Defence Infrastructure Organisation

Gas Safety Management Plan (Section A)

Yoxter CTC

23/04/2025

Produced to meet the requirements of the Gas Safety (Installation and Use) Regulations 1998

(Gas Safety Management Plan (Section C) relates to the requirements of LPG networks

ESTABLISHMENT KEY PERSONALITIES (GAS) CONTACTS

Role	Name	Tel No.	Email
Head of Establishment (CO/ HOE)	Neville Holmes MBE	01823 217930 or 07850 655017	wx-ce@rfca.mod.uk
Establishment SHEF	James Kenworthy	01823 792670 07850 024699	wx-som-cqm@rfca.org.uk
Establishment 4 C's Co-ordinator	Scott Bunker	07775 870683	wx-som-csa@rfca.org.uk
Senior DIO Estates Representative or equivalent	Mark Cubitt	07955 280440	wx-est-hd@rfca.mod.uk
DIO Estates Representative	Rory Simpson	07957 436139	wx-est-mgr1@rfca.mod.uk
Site Manager	Paul Wakeford	07356 101565	paul.wakeford@viviodefenc.com
Gas Safety Manager (GSM)	Justin Westcott	07793 222820	justin.westcott@vivodefence.com
Gas Responsible Person (GRP)	Ian Bradley	07793 222771	ian.bradley1@vivodefence.com

The Content of this Gas Safety Management Plan (GSMP) have been Approved by the Gas Safety Manager:

Signature: JP Westcott	**Date: 23/04/2025**

Authorisation for Implementation
The content and format of this GSMP has been agreed and authorised for implementation by Defence Infrastructure Organisation Technical Services Principal Gas Engineer (DIO TS PGE) and a unique reference number has been generated to support this.

Approved – J Obbard PGE – 18th Feb 2022

The Content of this GSMP have been agreed by the Senior DIO Estate Representative or Equivalent and future works following the findings will be supported:

Signature: *M Cubitt*	**Date: 29/04/2025**

The content of this GSMP have been agreed by the Head of Establishment and future works following the findings will be supported

Signature: *N Holmes*	**Date: 12/05/2025**

REVIEWS AND AMMENDMENTS

GSMPs are 'living documents' that should be subject to continual review and updating as required. Although the level of attention required will vary considerably depending on the size and complexity of each site, GSMPs should be reviewed at least once per quarter by the GRP, unless otherwise agreed by the PGE. Although it is likely that changes are not required at each review, the date of review and any changes made should be indicated on the tables below. The review of the GSMP will include a site visit to ensure that the site and the content of the GSMP remain valid. The reviews and amendments made will be deleted during the DIO TS three yearly review when the GSMP is re-authorised by the PGE.

Date	Page No.	Amendment
28/01/2022	All	Initial Development
05/05/2022	2	RFCA gas emergency helpdesk telephone number added
05/05/2022	8	Added Line Diagram Details
05/05/2022	11-12	Gas Line Drawings Added to Annexe
04/08/2022	ii & 1	Updated Key Personality & HoE Details
04/08/2022	8	Added Icon to Gas Line Drawings
21/02/2023	4,5,7,8,10, Annexes	Removed References to Buildings 4 & 6 After Trial Holes Confirmed No Gas to These Buildings
24/05/2023	N/A	No Amendments Required
18/08/2023	N/A	No Amendments Required
30/11/2023	ii & 1	Updated Key Personalities
30/11/2023	8 & Annexes	Added New Gas Layout Drawing
29/02/2024	ii & 1, 10	Updated Key Personalities. Added Plantroom SSOV.
15/05/2024	N/A	No Amendments Required
17/08/2024	ii, 1	Updated HoEstates & Estate Manager Details
18/10/2024		GSM re-authorisation (previously authorised 28/01/2022)
15/11/2024	N/A	No Amendments Required
19/02/2025	Various	Updated due to VIVO taking over Gas Management Contract.

