Defence Infrastructure Organisation

Gas Safety Management Plan (Section A)

Millbay ARC RMR ACF ATC

17/04/2025

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

ESTABLISHMENT KEY PERSONALITIES (GAS) CONTACTS

Role	Name	Tel No.	Email
Head of Establishment	Lt Col Oliver Bevan	07802 881277	oliver.bevan144@mod.gov.uk
Establishment's SHEF	WO2 S Barnes AFPA 6 RIFLES	07946720697	Steve.barnes163@mod.gov.uk
Establishments 4C's Coordinator	CSjt Stu Morris QPSI D Coy 6 RIFLES	01872 272010 Ext 2003	Stuart.Morris782@mod.gov.uk
Senior DIO Estate Representative or Equivalent	Mark Cubitt	07955 280440	wx-est-hd@rfca.mod.uk
Site DIO Estate Representative or Equivalent	Kelvin Walker	07508 130359	wx-est-mgr2@rfca.mod.uk
MMO Site Manager or equivalent	Capt Mark Sainsbury PASO D Coy 6 RIFLES	07970 494723	david.sainsbury235@mod.gov.uk
Gas Safety Manager (GSM)	Justin Westcott	07793222820	Gas Safety Manager (GSM)
Gas Responsible Person (GRP)	Wayne Ashford	07483 929760	wayne.ashford1@vivodefence.com

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

Signature: JP Westcott **Date: 17/04/2025**

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: 28/04/2025**

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

Signature: O.Bevan **Date: 04/06/25**

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
15/10/2021	All	Initial Development
12/05/2022	2,3,10	RFCA gas emergency helpdesk telephone number added
12/05/2022	2	Updated Section 1.4
12/05/2022	3	Inserted New Gas Supplier Details & Changed MAM Details
12/05/2022	3	Updated Section 1.5 and gas emergency centre number
12/05/2022	*5*	Added *'interlocking'* solenoid reference to kitchen gas supply
12/05/2022	4,5,7	Added Single Supply Meters 001 and 002 as reference
12/05/2022	9	Added new emergency number to section 5.1
24/06/2022	8,11	Added CAD gas line drawing and details
06/08/2022	8	Added Gas Line Drawing Icon
11/11/2022	N/A	No Amendments Required
16/02/2023	N/A	No Amendments Required
10/05/2023	N/A	No Amendments Required
14/08/2023	N/A	No Amendments Required
21/11/2023	3	Updated National Grid to National Gas Details
29/02/2024	10	Added Comments on SSOV's
15/05/2024	N/A	No Amendments Required
09/08/2024	ii & 2	Added New HoE Details & Updated Estate Manager Details
18/10/2024		GSM re-authorisation (previously authorised 16/02/2023)
14/11/2024	N/A	No Amendments Required
15/04/2025		Amended all key personalities and changed DNV details to VIVO details

