



**PWYLLGOR IECHYD A DIOGELWCH
HEALTH & SAFETY COMMITTEE**

DYDDIAD Y CYFARFOD: DATE OF MEETING:	08 January 2024
TEITL YR ADRODDIAD: TITLE OF REPORT:	Policy 434 Medical Gas Policy
CYFARWYDDWR ARWEINIOL: LEAD DIRECTOR:	Andrew Carruthers, Director of Operations
SWYDDOG ADRODD: REPORTING OFFICER:	Simon Chiffi, Head of Operations, Facilities

Pwrpas yr Adroddiad (dewiswch fel yn addas)

Purpose of the Report (select as appropriate)

Ar Gyfer Penderfyniad/For Decision

ADRODDIAD SCAA

SBAR REPORT

Sefyllfa / Situation

The Health and Safety Committee (HSC) is requested to approve Policy 434 Estates Medical Gas Policy. The report provides the required assurance that Policy 190 – Written Control Documentation (WCD) has been adhered to in the review of the above mentioned and therefore the document is in line with legislation/regulations, available evidence base and can be implemented within the Hywel Dda University Health Board (HDdUHB).

Cefndir / Background

1. Brief summary of the WCD

This policy clearly sets out instructions and expectations for management to fulfil its responsibilities to effectively manage Medical Gas and Pipeline Systems safety for HDdUHB.

2. Scope of the WCD:

This policy applies to all staff at all premises owned or occupied by HDdUHB*

(* where the responsibility for operational maintenance resides with the Health Board)

3. Reason(s) for reviewing the Policy:

This policy required updating as it had reached its two year review period, this has also provided an opportunity to ensure that the policy follows the new policy template and that any changes to the guidance and any supporting technical specifications are also reflected in the new document.

4. Aim(s) of the Policy:

A review of Policy 434 has been undertaken by the site Authorised Persons and Medical Gas and Pipeline Systems Safety Group (MGPSSG), ensuring the document is in line with Welsh Government strategy and current legal and other requirements.

4.1 Minor changes

The owning group for the Policy, the Medical Gas and Pipeline Systems Safety, have officially signed off the revised policy on the 1 November 2023 by submitting their comments. There have been only minor amendments made to the policy form.

4.1 Minor changes

- Job titles updated
- Hierarchy amended due to new job roles, Sub-Medical Gas Pipeline Sub-MGPSSG and Medical Gas Cylinder Group (MGCG) added.
- All standards updated to the present relevant standards.
- Suggestions from group members implemented.

Asesiad / Assessment

1. Equality Impact Assessment (EqIA):

A EqIA was sent to the Equality Diversity and Inclusion team, it was requested that all male and female pronouns be eliminated and replaced with gender neutral pronouns.

2. Privacy Impact Assessment: – Not Applicable for this document.

3. Evidence base:

The following reference sources have been used in the compilation of this revised Medical Gas Policy:

- Current WHTM 02-01 (Part A and B) guidance document for Medical Gas and Pipeline Systems Safety.
- Current Health and Safety Guidance.
- Review of policy content within the Medical Gas and Pipeline Systems Safety Group.

4. Compliance with Legislation/Regulations:

Full adherence with the content of this policy will demonstrate that as far as reasonably practicable the Health Board has complied with the necessary guidance documents such as Health and Safety Guidance (HSG) / Welsh Health Technical Memorandums (WHTM) for health care purposes

4.1. Interested Parties:

The Health and Safety Committee to which this document is tabled is the owning Committee for its approval. To support this approval, this policy has also been officially circulated to the members of the Medical Gas and Pipeline Systems Safety Group (MGPSSG) for prior consultation, this group also includes the Authorising Engineer (AE) for Medical Gas Safety at NHS Shared Services Partnership, Specialist Estate Services, (NWSSP-SES).

5. Consultation:

The document has been submitted for consultation with the HDdUHB Authorised Persons (AP) and MGPSSG between 17 October 2023 and 01 November 2023 and some comments were received and implemented with the group Chair granting approval on the 24 November 2023.

6. Implementation:

The policy will be made available to all staff within the Health Board via the intranet policy page.

7. Monitoring:

It is essential that continued monitoring is carried out to establish the effectiveness of this policy. The outcome of this monitoring will determine what measures are required in order to improve specific aspects of non-compliance or lack of adherence to the policy. Principally this will be the responsibility of the members of the Medical Gas and Pipeline Systems Safety Group to determine what actions will be necessary. This will then be further escalated to the Health and Safety Committee for future reporting when requested.

Argymhelliad / Recommendation

The Health and Safety Committee is asked to:

- Approve the revised Medical Gas Policy for the Health Board for a further three years.

Amcanion: (rhaid cwblhau)	
Objectives: (must be completed)	
Committee ToR Reference: Cyfeirnod Cylch Gorchwyl y Pwyllgor:	3.16 Approve organisational Health and Safety Policies, Procedures, Guidelines and Codes of Practice (policies within the scope of the Committee)
Cyfeirnod Cofrestr Risg Datix a Sgôr Cyfredol: Datix Risk Register Reference and Score:	Risks have been scored and identified on the Datix system. 1138 1132 1069 1057 1106
Galluogwyr Ansawdd: Enablers of Quality: Quality and Engagement Act (sharepoint.com)	Not Applicable
Parthau Ansawdd: Domains of Quality Quality and Engagement Act (sharepoint.com)	Not Applicable
Amcanion Strategol y BIP: UHB Strategic Objectives:	Not Applicable
Amcanion Cynllunio Planning Objectives	Not Applicable

Amcanion Llesiant BIP: UHB Well-being Objectives: Hyperlink to HDdUHB Well-being Objectives Annual Report 2021-2022	10. Not Applicable
---	--------------------

Gwybodaeth Ychwanegol: Further Information:	
Ar sail tystiolaeth: Evidence Base:	Not applicable
Rhestr Termiau: Glossary of Terms:	AE=Authorising Engineer AP=Authorised Person HDdUHB=Hywel Dda University Health Board HSC=Health & Safety Committee HSG=Health and Safety Guidance WHTM=Welsh Health Technical Memorandums NWSSP-SES=NHS Wales Shared Services Partnership – Specialist Estate Services MGCG= Medical Gas Cylinder Group MGPSSG= Medical Gas and Pipeline Systems Safety Group WCD=Written Control Documentation
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y Pwyllgor Ansawdd Iechyd a Diogelwch: Parties / Committees consulted prior to Health and Safety Committee:	Medical Gas and Pipeline Systems Safety Group