Date	Reviewed by	Authorised by	Comments
28/01/2022	M Fenwick	N King	Initial Review
05/05/2022	M Fenwick	M Fenwick	Quarterly Review
04/08/2022	M Fenwick	M Fenwick	Quarterly Review
14/11/2022	M Fenwick	M Fenwick	Quarterly Review
21/02/2023	M Fenwick		Annual Review
24/05/2023	M Fenwick	M Fenwick	Quarterly Review
18/08/2023	M Fenwick	M Fenwick	Quarterly Review
30/11/2023	M Fenwick	M Fenwick	Quarterly Review
29/02/2024	M Fenwick		Annual Review
15/05/2024	M Fenwick	M Fenwick	Quarterly Review
17/08/2024	M Fenwick	M Fenwick	Quarterly Review
18/10/2024	Neville King	Neville King	GSM re-authorisation
15/11/2024	M Fenwick	M Fenwick	Quarterly Review
03/02/2025	M Fenwick	M Fenwick	DNV De-Mobilisation Review / Handover
19/02/2025	Ian Bradley	J Westcott	Initial review after site visit.
23/04/2025	J Westcott	J Westcott	Initial Review/Approval

FORWARD

MOD, as a gas conveyor within Great Britain, has submitted an Exemplar Gas Safety Case (MOD GSC) to demonstrate compliance with the Gas Safety (Management) Regulations 1996 (GS(M)R). Maintenance Management Organisations (MMO's) are engaged who have the overall contractual responsibility to operate and maintain the gas network assets under their Contract, including the management of the safe flow of gas within the system and the provision of an emergency service. The MOD delegate specific duties to the MMO but accountability for gas safety on each site rests with the Head of Establishment.

Whilst gas downstream of the Emergency Control Valve (ECV) fall outside of the scope of (GS(M)R) similar criteria as those referred to above must be accommodated within an appropriate management system. The specific criteria required to adequately manage gas infrastructure downstream of the ECV are described in the Gas Safety (Installation and Use) Regulations 1998 (GS(IU)R).

The MOD GSC considers all parts of the MOD estates gas supply system that forms part of the gas supply network. This includes all parts of the MOD gas network from the Bulk Primary Meter Installation to the individual gas appliances and the safe release of the products of combustion. The MOD GSC considers primarily those matters that relate to the management of the safe flow of gas within the system and the provision of an emergency service for all aspects of the gas system.

Following initial approval of the Gas Safety Management Plans (GSMPs) by the DIO Principal Gas Engineer (PGE), the Gas Safety Manager (GSM) is required to reapprove this GSMP annually. GSMPs must be submitted to DIO PGE every three years for authorisation.

GSMP Section A document contains site specific details of the establishments utilisation infrastructure to assist with measures to ensure compliance with the GS(IU)R for installation pipework and associated components.

GSMP Section B documents contain site specific details and arrangements as a direct annex to the MOD GSC in line with the Gas Safety (Management) Regulations 1996 (GS(M)R).

GSMP Section C document contains site specific details and requirements of the establishment's LPG networks.

Although the legal status of this document applies in the UK only, the MOD apply the same requirements to the management of gas on its overseas estate, in accordance with the currently published Secretary of State's Health and Safety policy statement.

Contents

1 THE DUTY HOLDER AND ESTABLISHMENT LEVEL KEY PERSONALITIES

1.1. Gas Safety Case Duty Holder.	
The duty holder for the MOD Gas Safety Case is the Permanent Under Secretary for Defence (PUS). However, day to day responsibility for the preparation and maintenance of the document is delegated to the DIO TS Head of Engineering and Construction, who also has the responsibility for managing the system in accordance with the Safety Case. PUS delegates maintenance responsibility to the Top-Level Budget Holders (TLB's), to manage safety of the gas network. The TLB's utilise MOD Contracts i.e. MMOs who have responsibility for maintaining the gas network on behalf of the MOD.	
Name: Address:	Permanent Under Secretary Main Building Horse Guards Parade Whitehall London SW1A 2HB

1.2. DIO Technical Services Principal Gas Engineer (PGE).	
The PGE assumes the role of Senior Authorising Authority which is a term used within the MOD to recognise the authority of the person responsible for overseeing the appointment of, and auditing Authorising Engineers (AEs). For Gas the AEs are replaced by Gas Safety Managers (GSMs).	
Name: Address: ☎: ✉:	Jeremy Obbard DIO HQ Whittington Barracks Lichfield WS14 9TJ 07748 903260 Jeremy.obbard100@mod.gov.uk