Date	Reviewed by	Authorised by	Comments
28/01/2022	M Fenwick	N King	Initial Review
12/05/2022	M Fenwick	M Fenwick	Quarterly Review
06/08/2022	M Fenwick	M Fenwick	Quarterly Review
11/11/2022	M Fenwick	M Fenwick	Quarterly Review
16/02/2023	M Fenwick	N King	Annual Review
10/05/2023	M Fenwick	M Fenwick	Quarterly Review
14/08/2023	M Fenwick	M Fenwick	Quarterly Review
21/11/2023	M Fenwick	M Fenwick	Quarterly Review
29/02/2024	M Fenwick	N King	Annual Review
15/05/2024	M Fenwick	M Fenwick	Quarterly Review
09/08/2024	M Fenwick	M Fenwick	Quarterly Review
18/10/2024	Neville King	Neville King	GSM re-authorisation
14/11/2024	M Fenwick	M Fenwick	Quarterly Review
28/01/2025	M Fenwick	M Fenwick	DNV De-Mobilisation Review / Handover
15/04/2025	W Ashford	J Westcott	Initial quarterly review
17/04/2025	J Westcott	J Westcott	Initial review and 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:	Millbay ARC RMR ACF ATC	
Establishment Address:	Millbay ARC RMR ACF ATC Plymouth Devon PL1 3BQ	
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: ☎: ✉:	Lt Col Oliver Bevan 6 RIFLES CO MOD BN HQ 6 RIFLES Block 7 Wyvern Bks Exeter Devon EX2 6AR 07802 881277 oliver.bevan144@mod.gov.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**
Gas Emergency Helpdesk (Typically, MMO Helpdesk) (24 Hours) **Note:** Please do not contact the general public National Gas Emergency Service for suspected gas escapes on RFCA infrastructure.	Organisation: ☎:	VIVO Helpdesk Helpdesk 25 Goodlass Road Hunts Cross Liverpool L24 9HJ 0800 030 9320
Gas Safety Manager (GSM)	Name: Organisation: Address: ☎: ✉:	Justin Westcott VIVO Bld 003 CTCRM Lympstone Nr Exmouth Devon EX8 5AR 07793222820 Justin.Westcott@vivodefence.com
Gas Responsible Person (GRP)	Name: Organisation: Address: ☎: ✉:	Wayne Ashford VIVO Building 147 Defence Munitions Ernesettle Lane Plymouth Devon PL5 2TX 07483929760 Wayne.ashford1@vivodefence.com

1.5. Additional Gas Contacts.		
Gas Supplier	Organisation: Address: ☎: ✉:	Totalenergies Gas & Power 55-57 High Street Redhill Surrey RH1 1RX 01737 275 746 gp.redhill.ccs@totalenergies.com
LPG Supplier	Organisation: Address: ☎: ✉:	Not Applicable, no bulk LPG on site.
Meter Asset Manager (MAM)	Organisation: Address: ☎: ✉:	National Gas Metering Pavilion Drive Witton Birmingham B6 7BB 08700 600 005 ic.faultymeters@nationalgrid .com
National Gas Emergency Centre (24 Hours)	☎:	0800 111 999

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.

Millbay ARC RMR ACF ATC is a single site establishment with 2 buildings on site and 1 building supplied by gas – the Main Building. This building is supplied with gas direct from the EGDN network at Low Pressure. On entry into the meter room and after the ECV the gas splits into 2 supplies and feeds 2 MAM owned and operated gas meters and regulators.
The reserve centre is occupied by D Company 6 Rifles, 300 Troop 131 Commando Squadron Royal Engineers, Devon ACF (Plymouth) B Company and 2309 (City of Plymouth) Squadron ATC.
The main building is used for office space, meeting/conference rooms, stores, catering, drills and a lounge/bar.
Day to Day there are around 10 people on site and there can be up to 100 people on site when there are functions, events or parades.

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.

Single Supply Meter 001 – Main Building

The main building is fed by a single low pressure natural gas supply from the EGDN network.
This feeds an individual regulated MAM owned and operated meter and regulator which supplies gas to the plant room, a water heater and the Galley with a total of 7 appliances at a nominal pressure of 21mbar.

Meter – BK - G25m, 40m3/hr, S/N – M040K03517 14 D6
MPRN – 3801903

The gas meter room is located just inside the entry to the basement area. The meter inlet supplied by the EGDN is 2” steel and the meter outlet pipework is 2” steel and transitions to 54mm copper before it exits the meter room at high level and travels at high level within the basement to a riser area. Before the riser area there is a tee section which supplies the plant room with 54mm copper. The outlet of the tee reduces to 42mm copper which runs to the riser area.

Plant Room – The gas pipe enters the plant room and continues in 54mm copper up to a manual isolating valve and solenoid and transitions to 54mm stainless steel mapress for 5 metres to the boilers. (2 x Remeha Quinta PRO 90 at 89.5 KW each).

The gas pipe continues up through the 1st floor within the riser to enter the loft area. The gas pipe runs through the loft area and there is a tee section which drops a reduced section of 28mm copper into the water heater cupboard on the 1st floor and continues on through the loft to drop a 35mm copper feed into the Galley.

