



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Procedure for Contingency Procedures

Procedure No. 101

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INTRODUCTION

This plan contains the contingency procedures for the Mid-Western Regional General Hospital Technical Services Department / Estate Maintenance Department in relation to failure of all or part of plant and equipment under the

control of the Technical Services Department / Estate Maintenance Department. This plan contains procedures specific to the Regional General Hospital. The Regional General Hospital is a 450 bed acute hospital.

These procedures aim to provide an operational structure to eliminate, as far as possible, emergencies from plant failures in the hospital.

The philosophy adopted by the Technical Services Department / Estates Maintenance Department is that problems arising from plant or equipment failure will not cause patients to be decanted out –with from the hospital and that the hospital will remain open and in operation. The contingency plan procedures provide work-around solutions, where possible, including services going independent or manual.

This document contains the following procedures for the Technical Services Department / Estates Maintenance Department:

- Procedures for going manual / independent on plant and equipment
- Procedures for failure of system to operate
- Procedures for resuming normal operations

There are systems within the hospital under the control of the Technical Services Department / Estates Maintenance Department, considered to be hospital wide i.e. serving the site. The Technical Services Department / Estates Maintenance Department will be prepared to discharge normal operations and provide continued service and operation of equipment under the department's control.

Such systems include:

Sterilizers
Laundry, Catering & Critical Air Conditioning
Medical Gases
Lifts
BMS and Boilers
Fire, Security and Nurse Call
Utilities
Communications
Medical Physics

The contingency procedures are contained within Section 2- Hospital Wide Systems.

Action Cards

Action Cards will be included as Section 4. Action Cards will define the actions required by the Technical Services Department / Estates Maintenance Department to ensure equipment is fixed in a timely manner.

All action cards will be dated and controlled. The Action Cards will be held in the services office.

Scope

The procedure applies to the Mid-West Regional General Hospital only.

Responsibility

It is the responsibility of the Technical Services Department to ensure this procedure is implemented.

PROCEDURE

Hospital Wide Systems

1.0 INTRODUCTION & DESCRIPTION

- 1.1 Hospital wide systems are those fixed supply systems fitted throughout the site and common to many departments these include the following:

- Sterilizers
- Laundry
- Catering
- Air Conditioning
- Medical Gases
- Lifts
- BMS & Boilers
- Fire
- Security
- Nurse Call
- Utilities
- Communications
- Medical Equipment

- 1.2 Some of the above systems are, for the purposes of this plan, considered to be site wide as well as departmental therefore there are procedures in place for **Estates Maintenance Department** services on a site wide basis as well as reference to individual departments. These areas include:

- Laundry
- Medical Gases
- Lifts
- Fire
- Security
- Nurse Call
- Utilities

Communications
Medical Equipment

2.0 STERILISERS

This part contains contingency procedures for the sterilisers at the Mid-Western Regional Hospital.

Refer to [Section 4](#) for Action Cards.

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with sterilisers.

2.1 LOCATION OF EQUIPMENT

Asset ID	Equipment	Location
10133	PACS 2000 Autoclave	C.S.S.D.
10216	PACS 2000 Autoclave	C.S.S.D.
10273	PACS 2000 Autoclave	C.S.S.D.
12384	Disinfector8666 Washer/Dryers	C.S.S.D.
10203	Disinfector8666 Washer/Dryers	C.S.S.D.
12383	Disinfector8666 Washer/Dryers	C.S.S.D.
12382	Medisafe Instrument cleaner	C.S.S.D.
12386	Getinge Dryer	C.S.S.D.
10958	Falcon 30 Autoclave	Microbiology/Media
10941	Kestrel Autoclave	Microbiology
10218	Boxer 400L Autoclave	Microbiology

2.2 TYPE OF SYSTEM

There are two types of electrically powered autoclaves in the Regional Hospital:

1. Autoclaves that need an external steam and air supply, such as those in C.S.S.D.
2. Autoclaves that have an internal steam boiler, such as those in Microbiology.

Washer/dryers: The washer/dryers are electrically powered but require an external steam supply.

The Medisafe instrument cleaner is an ultrasonic system and the Getinge dryer works on a hot air system.

2.3 DESCRIPTION OF SYSTEM

C.S.S.D. Autoclaves

The autoclave cycle is based on a system of electrical supply, compressed air, vacuum and steam.

