



Fibre external terminal points (ETP's) and hazardous areas around LPG cylinders

The issue.

The New Zealand Telecommunications Forum Wiring installation guidelines, the LFCs (Local Fibre Companies) and Chorus installation procedures all advise against installation of fibre External terminal points (ETP's) within the hazardous area zone of LPG cylinders.

LPG delivery drivers have identified multiple existing locations where fibre ETP's are installed within the LPG cylinder hazardous area.

This has resulted in LPG suppliers suspending delivery and ensuing discussions between the customer, the gasfitter and the companies that operate the fibre system.

Neither Chorus or any of the other fibre installers believe the fibre ETP's are themselves a potential source of ignition. However, their advice not to install fibre ETP's within any hazardous areas, also takes account of any future repair work that may be needed.

The Standard AS/NZS 60079 Hazardous areas.

Part 28 of this Standard covers: Protection of equipment and transmission systems using optical radiation. Table 2 of this standard specifies optical radiation sources with radiated power of ≤ 15 mW are safe to be used in all atmospheres.

The LFCs and Chorus have confirmed that they operate the UFB network in New Zealand at less than 0.2mW which is well below the energy levels that are required to create an ignition hazard.

This conclusion that a fibre ETP is not classed as a potential source of ignition, has been verified by an electrical engineering consultant.

What does this mean.

For the LPG Industry. Since Fibre ETP's are not sources of ignition, LPG suppliers can continue to deliver to existing locations, where a fibre ETP is present within the LPG cylinder hazardous area.

For the fibre installation industry. The current requirement not to install fibre ETP's within LPG cylinder hazardous area remains. There is the potential that future work may include tools which have the potential to act as a source of ignition, which will create a situation that the fibre installer will then have to mitigate as part of their onsite risk assessment.

For the gas fitting industry. The advice not to locate the cylinders so that an existing fibre ETP comes within the LPG cylinder hazardous area remains. This is on the basis of good practice.