Water Heater Cupboard – A 28mm copper supply enters the cupboard and reduces to 22mm copper for 6 metres to feed the water heater. (Andrews 40/61GB Water Heater at 19 KW)

Galley – A 35mm copper supply enters the Galley to a manual isolation valve and interlocking solenoid and continues through to 4 gas appliances.
(Moffat GT 46 Deep Fat Fryer 25 KW, Falcon G2532 Grill 6.65 KW, Falcon 6 Burner Range with Oven 45 KW, Falcon Solid Top with Oven 45 KW).

The total load on this meter is 319.65 KW.
There is a mix of steel, stainless steel and copper pipe within the installation.

Single Supply Meter 002 – Caretakers Flat

The Caretakers flat is fed by a single low pressure natural gas supply from the EGDN network.
This feeds an individual regulated MAM owned and operated meter and regulator which supplies gas to the Caretakers flat for heating and hot water via 1 appliance at a nominal pressure of 21 mbar.

Meter – BK - G25m, 40m3/hr, S/N – G4 A01122690701
MPRN – 4213842207

The gas meter room is located just inside the entry to the basement area. The meter inlet supplied by the EGDN is 1" steel and the meter outlet pipework is 3/4" steel and transitions to 22mm copper before it exits the meter room at high level and travels at high level within the basement to a riser area. The gas pipework for the Caretakers flat runs parallel with the main site gas pipework all the way up to the loft area. Within the loft area the gas pipe runs for 6 metres where it feeds a combi boiler within the loft that supplies the caretakers flat. (Baxi Platinum Combi 28 HE A 27.4 KW)

The total load on this meter is 27.4 KW.
There is a mix of steel and copper pipe within the installation.

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.

No LPG on this establishment

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.

There is no external installation pipework.

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	Main Building	Office space, meeting/conference rooms, stores, catering, drill hall, accommodation and a lounge/bar.	EGDN	Heating, Hot water, Catering

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: 2 (EGDN Single Supplies)

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)	
EGDN Single Supply 001	3801903	Main Building	Internal Meter Cupboard	LP	LP	21 (Nom)	Steel	50	40
EGDN Single Supply 002	4213842207	Main Building	Internal Meter Cupboard	LP	LP	21 (Nom)	Steel	25	6

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: N/A – No MoD Network on Site

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)	

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
WX55-A-A3	Main Building	Not to Scale Gas Line Drawing
		WX55-A-A3.pdf

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 gas installations on site:

- Call Vivo Helpdesk Team on **0800 030 9320** open 24 hours per day.
- The Helpdesk will in turn call National Grid **0800 111 999** to attend and make safe a gas incident.
- The Vivo Gas Responsible Person shall be informed immediately by the site personnel.

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
Main Building	Plant Room	Remeha Quinta PRO 90	1835520394520	89.5	Open Flue	
Main Building	Plant Room	Remeha Quinta PRO 90	1835520394520	89.5	Open Flue	
Main Building	Caretakers Flat	Baxi Platinum Combi 28 HE A	BNC091130014GC	27.4	Room Sealed	
Main Building	1st Floor Boiler Cupboard	Andrews 40/61GB Water Heater	BB 5861293	19	Open flue	
Main Building	Galley	Moffat GT 46 Deep Fat Fryer	303508	25	Flueless – Canopy Extract	
Main Building	Galley	Falcon G2532 Grill	F476739	6.65	Flueless – Canopy Extract	
Main Building	Galley	Falcon 6 Burner Range with Oven	No Data Plate	45	Flueless – Canopy Extract	
Main Building	Galley	Falcon Solid Top with Oven	No Data Plate	45	Flueless – Canopy Extract	

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.

Safety shut off valves are required to be frequently checked every year in accordance with CRFCA hard FM task list: 160418-GL-EST-Task2Ser9-GasApplianceandPipework
A list of the checks is captured below.

160418-GL-EST-Task 2Ser09-GasAppliance

Kitchen Canopy Gas Interlock installed in Main Building Kitchen, with SSOV and emergency stop button by exit door.
In-line solenoid observed in plant room, believed to be fire alarm linked, unable to validate and test.

7 ANNEXES

Gas Line Drawing