
MANAGEMENT PROCEDURE FOR

**THE ASSESSMENT AND VALIDATION OF DATA
PROVIDED BY UIPs FOR NEW MAINS, NEW
SERVICES, SERVICE ALTERATIONS AND
DISCONNECTIONS (BELOW 7 BAR) TO BE ADOPTED
BY NGN**

NOVEMBER 2017

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FOREWORD

This document was approved by the appropriate Technical Authority Level (TAL) and Standards Steering Group (SSG) for use throughout Northern Gas Networks Limited (NGN).

NGN 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 NGN Register of Documents available on the company intranet.

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

Contractors and other users external to NGN should direct their requests for further copies of NGN documents to the department or group responsible for the initial issue of their contract documentation.

BRIEF HISTORY

First published as T/PR/AV1	May 2002	
Revised to incorporate minor amendments	July 2002	
Revised to include service alterations & Disconnections, modified mandatory and non-mandatory requirements and minor amendments to F82	September 2003	
Revised to incorporate minor amendments	January 2004	EPSG/T04/959
Editorial update to reflect Safety Case version 3 taking into account issues as detailed in the comments below.		
Additionally compliance with mandatory terms along with the removal of no specific normative phrases	February 2004	EPSG/A04/10052
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Amended in to NGN format	February 2006	NGN/PM/AV/1
Reviewed and approved	March 2009	NGN/PM/AV/1
Reviewed to amend UIP audit requirements	November 2017	Version 6.0

DISCLAIMER

This document is provided for use by NGN and such of its contractors as are obliged by the terms 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 the document is correctly applied.

MANDATORY AND NON-MANDATORY REQUIREMENTS

In this document:

must: 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.

MANAGEMENT PROCEDURE FOR THE ASSESSMENT AND VALIDATION OF DATA PROVIDED BY UIPS FOR NEW MAINS, NEW SERVICES, SERVICE ALTERATIONS AND DISCONNECTIONS (BELOW 7 BAR) TO BE ADOPTED BY NGN

1. SCOPE

This document covers the assessment and validation of submissions from Utility Infrastructure Providers (UIP) at the Outline Design, Quotation Request, Design Submission, Construction and Connection stages for the provision of New Mains, Services and associated installations (including Service alterations and disconnections) under the Connections Process Quality Management System (CPQMS). NGN Networks are required to evaluate submissions from Utility Infrastructure Providers and to apply a consistent method of assessing these submissions as “fit for purpose”. This document includes checklists to enable the assessment of submissions and to provide a record of the outcome.

This procedure is also applied to the validation of final connection design submissions and on site auditing when an Independent Gas Transporter (IGT) makes an application to connect to NGN’s network.

In accordance with the Gas Act 1986 (as amended), NGN shall take ownership of pipes (mains and services) laid in respect of premises supplied with gas at a rate less than 75,000 therms (2196000 kWh) per annum provided that they are fit for purpose (and the vesting of ownership shall take place in accordance with NGN’s terms and conditions of contract for connections). For pipes in excess of 75,000 therms (2196000 kWh) per annum, NGN shall take ownership of pipes (if at all) in accordance with its contract terms and conditions as prevail from time to time. Whether or not pipes are fit for NGN’s purposes shall be determined by the adoption criteria set out in this procedure NGN/PM/AV/1.

2. REFERENCES

This Procedure makes reference to the documents listed in Appendix I. Unless otherwise specified the latest editions of these documents, including all addenda and revisions, must apply.

3. DEFINITIONS

For the purposes of this Procedure, the definitions in Appendix J apply.

4. CONTEXT

The Institution of Gas Engineers and Managers (IGEM) have published recommendations “Adoption of Pipe Systems by a GT – Management of UIP activities” (IGEM/TD/101). These Recommendations were based on Industry documents (GIG 1 & 3) produced by a working group comprising Gas Transporters and Utility Infrastructure Providers, which have now been withdrawn.

IGEM/TD/101 sets out the minimum requirements for a Utility Infrastructure Provider to ensure all newly constructed pipelines operating at up to 7bar are “fit for purpose” in order to be adopted by Gas Transporters, including NGN.

IGEM/TD/101 includes the following information: -

- adoption criteria and process
- overall design (which involves sufficient information being available to enable subsequent assurance of integrity and safety of the GT’s system)
- detailed design review for networks (ensuring the submission is compatible with the GT’s existing network)

- construction (in accordance with relevant technical standards)
- deviation and variation procedure
- fitness for purpose of materials and equipment

All job specific submissions for each project undertaken must satisfy the requirements of IGEM/TD/101.

NGN, through their Safety Case, must demonstrate that their gas networks are fit for purpose and their activities comply with the Gas Safety (Management) Regulations. Therefore, it is essential that NGN seek appropriate evidence that the Utility Infrastructure Providers can demonstrate compliance with all the necessary technical and legislative requirements to satisfy the fitness for purpose criteria, prior to the construction and adoption of the assets. This objective is achieved by means of a thorough validation of the Utility Infrastructure Provider, prior to work commencing and a technical audit of the work in progress.

GIG2 provides guidance on the process for the accreditation of Utility Infrastructure Providers for generic aspects of their capability under the Gas Industry Registration Scheme.

The national accreditation process defined within GIG2 must enable UIPs to receive accreditation to operate within specified work activities. The initial assessment and on-going management of the accreditation process must be carried out by The Gas Industry Registration Scheme Operator (GIRSO). Accredited UIPs must be listed on the GIRSO website and display the Gas Industry Registration Scheme (GIRS) quality mark.

UIPs should obtain accreditation for individual activities under GIRS and those activities are as follows:

- Design
- Construction/Commissioning/Connections (Routine)
- Connections (Non routine – Basic)
- Connections (Non Routine – Complex/Iris Stop)
- Connections (Non Routine – Complex/Stopple)
- Connections (Non Routine – Complex/Hot Welding)
- Audit
- Project Management

Note: Above categories defined as in GIG/2 - Accreditation of Utility Infrastructure Providers under the Gas Industry Registration Scheme

Organisations who wish to carry out final connection, service alterations or disconnections to NGN's network must be accredited under the GIRS for Design and Construction/Commissioning/Connections (Routine) for connections/disconnections not covered by IGEM/GL/6 and additionally the relevant connections (Non Routine) scope for connections covered by IGEM/GL/6. Where a UIP does not hold a combined Design and Construction/Commissioning/Connections (Routine) GIRS registration the UIP must be GIRS registered for Project Management and use GIRS registered sub-contractors.

Organisations who do not meet these criteria must not be allowed to carry out final connections, service alterations or disconnections on NGNs network.

The Gas Act allows individuals or organisations, who do not wish to seek accreditation, the right to lay gas pipes. However, such bodies must be subjected to an equally rigorous examination by the GT.

5. PURPOSE

Details of the design parameters to be exchanged with the UIP at the 'Confirmation of design parameters' stage as detailed in IGEM/TD/101 and in accordance with the outline check list are provided in Appendix A (new mains and services) and Appendix B (alterations and disconnection of services). This document also provides the procedure and checklist to be used in the assessment of the UIP design as "fit for purpose" at the "Detailed Design and Construction/Commissioning" stage, Appendix F (new mains

and services) and Appendix G (service alterations and disconnections). This includes assessment of the mains design, together with the necessary method statements, risk assessments, quality assurance and safety management procedures.

Fit for purpose at the submission stage includes, but is not limited to, the following:

- Assessment of the pipe layout (including sizes, lengths and materials).
- Risk assessment of the design (including route, service entry, demand assumptions)

Where the submission does not meet the required criteria, it must be considered “**Not Fit For Purpose**”. However there may be instances where the UIP must be advised to seek additional guidance concerning “fitness for purpose” from NGN Third Party Connections.

The design process is in two stages: Outline Design and Quotation Request and then Detailed Design Submission. The initial stage requires NGN to provide pressure information to enable the UIP designer to carry out a detailed design of the site network or service. The second stage is a detailed assessment of the UIP's design.

NGN should authorise the UIP to connect the new system to the NGN 'live' network or the UIP must request NGN to carry out this work.

Flowcharts with notes are provided to illustrate the process in Section 7.1. The Appendix A checklists provide assistance to NGN Networks in the Outline Design and Detailed Design assessments and provide a record of the outcome.

Reference should be made to NGN/SP/NP/14 – Specification for The Design of System Extensions, Connections and Services to Below 7bar NGN Systems.

For standardisation the following units should be used: -

- Gas Demand - kW, kWh.
- Pressure - mbar, bar.
- Flow - sm³/h.

6. AUDIT

UIPs will fall within the 10% Authorising Engineers inspections regime as detailed in NGN/PM/SCO/1, NGN/PM/SCO/4 and NGN/PM/SCO/5. These inspections must be forwarded to Network Control, who will maintain a record of all audits received and demonstrate them within the Network Control monthly report.

Audit findings must be referred back to the relevant UIP, Gas Industry Registration System Operator (GIRSO) and retained by Network Control. Any trends of continual non-compliance identified should be addressed by the relevant UIP and referred back to NGN.