1.3. Establishment Personalities.		
Name of Establishment:	Yoxter CTC	
Establishment Address:	Yoxter CTC Priddy Somerset BA5 3BS	
Head of Establishment (HoE) (This is the most senior MOD person identified, by the chain of command, as responsible for the establishment. The HoE holds accountability for ensuring site compliance with the requirements of GSMR and the MOD GSC, including this GSMP.)	Name: Position: Organisation: Address: ☎: ✉:	Neville Holmes MBE Chief Executive Wessex Reserve Forces' and Cadets' Association Mount House Mount Street Taunton Somerset TA1 3QE 01823 217930 or 07850 655017 wx-ce@rfca.mod.uk

Senior DIO representative or equivalent (This may be the SEFM, but will vary depending on the contract this establishment falls under)	Name: Position: Organisation: Address: ☎: ✉:	Mark Cubitt Head of Estates Wessex Reserve Forces' & Cadets' Association Mount House Mount Street Taunton Somerset TA1 3QE 07955 280440 wx-est-hd@rfca.mod.uk

1.4. **Maintenance Management Organisation (MMO).**		
The MMO for this establishment is:		**VIVO Defence Services**
Gas Emergency Helpdesk (24 Hours)	Organisation: ☎: ✉:	VIVO Helpdesk 25 Goodlass Road Hunts Cross Liverpool L24 9HJ 0800 030 9320 helpdesk@vivodefence.com
Gas Safety Manager (GSM)	Name: Organisation: Address: ☎: ✉:	Justin Westcott VIVO Building 002, CTCRM Lympstone Nr Exmouth Devon, EX8 5AR 07793 222820 justin.westcott@vivodefence.com
Gas Responsible Person (GRP)	Name: Organisation: Address: ☎: ✉:	Ian Bradley VIVO Trenchard Lines, Upavon, Pewsey, Wiltshire. SN9 6BE 07793 222771 Ian.bradley1@vivodefence.com

1.5. Additional Gas Contacts.		
External Gas Distribution Network (EGDN)	Organisation: Address: ☎: ✉:	N/A
Gas Supplier	Organisation: Address: ☎: ✉:	N/A
LPG Supplier	Organisation: Address: ☎: ☎:	Calor Gas Ltd Athena House Athena Drive Tachbrook Pk Warwick CV34 6RL 03457 444 999 (emergencies) 0800 626 626 (general enquiries)
Meter Asset Manager (MAM)	Organisation: Address: ☎: ✉:	N/A
Calor Gas Emergency Centre (24 Hours)	☎:	03457 444 999

2 SITE SPECIFIC DETAILS

2.1 Site Overview. A brief description of the establishment and its current use. This should include how many separate sites are present and the number of buildings being supplied by gas.
Yoxter CTC is a single site establishment with 12 buildings on site, one of which is supplied by LPG. This building is supplied with LPG from the Low Pressure (LP) MoD Network. There is no Natural Gas on site and there are three 4600 litre bulk LPG vessels located within a compound on site. The Cadet Training Centre can be occupied by different Cadet detachments for training periods and is always available as a hired alternative venue for private functions, Building 3 which is supplied from the MoD network is used for heating, a drying room and hot water. There is also a live gas supply to the kitchen in which all the appliances are now electric. The MoD PE network was re-laid around 2016. Day to Day the site is generally unmanned but when used can accommodate up to 138 people.
2.2 Natural Gas. A brief description of the natural gas installations, including how many MOD networks are present, the number of buildings each MOD network supplies and how many buildings are supplied direct from the EGDN. This should also include any demarcations in place between stakeholders and responsibilities.
There is no Natural Gas on this establishment
2.3 LPG Gas. A brief description of the LPG installations, including how many compounds are at the establishment, condition and make up of each compound, the number and size (kg) of vessels in each compound, the number of LPG MOD networks, the number of buildings supplied from the LPG MOD networks, how many buildings are supplied direct and not from an LPG MOD network. Details of the LPG pipework after the first stage regulator up to the building(s). *Note: The demarcation agreement between the LPG supplier and the MOD has been agreed and the MOD take responsibility from the outlet of the first stage regulator. The LPG supplier is responsible for the vessel, vessel associated components (excluding any earth bonding) pipework up to and including the first stage regulator.*
Yoxter CTC has one LPG bulk storage compound on site which houses 3 in number 4600 litre LPG bulk vessels. The LPG bulk vessels are owned and maintained by Calor Gas. The LPG compound has 2 high walls opposite each other and 2 wire fence sections 1.8m high both with access gates. 2 x 9kg fire extinguisher are located inside of the compound. There is an appropriate signed area for the tanker deliveries and there are emergency signs located on two sides of the compound. The Bulk vessels supply the MoD Network with Low Pressure (LP) LPG nominally at 75 mbar. The LPG leaves the bulk vessels in vapour phase and runs through the 1st stage