Effaith: (rhaid cwblhau) Impact: (must be completed)	
Ariannol / Gwerth am Arian: Financial / Service:	There may be financial implications if the issues identified require monetary rectification.
Ansawdd / Gofal Claf: Quality / Patient Care:	There is a positive impact on staff safety, health and wellbeing through compliance.
Gweithlu: Workforce:	Potential for adverse future staffing impacts if this legislation is not complied with as it relates to employee safety
Risg: Risk:	Risk to health and safety management
Cyfreithiol: Legal:	Potential for enforcement action including Improvement Notices/prosecutions and claims due to breaches in legislation.
Enw Da: Reputational:	Potential for enforcement action including Improvement Notices/prosecutions and claims due to breaches in legislation.
Gyfrinachedd: Privacy:	Not Applicable
Cydraddoldeb: Equality:	Has EqIA screening been undertaken? Yes as part of HB Electricity Policy.

Medical Gas Policy

Policy information

Policy number: 434

Classification:

Corporate

Supersedes:

V3

Version number:

V4

Date of Equality Impact Assessment:

16/11/2023

Approval information

Approved by:

Health and Safety Committee

Date of approval:

Enter approval date

Date made active:

Enter date made active (completion by policy team)

Review date:

10/01/2027

Summary of document:

The aim of this policy is to outline the necessary mandatory requirements for the management of Medical Gas Pipeline Systems (MGPS) installed within all HDdUHB's premises.

The purpose of this policy is to enable the HDdUHB to maintain a safe and consistent approach to the transportation, storage, setting to work and administration of medical gases and to provide assurance to the Board that a robust system is in place.

Scope:

This policy applies to staff involved with MGPS and related equipment as defined in Health Technical Memorandum (HTM) 02-01. It applies throughout the HDdUHB to all fixed medical gas pipeline and

manifold systems, liquid oxygen storage plant, medical vacuum systems and anaesthetic gas scavenging systems as well as to medical gas cylinders; their storage, transportation and setting to work.

To be read in conjunction with:

[144 – Operational Maintenance Policy](#) – opens in a new tab

[341 – Prescription and Administration of Emergency Oxygen in adults](#) – opens in a new tab

[242 – Fire Safety Policy](#) – opens in a new tab

[382 – Estates Ventilation Policy](#) – opens in a new tab

[232 - Manual handling Policy](#) – opens in a new tab

[010 – Health and Safety Policy](#) – opens in a new tab

[020 – Asbestos Policy](#) – opens in a new tab

[186 – Business Continuity Planning Policy](#) – opens in a new tab

Owning group:

Medical Gas and Pipeline Systems Safety Group (Chair – Head of Operational Facilities Management)
24/11/2023

Executive Director job title:

Andrew Carruthers Director of Operations

Reviews and updates:

- 1 New Policy
- 2 Full review
- 3 Revision of Policy – included additional references to section 10.24 for Covid-19 alerts.
- 4 Full review

Keywords

Maintenance, Oxygen, Medical Gas, Vacuum.

Glossary of terms

AE MGPS	Authorising Engineer Medical Gas Pipeline System
AP MGPS	Authorised Persons Medical Gas Pipeline System
AVSU	Area Valve System Unit
BLD	Board Level Director
BOC	British Oxygen
BS EN ISO	British Standard European Norm – International Standards Organisation
CAP/DPT	Capital Projects and Discretionary Project Teams
CEO	Chief Executive Officer
CP MGPS	Competent Persons Medical Gas Pipeline System
DDP	Deputy Designated Person
DNO	Designated Nurse Officer
DP	Designated Person
FST	Fire Safety Group
HBN	Health Building Note
HDdUHB	Hywel Dda University Health Board
HoO	Head of Operations
HSWA	Health and Safety at Work Act
HTM	Health Technical Memorandum
MGPS	Medical Gas and Pipeline Systems
MGCG	Medical Gas Cylinder Group
MGPSSG	Medical Gas and Pipeline Systems Safety Group
MHRA	Medicines & Healthcare Products Regulatory Agency
NHS	National Health Service
QC MGPS	Quality Controller Medical Gas Pipeline System
RIDDOR	Reporting of Injuries, Diseases and Dangerous Occurrences
Sub MGPSSG	Sub Medical Gas and Pipeline Systems Safety Group

Contents

Introduction	5
Scope	5
Aim	5
Objectives	6
Roles and Responsibilities	6
Employers Duties.....	6
Employees Duties.....	6
Responsibility.....	6
Chief Executive’s Responsibilities	7
Board Level Director (BLD) - Designated Person (DP)	7
Senior Estates Management – Deputy Designated Persons (DDP)	7
Head of Operational Services.....	7
Authorising Engineer (AE (MGPS))	7
Authorised Person (AP (MGPS))	8
Head of Engineering and Maintenance	10
Competent Person (CP (MGPS))	10
Quality Control pharmacist (QC (MGPS)).....	11
Hospital Pharmacy Department.....	12
Designated Nursing Officer (DNO)	12
Medical Gas And Pipeline Systems Safety Group (MGPSSG)	13
Sub Medical Gas and Pipeline Systems Safety Group	14
Medical Gas Cylinder Group.....	14
Hotel Services - Designated Porter(s)	14
Appointed Contractor (s).....	15
Capital Projects/Discretionary Project Team (CAP) / (DPT).....	15
Fire Safety Team (FST).....	16
Senior Nurse Manager/Assistant Director of Nursing.....	16
References.....	16
Appendix 1- Management & Control Hierarchy	18

Introduction

The Hywel Dda University Health Board, hereinafter referred to as the HDdUHB recognises its responsibility to implement in full, the safe management of the Medical Gases in accordance with the statutory requirements, current guidelines and best practice.

This policy and procedures document outlines the expectation of the HDdUHB for the standards to be provided by the organisation. It also sets out how the organisation will meet its statutory duties to its stakeholders and provide guidance to staff (both clinical and non-clinical) about how they should act in any given situations.