A vacuum pump which is part of the machine is used to pull the air from the chamber to create a vacuum.

Steam is then fed into the chamber which contains the pack to be sterilised until the chamber is full of steam. It is the high temperature of the steam that brings the temperature in the chamber up to the required sterilizing temperature.

Compressed air is used to enable the solenoid valves to operate at different stages of the cycle. It is also used to operate the door through means of a pneumatic cylinder.

The autoclaves can run on a few different cycles.

Microbiology autoclaves

The cycle of these autoclaves is similar to above but they have an internal steam boiler and do not need a compressed air supply.

Washer/dryers

The washer/dryers are used to wash and dry used instruments before they are wrapped to be autoclaved. Steam is required to heat the water to the required temperatures and the cycle is controlled electrically. These can be run on different cycles.

Getinge dryer: This is used for drying instruments. It is based on a system of hot air heated by electric elements being circulated by fans. It can be set to different drying temperatures.

Instrument cleaner

Medisafe instrument cleaner: This is used for cleaning small instruments and is based on ultrasonic principles.

2.4 DESCRIPTION OF BACKUP SYSTEM

If an individual autoclave or washer/dryer fails there are others that can be used as each machine operates separately.

2.5 NUMBER AND TYPE OF SUPPLIES FEEDING SYSTEMS

There are two Steam generators (Beavor and Wee Chieftan) feeding the autoclaves.

There are two Air compressors (Hydrovane) feeding the autoclaves.

Electrical supply is fed from S.S.D. distribution board

Autoclaves in Microbiology are fed from local distribution board.

2.6 ACTION CARDS

Refer to the following Action Cards in relation to Sterilisers

ACTION CARD NO. 1 - Failure

ACTION CARD NO. 2 - Repair

ACTION CARD NO. 3 – Resuming Normal Operations

3.0 CATERING

This part contains contingency procedures for the **Estates Maintenance Department** in relation to catering services at Mid-Western Regional Hospital. Refer to [Section 4](#) for Action Cards.

3.1 LOCATION OF SYSTEM

The Mid-Western Regional Hospital has the following catering equipment in the Main kitchen.

ASSET ID	EQUIPMENT	SERVICE
12112	Blender	CFS
10704	Boiling Pot	CFS
12191	Boiling Pot	CFS
10748	Bratt pan	CFS
10172	Bratt pan	CFS
10095	Deep Fat Fryer	CFS
10152	Deep Fat Fryer	CFS
10745	Dishwasher	Masser Hammond
10712	Distribution Board	Est Maint Dept
12832	Distribution Board	Est Maint Dept
13205	Food Prep	CFS
12114	Food Trolley	CFS
10097	Freezer	CROSS
10236	Freezer	CROSS
10250	Freezer	CROSS
10259	Freezer	CROSS
10719	Freezer	CROSS
12855	Freezer	CROSS
13206	Freezer Chest	Kelly refrig
10238	Fridge	CROSS
10395	Fridge	CROSS
10713	Gas Alarm Detection System	Est Maint Dept
10067	Hob	CFS
10094	Mixer	CFS
10716	Mixer	CFS
12113	Mixer	CFS
10736	Mixer	CFS
13208	Motorised Trolley	CFS
10706	Oven	CFS
10715	Oven	CFS
10724	Oven	CFS
10725	Oven	CFS

ASSET ID	EQUIPMENT	SERVICE
10749	Oven	CFS
11999	Oven	CFS
10145	Oven	CFS
10154	Pot Wash	CFS
13210	Slam shut valve	Est Maint Dept
10735	Slicer	CFS
10085	Soup Kettle	CFS
12109	Soup Kettle	CFS
12110	Soup Kettle	CFS
12111	Soup Kettle	CFS
10740	Waste Disposal	CFS
52262	Water Softener	Est Maint Dept
13207	Weighing Scales	Est Maint Dept

3.2 DESCRIPTION OF SYSTEM

The catering equipment consists of food storage, preparation, cooking and cleanup equipment. The failure of an individual item is rarely critical as there are a number of similar items that can be used to supplement another.

The equipment in the Main Kitchen is supplied by electricity and/or gas. If a piece of equipment fails to operate, the Estates Maintenance Department should be contacted. They will do an initial check on the supplies and contact the appropriate service company if the fault lies in the equipment itself.