regulator reducing pressure to 75mbar. The gas continues through the 2nd stage regulator to feed the MoD network at 75 mbar.

The MoD network serves a single building.

Building 3

From the MoD gas network the gas runs through a below ground SIV and into the 32mm PE building riser. The gas pipework transitions to 1" steel and continues through an MoD owned ECV and 3rd stage regulator reducing the gas pressure to 37 mbar.
On the outlet of the 3rd stage regulator valve the gas pipework increases to 2" steel and enters the plant room.
On entry to the plant room the gas passes through the AECV, an interlocking solenoid valve and a manual lever valve before transitioning to 50mm Mapress copper and feeding two LPG gas boilers.
There is also an isolated tee section within the plant room with a 40mm outlet. This feeds the kitchen. However, the kitchen now has electric appliances and this supply is no longer required.
The inlet pressure from the MoD network is 76.7 mbar (No test point available) and the outlet pressure for the installation is set at 37 mbar. The standing pressure was measured at 45.6 mbar

3rd Stage Regulator - Novacomet APS2000 - OPSO
3rd Stage Regulator – Novacomet BP2403 - OPSO
3rd Stage Regulator – Elster Jeavons J48 Reg

Appliances - Plant Room - Vaillant Ecotec Plus VU GB 1006/5-5 R4 Boiler
Vaillant Ecotec Plus VU GB 1006/5-5 R4 Boiler

There is no utilisation meter on this installation.
The total load on this installation is 205.6 KW.
There is steel and copper pipe within the installation.

In an LPG Emergency the Calor Gas Emergency Helpdesk Number is 03457 444 999 which the VIVO helpdesk will call

2.4 External Installation Pipework.

A brief description of the external installation pipework (above or below ground) on each building. This is from the ECV to where it enters the building(s), the material, diameter, lengths, supports, conditions etc.

From each tank isolation valve there is 1,5m of 10mm copper pipe before a further isolation valve. After the valves the 3 tanks join a common 3/4" painted steel pipe before Teeing off to a 1st Stage Regulator. A further section of 3/4" painted steel pipework before the 2nd Stage Regulator. The pipe the converts to 63mm PE gas pipe to leave the LPG compound underground for approximately 90m before reducing to 32mm prior to exiting at the building entry. The AECV is located at the building entry where the pipework increases to 2" galvanised steel to enter building.

2.5 Details of buildings served.

A list of the buildings being supplied by gas via an MOD network, LPG compound or directly from the EGDN and the usage of the gas (catering, hot water, heating, fire training, etc) at the building.

Ser	Building Number	Building description	Supplied by	Gas usage

1	Building 3	Kitchens, Drying Room, Dining Room	MoD Network	Heating, Hot water

2.6 Additional details of buildings being served.

Any additional detail about a building that may be required or useful in an emergency or requires more details than captured above.

NOTE: This section is to be used to capture the Service Family Accommodation (SFA) properties where it is not practical to fit above.

N/A

3 METER DETAILS

3.1 Primary Meter Details.

The following table describes the basic arrangement of the primary meter installation(s). (These are the responsibility of the MAM)

NOTE: More detail on the primary meters that supply MOD networks can be seen in the GSMP part B.