The Medical Gas Pipeline Systems (MGPS) provides a safe, convenient and cost-effective supply of medical gases to points where these gases can be used by clinical and nursing staff for patient care. This document sets out the system of control and assurance expected by the HDdUHB of its MGPS management. All users of the MGPS and those responsible for its management within the organisation are to adhere to this standard for any related activity.

Scope

The scope of this policy comprises of all the buildings currently owned or occupied (under a full maintenance lease or otherwise) by the HDdUHB. A full list of properties/buildings and status of occupation is available on request from the Health Board's Estates Department.

This policy is designed for the use of all staff involved with MGPS and related equipment as defined in Health Technical Memorandum (HTM) 02-01. It applies throughout the HDdUHB to all fixed medical gas pipeline and manifold systems, liquid oxygen storage plant, medical vacuum systems and anaesthetic gas scavenging systems as well as to medical gas cylinders (including that of Pathology and Dental Medical Gas requirements) their storage, transportation and use.

The management and responsibility of the MGPS infrastructure for the HDdUHB resides with the Estates department.

Equipment connected to the terminal units is not covered by this policy other than where its mode of use may affect system operation or safety. The user departments with support from the Clinical Engineering department are responsible for the specification, purchase, maintenance, and mode of use of any equipment connected to the MGPS (Appropriate consultation with the respective MGPS Authorised Person is required).

Aim

The aim of this policy is to empower a structured procedure and reporting process, for the management and control of the HDdUHB's medical gas infrastructure, in order to satisfy current legislation and guidance, such as Health Technical Memorandum 02-01 Medical Pipeline Systems – Operational Management (HTM) and other relevant Health Building Notes (HBN's). This will involve the continued

implementation and communication of a multi-disciplinary group to be known as the Medical Gas and Pipeline Systems Safety Group (MGPSSG) and all relevant participating stakeholders.

To achieve the aim of this policy and as required by Health Technical Memorandum best practice NHS engineering guidance 02-01 the HDdUHB will undertake to:

- Appointments must be made as set out by hierarchy in HTM 02-01
- Identify and assess sources of risk through effective management arrangements.
- Remove sources of risk whenever possible and only manage risk appropriately if it becomes the only option.
- Prepare appropriate written maintenance documentation for managing the medical infrastructure for minimising risk.
- Train staff to understand the risks and how to fulfil their roles and responsibilities as appropriate.
- Only use service providers that can demonstrate capability and competence.
- Maintain records in accordance with guidance of all training, policies, associated procedures, risk assessments and monitoring and testing.
- Regularly review performance and provide information to promote continued diligence on compliance.
- To enable standardisation in the provision of safe systems of work for patients, staff and public by defining training requirements and standardising the medical gas permit to work the system.
- To ensure that all HDdUHB employees understand their specific roles and responsibilities regarding medical gases.
- To ensure best practice is observed in the provision of medical gas services to the patient.
- Control, safe storage, transportation and use of Medical Gas Cylinders

Objectives

The objectives of this policy are to implement appropriate arrangements and management protocols, in order to ensure that the HDdUHB's medical gas infrastructure remains safe and fully functioning for the use of patient services.

Roles and Responsibilities

Employers Duties

The HDdUHB as employers have a general duty under The Health and Safety at Work etc. Act 1974 (HASWA), in particular Section 2, to ensure that, so far as is reasonably practicable, the health, safety and welfare of all their employees and others who may be affected by their undertaking e.g. Patients.

Employees Duties

Under Section 7 of the HSWA, employees have a duty to take reasonable care for their own health and safety and of others who may be affected by their acts or omissions at work. Section 7 also requires the employee's co-operation with their employer to enable the employer to comply with statutory duties for health and safety.

Responsibility

Responsibility for the effective implementation of this policy principally resides with a collection of staff as referred to in the management hierarchy diagram section.

Chief Executive's Responsibilities

The CEO has ultimate management accountability for this policy, including the allocation of resources and the appointment of key personnel. Day to day management and control of the MGPS infrastructure is delegated to the nominated Authorised Person's (AP's) MGPS and subsequent Competent Persons (CP's) MGPS employed by the organisation.

The CEO (or appointed deputy, e.g. designated person/deputy designated persons) will appoint in writing all APs after recommendation by the Authorising Engineer (AE) (defined below).

Board Level Director (BLD) - Designated Person (DP)

A board level director (BLD) responsible for Estates and Facilities Services will be assigned as the Designated Person (DP) with responsibilities for MGPS as defined under HTM 03-01 and is therefore responsible for ensuring that an appropriate Estates Structure has been formulated to professionally support and deliver the requirements of this policy. Furthermore, is required to communicate all relevant issues to the Board that may impact on the delivery and effectiveness of this policy. The BLD (or nominated deputy, i.e. DDP) is also expected to appoint in writing an Authorising Engineer (MGPS) for the HDUHB.

Senior Estates Management – Deputy Designated Persons (DDP)

The Director of Facilities, Estates & Capital Management (DFECM) and The Head of Operations (HoO) are collectively responsible within the estates department for ensuring that adequately trained resources and expertise is made available to formulate an estates structure.

They will also collectively act as Deputy Designated Persons (DDP) and are therefore responsible as directed by the DP for nominating in writing, Authorised Persons (AP's) whose duties will be to implement and manage the Health Board's Policy for MGPS Systems. This will be an official appointment of the APs in writing by the DDP following assessment and recommendation from the externally appointed Authorising Engineer for MGPS Services.

The operational estates structure must ensure that effective and robust safety management arrangements are in place in order to meet the legal requirements.

Head of Operational Services

The Head of Operational Services is responsible for the day-to-day management of all operational functions including the full integration of Hard and Soft FM services within their regions. They are fully responsible for the staff within their management control, including that of monitoring of competency levels and training requirements in order that staff can undertake their roles appropriately and effectively in accordance with published guidance.

Authorising Engineer (AE (MGPS))

The AE is an appropriately qualified engineer with a minimum of at least 5 years relevant professional experience, together with the aim of attending an accredited Authorising Engineer course and Authorised Person (MGPS) course within the last 3 years.

This person will have specialist knowledge of MGPS, in particular the MGPS for which an Authorised Person (MGPS) will assume responsibility on appointment. They act, and are employed, independently of organisations submitting potential Authorised Persons (MGPS) for assessment.

