



HEALTH HOLDING

HAFER ALBATIN HEALTH  
CLUSTER  
MATERNITY AND  
CHILDREN HOSPITAL

<b>Department:</b>	Facility Management and Safety (FMS)		
<b>Document:</b>	Administrative and Policy Procedure		
<b>Title:</b>	Utility System Failure (Code Brown Protocol)		
<b>Applies To:</b>	All MCH Staff		
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## 1. PURPOSE:

- 1.1 The purpose of this policy is for making awareness of the staff on handling the incoming facility failures.

## 2. DEFINITION:

### 2.1 **Code red protocol:**

- 2.1.1 This means utility system failure such as elevator problems, electricity failure. Proper policy and guidelines was detailed in this manual to be followed once such cases occurred in this hospital.

## 3. POLICIES:

- 3.1 Determine the current system failure occurrence in your area, the possible impact in your operation and the required available resources if safe and possible to continue medical & non-medical operation procedures.
- 3.2 Evaluate the patient's safety and criticality, necessary manpower and equipment needs and the possibility to move or transfer patients to the other wards/theatre for medical care continuance. Transfer of patients to nearest healthcare facility is always the last option.
- 3.3 Maintain patient care capabilities.
- 3.4 Minimize impact on hospital operations and clinical services.

## 4. PROCEDURE:

- 4.1 Call emergency telephone extension and report the real Code brown situation and exact location and to immediately contact the assistance of concerned departments.
- 4.2 Call Facility Engineering & Maintenance Department in the event of:
  - 4.2.1 Power Supply System Failure - partial or total
  - 4.2.2 Central Medical Gases System Failure - oxygen, nitrous oxide, medical air & vacuum
  - 4.2.3 Lighting System Failure - limited area or wide spread
  - 4.2.4 Water Supply System Failure - raw water or sweet water
  - 4.2.5 Nurse Call System Failure
  - 4.2.6 Elevator System Failure - malfunction or stopped between floors
  - 4.2.7 Heating, Ventilation & Air Conditioning (HVAC) System Failure
  - 4.2.8 Sewage System Blocked and/or Broken Pipes which may result to internal flooding.
- 4.3 Sewage System Blocked and/or Broken Pipes which may result to internal flooding:
  - 4.3.1 Computer units and/or network system failure or shutdown.
- 4.4 Call Biomedical Engineering in the event of:
  - 4.4.1 Medical equipment malfunction or system shutdown.
- 4.5 Call Telephone Operator in the event of:
  - 4.5.1 Telephone system failure, internal & external communication system. Designate "runners" as the last option.

4.6 Implement the immediate completion of the on-going medical & non-medical procedures application of appropriate manual medical & non-medical procedures - if possible; and/or partial or area general evacuation procedure.

4.7 Designate staff specific assignment; additional staff if needed; runners to relay important messages if required.

4.8 Safety Department Specific in disaster functions and actions when the Hospital Internal Disaster Plan has been implemented, Disaster Control Center activated, and wait for further instruction from the following DCC key personnel:

- 4.8.1 Medical director or designee
- 4.8.2 Nursing director or designee
- 4.8.3 Hospital administrator or designee
- 4.8.4 Chief maintenance or designee

4.9 "CODE BROWN ALL CLEAR" shall be paged only after the following conditions had been received by the Disaster Command Center (DCC) key personnel.

4.10 The concerned or responsible department who ascertained the System Check and repair declares the System Normal Operation.

4.11 All affected Departments/Units/ Wards and Sections Heads/Supervisors REPORT their area System Normal Operation

4.12 Environment of Care Emergency Preparedness Plan (System Failure Pocket Card).  
See table below:

<b>Failure of:</b>	<b>Situation</b>	<b>Contact Department</b>	<b>End Users Action Plan</b>
1. Computer system	System down	Computer department & Maintenance department	Use back-up and/or implement manual paper system. Wait for further instructions.
2. Electrical power failure with emergency generator working	Many lights are out; emergency outlets (red outlets) working. Critical care areas connected to generator.	Biomedical engineering & Maintenance department	Ensure the life support systems are on emergency power. Manually implement medical procedures if necessary. Closely monitor patients. Complete cases in progress ASAP. Use/obtain ancillary lighting. Wait for further instruction.
3. Electrical Power Failure – Total	Failure of all Electrical System. Hospital is in Code RED situation.	Maintenance department, DCC, & Biomed	Manually implement medical procedures if necessary. Closely monitor patients. Complete cases in progress ASAP. Use /obtain ancillary lighting. Prepares for patients transfer. Wait for further instruction.
4. Internal Transport Failure - Elevator	Mechanical Failure - other elevator operational. In the event of total power failure all vertical movements have to be by stairwells.	Maintenance department & Outside contractor	Other elevator will be used. If the problem is due to total power failure patient transfer/movement will be via stairwells. Obtain additional manpower (litter bearers) for patient's transfer and/or