When a new UIP Competent Person or Authorising Engineer undertakes work on the NGN network they must either:

- Provide a completed audit from another Gas Distribution Network from within the past 12 months and for a similar operation to the one proposed; or
- Be subject to an audit by NGN at the earliest opportunity as per the requirements of NGN/PM/SCO/1, NGN/PM/SCO/4 and NGN/PM/SCO/5.

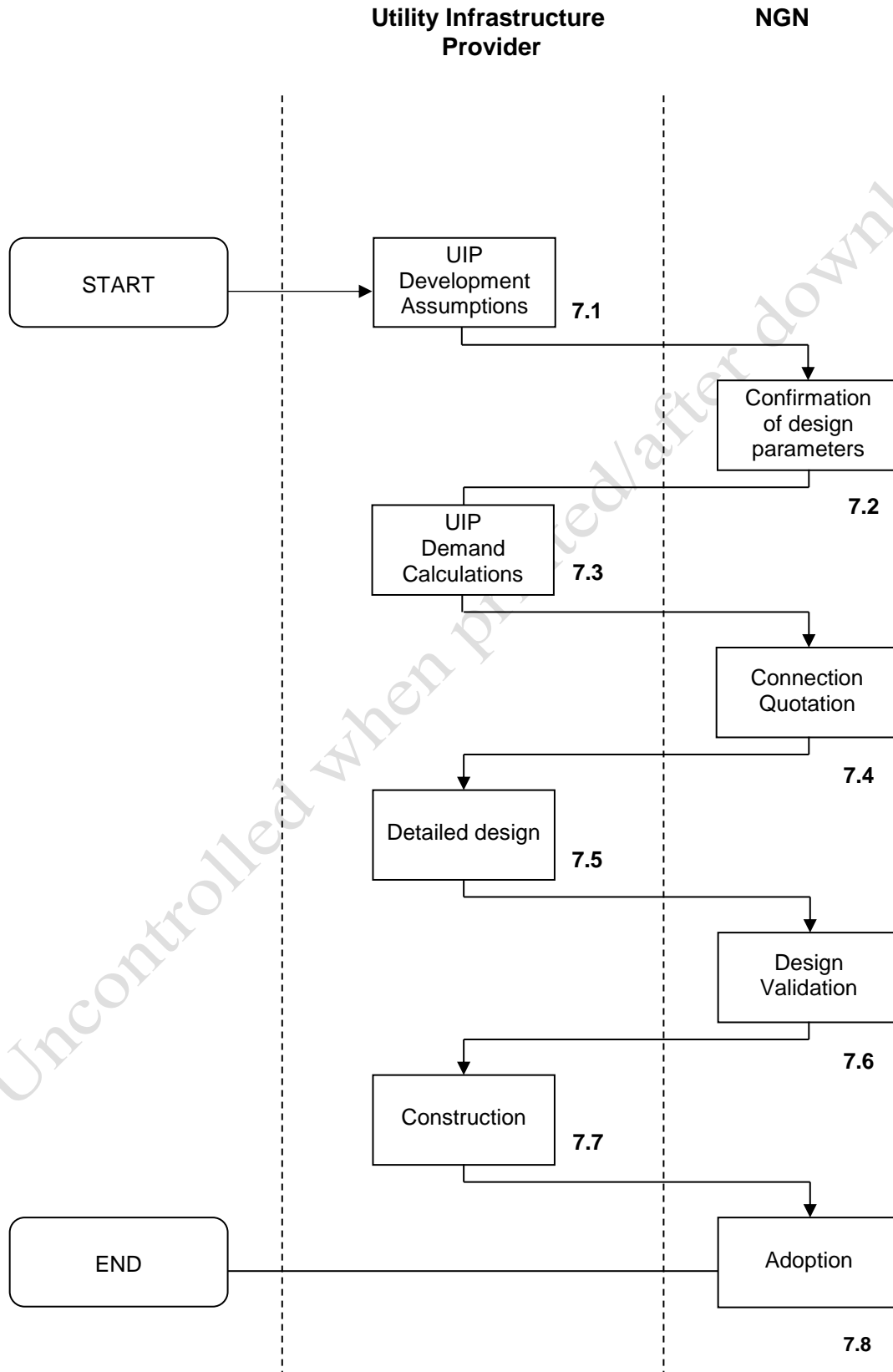
In addition, a new Authorising Engineer must provide evidence of **three** completed NROs.

When NGN are undertaking on-site audits and non-compliances are found, works must be stopped until the non-compliances have been rectified.

7. VALIDATION PROCESS

7.1 Flowchart

This Flowchart shows an outline of the validation process between NGN and a UIP for adoption of a UIP system as fit for purpose.



Notes to support Flowchart of Validation Process

Note

- 7.1 UIP agrees with the developer/consumer the details of the requirements for the site.
- 7.2 UIP requests from NGN confirmation of the parameters required for the design of the service(s) and any mains for the site. Appendix A (new mains and services) and Appendix B (service alterations and disconnections) provides checklists and guidance on the details to be submitted by the UIP. These are usually accessed via the NGN website but can be forwarded to the UIP if required.
- 7.3 On the basis of the design parameters given, the UIP should calculate the demand details for the site and send their request to the NGN Network.
- 7.4 Appendix C outlines the procedure to be used in quoting pressures and costs. Appendix D provides a checklist to be used and retained for the assessment of the outline design and quotation request for new mains, new services and service alterations. Where requested, the NGN Network must provide the necessary pressure details for the design of system extensions and services with pressure drops greater than 2mbar, together with any specific reinforcement costs. The method of connection and any associated costs should also be quoted.
- 7.5 UIP must carry out the detailed design of the service and, for system extensions, the mains. If other IGTs propose to connect to NGNs system they must submit a detailed design of the connection.
- 7.6 Third Party Connections must validate the UIP/IGT design. Appendix E outlines the procedure to be used in carrying out this assessment. Appendix F provides a checklist to be used and retained for the detailed assessment of the UIP/IGT design. Appendix G provides a checklist to be used and retained for the detailed assessment of a UIP alteration or disconnection design. Appendix H provides a checklist to be used and retained for the detailed assessment of a UIP/IGT final connection design.
- 7.7 UIPs must be GIRS registered
- 7.8 The UIP/IGT should apply to connect the system to the NGNs network or should request NGN to make the connection. If the UIP/IGT wishes to connect the scheme to NGN's network then an application must be made as per CPQMS, however permission to proceed with the connection must only be given following receipt of a valid certification file. Organisations who wish to carry out the final connection (including service alterations/disconnections) to NGNs network must be accredited under GIRS for Design and Construction/Commissioning/ Connections (Routine) for connections not covered by IGEM/GL/6 and additionally for the relevant Connections (Non Routine) scope for connections covered by IGEM/GL/6. Where a UIP does not hold a combined Design and Construction/Commissioning/Connections (Routine) GIRS registration the UIP must be registered for Project Management and use GIRS registered sub-contractors. Organisations who do not meet these criteria must not be allowed to carry out the final connection, service alteration or service disconnection on the NGN Network. If NGN are requested to connect the system then NGN must only adopt the network following receipt of a valid certification file.

Note: For IGT CSEP connections, NGN will only adopt the minimum connection equipment up to the first point of isolation.

APPENDIX A

DESIGN PARAMETERS CHECKLIST – NEW MAINS AND SERVICES

Design parameters to be used where NGN is to be requested to adopt the system.				
From	NGN			
To	UIP			
Site				
Site Ref. No.				
ITEM	NOTE ¹	DETAILS		
Design Assumptions				
Gas Constants	A.1	The following gas constants must be assumed in any design calculation:	Dynamic Viscosity	1.038E-05 PaS
			Specific Gravity	0.6
			Gas Temperature	5 °C
Pipe Details				
Mains and services.		Reference should be made to the NGN document "Specification for defining pipes as Mains, Services or Risers" – External Version.		
Nodes	A.2	Nodes should be no greater distance apart than the following:	Estates	30m
			Approach mains	50m
Velocity	A.3	Gas velocity should be no greater than the following:	Services	15m/s
			Mains. ²	20m/s 40m/s
Demand Details				
Individual demands	A.4	Domestic: Where no other information exists assume -	3sm ³ /h	
		Non-domestic	Consumer's estimate of Peak Instantaneous Demand.	
Multi-premises sites.	A.5	Domestic	Developers estimate of AQ	
		Non-domestic	No diversity to be assumed - use instantaneous demand.	
Non-standard consumption patterns.	A.6	Specific details to be discussed with the NGN Network		
Interruptible demands.	A.7	Specific details to be discussed with the NGN Network		
Demand assignment	A.8	Demands greater than 40scmh must be allocated an individual node.		
		All other demands must be allocated to the nearest node.		
Pressures				
Elevated pressures	A.9	Specific details to be discussed with the NGN Network		
Design minimum pressure for services.	A.10	The design minimum pressures to be used for services are as follows:	Low Pressure ²	19mbar 20.75mbar
			Medium Pressure ³	
			Intermediate Pressure ³	
Minimum mains design pressure.	A.11	The minimum mains design pressures to be used are as follows:	Low Pressure ²	21mbar 22.75mbar
			Medium Pressure ³	
			Intermediate Pressure ³	
Service Pressure Drops	A.12	The following service pressure drops must be used for design.	Low Pressure ⁴	2mbar
			Medium Pressure ²	35mbar 70mbar
			Intermediate Pressure ³	
Pressure Regulating Installations				
Compatibility	A.13	PRIs must be compatible with the following types: ³		
Standby capacity	A.14	The following standby capacity should be included: ³	Consumer Type	Facility required
PRINT NAME		TITLE	DATE	
			SIGNATURE	

Note: 1. Notes on following page are for NGN reference only. 2. NGN delete as appropriate 3. NGN to complete. 4. Where initial design =>150mm additional pressure drop may be available - Contact NGN.

