

Witness Name: James Harrison

Statement No: Third

Exhibits: JH19 – JH21

Dated : 19 March 2021

THE GRENFELL TOWER INQUIRY

Exhibit JH20



GD/PM/MOB/2

Issue Date: October 2019

Management Procedure for the Inspection, Maintenance, Monitoring and Management of Supplies to Multi Occupancy Buildings

Cadent

Ashbrook Court
Prologis Park
Central Boulevard
Coventry
CV7 8PE

Copyright Cadent Gas Limited 2019 ©, all rights reserved. No part of this publication may be reproduced in any material form (including photocopying and restoring in any medium or electronic means and whether or not transiently or incidentally) without the written permission of Cadent Gas Limited except in accordance with the provisions of the Copyright, Designs and Patents Act 1988.

Version control

Implementation date: October 2019

Author:

David Garner

Document owner:

John Watkins

Management approval:

Head of Engineering

Disclaimer:

This safety and engineering document is provided for use by Cadent Gas Limited and such of its contractors as are obliged by the terms and conditions of their contracts to comply with this document. Where this document is used by any other party it is the responsibility of that party to ensure that this document is correctly applied.

Mandatory & Non-Mandatory requirements:

In this document:

Shall: Indicates a mandatory requirement.

Should: Indicates best practice and is the preferred option. If an alternative method is used then a suitable and sufficient risk assessment must be completed to show that the alternative method delivers the same, or better, level of protection.

Purpose

This management procedure was approved by the Engineering Policy Approval Committee and the Head of Engineering in August 2019 for use by managers, engineers, supervisors and field force/contractors throughout Cadent.

Cadent documents are revised, when necessary, by the issue of new editions. Users should ensure that they are in possession of the latest edition by referring to the Gas Documents Library available on infonet (company intranet.)

Compliance with this Document does not confer immunity from prosecution for breach of statutory or other legal obligations.

Background

To comply with current legislation, Cadent, as a gas transporter, shall satisfy the requirements of Regulation 13 of the Pipeline Safety Regulations 1996, and ensure pipelines are 'maintained in an efficient state, in efficient working order and in good repair'.

The application of this procedure shall satisfy the requirements of the Policy for Inspection, Maintenance Monitoring and Management of Supplies to Multi-Occupancy Buildings GD/PL/MOB/1.

This procedure follows on from a series of surveys of high rise buildings that were undertaken in the period 2002 to 2011 which were fundamental to the development of previous versions of documents that fed into this procedure. The learning from these, and subsequent surveys, was incorporated with the requirement to inspect and manage medium rise multi occupancy buildings and multi occupancy buildings defined as complex distribution systems to form the approach herein.

History

The Health and Safety at Work etc. Act 1974 (HSWA), section 3(1), requires pipeline operators to conduct their undertakings to ensure, so far as is reasonably practicable, that persons not in their employment are not exposed to risks to their health and safety.

In addition, the Pipelines Safety Regulations 1996 (PSR), Regulation 13 requires the operator to ensure that a pipeline is maintained in an efficient state, in efficient working order and in good repair. This duty is absolute, with a limited defence only if a breach is caused by a third party. Whilst a pipeline is defined in PSR Regulation 3 it can be summarised, for this management procedure, as a distribution main, service and associated apparatus (up to 7 barg).

The arrangements for meeting the replacement programme form part of Cadent's Safety Case prepared under the Gas Safety (Management) Regulations 1996 (GS(M)R). Cadent has a duty to follow these arrangements.

In January 2011 the Health and Safety Executive served Cadent with an Improvement Notice (ref no 303084600) in relation to the arrangements for the inspection of natural gas pipelines that Cadent operate and supply multi-occupancy buildings greater than five storeys. The Notice stated that Cadent had failed to ensure that the risk to members of the public posed by the deterioration of said pipelines was as low as reasonably practicable (ALARP).

Reviewers

Primary Review

Name	Position	Date
Ian Aldridge	Head of SHES	December 2017
Peter Close	Engineering Safety & Assurance Manager	January 2018
Jonathan Dennett	Asset Strategy Manager	January 2018
Ian Fitt	Policy Engineer	December 2017
Ali Hamdani	MOBs Strategy Engineer	January 2018
James Harrison	Head of Operations, London	January 2018
David Hughes	Design Assurance Specialist	January 2018
Patrick Kelly	MOBs Specialist	January 2018
Steve Mason	Head of GDSP Contract East	February 2018
Laurence McGurk	Gas Safety Manager	February 2018
Kevin Pettit	CDM Specialist	January 2018
Declan Robinson	Policy Manager	January 2018
Mary Ryan	Operational Interface Manager	January 2018
James Slater	MOB Specialist	February 2018
Tony Smith	Network Manager	February 2018
Colin Steer	Policy Manager	January 2018
Dave Thorley	Policy Manager	January 2018
Kevin White	Policy Engineer	January 2018



Post Implementation Review

Name	Position	Date
Dave Garner	Engineering Services Manager <2bar	November 2018
Ian Fitt	Policy Engineer	September 2018
Patrick Kelly	MOBs Specialist	October 2018
James Slater	MOBs Specialist	October 2018
Colin Steer	Policy Manager	October 2018
Operations Surveyors	North London Operations; Emergency	October 2018
John Webster	Network Engineer	October 2018
Kevin White	Policy Engineer	October 2018

Document history

Brief description	Date approved	New document number
Created as a new document using elements of T/PM/LC/21	March 2018	GD/PM/MOB/2
Post implementation review as stipulated by EPAC	December 2018	GD/PM/MOB/2
Documented updated to include consequential maintenance	October 2019	GD/PM/MOB/2

Key Changes

Section	Amendments
1	Additional Detail
2	Sub-section responsibility detail added
3	Minor-wording changes to definitions
6	Grammatical and detail changes to aid interpretation
10	Wording changes to aid interpretation
14	Grammatical and detail changes to aid interpretation

Comments and queries regarding the technical content of this document should be directed to:

Cadent
Ashbrook Court
Prologis Park
Central Boulevard
Coventry
CV7 8PE

Contents

Introduction.....7

1. Scope7

2. Responsibilities8

3. Definitions9

4. Identification of Multi Occupancy Buildings10

5. Data11

6. Building Surveys.....11

6.1 MOB Survey by Building Type.....11

6.1.1 High Rise Building Surveys11

6.1.2 Medium Rise Building Surveys.....11

6.1.3 Complex Distribution System Surveys11

6.2 Survey Categories11

6.3 Scheduling of Proactive Multi -Occupancy Building Surveys12

6.4 Engagement with Building Owners.....12

6.5 High Rise Building and Complex Distribution System pre-survey information.....12

6.6 Medium Rise Building pre-survey information.....12

6.7 Access problems13

6.8 Survey Outcomes13

7. Gas Leak during Survey.....13

7.1 Illegal Connections13

8. Consequential Maintenance.....14

8.1 Immediate Action and Urgent Network Action Planning14

8.2 Building Fabric Action Planning15

8.3 Severe Corrosion Reported.....15

8.4 Inaccessible Pipeline Isolation Valves16

8.4.1 Pipeline Isolation Valve Access Issue16

8.4.2	Pipeline Isolation Valve Availability Issue	16
8.5	Emergency Control Valve Related Issues.....	17
8.6	Bracket Spacing	17
8.7	Availability / Currency of Network Diagrams and Labels	18
8.7.1	Network Diagrams	18
8.7.2	Network Pipework Labels.....	18
8.8	Building Fabric.....	18
8.9.1	Letter Creation and Issue	19
9.	Survey review & reporting.....	19
9.1	Building priority score	19
9.2	Priority score is equal to or greater than 210,000	19
9.3	Survey frequency.....	20
10.	Intervention Measures.....	20
10.1	Buyout.....	20
10.2	Minor Maintenance	21
10.3	Permanent Repair.....	21
10.4	Network Riser Refurbishment.....	21
10.5	Replacement.....	22
10.6	Scheduled mains replacement work on MOB's supply pipes	22
11.	Post Completion Survey	22
11.1	Post Completion Survey following survey remediation work.....	22
11.2	Post Completion Survey following Minor Maintenance or Permanent Repair.....	22
11.3	Post Completion Survey following Refurbishment or Replacement.....	23
12.	Post Completion Customer Pack	23
13.	Gas escape/fault reported	23
14.	Audit and Review	24
14.1	Annual Review	24
14.2	Monthly Monitoring	24
14.3	Policy Review	24
15.	Document Retention.....	24

Introduction

This management procedure (subsequently referred to as 'the document') details the requirements to ensure compliance with **GD/PL/MOB/1 Policy for Inspection, Maintenance, Monitoring and Management of Supplies to Multi-Occupancy Buildings**. This document applies to multi-occupancy buildings (MOB) that contain a network pipework system, including all MOBs defined as high rise (HRB), all MOBs defined as medium rise (MRB) and MOBs defined as complex distribution systems (CDS). The document covers inspection, maintenance, monitoring and management of all (internal and external) risers and laterals, up to the customer's emergency control valve (ECV).

Cadent has adopted **IGEM Standard G/5 Edition 2** as the principal recommendations for the design, installation, operation and maintenance of gas installations for multi-occupancy buildings. Exceptions to this are detailed in the document **GD/PM/IGEM/G5 Edition 2 – The Application of IGEM/G/5 Edition 2 (Gas in Multi-Occupancy Buildings) by Cadent**.

For mains and services relating to the network upstream of the pipeline isolation valve of a multi occupancy building this document and those aforementioned should be considered in conjunction with **GD/PM/REP/2 – Management Procedure for Distribution Pipe Replacement**.

1. Scope

This document details the requirements to ensure compliance with **GD/PL/MOB/1 Policy for Inspection, Maintenance, Monitoring and Management of Supplies to Multi-Occupancy Buildings**.

The document includes an overview of the requirements for risk management, leakage survey, data gathering and visual condition assessments to establish the condition of the network pipework system, and consequential maintenance within multi-occupancy buildings. The document also includes an overview of the approved methods of risk reduction as defined by the results of inspection surveys and determined by the appropriate risk threshold based upon the building priority score.

The document defines successor documents to be used to ensure compliance with the requirements within. A full list of applicable documents can be found in Appendix A.

Exclusions from the requirements of this document are:

- External meter banks
- Independent Gas Transporter (IGT) supplied buildings
- Buildings with no gas supply
- Industrial & Commercial (I&C) premises (unless classified as a Complex Distribution Systems)
- Buildings less than 3 storeys
- Buildings with less than three meter points.

For meter banks inside the building structure, checks need to be carried out in accordance with **Section 5 of GD/PR/TMP/3006 Work Procedure for Assessing the Suitability of the Location, Housing and ECV for a Domestic Meter Installation** and as directed by the work procedure appropriate to the MOB category.



2. Responsibilities

Table 1 below provides a quick reference to the responsibilities detailed in this procedure.

Description	Department/s	Section
Identification of MOBs	Operations	4
Data	Safety & Network Strategy	5
Building Surveys	Operations, Construction, Safety & Network Strategy	6
MOB Survey	Operations, Construction	6.1
Survey Categories	Operations, Safety & Network Strategy	6.2
Scheduling of Proactive MOB Surveys	Operations, Safety & Network Strategy	6.3
Engagement Strategy	Operations	6.4
HRB & CDS Pre-survey Information	Operations, Safety & Network Strategy	6.5
MRB Pre-survey Information	Operations, Safety & Network Strategy	6.6
Access Problems	Operations	6.7
Survey Outcomes	Operations, Safety & Network Strategy	6.8
Severe Corrosion Reported	Operations, Safety & Network Strategy	6.9
Gas Leak During Survey	Operations, Construction	7
Consequential Maintenance	Safety & Network Strategy, Operations, Construction	8
Survey Review & Reporting	Operations, Safety & Network Strategy	9.1
Building Priority Score	Safety & Network Strategy	9.2
Priority Score >210,00	Safety & Network Strategy	9.3
Survey Frequency	Safety & Network Strategy	9.4
Intervention Measures	Safety & Network Strategy, Operations, Construction, Commercial, Legal	10
Buyout	Safety & Network Strategy, Regulation & External Affairs, General Counsel	10.1
Minor Maintenance	Operations	10.2
Permanent Repair	Operations	10.3
Network Riser Refurbishment	Construction, Operations	10.4
Replacement	Construction	10.5
Scheduled MRP on MOBs supply pipes	Construction, Safety & Network Strategy	10.6
Post Completion Survey	Construction, Operations, Safety & Network Strategy	11
Post Completion Survey; Remediation work	Operations	11.1
Post Completion Survey ; Minor Maintenance or Permanent Repair	Operations	11.2
Post Completion Survey; Refurbishment or Replacement	Construction	11.3
Post Completion Customer Pack	Construction, Operations, Safety & Network Strategy	12
Fault Reporting	Operations, Construction, Safety & Network Strategy	13
Audit & Review	Safety & Network Strategy	14
Annual Review	Safety & Network Strategy	14.1
Monthly Monitoring	Safety & Network Strategy	14.2
Policy Review	Safety & Network Strategy	14.3
Document Retention	Network Strategy, Operations, Construction	15

Table 1

3. Definitions

All other definitions used in relation to multi-occupancy buildings shall be in accordance with **IGEM/G/5 Edition 2** or **IGEM/G/4 Edition 2** unless otherwise indicated.