If a Cold Room or Freezer fails, while waiting for repair, catering staff should monitor its internal temperatures. The contents should be moved to another freezer/cold room if the temperature rises above the appropriate level.

3.3 NO. AND TYPE OF SUPPLIES

All kitchen equipment is electrically supplied from the Kitchen Distribution Boards, located in a press at the canteen side of the kitchen.

Gas is supplied to the kitchen through a slam shut valve and a gas detection system is fitted in the kitchen area to detect any leaks.

3.4 ACTION CARDS

Refer to the following Action Cards in relation to Catering

ACTION CARD NO. 4 - Failure

ACTION CARD NO. 5 - Repair

ACTION CARD NO. 6 – Resuming Normal Operations

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4.0 MEDICAL GASES

This part contains contingency procedures for the medical gases at the Mid-Western Regional Hospital.

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with medical gases.

4.1 LOCATION OF SYSTEM

The medical gas system has equipment in the following locations:

ASSET ID	EQUIPMENT	LOCATION
10034	Vacuum plant	Vacuum plant room
12746	Air receiver(surgical air)	Phase 1 plant room
12742	Compressor(surgical air)	Phase 1 plant room
12745	Air receiver(medical air)	Phase 1 plant room
10658	Compressor(medical air)	Phase 1 plant room
10675	Compressor(medical air)	Phase 1 plant room
12865	Air receiver(vacuum)	Phase 1 plant room
12866	Air receiver(vacuum)	Phase 1 plant room
12867	Vacuum pump	Phase 1 plant room
12868	Vacuum pump	Phase 1 plant room
12869	Vacuum pump	Phase 1 plant room
13566	Nitrous oxide manifold	Vacuum plant room
13564	VIE	VIE compound
13563	Oxygen manifold	VIE compound

4.2 TYPE OF SYSTEMS

The vacuum plant that serves the old hospital consists of one air receiver and three vacuum pumps (one duty, and two stand-by).

The vacuum plant that serves phase one and phase two consists of two air receivers and three vacuum pumps (one duty and two stand-by).

There is one medical air plant that serves the whole hospital and this consists of one air receiver and two compressors (duty and standby)

The surgical air plant consists of one air receiver and one compressor.

Nitrous oxide is fed from a manifold with a duty and standby and oxygen is fed from the VIE with a backup manifold. AGGS pumps are used to extract anaesthetic gases.

4.3 DESCRIPTION OF SYSTEMS

The following piped medical gases are in use at the Mid-Western Regional Hospital:

- Medical oxygen
- Nitrous Oxide
- Medical Air (Respirable at 4 Bar).
- Surgical Air (Power tools at 7 Bar)
- Medical Vacuum
- Anaesthetic gas scavenging.

They are supplied from the following plant and equipment.

Oxygen	V.I.E. with stand-by manifold serving whole site.
Nitrous Oxide	Duty and stand-by manifold serving whole site.
Medical Air	(Respiratory at 4 Bar) Two compressors - duty and stand-by. One air receiver. Drier and manifold.
Surgical Air	(Power tools at 7 Bar) one compressor ,one receiver and Drier
Medical Vacuum	3 Vacuum pumps selected as 1 duty and 2 as stand-by, serving Phase 1& 2.
Medical Vacuum	3 Vacuum pumps selected as 1 duty and 2 as stand-byes, serving old hospital.

The Status of the above plant and equipment is monitored. It's present status and alarms are fed back to two (2) panels located in the main reception. Wards and departments have local low-pressure alarms.

4.4 DESCRIPTION OF BACKUP SYSTEM

Each of the piped medical gases has a backup system:

Oxygen	If the VIE goes low it will alarm and switch over to the backup manifold. This manifold consists of two sections allowing cylinders to be changed as they discharge .
Nitrous Oxide	If the Nitrous oxide goes low it will alarm and switch to the standby manifold .Cylinders can then be changed.
Medical Air	If the medical air goes below 4 bar it will alarm and switch to the standby compressor
Surgical Air	There is not any back up to this system.

Medical Vacuum If vacuum goes low it will alarm and switch to standby pump

4.5 SUPPLIES FEEDING SYSTEMS

Compressors and vacuum pumps are fed from a three-phase electrical supply.