Duties and Responsibilities:

- To assess the suitability of prospective Authorised Persons, for appointment within the HDUHB.
- Reviewing the management systems of the MGPS, including the Permit to Work System annually.
- To hold summary details of plant pipeline and site records for each hospital within the organisation.
- Monitoring the implementation of the Operational Policy and Procedures.
- Recommending after satisfactory evaluation to the Chief Executive or their nominee.

Authorised Person (AP (MGPS))

The HDdUHB must be fully supported by trained and authorised staff, based at each of the acute hospital sites. This will ensure that operationally resources are available to cover core times (such as 8:00am to 4:00pm), as well as during on call arrangements. The HB must therefore ensure that there is a minimum of three nominated APs located at each of the acute sites.

One of the APs on each of the acute sites will be designated as the co-ordinating senior AP (CAP) for MGPS, as a consequence they will be the responsible officer for the day-to-day management of the MGPS and implementation of this policy for the sites they control. The decision to nominate the senior AP will rest with the Head of Maintenance and Engineering and/or the Head of Estates Risk & Compliance in consultation with the AE.

The AP Credentials

The AP (MGPS) is an appropriately qualified engineer to a minimum of HNC level or equivalent in an engineering discipline and at least 3 years relevant professional experience. They will also have successfully completed an accredited AP (MGPS) training course. In addition, will have been assessed as suitable by the AE and appointed in writing by the CEO (or appointed deputy).

A minimum of three APs (MGPS) is required at each acute site. The AP's (MGPS) are listed in the site operations folders at each acute site.

Each AP (MGPS) must have sufficient site knowledge and experience together with adequate resources, they are also responsible for the management / upkeep of the as-fitted drawings of the complete medical gas infrastructure, asset list of key infrastructure equipment, such as compressors, effective key registers, key safe procedures and the permit to work system (MGPS), etc. to manage the systems safely.

The AP (MGPS) is the primary lead in all matters relating to the MGPS. Specifically, their duties and responsibilities will include:

- The safe and efficient day-to-day management of the MGPS system, in accordance with the statutory requirements, current guidelines and best practice.

- To be responsible for the Permit to Work System, including the issue of Permits to Competent Persons (MGPS) for all servicing, repair, alteration and extension work carried out on the existing MGPS.
- To establish and maintain a Register of Competent Persons (MGPS) and Specialist Contractors after assessing their suitability for appointment by the HDdUHB.
- To annually review each Contractor's and Person's continued inclusion in the register. The register is to be retained at each acute site and managed by the AP.
- To be responsible for the supervision of work carried out by Competent Persons (MGPS), for the standard of that work and the documentation provided.
- To ensure that the Hospital's MGPS maintenance specification and schedule of equipment (including all plant, manifolds, pipework, valves, terminal units and alarm systems) are kept up to date.
- To ensure that appropriate safety warning signs are prominently displayed in accordance with current requirements, guidelines, best practice and to ensure these include emergency contact numbers appropriate to the area and MGPS installation.
- To ensure that all valves and AVSUs are correctly labelled and that any changes to departmental names, functions or details are recorded as soon as changes have taken place both on the valve/AVSU label and the corresponding as fitted drawings and valve charts.
- To liaise closely with Designated Medical/Nursing Officers, the Quality Controller (MGPS) and others, who need to be informed of any interruption or testing of the MGPS. This can be via the Medical Gas and Pipeline Systems Safety Group.
- To provide technical advice to those responsible for the purchase of any medical equipment that will be connected to the MGPS, in order to avoid problems with capacity and flow rates.
- In accordance with HDdUHB's policy on provision of services, to provide advice on the provision and/or replacement of MGPS central plant and associated systems (The Estates Department holds overall responsibility for the provision and maintenance of MGPS services within the HDUHB, key items of plant replacement will be raised at MGSG meetings.).
- To organise such training of Estates staff (and other staff if requested) and/or transfer of MGPS information as required.
- To prepare or commission compliance surveys of the MGPS and associated risk assessments. To propose remedial actions arising from such surveys and risk assessments. To monitor compliance and risks and repeat surveys and assessments as necessary. A summary of outstanding non-compliances is to be tabled at the Medical Gas and Pipeline Systems Safety Group Meetings.
- To appoint after due examination, hospital based Competent Persons (MGPS)
- To follow incident and accident DATIX reporting procedures as defined by any relevant NHS, MHRA and/or statutory guidance (RIDDDOR, Device Alerts, Hazard Notices etc.).
- With regard to work carried out under a permit to work, the AP (MGPS) will:
- Liaise with all other departments in sufficient time prior to work commencement, to establish temporary supply requirements and contingencies.
- Assess the Level of Hazard and prepare a suitable permit.
- Obtain permission from the Designated Nursing Officer or Designated Medical Officer for interruption to supplies/work on system.

- Explain the detail of work to the competent person.
- Affix “Do Not Use” or other prohibition notices/devices to affected terminal units.
- Supervise the isolation of the system or part that work is to be carried out on.
- Supervise the final connection and purging with working gas.
- Supervise appropriate engineering validation and verification tests.
- Witness QC identity and quality tests.
- Obtain acceptance for system re-instatement/completion of work.
- Remove “Do Not Use” or prohibition notices.
- Provide full tracing of pipework which must be completed prior to isolation.

Head of Engineering and Maintenance

Will have a strategic involvement within the Operational Management Structure to support and assist the HoO and relevant Site Operational Managers on legislation, governance and policy arrangements in order to achieve compliance as far as reasonably applicable.

This will also include the management of risk registers and the bidding of statutory capital funding to address actions.

Furthermore, they are required to make the necessary changes to these policies and working practices following any revisions in legislation and advise the operational management team of such changes.

Competent Person (CP (MGPS))

All Competent Persons (MGPS) are Craft Persons, either directly employed by the HDdUHB, or registered and employed by specialist contractors.

All CP’s (MGPS) directly employed by the HDdUHB shall have satisfactorily completed an appropriate training course and be sufficiently experienced and familiar with the MGPS before being appointed by the CAP or AP (MGPS) responsible for that particular site. Training and appointment should be refreshed as a minimum of every 3 years; however assessment and appointment may be dependent on MGPS activity.