Reference	Identifier
Multi Occupancy Building (MOB)	A building that contains multiple domestic dwellings or a building that contains multiple domestic dwellings and/or commercial units.
High Rise Building (HRB)	Defined as a multi-occupancy building having at least six storeys above ground level (i.e. including the ground floor) with three or more meter points within the building and a network pipework system including internal and/or external risers and laterals to individual flats.
Medium Rise Building (MRB)	Defined as a multi-occupancy building as having either three, four or five storeys above ground level with three or more meter points within the building and a network pipework system including internal and/or external risers and laterals to individual flats. (This includes buildings with flats above shops/commercial premises).
Complex Distribution System	Defined as a multi-occupancy building of industrial and/or commercial units that do not meet the classification of either a high rise or medium rise building, where supplies are to two or more primary meter points and the design and installation of the pipework predates the industry standard IGEM/G/5 Edition 2 . (Typically shopping centres where the gas supplies were installed prior to 2006).
Storey	Floor construction level. The ground floor is counted as a storey within the context of this document. Basements/cellars shall NOT be regarded as a storey within the context of this document.
Basement/ cellar	A level or series of levels below ground level in the building that is being used for plant and equipment, accommodation or as a storage area, or could easily be altered for accommodation or storage. Basements/cellars shall NOT be regarded as a storey within the context of this document.
Riser	Risers are defined as an above ground arrangement of pipes (horizontal or vertical), which supply more than 2 supply meter points (excluding meter banks) in an individual premise or building containing many premises. A pipe is considered to be a riser once it enters the building (for internal risers) or emerges from below ground (for external risers).
Lateral	The pipe connected to a riser that conveys gas, along one floor level within a building, to the customer's ECV (emergency control valve).
Emergency Control Valve (ECV)	A valve, intended for use by the customer for shutting off the supply of gas to a single premise in an emergency. It is installed at the termination of the service and is the end of the network.
Main	Defined as an extension of, or change to, the system with the potential to supply more than two (2) meter points (GD/SP/NP/10). The underground pipe that supplies the MOB is classed a main but is often referred to as the 'supply pipe' or 'service pipe'.
Supply pipe	See 'main' definition above



Network pipework system	Defined as the pipework operated by the gas transporter upstream of the customer's emergency control valve (ECV) to the service supplying a MOB.
Pipeline Isolation Valve (PIV) / Service Isolation Valve (SIV)	Isolation valve on the gas supply pipe to a building to enable the gas transporter to shut off the gas supply from the outside in an emergency. Locally, this valve may also be referred to as a SIV.
Inlet Isolation Valve (IIV)	An isolation valve located at or near to the point of entry of a network pipeline into a MOB that enables the isolation of the gas supply to all or parts of the building for maintenance or safety reasons.
Riser Isolation Valve (RIV) / Branch Isolation Valve (BIV)	A RIV/BIV is an isolation valve fitted to facilitate maintenance or isolation of individual risers with the minimum of inconvenience and danger.
Lateral Isolation Valve (LIV)	An isolation valve fitted to permit the maintenance or isolation of individual laterals. Any LIV should be located as near as practicable to the pipe to which the lateral is attached.
Thermal Cut Off Valve (TCO)	A Thermal cut off device on gas pipework which closes within a stipulated temperature range.
Proactive work	Proactive survey work is a scheduled activity which, depending on the outcome, may generate intervention measures to reduce risk
Reactive work	Reactive work follows a customer reported escape or fault which, following initial site actions, may lead to the requirement for a survey and subsequent intervention measures to reduce risk
Temporary Repair	Applied to products that provisionally secure or reduce escaping gas pending the application of an Interim or Permanent repair product or asset replacement. Under no circumstances shall leaking steel, lead or copper domestic service pipes be temporarily repaired except for stopping the initial leakage.
Interim Repair	A repair technique or system where it cannot be robustly demonstrated that the application will maintain the structural integrity for the duration of the asset life. If the Interim repair failed, the result would not make the situation any worse than the initial leakage findings.
Permanent Repair	The application of a repair system or technique which returns the integrity of the operational condition back to a level which meets the original asset design specification.
ALARP	Acronym for 'As low as reasonably practicable' which describes the level to which workplace risks should be controlled

Table 2

4. Identification of Multi Occupancy Buildings

Multi Occupancy Buildings are categorised as either:

- High rise (6 or more storeys above ground level) – referred to as HRB
- Medium rise (3 – 5 storeys above ground level) - referred to as MRB
- Complex Distribution Systems – referred to as CDS



Basements/cellars shall NOT be regarded as a storey within the context of this document



5. Data

Information and data on Cadent's population of risers and laterals supplying customers in MOB's shall be used to inform the risk model and priority score which underpins the effective risk and asset management of these assets to satisfy Cadent's obligations under the **Pipelines Safety Regulation 1996**.

The information recorded to fulfil this obligation shall be stored in a suitable electronic repository. This electronic repository shall be on a core system. The validity of such information should be reconfirmed during the course of scheduled inspections or maintenance. Where information becomes available via any other sources, e.g. MRPS surveys, it should be updated on the system to ensure that the risk profile of the asset group remains accurate. The database should be maintained and reviewed to ensure it is meeting the needs of the risk model and contributing to effective management of MOB's assets.

6. Building Surveys

Building surveys shall be carried out on all MOB's. The frequency of these surveys is risk-based and the maximum interval between inspection surveys shall not exceed 10 years.

Only competent surveyors shall be used to carry out surveys on MOB's. The surveyor competency requirements for each building type can be found in **GD/PM/MOB/4** along with the audit regime for assessing the ongoing competence of surveyors and the quality and compliance of submitted surveys. Surveys shall be carried out in accordance with the respective work procedures as detailed below.

6.1 MOB Survey by Building Type

6.1.1 High Rise Building Surveys

High rise building surveys shall be carried out in accordance with **GD/PR/MOB/40 - Work Procedure for High Rise Building Surveys and Risk Assessments**.

6.1.2 Medium Rise Building Surveys

Medium rise building surveys shall be carried out in accordance with **GD/PR/MOB/41 - Work Procedure for Medium Rise Building Surveys and Risk Assessments**.

6.1.3 Complex Distribution System Surveys

Complex distribution system surveys shall be carried out in accordance with **GD/PR/MOB/42 - Work Procedure for Complex Distribution System Surveys and Risk Assessments**.

6.2 Survey Categories

Building surveys are categorised as either proactive or reactive. Proactive surveys are triggered by building priority score, mains replacement projects, post completion activities or other planned works. Reactive surveys are typically triggered by public reported escapes (PREs) but can also be triggered by identified industry or internal risks where additional or urgent surveys are appropriate.

Any MOB's not previously recorded within the established network riser population should be risk assessed using the appropriate survey procedure as soon as reasonably practicable following identification. This duration shall not exceed 12 months post identification.



6.3 Scheduling of Proactive Multi -Occupancy Building Surveys

A schedule for required MOB Surveys shall be prepared and regularly updated for each MOB type as determined by the appropriate planning cycle. The detail of this plan shall reflect the proximity to commencement of the survey. The plan shall be communicated to the appropriate stakeholders to ensure surveys are scheduled and completed in accordance with the requirements of this document. The plan should be re-assessed throughout the planning cycle, detailing any amendments. Reasons for change shall be documented and retained for audit and records purposes.

