupting the connection of LPG fuel gas and causing the depressurisation.

It must be acknowledged that the period between deliveries can, eventually, be so long that it is no longer prudent to assume that the connection of LPG fuel gas has not been interrupted, causing the gas system to be depressurised.

Where an operator does not know when the last delivery of LPG fuel gas occurred (e.g., when the previous delivery was conducted by the operator of a different FGDN) the cause of a gas system being depressurised cannot be presumed.

Requirements where section 82 of the Regulation does not apply:

Where the prescriptive requirements of section 82 do not apply, the operators of prescribed FGDNs still have responsibilities under the *Petroleum and Gas (Production and Safety) Act 2004* (the Act) and their safety management system (SMS) to keep risk to an acceptable level. Section 675 of the Act identifies the content requirements for an SMS. A formal safety assessment is required under section 675(1)(e) and must, as far as practicable, state ways to control risks associated with the operating plant to an acceptable level by:

- (a) eliminating or minimising hazards at the plant; and
- (b) implementing measures to minimise the likelihood, and limit the consequences, of significant incidents at the plant.

The operator of an operating plant also has a general obligation to keep risk in relation to the operating plant to an acceptable level under section 699 of the Act. Risks to persons or property from activities at an operating plant is achieved if management and operating systems are in effect that:

- (a) identify, analyse and assess risk; and
- (b) remove, minimise or modify unacceptable or avoidable risks; and
- (c) monitor levels of risk; and
- (d) investigate and analyse the cause of actual, or high potential, incidents at the plant to prevent or reduce their recurrence; and

- (e) review the effectiveness of implemented risk control measures, and take appropriate corrective and preventative action; and
- (f) comply with any relevant regulation.

As identified, section 82 of the Regulation may not apply to every supply of LPG fuel gas to a gas system. The operator of a FGDN must ensure that no persons are exposed to an unacceptable level of risk and therefore implement a process to identify if an unacceptable level of risk exists and what measures are taken to reduce that risk. One way may be to apply the requirements set out in section 82(2) as if it does apply.