All CP’s (MGPS) employed by specialist contractors shall have satisfactorily completed an appropriate training course and be sufficiently experienced and familiar with MGPS before being appointed by their line manager. Training and assessment shall be refreshed every 3 years. In addition, all contractors shall be evaluated and selected by the site Authorised Person (MGPS). They shall ensure that they are registered to BS EN ISO 9000:2001, BS EN ISO 13485 with clearly defined registration criteria relevant to the services provided. All personnel responsible for managing a specialist contractor’s Competent Persons shall have completed the same training and evaluation as Authorised Persons (MGPS). Copies of contractor information will be retained by the AP (MGPS).

Duties and Responsibilities:

- To report to the Authorised Person (MGPS) prior to commencement of work on the MGPS each day.
- To carry out work on the MGPS in accordance with the relevant installation and maintenance specifications.
- To carry out repair, alteration or extension work, as directed by the Authorised Person (MGPS) in accordance with the Permit to Work System and HTM 02-01.
- To perform engineering tests appropriate to all work carried out and prove to the Authorised Person (MGPS) all test results.
- To carry out all work in accordance with the Health and Safety Policy.
- To carry out cylinder changes on primary supply manifolds and associated ESM's, this duty may be shared with those that have received Designated Porter training on the Health Board and will vary within the HB sites due to the various 24-hour cover arrangements.
- Ensure that the manifold room is kept clean and tidy, reporting any inappropriately stored items to the AP. Ensure that all removed cylinder seats and other rubbish are promptly taken from the stores and properly disposed of.
- On completion of a change of cylinders on a manifold, record the activity on the log sheets provided this duty may be shared with those that have received Designated Porter training on the Health Board, and will vary within the HB sites due to the various 24-hour cover arrangements.

With regard to work carried out under a permit to work, the CP (MGPS) will:

- Accept instruction from the AP and acknowledge responsibility for the work.
- Acknowledge familiarity with site fire and safety requirements.
- Isolate systems only under direct supervision of the AP and under permit.
- Confirm with AP that only the intended section(s) of pipework are isolated.
- All affected terminal units are appropriately labelled to prevent use as directed by the AP (MGPS).
- Carry out only such work as detailed on the permit including final connections.
- Confirm completion of work and notification to AP.
- Carrying out appropriate engineering validation and verification tests as required by and under direct supervision of the AP (MGPS).

Quality Control pharmacist (QC (MGPS))

It is the responsibility of the CEO to appoint, in writing, on the recommendation of the Head of Medicines Management, one or more Quality Controllers with MGPS responsibilities.

The QC (MGPS) will be an appropriately qualified and experienced individual and shall be appointed by the regional quality control pharmacist and entered on to the national QC (MGPS) register.

The QC (MGPS) shall have received specific post graduate training covering the responsibilities and duties required with regard to MGPS, which shall be refreshed every five years. The QC (MGPS) may also attend part of, or the entire Authorised Person training course, but this is not a set requirement in the HTM.

The AP (MGPS) is responsible for informing a QC (MGPS) of any planned or emergency high hazard works and organising attendance as required.

Duties and Responsibilities:

- To assume responsibility for the quality control testing of the medical gases throughout the MGPS as required.
- To liaise with the AP (MGPS) in carrying out specific quality and identity tests on the MGPS in accordance with the Permit to Work System and relevant Pharmacopoeia Standards.
- Carrying out final identity and quality tests on the system witnessed by the AP.
- Declaring that testing is complete and that satisfactory results have been obtained.
- Advising the Medicines Management Lead that gases under their control meet specification.
- To advise the Head of Medicines Management of the results of all tests carried out on the MGPS and any other findings that could affect the integrity or performance of the MGPS.
- To carry out quarterly tests for quality and identity of any medical gases manufactured on site in liaison with the AP (MGPS).

Hospital Pharmacy Department - Chief Pharmacist

Duties and Responsibilities of the Hospital Pharmacy - Chief Pharmacist:

- Order supplies of cylinders of medical gases and special gas mixtures for the hospital.
- Receive delivery notes for compressed gas cylinders and bulk liquid deliveries, check against invoices, received and pass invoices for payment.
- Maintain a record of cylinder rental charges and pass rental invoices for payment.
- To examine and archive any "Certificates of Analysis" for medical liquid oxygen and unlicensed medical gases as are made available to the HDdUHB by medical gas suppliers.
- To ensure that cylindered and piped medical gases purchased by the HDUHB are prepared under an appropriate MHRA manufacturing authorisation.
- Ensure that other gases and gas mixtures comply with manufacturers' product licences.
- To assume responsibility for the quality control of medical gases throughout the MGPS.
- To ensure clinicians or authorised prescribers prescribe medical gases appropriately.
- Pharmacy department should monitor quantities of cylinders supplied and collected by the supplier and investigate any discrepancies.
- Inventory of cylinders in specific local stores.
- Control of all cylinders (including orphan cylinders) on or off site.
- Undertake audits on cylinders and periodically report findings to the MGSG.
- Ensure the storage locations are appropriate and compliant.

Designated Nursing Officer (DNO)

The DNO is the most senior trained member of nursing staff on site or responsible for a selected area and will need to liaise with the AP (MGPS) on any matters affecting MGPS within their area of responsibility. ALL planned work on the MGPS will have been previously agreed with the DNO and must be carried out under the MGPS Permit to Work System.

Depending on the level of hazard, the DNO could be:

- DNO Authority Level for Hazard.
- The Clinical Site Manager (Day or Night) Planned work requiring a "Low or High" Hazard permit to work and emergency isolation.

- Senior Duty Nurse in charge of a Ward or Department Planned work requiring a “Low Hazard” permit to work.
- Ward Manager or Deputy Planned work requiring a “Low Hazard” permit to work.
- The DNO will give permission via the Permit to Work Form, provided by the AP (MGPS) for any planned works.
- The Permit to Work will be signed by the DNO, at the start and end of the work.
- The DNO will act as coordinator in the event of more than one ward/department being involved in a planned work.

The DNO should ensure that:

- Arrangements are made where required, for the sufficient temporary cylinders to cover the period of the permit to work.
- Patients are not put at risk by any interruption to the MGPS.
- On completion of the work the DNO will accept the MGPS back into use and advise other affected clinical areas.