For all HRBs, CDSs and appropriate MRBs, the deadline for making pre-survey information available shall be indicated on each plan to enable the necessary arrangements to be put in place with the building owner, Management company or occupier to carry out the survey.

6.4 Engagement with Building Owners

An appointment time to conduct any survey should be agreed with the building owner, building Management company or occupier at least 2 weeks prior to the planned survey. Any requirement to change this planned time should be communicated to the aforementioned stakeholders at the earliest opportunity.

There shall be a Customer Engagement Strategy for MOBs. The Customer Engagement Strategy should be in accordance with the requirements detailed in **GD/PM/MOB/4**. Contact details should be proactively maintained and include details from housing associations, local authorities and private landlords. Engagement with these stakeholders shall be undertaken prior to a survey to ensure a positive relationship and identify opportunities to work collaboratively. Engagement should be maintained throughout any works that may be required on the building.

Engagement with local authorities and other third party large scale owners of MOBs, such as housing associations, should include annual engagement to establish any demolition programmes and/or significant building refurbishment schemes which include MOBs with network pipework systems or mains replacement projects. This will enable consideration of any potential impact on the survey of such MOBs or the assets themselves and enable consideration to be given to the timing of the risk intervention on at risk mains in the vicinity of buildings which are above the building priority score threshold.

A record of discussions and communications with the building owner, building management company or occupier shall be kept. These records shall be shared with the appropriate Cadent departments and retained as per **Section 15**.

All documentation relating to the survey pack shall be retained in accordance with **Section 15**.

6.5 High Rise Building and Complex Distribution System pre-survey information

Pre-survey information shall be produced for all MOBs. Pre-survey information shall be available at least 3 months prior to the commencement of the survey to enable engagement with customers and or the building owner, building management company or occupier. The Pre-survey information should include the appropriate asset specific information to enable the successful completion of the survey and the collection of the required data to inform the risk model and priority score. This information shall be drawn from the MOB data repository and be available electronically via the appropriate building survey app.

6.6 Medium Rise Building pre-survey information

Pre-survey information for MRBs shall include the best available information to support the survey. Once a survey has been completed on MRBs in accordance with **GD/PR/MOB/41** the next survey shall utilise fully prepared pre-survey information as per **Section 6.5** of this document. It shall be ensured that applicable stakeholders in the MOB process have visibility of all medium rise locations and the agreed volume of surveys that need to be undertaken in each financial year.

6.7 Access problems

Where accessing a building or individual flats to complete a survey is difficult, three attempts to gain access shall be made on separate days over a two week period. Following each attempt, the surveyor shall record the details (dates, times, addresses, photographs, attempt number, etc.) on the survey form. After three unsuccessful attempts to gain access the survey form should be recorded as 'No Access' and contact shall be made with the building owner, building management company or occupier to understand why access was not granted and to make arrangements to gain access. Where, after the three attempts and appropriate correspondence, it has not been possible to contact the building owner/occupier the survey shall be recorded on the applicable risk model as 'No Access'.

A letter shall be sent to the building owner, building management company or occupier following the agreed communications process, where necessary notifying them of Cadent's intention to initiate legal proceedings if access is not granted and the survey should be re-scheduled within 6 months of the first survey being attempted.

For more information on the use of warrants, refer to [GD/PR/E/3002 Guide to use of warrants](#).

6.8 Survey Outcomes

Survey details shall be entered onto the appropriate Survey App along with supporting photographs and shall be submitted within 5 working days of the survey being completed. Upon receipt of the survey the risk model shall be updated to inform the priority score as generated by the risk scoring model for the applicable MOB type. In accordance with the survey work procedure, as defined by building type, the information provided shall include location records and photographs of internal and external isolation valves, any existing repairs and any visual indications that create cause for concern, such as, but not limited to, severe corrosion, 3rd party impact, failure of brackets, etc.

A copy of the completed and verified survey report shall be recorded and retained in accordance with **Section 15**.

7. Gas Leak during Survey

Any gas leaks identified during a survey shall be managed in accordance with [GD/PR/EM/72 Cadent Operational procedures for dealing with gas escapes and other emergencies](#) and repaired in accordance with [GD/PR/EM/74 Work procedure for repairing gas escapes on the network operating at pressures not exceeding 7 Bar](#).

Actions for the recording and completion of reactive work are detailed in [GD/PM/MOB/4](#). All repairs, whether temporary, interim or permanent, carried out on pipework shall be linked to the building within the asset repository core system, currently SAP and ESRI, to ensure there is a visible record of all the work that has been carried out within the building.

7.1 Illegal Connections

Any situation where illegal connections have been identified shall be escalated immediately to the MOB Network Lead. The situation shall then be managed in accordance with [GD/PL/TOG/1 Policy for dealing with the theft of gas and illegal connections](#). Upon completion of any alterations, repair/s or remediation works a post completion survey should be triggered (limited to the section of the asset where work has been carried out). If a survey has been completed within the last 12 months a post completion survey is not required and will be acceptable to change the condition of the remediated section only as applicable. Any post completion survey reports or amendments to condition shall be submitted for the update of the risk model within 42 calendar days of the work being undertaken (14 days, taking account of the repair/s).



8. Consequential Maintenance

Data shall be extracted within D+1 of a completed survey following collection by the Surveyor using the relevant electronic App aligned to GD/PR/MOB/40; GD/PR/MOB/41; and GD/PR/MOB/42.

With the exception of Gas Escapes all defects listed below within a completed building survey shall be documented for work planning or Building Owner engagement purposes.

Consequential maintenance falls into three defect groups which are covered in detail within this document, the categories are:

1. Immediate Network Action;
2. Urgent Network Action; and
3. Building Fabric.

Table 3 below lists the individual defects identified through the survey stage that generate an immediate Emergency work order or consequential Maintenance work order:

Defect Group	Defect / Observation	Responsible Function
Immediate Network Action	<ul style="list-style-type: none"> Gas Escape Open Ended Pipe Illegal Connection 	Cadent Operations
Urgent Network Action	<ul style="list-style-type: none"> Severe Corrosion Inaccessible Pipeline Isolation Valves Emergency Control Valve Related Issues Maintenance Valve Issues Bracket Spacing Availability / Currency of Network Diagrams Missing / Ineffective Signs and Labels 	Cadent Operations
Building Fabric Action	<ul style="list-style-type: none"> Inadequate Ventilation Inadequate Fire-stopping Impact of other Third Party Utilities Third Party Encroachment on Network Pipework 	Responsible Person – Building Owner

Table 3

8.1 Immediate Action and Urgent Network Action Planning

When planning consequential maintenance for defects in the Urgent Network Action defect group the Planning Specialist should consider the following factors to ensure effective risk based prioritisation of the work

- The resultant building priority score
- The number of storeys and dwellings

- No gas supply pipes
- Severity of defects identified
- Relevant service levels for any required activity
- Bundling of multiple jobs in a single building

The resultant work orders shall be raised in the core work management system using the specified work order codes listed in Appendix B to enable both the allocation of work to competent engineers and to enable tracking and assurance over all created work.