4.6 ACTION CARDS

Refer to the following Action Cards in relation to Medical Gases

ACTION CARD NO. 7 - Failure

ACTION CARD NO. 8 - Repair

ACTION CARD NO. 9 – Resuming Normal Operations

5.0 LIFTS

This part contains contingency procedures for the Lifts at the Mid-Western Regional Hospital. Refer to [Section 4](#) for Action Cards.

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with lift equipment.

5.1 LOCATION OF SYSTEMS

There are 8 lifts serving the Mid-Western Regional Hospital.

Asset ID	Lift	Lift	Location
13575	Lift No 1	Bed/Pass	Surgical Lift
13576	Lift No 2	Bed/Pass	Surgical Lift
13578	Lift No 3	Bed/Pass	Medical Lift
13577	Lift No 4	Bed/Pass	Medical Lift
13580	Lift No 5	Bed/Pass	Phase 1
13581	Lift No 6	Bed/Pass	Phase 1
13579	Lift No 7	Passenger	Medical Records Lift
13574	Lift No 8	Passenger	Nurses Home

5.2 TYPE OF SYSTEM

Seven of the lifts are of the rope type. The lift in the Nurses home is a hydraulic lift.

5.3 DESCRIPTION OF SYSTEM

All bed /passenger lifts have alarm plus intercom for passenger safety. The hospital has 6 no. bed/passenger lifts fitted with the alarm and intercom system that when activated will contact security. The medical records lift has a local alarm only and the lift in the Nurses home has an alarm and intercom system that when activated will contact main reception.

5.4 DESCRIPTION OF BACKUP SYSTEM

There is not any backup to the lift system. Use alternative lift or stairs.

5.5 NUMBER AND TYPE OF SUPPLY FEEDING SYSTEM

There is one three-phase electrical supply feeding each lift.

5.6 ACTION CARDS

Refer to the following Action Cards in relation to Lifts

ACTION CARD NO. 10 - Failure

ACTION CARD NO. 11 - Repair

ACTION CARD NO. 12 – Resuming Normal Operations

6.0 BOILERS

This part contains contingency procedures for the **Estates Maintenance Department** equipment in the boiler-house at Mid-Western Regional Hospital.

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with Boilers.

6.1 LOCATION OF SYSTEMS

Asset No.	Location	Boiler Type	Burner Type
11408	Main Plant Room	Ignis	Riello RLS 130
10013	Main Plant Room	Hoval	Riello RLS 70
12417	Main Plant Room	Buderaus	Riello RS 100
12898	Phase 1	Buderaus	Riello RLS 70
10026	Phase 1	Ideal Concord Super Series 4	
10018	Phase 1	Ideal Concord Super Series 4	
10121	Phase 2	Buderaus	Riello RLS 100
10146	Phase 2	Buderaus	Riello RLS 100
10175	Phase 2	Buderaus	Riello RLS 100
10042	CSSD	Beel	Riello RLS 50
10026	CSSD	Wee Chieftan	
11910	Oncology unit	Buderaus Logano	RLS 28
11912	Oncology unit	Buderaus Logano	RS 28
12396	5B Boiler House	Ygnis	Riello RSs 50
13927	Ambulance Centre	Buderaus	RL 28
13932	Ambulance Centre	Old Boiler	Riello

6.1 TYPE OF SYSTEM

The boilers operate in a Low Pressure Hot Water System. The minimum requirement for the boilers is to maintain the steam, hot water and heating capability to the hospital site.

6.2 DESCRIPTION OF SYSTEM

The boilers serving the various locations listed heat water to a temperature determined by the BMS which in turn provides hot water to the radiator system, AHU's and calorifiers.

6.3 DESCRIPTION OF BACKUP SYSTEM

There are gas fired and dual fired boilers serving the Mid-Western Regional Hospital. Each section has a dual fuelled boiler which will be operated on oil in the event of a mains gas failure.

6.4 ACTION CARDS

Refer to the following Action Cards in relation to Boilers

ACTION CARD NO. 13 - Failure

ACTION CARD NO. 14 - Repair

ACTION CARD NO. 15 – Resuming Normal Operations

7.0 BMS (Building Management System)

This part contains contingency procedures for the **Estates Maintenance Department** BMS system at Mid-Western Regional Hospital.

