



HEALTH HOLDING

HAFER ALBATIN HEALTH  
CLUSTER  
MATERNITY AND  
CHILDREN HOSPITAL

|                          |                                        |                         |                |
|--------------------------|----------------------------------------|-------------------------|----------------|
| <b>Department:</b>       | Facility Management and Safety         |                         |                |
| <b>Document:</b>         | Multidisciplinary Policy and Procedure |                         |                |
| <b>Title:</b>            | Medical Gas System                     |                         |                |
| <b>Applies To:</b>       | Medical Gas Staff, Nursing Staff       |                         |                |
| <b>Preparation Date:</b> | January 08, 2025                       | <b>Index No:</b>        | FMS-MPP-036    |
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## 1. PURPOSE:

- 1.1 Primary purpose of this plan is to ensure the provision of safe and variable Medical Gas System and their efficient operation and use.

## 2. DEFINITIONS:

- 2.1 **MCH** : MATERNITY AND CHILDREN HOSPITAL
- 2.2 **MGPS**: MEDICAL GAS PIPE LINE SYSTEM
- 2.3 **PTW**: Permit to Work
- 2.4 **LOT**: LIQUID OXYGEN TANK

## 3. POLICY:

- 3.1 Maternity and Children Hospital Hafar Al Batin is implementing a policy of MGPS that ensures the effective, safe management and use of medical gas system .

## 4. PROCEDURE:

- 4.1 **In Case of Emergency in any branch or outlet such as a leak:**
  - 4.1.1 First we inform variable the unit in charge to take the necessary active as the patient needs before shutting off the valve.
  - 4.1.2 This action must be records in mechanical department documents
- 4.2 **In Case of Normal Operation :**
  - 4.2.1 We inform the unit in charge written to take the permit to work. this permit work form contains the scope of work and the time schedule starting and finishing the work .
  - 4.2.2 We take signature of this permit before one week .
- 4.3 **In case of any new branches or modifications:** if any request about any new branches from the hospital, this action doing by a qualified sub-contractor in this field but he must follow the following procedures :
  - 4.3.1 Informing the unit in charge responsible for the department which the work will be carry out in written and taking the approval before one week from starting the work . ( PTW )
  - 4.3.2 This PTW forum contains the work plan like time schedule and the scope of work .
  - 4.3.3 After shutting of the main valve in the department all outlets must be marked as out of services.
  - 4.3.4 After finishing the new branches we must do the cross connection test to make sure there is no gas interference between lines .
- 4.4 **Ordering and filling liquid oxygen tank :**
  - 4.4.1 There are two LOT in the hospital with capacity 400 gallon for each .
  - 4.4.2 There is daily monitoring for the tanks documented for following up the daily consumption in the hospital by the mechanical engineer .

- 4.4.3 As the tank capacity be 240 gallon we informed the medical supply personal in the hospital to contact with the company to come to refill.
- 4.4.4 When the company come to refill the technician in charge for medical gases will record the amount of oxygen which the company refill in the tanks .
- 4.4.5 All repairs , Alterations , tests , filling logs and consumption are recorded and documented .

4.5 **Emergency work on the MGPS:**

- 4.5.1 In the case of an emergency such as fire or a major escape, the Designated Nursing Officer shall first determine the usage of medical gases and where necessary make alternative arrangements.
- 4.5.2 There is no requirement to follow the permit to work procedure to isolate the supply in an emergency, however following such an event, the Authorized Person (MGPS) will require the Designated Nursing Officer to accept the system back into use by signing a permit to that effect.
- 4.5.3 If the MGPS is isolated in an emergency it should never be returned to service without the required tests being carried out by the TECH OF (MGPS) .

## 5. MATERIALS AND EQUIPMENT:

- 5.1 Gas Cylinder

## 6. RESPONSIBILITIES:

- 6.1 Mechanical Engineer
- 6.2 Unit Charge Nurse
- 6.3 Director of Nursing

## 7. APPENDICES:

- 7.1 N/A

## 8. REFERENCES:

- 8.1 2000 International Fire Code
- 8.2 Featured Q & A Number of 'E' sized oxygen cylinders " Environment of Care NEWS January 2003
- 8.3 "Hazards of Compressed Cylinders in the Magnetic Resonance Imaging (MRI) Environment " SA-14 - 2002
- 8.4 Compressed Gas Association, Inc. Safety Alert
- 8.5 John Hopkins Safety Manual: HSE 002, 310 and 402
- 8.6 NAPA Glossary of Terms 32003 Spring Edition
- 8.7 OSHA 29 CFR 1910.101
- 8.8 Thomas W. Gardner Health Care Facilities Handbook Quincy NFPA National Fire Protection Association, 2002

**9. APPROVALS:**

|                     | Name                          | Title                                   | Signature                                                                           | Date             |
|---------------------|-------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|------------------|
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