The prescribed elapse timescales for all consequential maintenance are covered in the following sections below.

Where defect resolution requires access to internal portions of the buildings or individual dwellings an appointment time to conduct the remedial work should be agreed with the building owner, building management company or occupier at least 2 weeks prior to the commencement of the remedial work. Any requirement to change this planned time should be communicated to the aforementioned stakeholders at the earliest opportunity.

8.2 Building Fabric Action Planning

Buildings identified with Building Fabric defects listed in table 3 shall have a letter generated based on the approved template, this should be addressed to the Responsible Person for the building, details for this are provided within this procedure along with prescribed elapse timescales.

8.3 Severe Corrosion Reported

If severe corrosion has been identified during a survey its presence shall be escalated immediately to the MOB Network Lead and a severe corrosion risk assessment worksheet as found in **GD/PM/MOB/4** should be completed. The severe corrosion risk assessment worksheet shall be submitted within 5 working days of the identification of severe corrosion to determine appropriate risk reduction measures. The information on the risk assessment worksheet shall be reviewed and a corrosion assessment in accordance with **GD/PR/MOB/43 Work procedure assessment of corrosion damage on steel pipework supplying multi-occupancy buildings** shall be arranged.

The **GD/PR/MOB/43** corrosion assessment shall be completed within:

- 28 calendar days of receipt of the form for MRBs
- 14 calendar days of receipt of the form for HRBs & CDS

The corrosion assessment shall be carried out by a trained and competent corrosion assessor in accordance with **GD/PR/MOB/43**.

Upon completion of the **GD/PR/MOB/43** corrosion assessment and any remediation works a post completion survey should be triggered (limited to the section of the asset where work has been carried out). If a survey has been completed within the last 12 months a post completion survey is not required and will be acceptable to change the condition of the remediated section only as applicable. Any post completion survey reports or amendments to condition shall be submitted for the update of the risk model within 42 calendar days of the work being undertaken.

Where the corrosion assessment has classified a section of pipework to be 'unrefurbishable', a risk assessed intervention plan shall be agreed within 28 calendar days of the GD/PR/MOB/43 corrosion assessment.

The section of 'unrefurbishable' pipework shall be checked for leakage at least once a month. The leakage surveys should be undertaken more frequently if the condition of the pipe and its location are identified as needing closer monitoring. These rechecks will continue until the 'unrefurbishable' pipework is replaced or remediated through another technique.

8.4 Inaccessible Pipeline Isolation Valves

The underground gas supply pipe bringing gas into the building has an isolation valve, known as the Pipeline Isolation Valve (PIV).

When planning Pipeline Isolation Valve works consideration should be given to the wider portfolio of work being undertaken and the individual building priority against the wider portfolio. The complexity of an isolation operation and the ease of emergency escape are to be considered. The number of gas supply pipes and the number of storeys should be used; the prioritisation matrix in Appendix B provides a means for work prioritisation consideration in the planning phase.

Pipeline Isolation Valve remedial works shall be planned to ensure the accessibility of the valves in line with the following elapse timescales:

- 180 calendar days of receipt of the form for MRBs
- 90 calendar days of receipt of the form for HRBs & CDS

If the Pipeline Isolation Valve on a gas supply pipe into the building could not be confirmed as accessible in the survey a workorder shall be arranged for a targeted investigation to be undertaken by a competent engineer, the investigation may utilise some of the techniques listed below:

- Visual site inspection
- Ground probing equipment
- Mains camera survey

The results of the survey shall be recorded in on the Pipeline Isolation Valve worksheet as found in **GD/PM/MOB/4**.

8.4.1 Pipeline Isolation Valve Access Issue

Where the valves presence is confirmed on the gas supply pipe but the valve chamber is not accessible or not clearly identifiable then further work shall be undertaken or scheduled to:

- Remediate the valve chamber cover
- Clear the valve-stem
- Excavate / raise the valve chamber

All Pipeline Isolation Valves shall be protected with a valve cover and shall be identified permanently using:

- A valve cover embossed with the word "Gas" and;
- A permanently marked and secure wall-or post mounted label.

Upon completion of the work, Desktop Maps shall be reviewed to assess alignment against as laid conditions. Any discrepancies shall be notified for correction in accordance with the **GD/PM/DR/4 Management Procedure for Asset records error management for pipes and associated plant**.

The completion of all remedial work shall be recorded in on the Pipeline Isolation Valve worksheet as found in **GD/PM/MOB/4**.

8.4.2 Pipeline Isolation Valve Availability Issue

Where the valves presence cannot be confirmed on the gas supply pipe work shall be undertaken to install a valve on the network. All new Pipeline Isolation Valves shall be located on the gas supply in accordance with **EM G/5 Edition 2**.

All construction activities shall be carried out in accordance with:

- **T/PR/SL/1 Work procedure for service laying up to and including 63mm diameter at pressure up to and including 2 bar**
- **T/PR/ML/1 Work procedure for main laying up to and including 2 bar**

All Pipeline Isolation Valves shall be protected with a valve cover and shall be identified permanently using:

- A valve cover embossed with the word "Gas" and;
- A permanently marked, and secure wall-or post mounted label.

The completion of all remedial work shall be recorded on the Pipeline Isolation Valve worksheet as found in **GD/PM/MOB/4**. Desktop Maps shall be reviewed to assess alignment against as laid conditions. The new valve position shall be submitted for digitisation as per **GD/PM/DR/23 Management Procedure for Pipe Asset Record Update & Validation**.

8.5 Emergency Control Valve Related Issues

If one or more of the installed Emergency Control Valves are identified as not being accessible due to the valve position or inoperable due to a missing handle, action shall be undertaken in accordance with **GD/PR/TE/1 Engineering Work Procedure for assessing the location and operation of an ECV**

Emergency Control Valve assessment and remedial works shall be planned to ensure the accessibility of the valves within 90 days of the completed survey.

8.6 Bracket Spacing

If bracket spacing has been identified as being inadequate during a survey a gas network pipework support assessment in accordance with **GD/PR/MOB/44 Work procedure of gas network pipework support in multi-occupancy buildings** shall be arranged.

Where the pipework is accessible for a details survey and potential remediation the gas network pipework support activities within **GD/PR/MOB/44** shall be completed within 90 calendar days of receipt of completed survey

If the pipework is inaccessible due to its position within a shaft or service duct any follow-on activities and future asset strategy will be considered more widely as part of the priority risk score assessment.

The gas network pipework support assessment shall be carried out by a trained and competent assessor in accordance with **GD/PR/MOB/44**.