Number of primary meter installations: 0

Meter Name / ID	MPRN	Supplying (MOD network ID or Bldg number)	location	Incoming pressure tier – HP, IP, MP, LP	Outlet pipeline				Max Flow (M^3 hr)
					P tier – HP, IP, MP, LP	Pressure (mbar)	Material	Diameter (mm)	

3.2 Utilisation Meter Details. (meters supplied directly from the MOD gas network)

The following table describes the basic arrangement of the utilisation meter installation(s). (These are the responsibility of the MOD)

Number of utilisation meter installations: 0

Meter Name / ID	Being supplied from (MOD network ID)	Inlet pipeline				Outlet pipework				Max Flow (M^3 hr)
		P tier – HP, IP, MP, LP	Pressure (mbar)	Material	Diameter (mm)	P tier – HP, IP, MP, LP	Pressure (mbar)	Material	Diameter (mm)	
Unmetered Supply										
Building 3 – Not Metered	Network 001	LP	76.7	PE	25	LP	34.84	Steel	50	N/A

4 DIAGRAMS AND DRAWINGS

4.1 Line diagrams for building(s) internal gas installation pipework.

This section is to contain line diagrams for building internal installation pipework and associated components. This diagram should be fixed to the building at a practical and accessible location as well as within any associated document centres. It may be embedded as a PDF to this document for online use.

NOTE: Drawings are only required for commercial installations or for installation in commercial settings (non-domestic use). This may mean more installations than listed in IGEM/UP/2 Edition 3 (4.2.14), depending on the installations intended use.

Drawing Number	Building	Comments
SW-YOXTER CTC-GAS-SCH-001	N/A	LPG Installation

4.2 Additional drawings.

This section is to contain any additional drawings that may be required or may be of benefit to this GSMP or emergency procedures.

Drawing Number	Building	Comments

5 GAS INCIDENTS

5.1 Site reporting procedures for dealing with gas incidents.
This section is to contain the establishment's site-specific procedure for dealing with reports of gas incidents with regards the external installation pipework, internal installation pipework and equipment. Details of all individuals with responsibilities under this procedure should be included.

Procedure for an incident involving the External Installation Pipework on site:

- Call VIVO Helpdesk Team on **0800 030 0930** open 24 hours per day.
- Helpdesk will in turn will call National Grid **0800 111 999** to attend and make safe a gas incident.
- VIVO Helpdesk Team will send a text message to alert the Responsible Person Gas who should attend/discuss the incident with the Site Team/POC.
- Once the 1st Responders have attended and made safe, the Site Team should contact the VIVO Helpdesk and raise a job to repair the reported leak and get the gas reinstated.

- Out of hours is as above.

Procedure for an incident involving the Internal Installation Pipework on site:

- Call VIVO Helpdesk Team on **0800 030 9320** open 24 hours per day.
- Helpdesk will in turn will call National Grid **0800 111 999** to attend and make safe a gas incident.
- VIVO Helpdesk Team will send a text message to alert the Responsible Person Gas who should attend/discuss the incident with the Site Team/POC.
- Once the 1st Responders have attended and made safe, the Site Team should contact the VIVO Helpdesk and raise a job to repair the reported leak and get the gas reinstated.

- Out of hours is as above.

Procedure for Equipment Faults:

- Call VIVO Helpdesk Team on **0800 030 9320** open 24 hours per day.
- VIVO Helpdesk Team will raise a job for a contractor to attend, repair and reinstate the equipment.

- Out of hours is as above.

6 GAS EQUIPMENT

6.1 Equipment List.
This section is to include details of all the gas equipment being used at the establishment.

Building number	Equipment location	Equipment type (make, model)	Serial Number	Appliance kW rating	Flue classification	Comments
Building 3	Plant Room	Vaillant Ecotec Plus VU GB 1006/5-5 R4 Boiler	212035001001078 02010005223N6	102.8	Room Sealed	Heating Boiler 1
Building 3	Plant Room	Vaillant Ecotec Plus VU GB 1006/5-5 R4 Boiler	212035001001078 02010005224N2	102.8	Room Sealed	Heating Boiler 2