Notes to support Appendix A

Note

- A.1 Details of the appropriate gas constants should be consistent with the latest version of NGN/PL/NP/16
- A.2 Details of the appropriate distances should be consistent with the latest version of NGN/SP/NP/14
- A.3 Details of the appropriate velocities should be consistent with the latest version of NGN/SP/NP/14
- A.4 Details of the appropriate demand should be consistent with the latest version of NGN/SP/NP/14
- A.5 Details of the appropriate demand should be consistent with the latest version of NGN/SP/NP/14
- A.6 Enquiries should be dealt with in accordance with NGN/SP/NP/14
- A.7 Enquiries should be dealt with in accordance with NGN/PM/NP/3
- A.8 Details of the appropriate demand assignment should be consistent with the latest version of NGN/PM/NP/3
- A.9 Enquiries should be dealt with in accordance with NGN/SP/NP/14
- A.10 Details of the appropriate pressures should be consistent with the latest version of NGN/PL/NP/16
- A.11 Details of the appropriate pressures should be consistent with the latest version of NGN/PL/NP/16
- A.12 Details of the appropriate pressure drops should be consistent with the latest version of NGN/SP/NP/14
- A.13 Details of the appropriate types/makes of plant and equipment should be provided.
- A.14 Details of the appropriate requirements should be consistent with IGEM/TD/13.

APPENDIX B

DESIGN PARAMETERS CHECKLIST – SERVICE ALTERATIONS AND DISCONNECTIONS

Design parameters to be used for NGN's Services				
From	NGN			
To	UIP			
Address				
Site Ref. No.				
ITEM	NOTE 1	DETAILS		
Design Assumptions				
Gas Constants	B.1	The following gas constants must be assumed in any design calculation:	Dynamic Viscosity	1.038E-05 PaS
			Specific Gravity	0.6
			Gas Temperature	5 °C
Pipe Details				
Services.		Reference should be made to the NGN document "Specification for defining pipes as Mains, Services or Risers" – External Version.		
Velocity	B.2	Gas velocity should be no greater than the following:	Services	15m/s
			Mains. ²	20m/s 40m/s
Demand Details				
Individual demands	B.3	Domestic: Where no other information exists assume -	3sm ³ /h	
		Non-domestic	Consumer's estimate of Peak Instantaneous Demand.	
Non-standard consumption patterns.	B.4	Specific details to be discussed with the NGN Network		
Interruptible demands.	B.5	Specific details to be discussed with the NGN Network		
Pressures				
Elevated pressures	B.6	Specific details to be discussed with the NGN Network		
Design minimum pressure for services.	B.7	The design minimum pressures to be used for services are as follows:	Low Pressure ²	19mbar 20.75mbar
			Medium Pressure ³	
			Intermediate Pressure ³	
Minimum mains design pressure.	B.8	The minimum mains design pressures to be used are as follows:	Low Pressure ²	21mbar 22.75mbar
			Medium Pressure ³	
			Intermediate Pressure ³	
Service Pressure Drops	B.9	The following service pressure drops must be used for design.	Low Pressure ⁴	2mbar
			Medium Pressure ²	35mbar 70mbar
			Intermediate Pressure ³	
Pressure Regulating Installations				
Compatibility	B.10	PRIs must be compatible with the following types:		
Standby capacity	B.11	The following standby capacity should be included: ³	Consumer Type	Facility required
PRINT NAME		TITLE	DATE	
			SIGNATURE	

Note: 1. Notes on following page are for NGN reference only. 2. NGN delete as appropriate 3. NGN Networks to complete. 4. Where initial design =>150mm additional pressure drop may be available - Contact NGN.

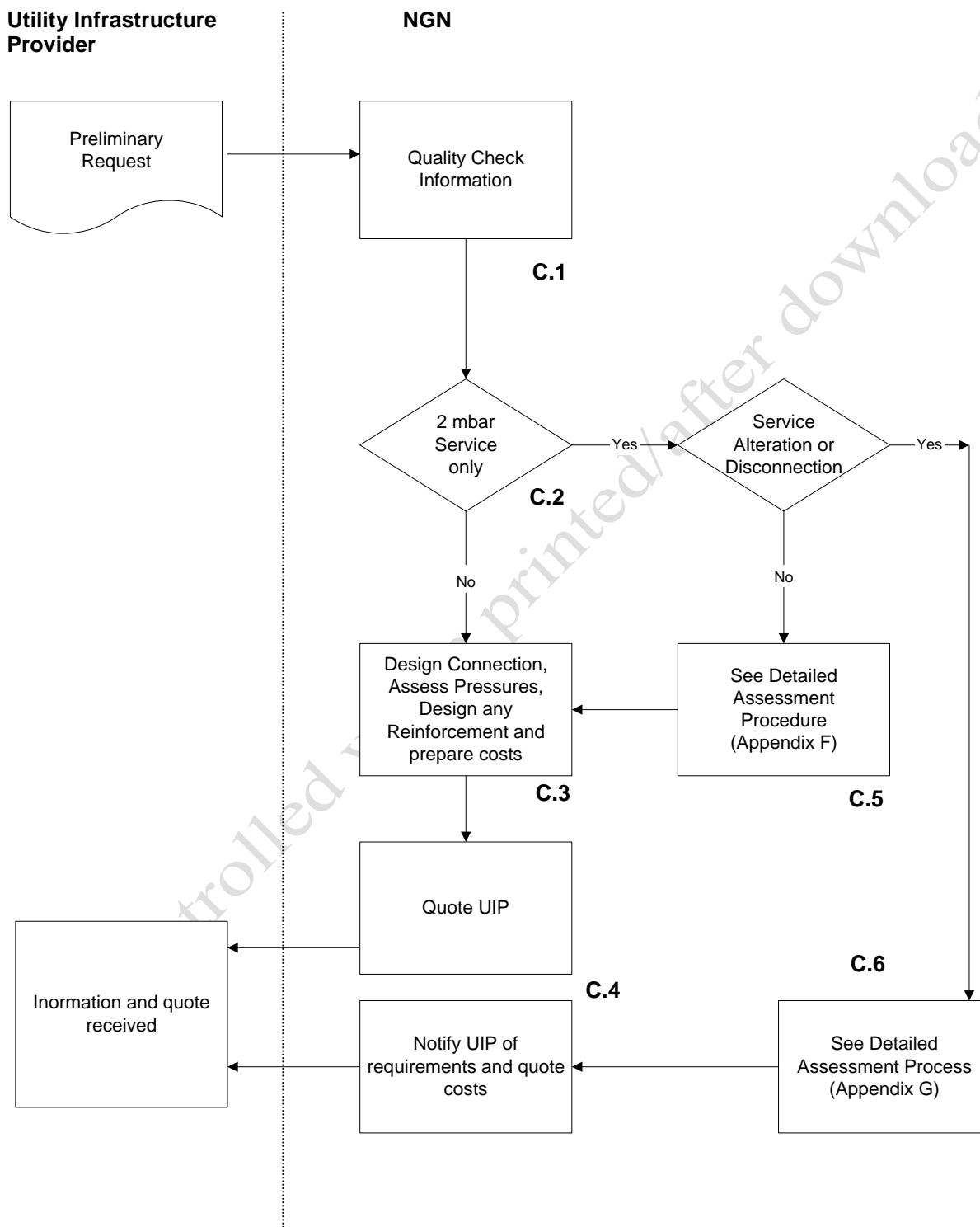
Notes to support Appendix B**Note**

- B.1 Details of the appropriate gas constants should be consistent with the latest version of NGN/PL/NP/16
- B.2 Details of the appropriate velocities should be consistent with the latest version of NGN/SP/NP/14
- B.3 Details of the appropriate demand should be consistent with the latest version of NGN/SP/NP/14
- B.4 Enquiries should be dealt with in accordance with NGN/SP/NP/14
- B.5 Enquiries should be dealt with in accordance with NGN/PM/NP/3
- B.6 Enquiries should be dealt with in accordance with NGN/SP/NP/14
- B.7 Details of the appropriate pressures should be consistent with the latest version of NGN/PL/NP/16
- B.8 Details of the appropriate pressures should be consistent with the latest version of NGN/PL/NP/16
- B.9 Details of the appropriate pressure drops should be consistent with the latest version of NGN/SP/NP/14
- B.10 Details of the appropriate types/makes of plant and equipment should be provided.
- B.11 Details of the appropriate requirements should be consistent with IGEM/TD/13.