Senior nursing staff on duty that are not acting as DNO shall also ensure that clinical staff under their control are aware of any MGPS work that may affect them and shall understand the clinical/service implications.

Medical Gas and Pipeline Systems Safety Group (MGPSSG)

Medical Gas and Pipeline Systems Safety Group (MGPSSG) shall report any medical gas compliance discrepancies to the Health and Safety & Emergency Planning Sub Committee to ensure effective communication is maintained, the MGSG should meet regularly (at least quarterly) and a comprehensive membership can be found in the T.O.R. along with the purpose of the group.

Strategy

- Operational policy and procedures development, distribution and review
- Medical gas safety reports
- Review of systems compliance
- Risk register elements arising from compliance
- Cylinder management
- Training needs & evaluation
- Medical Gas Training Programme
- MGPS upgrade projects (to comply with strategy)
- Capital requirements for infrastructure improvements, report on future schemes affecting MGPS
- Internal Datix Incidents
- Estates safety alerts
- Patient safety alerts

Operational

- Planned shutdowns

- Equipment selection
- Cylinder management
- Emergency actions

Sub Medical Gas and Pipeline Systems Safety Group

The HB has formulated a Sub Medical Gas and Pipeline Systems Safety Group (Sub MGPSSG), which is a subgroup of the Medical Gas and Pipeline Systems Safety Group, the purpose of the group is to resolve, advice and support on all actions raised by the MGSG and update the tracker that has been developed by the Compliance team. Membership will include: the Authorised Person AP, Compliance Manager and WHTM Compliance officer. The Sub MGSG shall meet twice before the main MGSG, the purpose of the meetings shall be to address key actions raised in the main MGPSSG. The group's membership shall consist of:

- Authorised person
- Compliance Manager
- WHTM Compliance Officer
- any other co-opted members as deemed appropriate.

Medical Gas Cylinder Group

The HB has convened a Medical Gas Cylinder Group which will provide assurance to the Medical Gas and Pipeline Systems Safety Group. The objectives of the group are to review storage arrangements of medical gas cylinders including health, safety, fire risk and security issues across the health board acute and applicable primary care sites. Reviews will also incorporate stock holdings, new initiatives for efficient stock management and training and education for users. Membership for the group includes clinical and non-clinical representatives and will be led by pharmacy and medicines management. This group will convene two weeks prior to the MGPSSG in order to formally report updates or escalated matters.

Hotel Services - Designated Porter(s)

A Designated Porter is a Porter with particular responsibilities that has received specialist training in the identification, safe handling, storage and management of medical gas cylinders. Refresher training courses must be attended. Arrangements for ongoing training and the record keeping of such will be the responsibility of the Head of Maintenance and Engineering & Head of Estates Risk and Compliance. It must be noted that porter duties and responsibilities may differ per hospital site. However, the key duties and responsibilities are defined below. A more detailed description of tasks will be retained in the operational procedures document retained at each acute hospital site.

General Duties and Responsibilities:

- Deliver full gas cylinders from the Cylinder Stores to wards and theatres as requested.
- Return empty cylinders to the empty cylinder storage area as part of the same job of delivery. To maintain a reduced stock level of cylinders as required.
- Ensure that the delivered cylinders are stored in the correct locations in the Cylinder Store, as per the store labelling.

- Ensure that the delivered cylinders are stored safely in the store and are properly secured by chains where appropriate.
- To carry out cylinder changes on primary supply manifolds and associated ESM's, this duty may be shared with those that are Competent Person's on the Health Board and will vary within the HB sites due to the various 24-hour cover arrangements.
- On completion of a change of cylinders on a manifold, record the activity on the log sheets provided this duty may be shared with those that have received Designated Porter training on the Health Board, and will vary within the HB sites due to the various 24-hour cover arrangements.
- Label and remove from service any "faulty" or "incident" cylinders, subsequently follow procedure for dealing with such cylinders. (Please refer to site procedures for guidance)
- Apply stock rotation principles on a first out basis to ensure that all cylinders are delivered to users are within the "Use before date" as specified by the gas supplier. (BOC, may also support the HB on this in specific areas, this is also contained in the site procedures document).
- Ensure that all flowmeters and regulators that are found to be damaged or out of service are returned to the relevant Clinical Engineering Department for repair or replacement.

It is essential that the Designated Porter is trained and works safely at all times, using the appropriate Personal Protective and Manual Handling Equipment and has identified all of the hazards and introduced of a formal risk assessment in order to carry out the activities safely. Personal Protective or Manual Handling Equipment found to be missing, or defective in any way, must be reported to the relevant Operations Manager or relevant deputy.

The Porters will:

- Perform a weekly check on cylinder stocks and report findings to pharmacy (unless alternative arrangements have been agreed locally, i.e. Theatre Porters)
- Accept requests from wards and departments for replacement gas cylinders and arrange for Designated Porters to deliver cylinders to the point of use and at the same time, return the empty cylinders to the appropriate cylinder store.
- Ensure that the cylinder store is kept clean and tidy.

Appointed Contractor (s)

A contractor is the person or organisation designated by management to be procured by the HDdUHB for the supply, installation, validation and verification of MGPS. It is essential to ensure that individuals employed have suitable qualifications necessary to undertake the work appropriately, safely and that detailed RAMS for all work activity have been communicated in advance of the work with the HDdUHB's employing manager (person commissioning the work). All contractors must adhere to the principles clearly set out in the HDdUHB's Contractor Control Policy.

Capital Projects/Discretionary Project Team (CAP) / (DPT)

The CAP and or DPT teams must ensure that appointed designers and installers of MGPS utilise only approved materials in accordance with published British Standards (BS) as described in HTM 02-01.

Collectively, they must consult and agree with the appointed AP as well as the AE (MGPS) on all schemes where adjustments are made to the MGPS infrastructure.

The appointed AE will provide (when officially consulted) input advice to the design process in respect to the construction phase and for the subsequent operational service thereafter.

The CAP and or DPT teams must ensure that for all completed schemes involving medical gas infrastructure changes, the AP MGPS receives all necessary technical documentation, drawings, and schematics for the new installation following official handover.