Upon completion of the **GD/PR/MOB/44** gas network pipework support assessment, remediation works to install brackets shall be triggered as soon as is reasonably practicable and completed within 180 calendar days of receipt of the original completed survey. A post completion survey should be triggered (limited to the section of the asset where work has been carried out). If a survey has been completed within the last 12 months a post completion survey is not required and will be acceptable to change the condition of the remediated section only as applicable. Any post completion survey reports or amendments to condition shall be submitted for the update of the risk model within 42 calendar days of the work being undertaken.



8.7 Availability / Currency of Network Diagrams and Labels

8.7.1 Network Diagrams

If network diagrams of the gas network pipework or required labels have been identified as being inadequate, remedial works shall be undertaken within 90 calendar days from the date of the survey.

Any provided line diagram(s), shall be updated to reflect alterations carried out to the network pipeline as part of a regular maintenance regime.

Any building without a line diagram shall have a diagram prepared. The diagram (which can be an overlaid photographic image) shall depict the dwellings served by that particular network pipeline, along with all key features (Inlet Isolation Valve, Riser Isolation Valve, Branch Isolation Valve, Lateral Isolation Valve, Emergency Control Valve, and Meter Installation). The line diagram shall also detail the location of the Pipeline Isolation Valve.

The line diagram should be produced in a Computer Aided Design (CAD) package to aid clarity and future maintenance of the diagram.

Where there is more than one network pipeline entering a common area of a building a warning notice shall be placed at each entry stating that further network pipelines into the building exist.

All network diagrams shall be sent to the Data Assurance to enable the diagram to be stored alongside other key asset data attributes associated with the buildings.

8.7.2 Network Pipework Labels

Labels will be affixed to all network pipework to aid identification, maintenance and emergency control and isolation. All network pipework shall be labelled in accordance **IGEM/G/5 Edition 2**.

8.8 Building Fabric

The defects within the Building Fabric defect group are a set of issues associated with the wider building environment surrounding the gas network pipework, these include:

- Inadequate Ventilation
- Inadequate Fire-sealant
- Impact of other Third Party Utilities
- Third Party Encroachment on Network Pipework

The above defects have wider implications for the safety management system of the building and therefore cannot be considered in isolation.

Central Operations shall extract survey data collected by the Surveyor in the current electronic App aligned to GD/PR/MOB/40; GD/PR/MOB/41; and GD/PR/MOB/42.

An assessment of the survey shall be undertaken to determine the presence of

- Inadequate Ventilation
- Inadequate Fire-sealant
- Impact of other Third Party Utilities

8.9.1 Letter Creation and Issue

If any of the above issues are identified in the completed survey return Central Operations shall create a letter using the approved template in Appendix C.

All letters shall be issued to Building Owners within 28 calendar days of the completion of the survey. Where multiple buildings with recorded defects are identified as being in the owners of one body, then steps should be taken to bundle the response.

Copies of all letters issued shall be recorded in the core asset system.

No follow up correspondence is required, with the exception of situations where a letter is returned to Cadent due to unknown address, or the addressee providing evidence that they are not the building owner. In these instances further investigations shall be carried out to determine the Building Owner details and a further letter issued. All steps shall be captured in a central database.

Risk Assessment

9. Survey review & reporting

The outcome from each survey shall be reviewed and assessed against the generated risk score. Monthly reports for all MOB's surveys completed shall be produced to monitor performance, quality and inform appropriate asset management and investment decision.

9.1 Building priority score

The building priority score is a combination of site specific threats and risks associated with network pipework systems. The scoring system is based on the surveyor's subjective judgement of the condition of the asset and the likelihood of a safety incident occurring against set criteria.

Assessment criteria includes but is not limited to:

- Building Information
- Supply Pipe
- Means of Isolation
- Risers
- Laterals
- Compliance with industry standards

Various factors which reduce the likelihood of incidents occurring are included in the calculation. Similarly, a higher priority score will be generated for instances where high risk factors are present or where the surveyor has not been able to see the pipework to assess its condition or information is incomplete.

9.2 Priority score is equal to or greater than 210,000

Where the survey output result indicates a priority score $\geq 210,000$, the MOB will require intervention measures to reduce risk. The requirement for risk reduction shall be issued to the relevant delivery unit for completion in accordance with the intervention measures in **Section 10**.



9.3 Survey frequency

Following completion of the survey and/or risk assessment, the survey frequency shall be established in accordance with table 4 below and the requirement included in the relevant resource and maintenance plan.

Priority Score	Frequency of Re-Survey
$\geq 210,000$	1 year (the building shall be re-surveyed annually until risk reduction measures have been implemented)
100,000 – 209,999	5 Years
$\leq 99,999$	10 Years

Table 4

Increasing the frequency of re-survey for priority scores equal to or greater than 210,000 to annual is not in itself an adequate form of risk reduction. The annual survey frequency is an interim measure until permanent risk reduction measures have been completed.

10. Intervention Measures

Where the building survey and risk model has generated a priority score equal to or greater than the trigger level, currently 210,000, intervention measures to reduce risk shall be undertaken. A plan to deliver one or more of the following intervention measures shall be agreed within 60 calendar days of the completion of the survey.

Intervention measures shall be considered in order of the hierarchy outlined below;

1. Buy Out
2. Minor Maintenance
3. Permanent Repair
4. Network Riser Refurbishment
5. Replacement

10.1 Buyout

Buyout shall be considered as the primary intervention measure in alignment with the ALARP risk principles. If buyout is ruled out but there are constraints that prevent subsequent intervention measure options, such as MOB asset refurbishment or compliant replacement being achieved, buyout shall be re-considered. These constraints to refurbishment or replacement may include, but are not limited to, technical constraints that prevent a compliant installation or planning constraints.

If buyout is to be considered as the most appropriate solution, the following should be established:

- An accurate list of customers effected
- Confirmation of gas load type and volume of customers
- Confirmation that all customers are willing to consider the buyout option
- Appropriate consultation with customers
- Appropriate consultation with the building owner, building Management company or occupier
- Appropriate consultation with local authorities, planners and building authorities

- Appropriate payments are arranged including confirmation of formal agreements
- Suppliers and Xoserve are advised upon completion

Legal agreement shall be made with building owners/management company that no future gas supplies will be made available to individual flats/premises within the MOB. There shall also be the requirement to make this clear and known to new occupiers by the building owners/management company upon the signature of any lease or agreement to occupy.

10.2 Minor Maintenance

Where risers and/or laterals are exposed and there is any degree of superficial deterioration, consideration shall be given to remediation of exposed and accessible pipework to minimise further deterioration.

Minor maintenance activities are not limited to the network pipework and may include other parts of the asset such as riser supports, brackets, valve box covers, asset markings, ducting, access panels, etc.

Leaks identified during the inspection or survey of a riser shall be dealt with in accordance with **GD/PR/EM/72** and repaired in accordance with **GD/PR/EM/74** and do not constitute minor maintenance. Whilst it is recognised that temporary or interim repairs may be required, all identified leaks shall ultimately lead to a permanent repair.