APPENDIX C

OUTLINE DESIGN AND QUOTATION REQUEST FLOWCHART

Flowchart Procedure for the assessment of Outline Design and Quotation request by a Utility Infrastructure Provider (UIP) *



* This part of the document covers the initial design request submission from the Utility Infrastructure Provider, including the provision of design pressures to the UIP by NGN.

Notes to support Appendix C**Note**

- C.1 Use of the checklist is intended to determine adequacy of the information. Appendix D gives details of the Check List and guidance in its use.
- C.2 Is the request for a 2mbar service only? If yes and the detailed design is provided at this stage, go to the detailed assessment procedure – Appendix E.
- If the service is to be sized using a pressure drop greater than 2 mbar, NGN must specify the allowable pressure drop.
- C.3 Design the connection and any reinforcement, assess the required pressures in accordance with procedure NGN/SP/NP/14 and calculate costs for quotation to the Utility Infrastructure Provider.
- C.4 Produce quotation via the approved Work Management System (SAP)
- C.5 See Detailed Design Assessment Procedure - Appendix F (if design provided at this stage)
- C.6 See Detailed Design Assessment Procedure - Appendix G (if design provided at this stage)

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APPENDIX D

OUTLINE DESIGN AND QUOTATION REQUEST CHECKLIST

ASSESSMENT OF UIP DESIGN - OUTLINE DESIGN AND QUOTATION REQUEST				
CHECK LIST	Site			
	Site Ref. No.			
	UIP Designer			
TASK	NOTE	ACCEP -TABLE Y,N,N/A	ACTIONS / COMMENTS	CHECKED BY
Location Plans				
Location of the site (e.g. 1:10000 scale)	D.1			
Scale map of site (e.g.: 1:1250 scale)	D.2			
Demand Details				
Total site load	D.3			
Diversity Calculation	D.4			
Number of Properties/Phasing	D.5			
Non-domestic profiles	D.6			
CHP / Compressor details	D.7			
Adjacent Sites/Future Stages	D.8			
Pipe Diameter and Materials	D.9			
Pressures				
Pressure Requested	D.10			
ACCEPTED OR REJECTED (DELETE AS APPROPRIATE)				DATE
PRINT NAME	TITLE	SIGNATURE		

The above checklist gives details of the tasks or data, which the UIP must provide in order for the design to be assessed. Supporting Notes are given on the following page as guidance to what information is required and is acceptable. The receipt and acceptance of the information should be confirmed in the "Accept" column. Actions or comments should be entered against each item in regard to the assessment and its acceptability, for example, where an incorrect source pressure was used:

e.g. Action / Comment - Design rejected, 50mbar design pressure used - 30mbar available.

Where more than one assessor is involved the initials of those carrying out that part of the assessment should be entered against the relevant item.

NOTES TO SUPPORT APPENDIX D.

Note *

- D.1 The location plan must contain sufficient detail to determine the location of the site. In addition, it is a requirement for the larger scale plan to contain sufficient information relating to the existing geography in the vicinity of the site to allow the accurate location of the site entrance for multi-dwelling developments.
- D.2 The detailed map should include the following information: location of site entrance, connection point, termination point and route of the proposed network.
- D.3 Have the appropriate design demands been provided? This is required in order to assess that an appropriate level of demand is being checked against the network.
- D.4 Is any diversity calculation in accordance with IGE/GL/1? Where SNAP is being used the correct formulae are in-built. If other programs are being used, clarification of the formulae should be obtained and a comparison carried out with the published formulae in IGE/GL/1.
- D.5 Has the load been diversified over the correct number of properties?
- D.6 For non-domestic non-temperature sensitive loads (e.g. Furnaces, Grain Dryers) have the seasonal load profiles been provided? Off peak demand requirements should be assessed, as these may have an impact on the design of the mains or services. Reference should be made to NGN/SP/NP/14
- D.7 Are any of the loads likely to have "Black Start/Stop" characteristics associated with CHP or other compressed gas requirements? These will have an impact on the network that should need to be assessed. Reference should be made to NGN/SP/NP/14
- D.8 If there are additional sites in the vicinity or future phases of the same site, a check should be made to determine if the UIP has included future potential loads in their load calculations.
- D.9 Details of the pipe material and diameter(s) to be entered
- D.10 Has the UIP requested a pressure above 21mbar? If yes, the pressure available should be quoted in accordance with the requirements of NGN/SP/NP/14

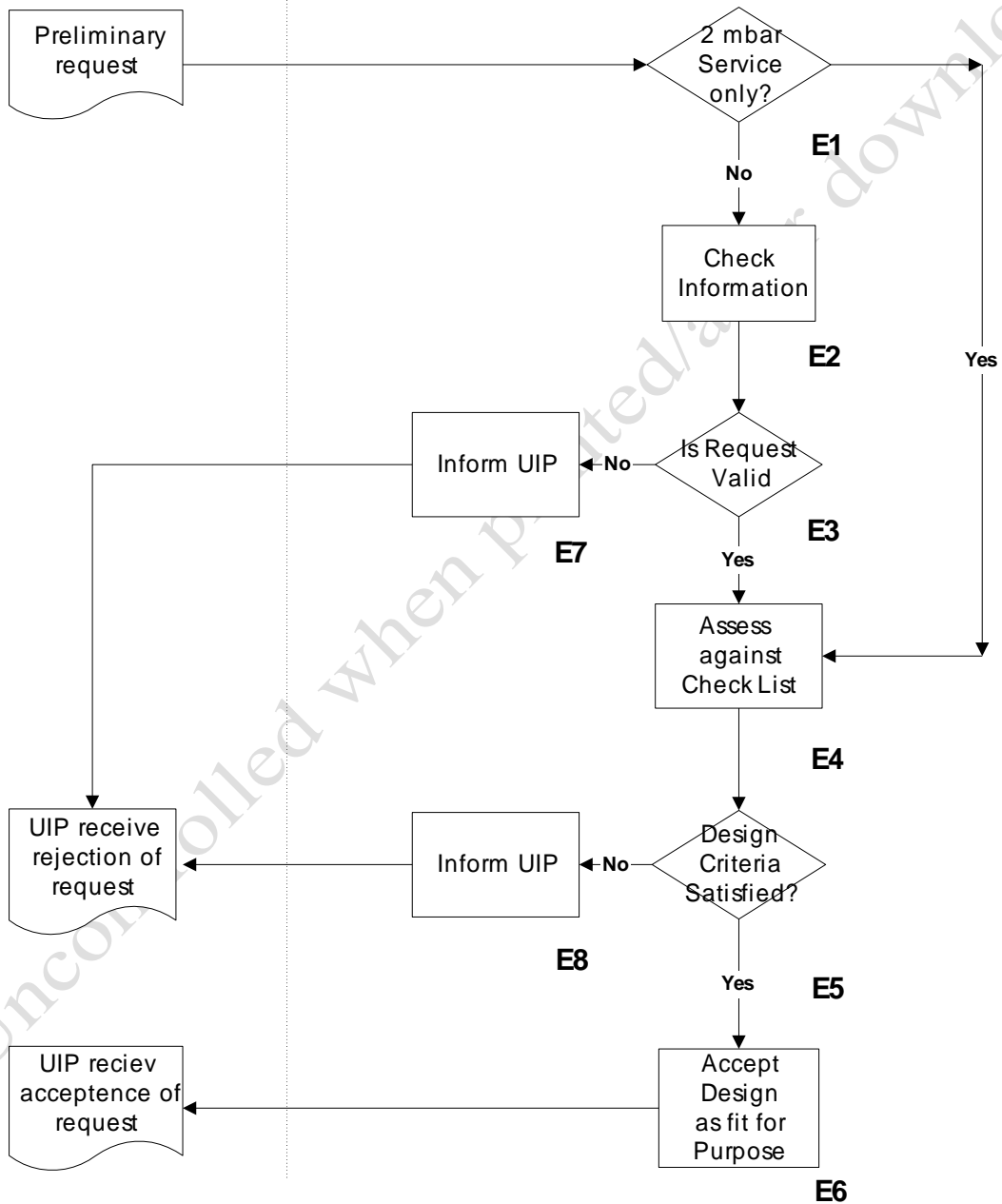
APPENDIX E

PROCEDURE FOR ASSESSMENT OF UIP DESIGN SUBMISSION

Flowchart showing procedure for the assessment of the detailed UIP design submission

Utility Infrastructure Provider

NGN



Supporting Notes for Appendix E**Note**

- E.1 Where the design is identified by the UIP as being for a 2mbar pressure drop service only, the design should be assessed against the detailed checklist
- E.2 Third Party Connections should ensure the pressure information is still valid - i.e. the original quotation is not out of date.
- E.3 If the request is date expired, Third Party Connections should treat the request in accordance with the Quotation Policy Statement (NGN/COM Section 2). This may or may not require the request to be re-quoted.
- E.4 Checklists are provided in Appendix F (New Mains and Services), Appendix G (Service Alterations and Disconnections) and Appendix H (Final Connections). These should be used to record the details of the mains extension and / or service design, together with the reasons for its acceptance or rejection.
- E.5 Has the design criteria been satisfied?
- E.6 Accept the design and inform the UIP/IGT as required.
- E.7 Inform the UIP/IGT that the request is out of date and that the pressures available have changed.
- E.8 Inform the UIP/IGT that the design has been rejected and the reasons for its rejection.