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with BMS.

7.1 LOCATION OF BMS

Asset No.	Location	Equipment
7492	Tech Services Foremans Office	BMS Computer

7.2 TYPE OF SYSTEM

This system allows electronic control of the boilers, air conditioning and heating and ventilation.

7.3 DESCRIPTION OF BMS SYSTEM

The BMS controls the operation of the following systems on a remote computer.

- Boilers
- Air Conditioning
- Heating and Ventilation

There is a facility to adjust temperature set-points of the systems and the BMS can in return control three way valves and boilers to achieve these desired set-points. The system holds historical records for all sensors connected to the system. The system provides a graphical layout of all interfaced systems and sub-systems.

7.4 DESCRIPTION OF BMS BACKUP SYSTEM

There is no backup to the BMS rather than to switch from auto to hand on the various control panels.

7.5 ACTION CARDS

Refer to the following Action Cards in relation to BMS

ACTION CARD NO. 16 - Failure

ACTION CARD NO. 17 - Repair

ACTION CARD NO. 18 – Resuming Normal Operations

8.0 FIRE ALARM SYSTEM

This part contains contingency procedures for the **Estates Maintenance Department** responsibilities in relation to fire alarm detection at The Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with fire alarm detection equipment.

8.1 LOCATION OF SYSTEM

The fire detection system has equipment in the following locations:

Asset ID	Equipment	Location
10905	CPU 1	OPD Reception
10016	CPU 2	OPD Reception
10030	CPU 3	Basement
14545	CPU 4	Paediatrics
10999	CPU 5	Basement
13614	CPU 6	Oncology
10033	CPU 7 MASTER	Basement
10931	Master Repeater	Main Hospital Reception
10770	Master Repeater	A & E Reception

8.2 TYPE OF SYSTEMS

Regional = Siemens/Morley addressable.

Ambulance Centre = Analogue system.

8.3 DESCRIPTION OF SYSTEMS

The Mid-Western Regional Hospital has 1 addressable fire alarm system. This system comprises of 7 no. CPU panels, with CPU 7 in the Basement being the master, and all others being slaves. Main reception and the Emergency Department reception in the hospital have full function repeater panels, with other areas having indication repeater panels only. Detection is achieved by the use optical, ionisation and heat detectors. Ionisation detection is being phased out at present. Manual call points are also used throughout. Input/output modules are used to control plant and equipment in the event of the fire alarm operating to fire mode. Each CPU has a total of 5 loops, each loop capable of supporting 125 devices. The fire alarm system is connected to the paging system such that any fires, faults or pre-alarms detected by the fire alarm system are sent directly to a series of selected pagers, depending on the type of alarm. All alarms are sent to a Estates Maintenance Department pager. Selected alarms are sent to particular pagers eg: Security receives all fire events. The information

displayed on the LCD display of the fire alarm system appears on the pager. The person holding the pager then investigates the problem. The system is serviced by Siemens Fire Safety.

There is an analogue fire alarm system installed in the Regional Ambulance Centre. This system controls the ambulance centre building only and is not interfaced to the addressable fire alarm system in the hospital.

8.4 DESCRIPTION OF BACKUP SYSTEM

There is no Backup to the Fire alarm system.

8.5 SUPPLIES FEEDING SYSTEMS

The Mid-Western Regional Hospital fire alarm system is fed from a local Distribution board. It has its own internal backup battery.

The Ambulance Centre fire alarm is fed from a local DB. It too has its own internal backup battery.

8.6 ACTION CARDS

Refer to the following Action Cards in relation to Fire Alarms

ACTION CARD NO. 19 - Failure

ACTION CARD NO. 20 - Repair

ACTION CARD NO. 21 – Resuming Normal Operations

9.0 SECURITY

This part contains contingency procedures for the **Estates Maintenance Department** responsibilities in relation to security equipment at Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with security equipment.