			movement. Wait for further instruction.
Failure of:	Situation	Contact Department	End Users Action Plan
5. Elevator Stopped Between Floors	Elevator alarm bell sounding. Elevator Car Telephone Operational. Elevator Emergency Protocol available inside the lift.	Maintenance department	Keep communicate with passengers trapped inside elevator car; giving the information that help is on the way. Use elevator car telephone; follow emergency procedures mounted inside the elevator car. Wait for further instructions.
6. Fire Alarm System	System shutdown	Maintenance department & Safety & Loss prevention	Inform Safety Officer; Designate fire watch; Minimize fire hazards; use phone or runners to report fire. In the event of real fire ALWAYS initiates the R-A-C-E Action Plan. Wait for further instructions.
7. Central Medical Gases	Central monitor alarms, no oxygen or Medical Air or Nitrous Oxide	Maintenance department & Biomedical engineering	Initiate manual procedures and/or if necessary transfer patients, use portable oxygen cylinder, and other gases. Closely monitor patient. Call for additional spare cylinder Wait for further instructions.
8. Central Medical Vacuum	No vacuum; vacuum systems fail and in alarm mode	Maintenance department & Biomedical engineering	Use portable vacuum from crash cart if available. Finish cases in progress and don't start new cases. Wait for further instruction.
9. Hazardous Gas Leak/ Chemical Spills and/or release	Nuisance odor	Maintenance department & Safety & Loss prevention	Evacuate the area if necessary. Initiates Large & Small Chemical Spill Clean-up Procedures – always refer to your MSDS. Open windows if possible. Turn OFF gas equipment; don't ON and/or OFF any spark producing devices, like electric motors, switches, etc. Wait for further instruction.
10. Nurse Call System	No contacts with the patients	Maintenance department	Use bedside patient telephone. Move patients and/or designate additional staff to closely monitor patients.
Failure of:	Situation	Contact Department	End Users Action Plan

11. Patient Care, Medical Equipment	Equipment/System does not operate properly	Biomedical engineering	Initiates manual procedures. Replace and tag defective equipment. Wait for further instruction.
12. Sewage Blocked	Drainage blocked	Maintenance department	Do not flush toilets. Do not use water. Wait for further instruction.
13. (Hot Water)	Sterilizers inoperative, limited cooking, No heat/hot water.	Maintenance department & Biomedical engineering	Conserve sterile equipment/materials and linen; use disposable items. Wait for further instructions.
14. Telephone System	Internal telephone system shutdown.	Telephone operator & Maintenance department	Use overhead paging system. Designate Runners to relay important messages (in writing). Use mobile phone if necessary. Wait for further instruction.
15. Portable Water	No portable water supply.	Maintenance department	Conserve water, use bottled water for drinking. Use disinfectant chemical solution to infection control related work issues
16. Raw water	No raw water supply.	Maintenance department	Conserve use of water. Use disinfectant chemicals to infection control work related issues. Wait for further instructions.
17. Ventilation (HVAC)	No ventilation, no heater or cooler.	Maintenance department	If possible, open windows. Obtain blanket if needed. Restrict use of odorous/hazardous materials.

4.13 The organization develops and maintains an emergency management plan and program to respond to likely community emergencies, epidemics, and natural or other disasters.

4.13.1 The organization tests its response to emergencies, epidemics, and disasters.

4.14 The organization plans and implements a program to ensure that all occupants are safe from fire, smoke, or other emergencies in the facility

4.14.1 The plan includes prevention, early detection, suppression, abatement, and safe exit from the facility in response to fires and non-fire emergencies

## 5. MATERIAL AND EQUIPMENT:

5.1 N/A

## 6. RESPONSIBILITIES:

- 6.1 All MCH Staff

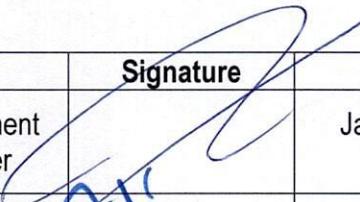
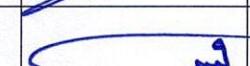
## 7. APPENDICES:

N/A

## 8. REFERENCES:

- 8.1 <https://rmp.nc.gov> LCF Publications AL\_Resources Presentations Fire Employees Procedures of Code Red.
- 8.2 The Joint Commission requirements, accessible via the Internet at [www.jcrinc.com/Joint-Commission-Requirements](http://www.jcrinc.com/Joint-Commission-Requirements).
- 8.3 Level 1 Policy #- Emergency response Codes ( formerly FM-02).

## 9. APPROVAL:

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