APPENDIX F

DETAILED ASSESSMENT UIP SUBMISSION CHECK LIST – NEW MAINS AND SERVICES

DETAILED ASSESSMENT OF UIP SUBMISSION				PAGE 1 OF 4
CHECK LIST	Site			
	Site Reference No.			
TASK	NOTE	ACCEP- TABLE Y,N,N/A	ACTIONS / COMMENTS	CHECKED BY
Name of Designer				
Competent/NOT Competent ¹	F.1			
Site Plans				
A location plan with site entrance	F.2			
Detailed Site Plan	F.3			
Pipe sizes/lengths identified	F.4			
Nodes marked and numbered on plan	F.5			
Demand Details				
Details of individual customer loads	F.6			
Details of diversity assumptions	F.7			
Nodes /Demand Assignment	F.8			
Phasing of Demands	F.9			
Pressures				
Correct source pressure used	F.10			
Correct design Min Pressure used	F.11			
Pressure Drop	F.12			
Design Program				
The analysis program used for design ¹	F.13			
Pipe Diameters ¹	F.14			
Pipe Efficiencies ¹	F.14			
Altitudes ¹	F.14			
Gas Constants ¹	F.14			
Gas Velocity	F.14			
Materials				
Specification of pipe & Fittings ¹	F.15			
Proposed jointing system ¹	F.16			
Service Information				
Service routes	F.17			
Termination position(s)	F.18			
Emergency Control Valve	F.19			
Positions for Service Isolation Valves	F.20			
Positioning of services governors	F.21			
Meter Housing Ventilation Details	F.22			
Standards Quoted ¹	F.23			

IF THE UIP IS REGISTERED FOR DESIGN UNDER THE GIRS SCHEME FOR DESIGN THEN ITEMS MARKED ¹ ARE NOT REQUIRED
 IF THE UIP IS REGISTERED FOR CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) UNDER THE GIRS SCHEME THEN ITEMS
 MARKED ² ARE NOT REQUIRED.

WHERE A UIP DOES NOT HOLD A COMBINED DESIGN AND CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) GIRS
 REGISTRATION THE UIP MUST BE GIRS REGISTERED FOR PROJECT MANAGEMENT AND USE GIRS REGISTERED SUB-CONTRACTORS,
 OTHERWISE ALL ITEMS RELATING TO THE SUB-CONTRACTED ACTIVITY, DESIGN ¹ OR CONSTRUCTION/COMMISSIONING/CONNECTIONS
 (ROUTINE) ² INDICATED ABOVE ARE REQUIRED FROM THE UIP

				PAGE 2 OF 4
TASK	NOTE	ACCEP -TABLE Y,N,N/A	ACTIONS / COMMENTS	CHECKED BY
MAINS INFORMATION				
Mains route	F.24			
Risk Assessments ¹	F.25			
Are special crossings involved	F.26			
Have necessary Easement applications been made?	F.27			
Standards Quoted ¹	F.30			
MP/IP Supplies (PRIs)				
Capacity of Regulator/Governor	F.31			
Velocity	F.32			
Settings of Safety Devices	F.33			
Zone Classification	F.34			
Housing	F.35			
Corrosion protection	F.36			
Standards Quoted ¹	F.37			
Construction Requirements				
Operator Competence ²	F.38		Competent/NOT Competent	
Construction Method Statements	F.39			
Risk assessments ²	F.40			
Quality control of Materials ²	F.41			
Procedure for defective materials ²	F.42			
Site Investigation ²	F.43			
Excavation ²	F.44			
Working in vicinity of gas mains ²	F.45			
Procedure for damage and/or gas escapes ²	F.46			
Pipelaying ²	F.47			
Pipe jointing including Quality Control ²	F.48			
Pipe protection including corrosion control. ²	F.49			
Backfilling ²	F.50			
Reinstatement ²	F.51			
Calibration of testing machines ²	F.52			
Pressure testing ²	F.53			
Installation of PRI's ²	F.54			
Details of IGE/GL/5 Procedure	F.55			
Details of Construction (Design and Management) Regulations 2007	F.56			
Details of Environmental Study	F.57			

IF THE UIP IS REGISTERED FOR DESIGN UNDER THE GIRS SCHEME FOR DESIGN THEN ITEMS MARKED ¹ ARE NOT REQUIRED
 IF THE UIP IS REGISTERED FOR CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) UNDER THE GIRS SCHEME THEN ITEMS MARKED ² ARE NOT REQUIRED.

WHERE A UIP DOES NOT HOLD A COMBINED DESIGN AND CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) GIRS REGISTRATION THE UIP MUST BE GIRS REGISTERED FOR PROJECT MANAGEMENT AND USE GIRS REGISTERED SUB-CONTRACTORS, OTHERWISE ALL ITEMS RELATING TO THE SUB-CONTRACTED ACTIVITY, DESIGN ¹ OR CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) ² INDICATED ABOVE, ARE REQUIRED FROM THE UIP

				PAGE 3 OF 4
TASK	NOTE	ACCEP -TABLE Y,N,N/A	ACTIONS / COMMENTS	CHECKED BY
Quality Assurance				
Are the following provided and acceptable				
Company Policy on Quality i.e. ISO 9000 ²	F.58			
Competency of persons responsible for QA ²	F.59			
Audit Process ²	F.60			
Procedure for control of critical phases of construction ²	F.61			
Procedure for Auditing of Equipment ²	F.62			
Procedure for Material storage, quality and conformity checks ²	F.63			
Procedure for the control of deviations/variations from validated design ²	F.64			
Procedure for conformity of PRI's and housing ²	F.65			
Safety Requirements				
Company Health & Safety Policy ²	F.66			
Management structure for dealing with technical & safety issues ²	F.67			
Roles & Responsibilities of Consultants or Contractors ²	F.68			
Procedure for working near to gas mains ²	F.69			
Procedure for actions to be taken in the event of a gas escape and/or damage ²	F.70			
Procedure for testing & purging ²	F.71			

IF THE UIP IS REGISTERED UNDER THE GIRS SCHEME FOR CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) THEN ITEMS MARKED ² ARE NOT REQUIRED.

WHERE A UIP DOES NOT HOLD A COMBINED DESIGN AND CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) GIRS REGISTRATION THE UIP MUST BE GIRS REGISTERED FOR PROJECT MANAGEMENT AND USE GIRS REGISTERED SUB-CONTRACTORS, OTHERWISE ALL ITEMS RELATING TO THE SUB-CONTRACTED ACTIVITY, DESIGN ¹ OR CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) ² INDICATED ABOVE, ARE REQUIRED FROM THE UIP

				PAGE 4 OF 4
TASK	NOTE	ACCEP -TABLE Y,N,N/A	ACTIONS / COMMENTS	CHECKED BY
Certification File				
The following must be provided	F.72			
Records of delivery, consignment and compliance of materials ²	F.73			
Easement Agreement or Form of consent	F.74			
Planning Permission (excluding below ground pipes)	F.75			
NRSWA Notices	F.76			
Consumer Permission Letter	F.77			
Certification of Transfer Rights	F.78			
Quality control records ²	F.79			
Variations	F.80			
Butt Fusion Printouts ²	F.81			
Records of compliance with method ² statements and site personnel	F.82			
Certification of Customer Works	F.83			
Draft 'as laid' drawings	F.84			
GL5 Documents (if applicable)	F.85			
Completed test certificate	F.86			
Meter Point Reference Number	F.87			
Completion File				
The following should be provided				
As Laid Drawings	F.88			
Correspondence File	F.89			
Valve Sketches and Records	F.90			
Cathodic Protection	F.91			
NRSWA Notices	F.92			
Test Certificate	F.93			
Meter Point Reference Number	F.94			

ACCEPTED OR REJECTED (DELETE AS APPROPRIATE)			DATE
PRINT NAME	TITLE	SIGNATURE	

IF THE UIP IS REGISTERED UNDER THE GIRS SCHEME FOR CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) THEN ITEMS MARKED ² ARE NOT REQUIRED.

WHERE A UIP DOES NOT HOLD A COMBINED DESIGN AND CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) GIRS REGISTRATION THE UIP MUST BE GIRS REGISTERED FOR PROJECT MANAGEMENT AND USE GIRS REGISTERED SUB-CONTRACTORS, OTHERWISE ALL ITEMS RELATING TO THE SUB-CONTRACTED ACTIVITY, DESIGN ¹ OR CONSTRUCTION/COMMISSIONING/CONNECTIONS (ROUTINE) ² INDICATED ABOVE, ARE REQUIRED FROM THE UIP

Supporting Notes for Appendix F

The UIP submission must contain either job specific details, and/or must make reference to UIP registration scheme (GIRS). The UIP submission must be checked in accordance with the checklist to ensure acceptability of the detailed design prior to authorisation under the relevant CPQMS process. Each item must be checked for acceptability in accordance with the following notes and a Y, N or N/A recorded next to each item, any comments plus the initials of the person carrying out the checking. The checklist must be retained in the NGN record file. Where a UIP is accredited with the Gas Industry Registration Scheme (GIRS) for Design and/or Construction/Commissioning/Connections (Routine) generic items do not need to be submitted for validation. These items are identified in appendix E by superscript and shading i.e. ¹ or ². Where a UIP does not hold a combined Design and Construction/Commissioning/Connections (Routine) GIRS accreditation, the UIP must be GIRS accredited for Project Management and use GIRS accredited sub-contractors, otherwise all items relating to the sub-contracted activity, Design ¹ or Construction/Commissioning/Connections (Routine) ² are required in the UIP_submission.