10.3 Permanent Repair

Permanent repair of corrosion or other deterioration of the riser shall be in accordance with **GD/PR/MOB/43**. The riser should be subject to a post completion survey once work has been completed as outlined in **Section 11** of this document to enable a revised building priority score to be assigned.

10.4 Network Riser Refurbishment

If a specific issue is identified on a network pipework system following a survey, consideration may be given to reducing risk through refurbishing the network pipework system as an alternative to buyout or full network riser and lateral pipework replacement providing circumstances permit.

Options to be considered as a means of refurbishment include but are not limited to;

- Installation of a compliant means of isolation (external and or internal), in accordance with **IGEM G/5 Edition 2**.
- Partial replacement of any section found to be in poor condition or containing multiple interim repairs, where the remainder of the network pipework system is in good condition.
- Where there is evidence of multiple joint leakages, but the network riser is otherwise of sound construction and where the network riser configuration is suitable, internal sealing techniques can be considered as an alternative to replacement where such techniques are approved.
- Ensuring adequate means of ventilation are established in accordance with **IGEM G/5 Edition 2** where they are not currently present. **(Only applicable to riser installations constructed or replaced since 2006)**
- Provision of adequate separation or insulation between the network pipework system and electrical cable or switchgear.
- The fitment of approved measures to screwed joints on internal steel laterals and their fittings to meet the equivalent requirements of a welded steel system.
- The installation of Thermal Cut-off valves (TCOs) or other such approved protective measures.

10.5 Replacement

Full or partial replacement of a MOB network pipework system should only be considered when all other options have been exhausted. If it has been determined that the asset requires replacement, work shall be issued to the appropriate delivery unit and shall contain a clear scope of work and completion deadlines. All work issued shall include associated survey and corrosion assessment records and relevant communications with the building owner and/or occupiers. The design, risk assessment and installation of replacement MOB assets shall be in accordance with **IGEM G/5 Edition 2**.

10.6 Scheduled mains replacement work on MOB supply pipes

Where replacement work is being planned on mains and services that supply steel risers, the results of any applicable MOB surveys shall be incorporated into the planning and design of the replacement project. Where no previous survey data is available, a survey shall be undertaken prior to the commencement of any replacement work.

Where MOB assets are associated with mains replacement projects or where work is carried out on the supply pipework and the MOB is confirmed as below the building priority score threshold criteria, they may be transferred to the new parent main, provided any non-standard network riser section is replaced. This includes below ground steel, cast/spun/ductile iron, or copper.

Where a network riser is no longer required to transport gas, it shall be decommissioned and abandoned without replacement. Abandoned pipework should be removed, where this is not possible the pipe shall be clearly labelled as decommissioned and abandoned gas pipework. Where abandoned riser or lateral pipework is left in situ, an appropriate survey should be undertaken to assess the structural integrity of the pipework and confirm fire compartmentalisation of the building if the pipework penetrates any walls, ceiling or floors. The results of the survey shall be stored in the asset system and shared in writing with the responsible person for the building.

Pipework supplying MOB assets would not normally be replaced as part of a mains replacement project unless proven to be in poor condition. For further information on mains replacement activities refer to GD/PM/REP/2 Management Procedure for Distribution Pipe Replacement.

11. Post Completion Survey

All post completion surveys shall be submitted to enable update of the risk model and priority score within 5 days of the post completion survey spreadsheet being completed. A record of the works undertaken shall be retained as per **Section 15**.

11.1 Post Completion Survey following survey remediation work

Where remediation work has been completed during the initial survey, the surveyor shall update the survey form detailing the work undertaken.

11.2 Post Completion Survey following Minor Maintenance or Permanent Repair

Where minor maintenance or permanent repair activities have been undertaken, a post completion survey shall be completed. If the work has been completed within 12 months of the last survey a full post completion survey is not required and it will be acceptable to change the condition of the remediated section or feature only.

This will be accomplished by only re-surveying the applicable remediated section or feature. Any post completion surveys or condition updates shall be submitted within 42 calendar days of the work being undertaken.

Where a target post completion survey has been undertaken on only a specific section of the network pipework, the surveyor shall assess the wider infrastructure for an obvious defects or risks, these shall be logged in the survey return and escalated immediately to the MOB Network Lead

11.3 Post Completion Survey following Refurbishment or Replacement

A post completion survey shall be carried out on all MOBs where any refurbishment or replacement work has taken place and should be completed and submitted within 42 calendar days of commissioning of replacement/refurbished pipework. This survey shall be undertaken using the same survey recording technique and procedure as applicable to the building type in accordance with **Section 6.1**.

The delivery unit that completed the refurbishment or replacement work shall carry out the post completion survey on all new pipework within the building. Any work should not be considered complete until the post completion survey has been accepted and approved by Cadent.

Where a target post completion survey has been undertaken on only a specific section of the network pipework, the surveyor shall assess the wider gas infrastructure for an obvious defects or risks, these shall be logged in the survey return and escalated immediately to the MOB Network Lead.

Note: The assessment of the wider gas infrastructure assessment is a visual inspection of the wider gas infrastructure within the building to ensure there are no obvious defects requiring attention, particular focus should be given to PIV accessibility, fire stopping and any third-party interference.

Where abandoned riser or lateral pipework is left in situ following refurbishment or replacement, an appropriate survey should be undertaken to assess the impact of the remaining pipework on the structure of the building and the fire safety of the building where the pipework penetrates any walls, ceiling or floors. The results of the survey shall be stored in the asset system and shared with the responsible person for the building in writing

12. Post Completion Customer Pack

A post completion customer pack should be completed for issue to the building owner, building management company or occupier as appropriate where refurbishment or replacement activity has taken place. This customer pack should include, as a minimum, the following;

- Location of means of isolation and other safety advice
- Location of other network related plant included network entry
- Details of work completed
- Cadent contact details
- Guidance on the expectation to safeguard our asset
- Next expected routine survey date (year)

13. Gas escape/fault reported

Gas escapes on MOBs shall be managed in accordance with **GD/PR/EM/72** and repair work carried out in accordance with **GD/PR/EM/74**.



Actions to be taken for the recording and completion of reactive work are detailed in **GD/PM/MOB/4**. All repairs carried out on pipework shall be linked to the building within the appropriate core system asset repository, currently SAP and ESRI, to ensure there is a visible record of all the work that has been carried out within the building.

If a gas escape has resulted in the disconnection of the MOB or individual riser, the team carrying out the disconnection shall immediately inform Dispatch who shall inform nominated contacts within Construction, Contract Partners, Safety & Network Strategy and Operations to allow commencement of replacement or other works to allow reconnection.

14. Audit and Review

The audit and review process shall be carried out in accordance with Cadent's current Policy for Safety, Health and Environmental Audit.

