HEALTH HOLDING

HAFER ALBATIN HEALTH CLUSTER MATERNITY AND CHILDREN HOSPITAL

Department:	Facility Management and Safety		
Document:	Multidisciplinary Policy and Procedure		
Title:	Medical Gas – System Offline		
Applies To:	Health Care Worker And Medical Gas Staff		
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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 operation and use.

1.2 To comply and clarify procedures related to System off Line within MCH, in case of there's a Failure of Medical Gas System.

2. DEFINITONS:

2.1 N/A

3. POLICY:

3.1 MCH has 2 Liquid Oxygen Tanks (1 X 6000L & 1 X 10000L) Line Distribution to all Hospitals connected to an Oxygen back up manifold.

3.2 MCH has Medical Air System 10 Bar , regulated to line pressure of 7 bar, for surgical Air and supported pressure regulating valve(PRV) to regulate pressure of 4 bar for ward end user.

3.3 **Equipment Back Up Manifolds and ESM (Emergency Safety Manifold):**

3.3.1 Oxygen:

3.3.1.1 Backup Oxygen Manifold 1 Automatic (2 banks X 16 cylinder K size) 1 manual Manifold (1X10 cylinder K size).

3.3.2 Breathing Air:

3.3.2.1 Back up Manifold Breathing Air 4 bar (2 bank X 3 cylinder).

3.3.3 Nitrous Oxide:

3.3.3.1 Medical gas plant has Automatic nitrous oxide manifold of 1 bank X 4 cylinder &1 bank X 6 cylinder & manual manifold of 1 bank X 4 cylinder).

3.4 All Contractors engaged in installation / Renovation shall conform to Health Technical Memorandum (HTM 02-01) and EN ISO7396-1.

3.5 The Manifold Control System shall provide an emergency supply of a specified medical gas from equally sized high pressure cylinder banks via a suitable arrangement of pressure regulators providing a constant downstream nominal pipeline gauge pressure 40-60 psi(oxygen) or 40-60 psi(nitrous oxide).The entire system shall be duplexed such that any single functional component failure will not affect the integrity of the medical gas supply. The manifold shall be supplied fully assembled and tested.

4. PROCEDURE:

4.1 **In case of Emergency /Failure (Liquid Oxygen Tank), the manifold automatically runs if the Liquid Oxygen tanks runs at low pressure:**

4.1.1 Conduct daily Monitoring of Oxygen manifold having 32 full cylinders one bank with 16 cylinder can run up to 5 hours in normal days.

4.1.2 With a stand by "Not Connected" to manifold a total of 67 cylinder are available.

4.2 **In case of Emergency /Failure (All medical air plant) the manual manifold are available, if the respective plant Medical Air runs at low pressure:**

4.2.1 Over all total breathing Air cylinder of 60 Tanks (40L per tank) prepared full content capacity capable of 48 hours operation in MCH(Normal usage 6 cylinder in 5 hours) depending upon the usage.

4.3 **In case of Emergency / Modification in any branch**:

4.3.1 First, inform variable the Shift in charge and staff nurse to take the necessary active as the patient needs before shutting off the valve.

4.3.2 Will provide the Quantity of cylinder needed of any Gas Manually by using Trolley.

5. MATERIAL AND EQUIPMENT:

5.1 N/A

6. RESPONSIBILITIES:

6.1 Medical gas staff / technician
6.2 Staff Nurse

7. APPENDICES:

7.1 N/A

8. REFERENCES:

8.1 HTM 02-01 : Health Technical Memorandum an international standard for health institutions.
8.2 ISO 7396-1 : Medical Gas Pipeline System. Pipelines for compressed Medical Gases and Vacuum.

9. APPROVALS:

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