SGN Third Party Connections Briefing Note 35

(Gas to Multiple Occupancy Buildings)

Introduction

In 2021 LRQA (*formerly Lloyds Register*) introduced in GIG/2 a new level of Accreditation for the Design and Construction of assets to '*Multi-Occupancy Buildings'* (*CMOB and DMOB*). Historically, IGEM Specification G/5 was considered to apply to only '*Riser'* pipework, however this has been revised in Edition 3 to include all gas installations to and within Multi-Occupancy buildings, from high-risk buildings to individual dwellings with commercial unit within such building.

A building is considered Multi-Occupancy when this contains multiple domestic dwelling, or multiple commercial units or a building that contains mixed development (*domestic and commercial*).

The definition for High-Risk Building used within G/5 has a different significance for Scotland and England. In Scotland a building is considered High Risk when the top storey is 11 metres or more above ground level, while for England a building is considered High Risk when the floor of the top storey is 18 metres or more above the ground level or where the building contains more than 6 stories – excluding any storey below ground level.

Design Requirements

Designs submitted for MOBs must be complaint with IGEM/G/5.

GIG/2 Section 3.9 states**:**

'Design procedures shall include as a minimum:

- *Defined competencies for those involved in the design of such installations.*
- *Clear guidance on material specifications and jointing techniques to be used.*
- *Clear guidance on methods of support and restraint.*
- *Clear guidance on the principles of isolation*
- *Clear guidance on the ventilation requirements*
- *Clear guidance on the requirements of approved document B*
- *A documented process for interfacing with a provider holding GIRS Construction MOB accreditation.*
- *An understanding of BIM level 2 requirements for records*
- *A documented process for defining firestopping and ventilation requirements'*

The above list outlines the basic construction elements that need to be confirmed on UIP Design drawings for the supply of gas to or within a Multi Occupancy building and UIPs wishing to Design and Construct gas installation to these sites must be accredited for DMOB and CMOB under GIRS accordingly.

Information, in addition to that required for standard adoptable infrastructure, should typically include:

- Load (*KWH SHQ demand*)
- Supply pressure
- Any protected shafts or risers
- Current construction drawings
- Detailed floor plans including fire escape routes
- Details of any Easements or Servitudes required
- Details of proposed locations for metering
- Wall construction (*timber framed requires particular care*)

A risk assessment should be provided for all projects deemed '*CMOB/DMOB (Multiple-occupancy)*' and shall be undertaken in line with the requirements outlined in IGEM/G/5 and be incorporated as part of the design study. The Risk Assessment shall be initiated by the designer, and they must complete a '*MOB Design Risk Assessment*' proforma, prior to the commissioning of the gas asset.

The Risk Assessment aids the designer into producing the most suitable gas proposal for any site, considering Building Regulations, safety, security, access and maintenance, but also means of escape(s) and ventilation.

For any risks that have been identified, there must be an analysis and evaluation. If a resolution is not viable, there must be a mitigation – i.e. internal riser, consider external riser or external manifold, use of TCO valves and fire rated meter boxes.

The Risk Assessment Proforma can be found in SGN Third Party Connections Documents ZIP folder.

Where a gas meter and fittings cannot be fitted more than 150mm from an electricity meter/apparatus or more than 25mm away from an electricity supply and cables, a non- combustible partition made of an electrically insulating material shall be placed between them.

The total effective ventilation area (*free area*) of meter locations shall be not less than the lower of 2% or 3%, as applicable, of the internal floor area of the enclosure or it's notional equivalent, equally apportioned between high and low level.

For internal meter locations, i.e. an internal bulk supply or internal manifold, a ventilation drawing must be submitted along with the design, showing the meter room, the relevant meter(s) and the ventilation to the outside atmosphere, with location for vents or grills, as applicable and from different angles. This is to ensure that adequate ventilation will be provided to the internal gas supplies.

Pipe entry method preference to MOB properties is above ground. Below ground is permissible only when the pipe is wholly accessible for maintenance purposes in compliance with Pipeline Safety Regulations Reg 13. The general principles, derived from the relevant legislation and good practice, are that the amount of gas carrying pipe inside any property should be kept to the minimum.

The pipe route should be accessible for maintenance and avoid areas where any escaping gas might accumulate.

Any steel service or sleeve passing through the ground/air shall be fitted with an insulating joint immediately above ground level.

If deemed necessary, especially when dealing with high-risk buildings, SGN Third Party Connections may request further approval from SGN Network Management for MOBs to ensure the proposal is fit for purpose.

Pre-Commissioning Audits

Greater risk gas installations to or within an MOB will likely require a pre-commissioning audit to ensure the asset is adequate and fit for purpose as this will be adopted and maintained by SGN.

Below is a list of installations which may require a pre-commissioning audit:

- Riser internal or external
- Manifold internal or external*
- Energy centre/bulk supply internal

** External Manifolds may not require a pre-commissioning audit depending on the location, however this will be confirmed by the local Asset Engineer.*