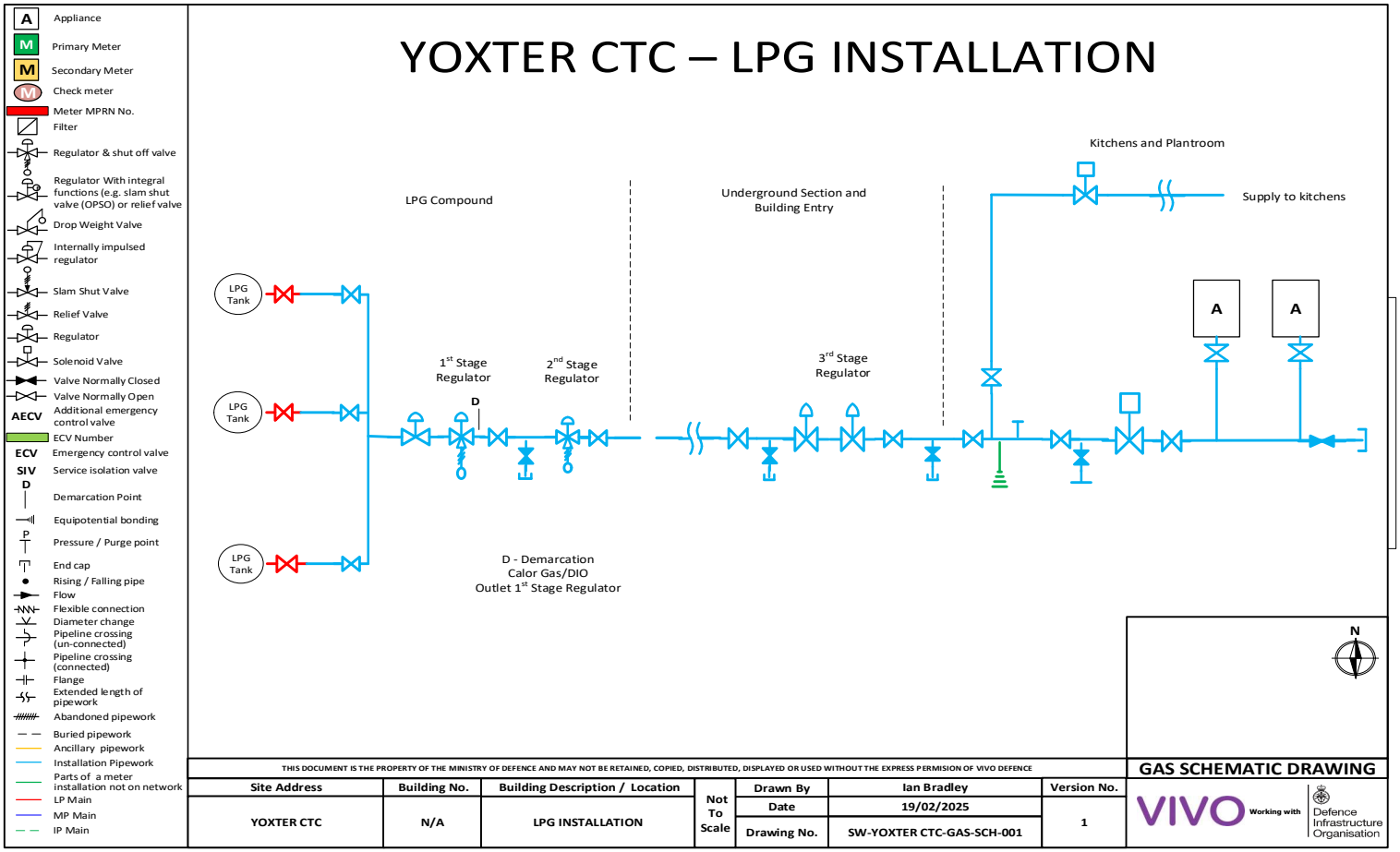
6.2 Additional equipment information.
This section is to contain any additional equipment information that may be required or may be of benefit to this GSMP or emergency procedures.

In-line interlocked solenoid observed in plant room, believed to be fire alarm linked, unable to validate and test but there appears to be a fire test by-pass switch fitted.

7 ANNEXES

Gas Line Drawings

LPG Installation



Site Gas Layout Drawing