14.1 Annual Review

Network Strategy should annually review the performance achieved and associated investment required to ensure future compliance with this document and the ongoing requirements of **GD/PL/MOB/1**.

14.2 Monthly Monitoring

The risk profile for each network and building type (HRB, MRB, CDS) should be monitored and recorded monthly.

Cadent should also monitor and record monthly, by network, risk reduction work carried out by building type against annual targets.

14.3 Policy Review

A formal review of the policy should be instigated in accordance with **GD/PM/GR/2 Management Procedure for the Control of Cadent Engineering Standards**.

15. Document Retention

Documents, data and records shall be retained in accordance with Cadent's records policy **GD/PL/RE/1**.

MOBs specific records shall include but are not limited to;

- Building Address
- MPRNs
- Access Details for Maintenance and Inspection
- Plant Location
- Building Construction
- Number of floors, dwellings and customers
- Construction details of the network pipe system
- Method of Pipeline Entry
- Subsequent Alterations

- Means of Isolation

All information relating to building priority scores and risk assessments, reports, survey notifications, survey results, corrosion assessments and correspondence with customers and/or building owner, building management company or occupier relating to such areas listed shall be held within a central electronic repository.

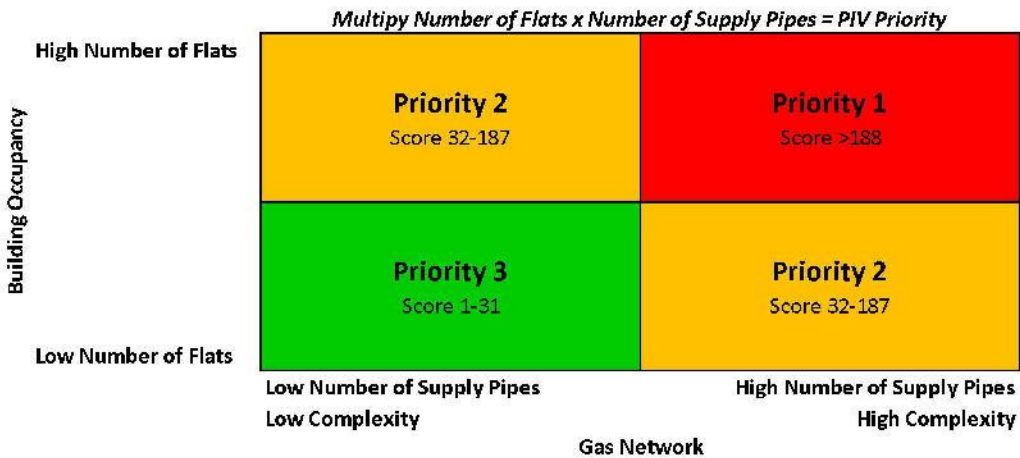


Appendix A - Related Documents

Reference	Title
Health and Safety Executive	Pipeline Safety Regulations 1996 – Design, Construction and Installation of Gas Pipes
IGEM/G5 Edition 2	Institution of Gas Engineers and Managers document – ‘Gas in Flats and Other Multi-dwelling Buildings’
IGEM/G4 Edition 2	Definitions for the Gas Industry
GD/PL/MOB/1	Policy for Inspection, Maintenance, Monitoring and Management of Gas Supplies to Multi Occupancy Buildings
GD/PM/IGEM/G/5	The Application of IGEM G/5 Edition 2
GD/PM/REP/2	Management Procedure For Distribution Pipe Replacement
GD/PR/TMP/3006	Work Procedure for Assessing the Suitability of the Location, Housing and ECV for a Domestic Meter Installation.
GD/PR/MOB/40	Work Procedure for High Rise Building Surveys and Risk Assessment
GD/PR/MOB/41	Work Procedure for Surveys on Medium Rise Multi Occupancy Buildings
GD/PR/MOB/42	Work Procedure for Surveys on Complex Distribution Systems
GD/PM/MOB/4	Guidance document to support the application of GD/PM/MOB/2
GD/PR/E/3002	Guide to use of Warrants
GD/PR/MOB/43	Work Procedure for Assessment of Corrosion Damage on Steel Pipework Supplying Multi-Occupancy High and Medium Rise Buildings.
GD/PR/EM/72	Cadent Operational procedures for dealing with gas escapes and other emergencies
GD/PR/EM/74	Work Procedures for Locating and Repairing Gas Escapes on the Network Operating at Pressure not exceeding 7bar
GD/PM/GR/2	Management Procedure for the Control of Cadent Engineering Standards.
GD/PL/RE/1	Capture, Updated and Retention of Engineering Asset Records
GD/PR/ECP/2	Management Procedure For Cathodic Protection of Buried Steel Systems
GD/PM/DR/23	Management Procedure for Pipe Asset Record Update & Validation.
GD/SP/NP/10	Specification For Defining Pipes As Mains And Services

Appendix B. Pipeline Isolation Valve Prioritisation Matrix

PIV Work Prioritisation Matrix (to enabel multiple PIV remediation workorders to be prioritised relative to each other)



Appendix C. Building Fabric Letter Template

Reference
HRMOB-4

Date
[Insert] 2019

[Insert Name]
Address 1
Address 2
Address 3
Post Code 1

Cadent Gas Limited
Brick Kiln Street, Hinckley
Leicestershire LE10 0NA
cadentgas.com

Hilary Buxton
Head of Engineering

Hilary.Buxton@cadentgas.com



Dear [Insert Name],

I am writing on behalf of Cadent Gas Ltd (Cadent). Cadent is a gas transporter; we own and operate the pipes and associated apparatus which supply natural gas to commercial and domestic properties in many parts of the country.

Our pipeline safety management process involves the routine survey of pipes in high-rise (six stories or more) and medium-rise (three to five storey) multi-occupancy buildings. During a recent survey in [insert building name] on [insert survey date] pipework was identified with the following [defects]:

- Passing through [walls / ceilings / floors] without being sealed with an appropriate material at [insert locations];
- Lacking adequate ventilation at [insert locations];
- Being to closer proximity or being impacted by other utilities [electricity / water] at [insert locations]

You have a statutory duty to ensure the health and safety of residents in premises (such as high rise multi-occupancy buildings) which you own and/or manage, I am bringing this to your attention to enable you to put in place a plan to ensure that the above areas can have suitable and sufficient remediation planned and implemented.

As building owners/managers, you are primarily responsible for managing the risks associated with these construction and utility issues. However, where necessary, we will work collaboratively with you to the extent required to ensure the integrity of our assets and to manage our own responsibilities as they relate to our gas network.

Yours Sincerely

Hilary Buxton
Head of Engineering

Cadent Gas Limited
Registered Office Ashbrook Court, Prologis Park
Central Boulevard, Coventry CV7 8PE
Registered in England and Wales No.10080864

National Gas Emergency Service
[Redacted] (24hrs)
*Calls will be recorded and may be monitored

5000419 (01/13)

Page 28 of 30