Fire Safety Team (FST)

The fire safety team will provide the necessary support and advice in connection with fire safety risks associated with the use of medical gas services across the HB. They will ensure that concerns and or non-compliance activities are documented and communicated directly to the necessary line manager. They may also be required periodically to attend the HB's Medical Gas and Pipeline Systems Safety Group to share such advice and concerns to ensure escalation and control of risk.

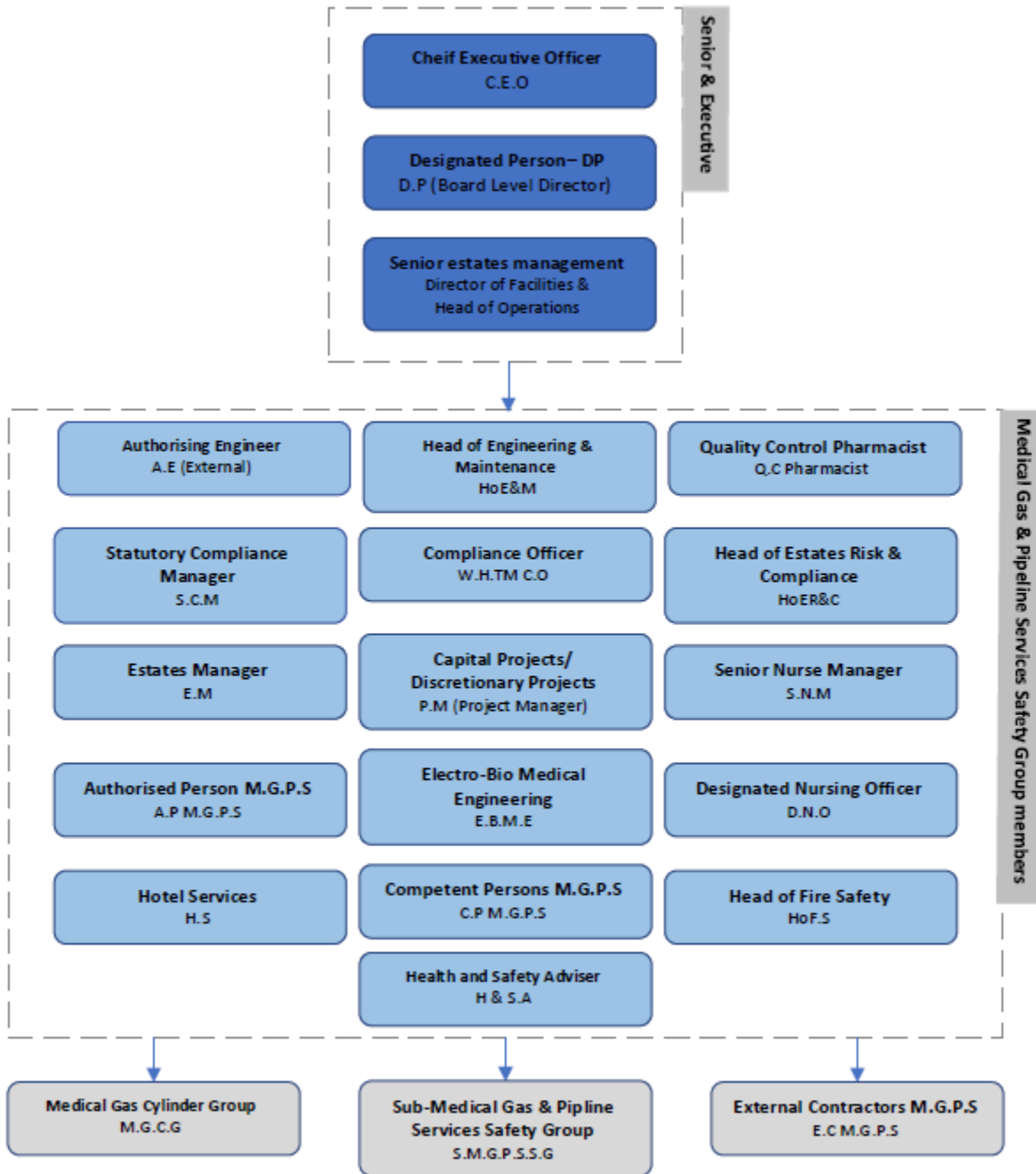
Senior Nurse Manager/Assistant Director of Nursing

It is essential that a senior nurse manager or nominated clinical representative (such as the assistant director of nursing) forms part of the medical gas management team for the HB. They will provide the necessary clinical advice in respect of medical gas usage and issues at ward level and will be a key representative at the Medical Gas and Pipeline Systems Safety Group. They will also be responsible for ensuring that DNO and General Nurse training in respect of medical gasses is kept up to date and current.

References

SI 2002/2677	Control of substances hazardous to health Regulations 2002
SI 2002/2776	Dangerous substances and explosive atmospheres Regulations 2002
CH 37	Health and safety at work etc Act 1974
SI 1992/2793	Manual handling operations Regulations 1992
HTM 02-01	Medical gas pipeline systems, Pt A, design, installation, validation and verification
HTM 02-01	Medical gas pipeline systems, Pt B, operational management
CH 67	Medicines Act 1968
SI 1992/2966	Personal protective equipment at work Regulations 1992
SI 1999/2001	Pressure equipment Regulations 1999
SI 2000/128	Pressure systems safety Regulations 2000
SI 2013/1471	Reporting of injuries, diseases and dangerous occurrences Regulations 2013
SI 1992/3004	Workplace, health, safety and welfare Regulations 1992

Appendix 1- Management & Control Hierarchy



Equality Impact Assessment (EqIA) Screening Template

The Equality Impact Assessment Screening Template is a short exercise that involves looking at the overall proposal and deciding if it is relevant to the Public Sector Equality Duty, and other key areas.

The questions in the Screening Template below will help you to decide if the proposal is relevant to the Equality Act 2010 and whether a detailed EqIA is required. The key question is whether the proposal is likely to have an impact (either positive or negative) on any of the protected characteristics.

Quite often, the answer may not be obvious, and staff, service-user or provider information will need to be considered to make a preliminary judgment.

There is no one size fits all approach, but the screening process is designed to help fully consider the circumstances and to inform evidence-based decisions.