Where job specific submissions are received from NON GIRS registered companies these must be fully assessed for compliance with the required standards and the following criteria and a record made of the outcome using the checklist.

Note

- F.1 Evidence of competency must be provided for the system designer. This should be achieved by an appropriate combination of education, training and practical experience relating to the design activity being undertaken. Formal qualifications should include being a member of an appropriate Institution at Incorporated Engineer or higher grade. i.e. IGEM
- F.2 The location plan should be the same as submitted at the preliminary stage.
- F.3 More detailed information relating to the site layout is required for multi-occupancy developments, along with details of the individual customer loads. The detailed site plan should be at a scale between 1:1250 and 1:50.
- F.4 The pipe sizes should be identified in a table, or on the plan. Lengths should also be identified and a sample check of the pipe lengths carried out.
- F.5 Check all nodes are numbered and there are no duplicate node numbers.
- F.6 Check the details of the individual customers as described at the outline design and quotation request stage, including any non-standard consumption patterns. It should be possible to identify the individual properties against a node.
- F.7 Check diversity calculation as described at the outline design and quotation request stage.
- F.8 Sufficient information should be available to determine if the loads quoted at each node are the diversified or un-diversified loads.
- F.9 Details of the phasing of the development and thus the phasing of the demand should be included in the submission.
- F.10 The UIP must have been informed of the design pressure to be used in a mains design or have derived the pressure from the appropriate table in NGN/SP/NP/14. The appropriate use of this design pressure must be checked.

- F.11 The UIP must have been informed of the design minimum pressure to be used in a mains design. The appropriate use of this design pressure must be checked.
- F.12 For services the use of the appropriate pressure drop must be checked. These should be in accordance with the relevant procedure. If a pressure drop greater than 2 mbar is appropriate, NGN must have previously agreed the pressure drop to be used.
- F.13 The following tools are considered suitable for design analysis: -
- SNAP
 - GBNA

These programs use the smooth pipe law. Where alternative programs are used a comparison should be performed with the designs given by the Service Design Calculator or a full SNAP run to assess the suitability of the mains design.

- F.14 Checks must be made that the original supplied parameters have been used within the detailed design. Where SNAP is used reference should be made to the following documents for details of: -
- the typical pipe diameters – NGN/PM/NP/9
 - the efficiency factors – NGN/PM/NP/9
 - the requirements for the use of altitude – NGN/SP/NP/14
 - the gas constants, (as provided in original parameters) – NGN/PL/NP/16
 - Velocity as per IGEM/TD/3 & IGEM/TD/4

Where non-standard parameters are used, or other design packages, further guidance should be sought from Third Party Connections.

The name and signature of the designer must be included.

- F.15 The UIP should use the pipe sizes and fittings as per GIS/PL2 Parts 1 to 8 and GIS/PL3.
- F.16 The pipe jointing system should be included i.e. Butt or electrofusion.
- F.17 The proposed service route should be clearly indicated on the site layout plan in a different colour to the mains. The route of the service and the number of consumers fed should conform to the requirements of a service as defined in NGN/SP/NP/10 - Specification for Defining pipes as Mains, Services or Risers.
- F.18 Does the service termination position and meter position conform to the Gas Safety Management Regulations 1996?
- F.19 Are Emergency Valves installed in accordance with the required standards i.e. IGEM/TD/4?
- F.20 Are Service Isolation Valves installed in accordance with the required standards i.e. IGEM/TD/4
- F.21 When a design with individual MP/IP services is proposed, it is necessary to assess the location of the individual service governors. They should be assessed for proximity to buildings and susceptibility to traffic damage as per IGEM Standard (IGEM/TD/3, TD/4, TD/13 etc).

- F.22 Does the meter compartment and its ventilation details conform to the Gas Safety Management Regulations 1996, IGEM/G/5, IGEM/GM/6, 7 or 8 as appropriate
- F.23 To what standard is the service(s) designed, i.e. IGEM/TD/4.
- F.24 The proposed mains route should be clearly indicated on the site layout plan. The route of the service and the number of consumers fed should conform to the requirements of a service as defined in the NGN/SP/NP/10. The proximity of the pipes to buildings should be according to IGEM/TD/3 and must be checked to ensure proximity guidelines are not breached.
- F.25 The risk assessment should cover the following: -
- Pressure regime
 - Pipe material
 - Depth
 - Jointing method
 - Proximity

These should be confirmed in the UIP submission.

- F.26 Where there is a likelihood of damage to the pipe (e.g. an above ground crossing) then steel pipe should be used either to carry a polyethylene pipe or as the gas pipe. This pipe should be wrapped and be cathodically protected. Mechanical design details should be provided with the UIP submission. This should include details of the pipe and its supports, together with any cathodic protection.
- F.27 Details of any legal permission to lay pipe systems (e.g. easements, consents to lay) must be provided. The UIP must use the NGN Terms and Conditions for easements. Blank documents should be provided on request to the UIP by the NGN Network for use in negotiation. If the UIP has confirmed to NGN they are negotiating with a specific individual or company for an easement, the processing of the request should continue. If there are no details of an easement and it is thought that an easement is required then NGN must write to the UIP advising them "NGN believes an easement is required on this development as the route of the proposed pipes would appear to pass through the property of a third party".
- F.30 Mains should be designed to IGEM/TD/3.
- F.31 Details of the flow capacity available at the maximum inlet pressure or other pressures specified by NGN and the maximum outlet pressure.
- F.32 The gas velocity at the inlet and outlet flange should be stated.

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- F.33 The predicted settings for the safety devices (if fitted), control accuracy and lock up pressure should be stated.
- F.34 Details of any electronic/electrical equipment to be fitted, including the Zone classification must be recorded
- F.35 The type of housing, for example 'glass reinforced plastic free standing supplied on concrete base', the number of access doors, amount of ventilation and type of explosion relief must be recorded.
- F.36 The corrosion protection procedure, for example the surface preparation method and number of coats of paint applied to the components, must be recorded.
- F.37 Description of the main components together with evidence of compliance with an appropriate standard i.e. IGEM/TD/13
- F.38 Evidence must be provided that all persons engaged in the construction of gas distribution systems are competent for the tasks that they are required to undertake. This should be achieved by an appropriate combination of education, training and practical experience relating to the activity undertaken. The Engineer responsible for the works must be experienced in the proposed works and have relevant formal qualifications. Formal qualifications should include Incorporated Engineer or higher and be registered with an appropriate Institution i.e. IGEM. All First Line managers must have the technical knowledge and experience of the work proposed. All Operative Team leaders must hold the relevant mains and service laying qualifications as appropriate and have experience in constructing distribution networks similar to the task to be undertaken.
- F.39 All method statements must contain sufficient information to enable the works be carried out in a safe and competent manner.
- F.40 A full risk assessment of the hazards expected during the Construction/Commissioning must be provided
- F.41 Details must be provided to ensure that all materials used by the UIP have met the correct quality.
- F.42 This must contain detailed requirements on the procedure to be followed when defective materials are identified.
- F.43 Included within this statement must be the methods and the precautions taken whilst carrying out a site survey.
- F.44 Detailed requirements must include all aspects of safe digging practices including mechanical and hand excavation
- F.45 Safety precautions must include the requirements of the GT and the actions to be taken to avoid damage to gas mains
- F.46 It is a requirement that the UIP includes a copy of the NGN/PM/EM71 Supplement - NGNs Gas Escape Procedure.

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- F.47 This must include details on the bedding and surround of the pipe system.
- F.48 This must include the methods to be used for pipe jointing and would normally consist of the parameters to be used for butt and electrofusion jointing for PE pipe. If steel pipe is proposed welding procedures are required.
- F.49 Details must be provided of any corrosion protection for metallic pipe systems and must include all proposed preparation and wrapping and cathodic protection systems.
- F.50 This must conform to NRSWA requirements.
- F.51 This must conform to TMA requirements.
- F.52 Must specify the type and range of the pressure test instruments and include sample calibration certificates.
- F.53 Must include all the safety aspects necessary when pressure testing.
- F.54 Must include all installation requirements including testing and commissioning.
- F.55 If the system is to operate above 2bar then the IGEM/GL/5 procedure must be completed using independent competent assessors.
- F.56 If the works are to be carried out under Construction (Design and Management) Regulations 2015, full details must be included.
- F.57 If an environmental study has been carried out, a copy of the report must be included.
- F.58 A copy of the UIP's ISO9000 certificate or Quality Policy must be included.
- F.59 A qualified person must be nominated for Quality Assurance responsibilities. Evidence of competency must be provided. This should be achieved by an appropriate combination of education, training and practical experience relating to the design activity being undertaken. Formal qualifications should include being a member of an appropriate Institution at Incorporated Engineer or higher grade.
- F.60 Details are required of the audit process for quality control.
- F.61 The milestones during the construction process must be highlighted.
- F.62 All critically important equipment must be subjected to regular maintenance and checking.
- F.63 Detailed procedures must be included for material storage, quality and conformity.
- F.64 The monitoring and submitting of deviations and variations from the validated design must include the company's procedure and the authorisation of any submissions.
- F.65 If PRIs are proposed the Quality Control procedure must be provided.