9.1 LOCATION OF SYSTEMS

The Security equipment is described below including locations:

Asset ID	Equipment	Location	Supplier
10368	Intruder Alarm	Post Graduate Centre	ETL
10362	Intruder Alarm	Pharmacy	ADT
13976	Intruder Alarm	Oncology	ETL
14285	Intruder Alarm	Mortuary	ETL
12564	Intruder Alarm	Estates Maintenance Department,	Mantech
14587	Intruder Alarm	Clinical Engineering Department	Mantech
13334	CCTV Multiplexer	Security Office	S.K.S.
13335	CCTV Multiplexer	Security Office	S.K.S.
13336	CCTV Multiplexer	Security Office	S.K.S.
13337	CCTV Multiplexer	Security Office	S.K.S.
12958	Tele alarm Nurse-call	A & E Sister's Post	B.P. Multipage
13398	Tele alarm Nurse-call	A & E Distribution Room	B.P. Multipage

9.2 DESCRIPTION OF SYSTEMS

Intruder Alarms

There are six separate Intruder alarms installed in the hospital. These consist of a main panel supplied from the mains, with a backup battery. A keypad supplies the method of setting/unsetting and programming the alarm. Detection of an intruder is achieved by means of magnetic reed switches on doors and windows and passive infra red detectors internally in some rooms. These detect movement. An internal and

external siren is provided on all systems. The Intruder Alarms throughout the hospital are connected to the Paging System through DLC interfaces. In the event of activation the security pagers will be alerted and they will respond to the alert. Security have access/reset codes for all the Intruder alarms.

The Intruder alarms are supplied from the local Distribution board of the area they protect. In the event of a power failure they have 24 hour backup batteries.

Should any Intruder Alarm malfunction **Action Card No.22.**

Security CCTV System

A Security CCTV System is installed throughout the hospital. This comprises of cameras, both fixed and 'pan, tilt, zoom' (PTZ) cameras, multiplexers, video recorders and monitors. All cameras are monitored from the security office on a 24 hr basis. Should failure occur of any CCTV System see the relevant **Action Card No. 22.**

Access Control Barriers

Access Control Barriers are located throughout the site. Some operate by means of an inductive loop which detects the presence of a car automatically and then opens the barrier for exit only. On entry most can only be operated manually, either from the security office or a local pushbutton station. The consultants carpark barrier is controlled by coded keyfobs. Each consultant has one. The exit barriers from the public carpark are fitted with coinmechs, which will cause the barrier to open if the correct money is inputted. All barriers can be observed and controlled from the Security office via the CCTV system. Most Barriers also have an intercom link to the Security office. ETL supply and service all barriers.

Tele Alarm Nursecall

A Tele Alarm Nursecall is installed in the Accident & Emergency Department. There are two consoles, one is located at the Sister's Post in the Nurses Base and is used to identify the location of any call. The second is in the electrical distribution room. Alarm buttons are placed in all twenty patient cubicles and at 12 other locations around A & E. Any activation of this alarm sends an alert to security pagers.

9.3 NO. AND TYPE OF SUPPLIES

Each **Intruder Alarm** is supplied from the local Distribution Board. In the event of a power failure the Intruder alarm backup battery will keep the alarm operational for twenty four hours.

CCTV cameras are also supplied locally. These are centrally monitored from the Security office. The Security office is supplied from the local Distribution board. There is no backup UPS.

Barriers are supplied locally.

The **TeleAlarm Nursecall** system is supplied from local sockets in A &

E.

9.4 ACTION CARDS

Refer to the following Action Cards in relation to Security

ACTION CARD NO. 22 - Failure

ACTION CARD NO. 23 - Repair

ACTION CARD NO. 24 – Resuming Normal Operations

10.0 NURSE-CALL SYSTEMS

This part contains contingency procedures for all Nurse-call systems in the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The Estates Maintenance Department holds contact details of appropriate staff and contractors associated with Nurse-call equipment.

10.1 LOCATION OF SYSTEMS

Asset ID	Equipment	Location & Number
12629	Ackerman 99	Ward 1B
11958	Ackerman 99	Ward 1C
12612	Ackerman 99	HDU
12465	Ackerman 99	Ward Trauma
11854	Ackerman 99	Ward 1D
10378	Ackerman 90	Ward 2B
10389	Ackerman 99	Ward 2C
10399	Ackerman 99	Ward 2D
10391	Ackerman 90	Ward 3A
11970	Ackerman 99	Ward 3B
14586	Ackerman 99	Ward 3C
10396	Ackerman 90	Ward 3D
12523	Ackerman 99	Ward 4D
10753	Ackerman 99	Ward Rainbow
10790	Ackerman 99	Ward Sunshine
10557	Mediplex Series 85	ICU
13696	Mediplex Series 85	Endoscopy
13719	Mediplex Series 85	Medical Day Ward
14099	Mediplex Series 85	Main Theatre Suite
14531	Mediplex Series 85	Dialysis