Note: If the proposal is of a significant nature and it is apparent from the outset that a full Equality Impact Assessment (EqIA) will be required, then it is not necessary to complete the Screening Template and you can proceed to complete the full EqIA.

What to do:

In general, the following questions all feed into whether an EqIA is required:

- How many people is the proposal likely to affect?
- How significant is its impact?
- Does it relate to an area where there are known inequalities?

At this initial screening stage, the point is to try to assess obvious negative or positive impacts.

You will need to provide sufficient information within the template to justify the assessment of impact.

If a negative/adverse impact has been identified (actual or potential) during completion of the screening tool, a full EqIA must be undertaken.

If no negative / adverse impacts arise from the proposal, it is not necessary to undertake a full EqIA however, the decision and justification must be clearly recorded.

On completion of the Screening Template, staff should:

- Check that all sections of the template are fully completed.
- Ensure that the Project/Policy owner has signed off the Screening Template.
- Send a copy of the completed template along with the related policy to the Diversity & Inclusion Team for them to review – email this to Inclusion.hdd@wales.nhs.uk

Date of commencement of Screening Assessment:	16/11/2023
Screening conducted by (name and email address):	Alun Alun.rees2@wales.nhs.uk
Title of programme, policy or project being screened:	Medical Gas Policy

Description of the programme/policy/project being screened (including key aims and objectives)

The aim of the Policy is to outline the necessary mandatory requirements for the management of Medical Gas Pipeline Systems (MGPS) installed within all HDdUHB's premises.

The purpose of this policy is to enable the HDdUHB to maintain a safe and consistent approach to the transportation, storage, setting to work and administration of medical gases and to provide assurance to the Board that a robust system is in place.

Evidence considered (including staff and population data, relevant research, expert and community knowledge etc.)

Everyone that utilizes ventilation is affected by this policy, although unless there is a fault it will not have an effect on anyone.

County	Overall Population
Ceredigion	71,500
Pembrokeshire	123,400
Carmarthenshire	187,900

Staff Data

	Headcount	%
<= 20 years	323	2.46%
21 to 25	882	6.71%
26 to 30	1,353	10.29%
31 to 35	1,551	11.79%
36 to 40	1,488	11.31%
41 to 45	1,479	11.24%
46 to 50	1,515	11.51%
51 to 55	1,693	12.87%
56 to 60	1,561	11.86%
61 to 65	978	7.48%
66 to 70	254	1.93%
>= 71 years	72	0.55%
Total	13,149	100%

Assess which protected characteristics will potentially be affected by the proposal: (please ✓ which impact)

Group	Positive Impact	Negative Impact	No Impact
Age Is it likely to affect older and younger people in different ways or affect one age group and not another?			✓
Disability Those with a physical disability, learning disability, sensory loss or impairment, mental health conditions, long-term medical conditions such as diabetes			✓
Gender Reassignment Consider the potential impact on individuals who either: <ul style="list-style-type: none"> • Have undergone, intend to undergo or are currently undergoing gender reassignment. • Do not intend to undergo medical treatment but wish to live in a different gender from their gender at birth 			✓
Marriage / Civil Partnership Marriage and Civil Partnership means someone who is legally married or in a civil partnership.			✓
Pregnancy and Maternity Maternity covers the period of 26 weeks after having a baby, whether or not they are on Maternity Leave			✓
Race / Ethnicity People of a different race, nationality, colour, culture or ethnic origin including non-English / Welsh speakers, gypsies/travellers, asylum seekers and migrant workers.			✓
Religion or Belief The term 'religion' includes a religious or philosophical belief.			✓
Sex			✓

Consider whether those affected are mostly male or female and where it applies to both equally does it affect one differently to the other?			
Sexual Orientation Whether a person's sexual attraction is towards their own sex, the opposite sex or to both sexes.			✓

Consider the potential impacts of the programme/policy/project on the following wider determinants:

Additional Determinants	Positive Impact	Negative Impact	No Impact
<p>Armed Forces Community Consider members of the Armed Forces and their families, whose health needs may be impacted long after they have left the Armed Forces and returned to civilian life. Also consider their unique experiences when accessing and using day-to-day public and private services compared to the general population. It could be through ‘unfamiliarity with civilian life, or frequent moves around the country and the subsequent difficulties in maintaining support networks, for example, members of the Armed Forces can find accessing such goods and services challenging.’</p> <p>For a comprehensive guide to the Armed Forces Covenant Duty and supporting resource please see: Armed-Forces-Covenant-duty-statutory-guidance</p>			✓
<p>Socio Economic Duty Consider those on low income, economically inactive, unemployed or unable to work due to ill-health. Also consider people living in areas known to exhibit poor economic and/or health indicators and individuals who are unable to access services and facilities. Food / fuel poverty and personal or household debt should also be considered.</p> <p>For a comprehensive guide to the Socio-Economic Duty in Wales and supporting resource please see: more-equal-wales-socio-economic-duty</p>			✓
<p>Welsh Language Please note opportunities for persons to use the Welsh language and treating the Welsh language no less favourably than the English language.</p>			✓

Summary of Potential Impacts Identified

Positive Impacts

None have been identified.

Negative Impacts

None have been identified.

<p>Has the screening identified any negative impacts?</p> <p>If yes, a full Equality Impact Assessment will need to be undertaken.</p>		<p>No</p>
--	--	-----------

If No negative impacts were identified, please give full justification here

The Medical Gas policy has been deemed as having no impact across any protected groups.

No issues or concerns were raised with regard to Equality, diversity and Human Rights since the implementation of this policy.

A full EQIA will be undertaken at any stage where evidence to the contrary arises.

Screening Completed by:	Name	Alun rees
	Title	WHTM Compliance Officer
	Contact details	Alun.rees2@wales.nhs.uk
	Date	16/11/2023
Screening Authorised by: (Project / Policy Owner)	Name	Paul Evans
	Title	Head of Estates Risk & Compliance, Estates & Facilities
	Contact details	paul.evans@wales.nhs.uk
	Date	16/11/2023
Seen by Diversity & Inclusion Team:	Name	Alan Winter
	Title	Senior Diversity & Inclusion Officer
	Contact details	Alan.winter@wales.nhs.uk
	Date	16/11/2023