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- F.66 The UIP must provide a Company Health & Safety policy including management structure and responsibilities.
- F.67 The UIP must include Company management structure and personnel responsible for technical and safety issues.
- F.68 If Consultants or Contractors are used then their roles, competencies & responsibilities must be clearly defined.
- F.69 The UIP must submit their procedures for working near to live gas mains.
- F.70 The UIP must submit their procedures to be taken in the event of a gas escape or damage.
- F.71 A full procedure for pressure testing and purging must be included.
- F.72 Complete documentation (except test certificate) must be provided before connection is authorised as follows – Up to 75mbar D-3, 2-7bar D-5 (D = planned date of connection).
- F.73 Copies of Material order and delivery tickets to be included. This exclusion only applies to projects < 2bar.
- F.74 Where applicable, completed and signed copies of all Easements, Wayleaves or Forms of Consent must be included.
- F.75 Where applicable, copies of any Planning permission (excluding below ground pipes) must be included.
- F.76 Where applicable all NRSWA notices must be included.
- F.77 The consumer's permission letter must be included.
- F.78 The Certificate of transfer rights must be included.
- F.79 All quality control records from site audits must be included.
- F.80 All variations are to be included and dealt with as per IGEM/TD/101, Section 8 using the form as per Appendix 5
- F.81 Where applicable all Butt fusion printouts to be included
- F.82 All records of compliance with methods statements and qualifications of personnel must be included
- F.83 The Customer certification must be included
- F.84 Draft 'as-laid' drawings must be included
- F.85 Where applicable IGEM/GL/5 documentation must be included and verified that the process has been correctly applied.
- F.86 A correctly completed pressure test certificate must be available on the day of the connection prior to the connection occurring, and must be included in the completion file.

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- F.87 If the project involves the laying of services, all the Meter Point Reference Numbers must be included
- F.88 The correctly completed 'as-laid' drawings must be available within 5 working days of the date of substantial completion. Records must be provided in accordance with NGN/PM/DR/8.
- F.89 A completed correspondence file must be included
- F.90 Completed Valve sketches and records must be included.
- F.91 Where applicable cathodic protection records must be included.
- F.92 Copies of all NRSWA notices (including all information returned to the Local Authority) to be included
- F.93 Completed test certificate, including the signature of the competent person responsible for the test must be included.
- F.94 If the project involves the laying of services, all the Meter Point Reference Numbers must be included and cross-checked against those supplied within the Certification File.

APPENDIX G

DETAILED ASSESSMENT UIP SUBMISSION CHECK LIST – SERVICE ALTERATIONS / DISCONNECTIONS

DETAILED ASSESSMENT OF UIP SUBMISSION				PAGE 1 OF 3
CHECK LIST	Site			
	Site Reference No.			
TASK	NOTE	ACCEP-TABLE Y,N,N/A	ACTIONS / COMMENTS	CHECKED BY
Name of Designer				
Site Plans				
A location plan (D)	F.2			
Detailed Site Plan (D)	F.3			
Pipe sizes/lengths identified (D)	G.12 G.13			
Nodes marked and numbered on plan	F.5			
Demand Details				
	G.4			
Details of individual customer loads	F.6			
Details of diversity assumptions	F.7			
Nodes /Demand Assignment	F.8			
Phasing of Demands	F.9			
Pressures				
Correct source pressure used	G.5			
Correct design Min Pressure used	F.11			
Pressure Drop	F.12			
Design Program				
Design Statement	G.8			
Gas Velocity	F.14			
Service Information				
Pipe size of existing service (D)	G.1			
Service routes	G.2			
Termination position(s) (D)	F.18			
Emergency Control Valve (D)	G.3			
Positions For Service Isolation Valves	F.20			
Positioning of services governors (D)	F.21			
Meter Housing Ventilation Details	F.22			

NOTE: (D) Disconnection design submissions only the items marked (D) are required.

				PAGE 2 OF 3
TASK	NOTE	ACCEP -TABLE Y,N,N/A	ACTIONS / COMMENTS	CHECKED BY
MP/IP Supplies (PRIs)				
Capacity of Regulator/Governor	F.31			
Velocity	F.32			
Settings of safety Devices	F.33			
Zone Classification	F.34			
Housing	F.35			
Corrosion protection	F.36			
Construction Requirements				
Method Statement (D)	G.9			
Routine operation (if applicable) (D)	G.10			
Non Routine operation (if applicable) (D)	G.11			
Details of IGE/GL/5 Procedure (D)	G.7			
Details of Construction (Design and Management) Regulations 2007 (D)	F.56			
Details of Environmental Study (D)	F.57			

NOTE: (D) Disconnection design submissions only the items marked (D) are required.

TASK	NOTE	ACCEP -TABLE Y,N,N/A	ACTIONS / COMMENTS	CHECKED BY
Certification File				
The following must be provided	G.15			
Records of delivery, consignment and compliance of materials	F.73			
Easement Agreement or Form of consent	G.16			
Planning Permission (excluding below ground pipes)	G.17			
NRSWA Notices	G.6			
Consumer Permission Letter	G.19			
Certification of Transfer Rights	G.20			
Variations	G.21			
Certification of Customer Works	G.26			
Draft 'as laid' drawings	G.27			
GL5 Documents (if applicable)	G.28			
Completed test certificate	G.25			
Meter Point Reference Number	G.29			
Completion File				
The following should be provided				
As Laid Drawings	G.27			
Correspondence File	F.89			
Records of compliance	G.22			
Valve Sketches and Records	G.23			
Cathodic Protection	G.24			
NRSWA Notices	G.18			
Test Certificate	G.25			
Meter Point Reference Number	G.29			

ACCEPTED OR REJECTED (DELETE AS APPROPRIATE)			DATE
PRINT NAME	TITLE	SIGNATURE	

Supporting Notes for Appendix G

The UIP submission will contain job specific details and must make reference to the UIP registration scheme (GIRS). The UIP submission must be checked in accordance with the checklist to ensure acceptability of the detailed design prior to authorisation under the relevant CPQMS process. Each item must be checked for acceptability in accordance with the following notes and a Y, N or N/A recorded next to each item, any comments plus the initials of the person carrying out the checking. The checklist must be retained in the NGN record file. The UIP must be accredited with the Gas Industry Registration Scheme (GIRS) for Design and/or Construction/Commissioning/Connections (Routine). Where a UIP does not hold a combined Design and Construction/Commissioning/ Connections (Routine) GIRS accreditation, the UIP must be GIRS accredited for Project Management and use GIRS accredited sub contractors.

Note: All aspects of the design shall be checked for compliance against NGN/PR/SER/9 – Service Alterations & Disconnections.

Note

- G.1 The UIP should have been supplied with the size of the service at the enquiry stage or obtained this information from site. This information should be recorded on the design submission.
- G.2 Any altered service pipe should meet current design requirements and be fit for purpose. If the new meter position requires additional pipe to be installed is the pressure drop from the main to the new meter position acceptable?
- G.3 The position of the ECV should be documented.
- G.4 The maximum gas demand on the service must be recorded.
- G.5 The gas pressure must be the same as that supplied at the enquiry stage.
- G.6 If appropriate, copies of all NRSWA notices to be included
- G.7 If the system is to operate above 2bar then the IGEM/GL/5 procedure must be completed using independent competent assessors.
- G.8 A design statement must be included and contain all aspects of the connection including connection type, size, location, pressure drop and materials to be used.
- G.9 A method statement is not required for the Alteration / Disconnection of ≤ 63 mm L.P services, however for pipe sizes and pressures outside of this range, a method statement must be included and contain sufficient detail to enable the works to be carried out in a safe and competent manner. The method statement must include the details of the materials and techniques to be used and must be validated for compliance with IGEM/TD/4.
- G.10 If the connection / disconnection is covered within NGN's Routine Operations as defined within NGN/PM/SCO/5 a method statement should be included. The method statement should contain sufficient detail to enable the works to be carried out in a safe and competent manner. The method statement must include the details of the materials and techniques to be used and must be validated for compliance with IGEM/TD/3 or 4. The Authorising Engineer and Competent Person must be registered under NGN/PM/SCO/1. Reference should be made to NGN/PM/SCO/5. Does the RO cover all aspects of the work including any contingency plans if the work does not proceed as per the written procedure? If acceptable, notify the UIP.
A copy must be kept in the project file for all Routine Operations.
- G.11 If the connection / disconnection is covered within NGN's Non Routine Operations as defined within NGN/PM/SCO/4 a detailed method statement should be included. The method statement should contain sufficient detail to enable the works to be carried out in a safe and competent manner. The method statement must include the details of the materials and techniques to be used and must be validated for compliance with IGEM/TD/3. The Authorising Engineer and Competent Person must be registered under NGN/PM/SCO/1.

Reference should be made to NGN/PR/SCO/4. Does the NRO cover all aspects of the work including any contingency plans if the work does not proceed as per the written procedure? If acceptable notify the UIP.

A copy must be kept in the project file for all Non Routine Operations.

- G.12 The UIP should have been supplied with the size of service at the enquiry stage and should be recorded
- G.13 The UIP should have been supplied with the size of main at the enquiry stage and should be recorded.
- G.15 Complete documentation (except test certificate) must be provided before connection is authorised as follows – Up to 75mbar D-3, 2-7bar D-5 (D = planned date of connection).
- G.16 Where applicable, completed and signed copies of all Easements, Wayleaves or forms of consent must be included.
- G.17 Where applicable, copies of any Planning permission (excluding below ground pipes) must be included
- G.18 Where applicable all NRSWA notices must be included.
- G.19 The consumer's permission letter must be included.
- G.20 The Certificate of transfer rights must be included.
- G.21 All variations are to be included and dealt with as per IGEM/TD/101, Section 8 using the form as per Appendix 5
- G.22 All records of compliance with methods statements and qualifications of personnel must be included
- G.23 Where applicable completed valve sketches and records must be included
- G.24 Where applicable, details must be provided of any corrosion protection for metallic pipe systems and must include all preparation and, wrapping and Cathodic Protection systems.
- G.25 Completed Test Certificate (excluding disconnections)/Record, including the signature of the competent person responsible for the test, must be included.
- G.26 The Customer certification must be included
- G.27 Completed as-laid drawings must be included within 5 working days of the date of substantial completion. Records must be provided in accordance with NGN/PM/DR/8.
- G.28 Where applicable IGEM/GL/5 documentation must be included and verified that the process has been correctly applied.
- G.29 Meter Point Reference Number must be included.

APPENDIX H

FINAL CONNECTIONS SUBMISSION CHECK LIST

ASSESSMENT OF CONNECTIONS SUBMISSION				PAGE 1
CHECK LIST	Site			
	Site Reference No.			
TASK	NOTE	ACCEP -TABLE (Y,N,N/A)	ACTIONS / COMMENTS	CHECKED BY
Certification file enclosed	H.1			
Is the pipe connection 63 mm diameter or below and L.P.	H.2			
Design Statement	H.3			
Routine Operations	H.4			
Is the connection covered under routine operations?	H.4			
Is the Competent Person and Authorising Engineer registered under SCO5	H.4			
Design Statement	H.3			
Method statement	H.4			
Routine Operation	H.4			
Non Routine Operations				
Is the Competent Person and Authorising Engineer registered under SCO4	H.4			
Design Statement	H.3			
Method Statement	H.5			
Non Routine Operation	H.5			
ACCEPTED OR REJECTED (DELETE AS APPROPRIATE)				DATE
PRINT NAME	TITLE		SIGNATURE	

Notes Appendix H

The UIP submission must contain job specific details and in all applications for UIPs to carry out live connections to mains, the submission must be fully assessed for compliance with the required standards or other criteria and a record made of the outcome using the checklist by a NGN competent person.

Organisations who wish to carry out the final connection (including service alterations/disconnections) to NGN's network must be accredited under GIRS for Design and Construction/Commissioning/Connections (Routine) for connections not covered by IGEM/GL/6 and additionally for the relevant Connections (Non Routine) scope for connections covered by IGEM/GL/6. Where a UIP does not hold a combined Design and Construction/Commissioning/Connections (Routine) GIRS registration the UIP must be registered for project management and use GIRS registered sub contractors. Organisations who do not meet these criteria must not be allowed to carry out the final connection, service alteration or service disconnection on the NGN network. If NGN are requested to connect the system then NGN should only adopt the network following receipt of a valid certification file.

Note

- H.1 The completed Certification File must be provided prior to the planned connection date. If not provided, the UIP should be notified not to proceed with the connection until NGN has received the file and validated its contents. Where a RO / NRO procedure is applicable, the Network Controller must also be notified of receipt or non-receipt of the Certification File.
- H.2 If the pipe connection is 63mm diameter or below and L.P. or M.P., a method statement is not required.
- H.3 A design statement must be included and contain all aspects of the final connection including connection type, size, location, pressure drop and materials to be used
- H.4 If the connection is covered within NGNs Routine Operations as defined within NGN/PR/SCO/5 a method statement should be included. The method statement should contain sufficient detail to enable the works to be carried out in a safe and competent manner. The method statement must include the details of the materials and techniques to be used and must be validated for compliance with IGEM/TD/3. The Authorising Engineer and Competent Person must be registered under NGN/PM/SCO/1. Reference should be made to NGN/PM/SCO/5. Does the RO cover all aspects of the work including any contingency plans if the work does not proceed as per the written procedure? If acceptable notify the UIP.
A copy must be kept in the project file for all Routine Operations.
- H.5 If the connection is covered within NGNs Non Routine Operations as defined within NGN/PM/SCO/4 a detailed method statement should be included. The method statement should contain sufficient detail to enable the works to be carried out in a safe and competent manner. The method statement must include the details of the materials and techniques to be used and must be validated for compliance with IGEM/TD/3. The Authorising Engineer and Competent Person must be registered under NGN/PM/SCO/1. Reference should be made to NGN/PM/SCO/4. Does the NRO cover all aspects of the work including any contingency plans if the work does not proceed as per the written procedure? If acceptable notify the UIP.
A copy must be kept in the project file for all Non Routine Operations.

APPENDIX I

LIST OF REFERENCES

This Procedure makes reference to the following documents (see clause 2).

STATUTES AND REGULATIONS

Construction (Design and Management) Regulations 2015

Gas Safety Management Regulations 1996

New Roads and Street Works Act 1991

Gas Act 1986 as amended 1995.

GAS INDUSTRY SPECIFICATIONS

GIS/PL2 Specification for polyethylene pipes and fittings for natural gas and suitable manufactured gas (Parts 1-8)

GIS/PL3 Specification for Self-Anchoring Mechanical Fittings for Polyethylene Pipe for Natural Gas and Suitable Manufactured Gas

NGN DOCUMENTS

NGN/PM/NP/3 Management Procedure for Network Analysis for Assessment of New Loads

NGN/PM/NP/9 Management Procedure for the Design and Assessment of System Extension, Including the Use of Standard Parameters Using the Small Network Analysis Programme (SNAP)

NGN/SP/NP/10 Specification for Defining Pipes as Mains, Services or Risers

NGN/SP/NP/14 Specification for the Design of System Extensions, Connections and Services to Below 7bar NGN systems.

NGN/PR/NP/16 Policy for Below 7 bar Network Analysis.

NGN/PR/SER/9 UIP's Requirements for Service Alterations and Disconnections

NGN/PM/EM71 Supplement Gas Escape Procedure

INSTITUTION OF GAS ENGINEERS AND MANAGERS RECOMMENDATIONS

IGEM/TD/3 Steel and PE pipelines for gas distribution

IGEM/TD/4 PE and steel gas services and service pipework

IGEM/TD/13 Pressure regulating installations for Natural Gas, Liquefied Petroleum Gas and Liquefied Petroleum Gas/Air

IGEM/TD/101 Adoption of pipe systems by a GT- management of UIP activities

IGEM/G/5 Gas in multi-occupancy buildings

IGEM/GL/5 Managing new works, modifications and repairs

IGEM/GL/6 Permitry for the safe flow of gas

IGEM/GM/6 Non-domestic meter installations. Standard designs

IGEM/GM/7A Electrical connections for gas metering equipment

IGEM/GM/7B Hazardous area classification for gas metring equipment

GAS INDUSTRY GUIDANCE

GIG/2 Accreditation of Utility Infrastructure Providers under the Gas Industry Registration Scheme

APPENDIX J

LIST OF ABBREVIATIONS AND DEFINITIONS

The following abbreviations and definitions are used in this document (see clause 3).

AE:	Authorising Engineer
CP:	Competent Person (See Appendix G)
CPQMS	Connections Policy Quality Management System
GBNA:	Graphic Based Network Analysis
GIRS:	Gas Industry Registration Scheme
GIRSO	Gas Industry Registration Scheme Operator
GT:	Gas Transporter
IGT	Independent Gas Transporter
NRO:	Non-Routine Operation
NRSA:	New Roads and Street Works Act 1991
PRI:	Pressure Reducing Installation
RE:	Responsible Engineer (See Appendix G)
RO:	Routine Operation
SCO:	Safe Control of Operations (See Appendix G)
SNAP:	Small Network Analysis Program
STC:	Safety and Technical Competencies
SWQR	Street Works Record Card
UIP:	Utility Infrastructure Provider

ENDNOTE**Comments**

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

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