10.2 DESCRIPTION OF SYSTEM

Each individual ward has a separate system. Failure of one system will have no effect on any other ward. Nurse Call systems are primarily of type Ackerman 99 and Ackerman 90 in the old hospital, Ackerman 99

in the Paediatric wards and Mediplex Series 85 in phase one patient areas.

The Akerman Clino-OPT 99 is the newest system. It is comprised of :

- 1) A call push button at the patient bed.
- 2) A pullcord switch in the bathroom.
- 3) A cancel call pushbutton at the room door.
- 4) A display module over the room door.
- 5) An Information display at the nurses station.
- 6) A zone controller and power supply near the local D.B.

When a patient presses the call button at their bed, a permanent red light is displayed on the over-door module, the room number is displayed at the information display at the Nurses Station and a buzzer sounds.

A distress call from a bathroom pull-cord brings on a permanent white light.

Upon entering the room the nurse presses the cancel call pushbutton once. The red over-door light turns to green. If the nurse wants to summon further help, she presses the patient call pushbutton once. This causes the green light to turn red and flash rapidly, the buzzer frequency also increases.

When the nurse is finished and is leaving the room she presses the cancel call button once again and this cancels all lights.

10.3 BACKUP SYSTEM

There is no backup system for Nurses call. Should a Nurse call system fail then the ward in question will be provided with hand bells loud enough to be heard at the nurse's station. Patients will be asked to be vigilant in terms of their neighbours in each ward area. If a nurse is required, the hand bell will be used or ambulant patients can contact staff on their neighbour's request. Wards with non-ambulant or sedated patients will rely on increased observation of nursing staff. The periodicity of patient checks will be increased.

10.4 TYPE OF SUPPLIES FEEDING NURSE CALL SYSTEMS

Each Nurses call system is fed from the local Distribution Board through a Power supply which is part of the system.

10.5 ACTION CARDS

Refer to the following Action Cards in relation to Nurse Call Systems

ACTION CARD NO. 25 - Failure

ACTION CARD NO. 26 - Repair

ACTION CARD NO. 27 – Resuming Normal Operations

11.0 ELECTRICITY

This part contains contingency procedures for all Electricity services entering the hospital campus of the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The Estates Maintenance Department holds contact details of appropriate staff and contractors associated with Electricity.

11.1 LOCATION OF SYSTEMS

ASSET	EQUIPMENT	LOCATION	SUPPLIER
10009	Generator No.1	Generator House No. 1	FG Wilson
10857	Changeover Panel	Generator House No. 1	FG Wilson
10874	Transformer No. 1	Generator House No. 1	ESB
10054	Generator No. 2	Generator House No. 2	FG Wilson
10856	Changeover Panel	Generator House No. 2	FG Wilson
12843	RMU 10 KV No. 2	Generator House No. 2	ESB
12844	Transformer No. 2	Generator House No. 2	ESB
13907	Generator Broadcrown	Ambulance Centre	Powerohm
13908	Changeover Panel	Ambulance Centre	Powerohm

11.2 DESCRIPTION OF SYSTEMS

Mid-Western Regional Hospital

Electricity from the E.S.B. grid provides the main power for the site. Electricity is imported at medium voltage (10KV) and is transformed down in each of 2 no. substations to normal 400 volt supply. Each transformer is a 1000 KVA transformer. There are 2 no. 10KV ring main units located on the site, one at each substation. The substations are located as follows:

- Substation No.1 – Phase 1
Feeds Phase 1, Phase 2 and the oncology centre.
- Substation No. 2 – Beside Mortuary
Feeds all other areas of the site.

Emergency backup is provided by 2 No. standby diesel powered generators which operate on independent areas of the campus as indicated above. There is an 880KVA generator located at substation No. 1 and a 550 KVA generator located at substation No. 2. Both generators have an oil storage tank located underneath which will provide 8 hours of fuel running at full load. Both generators also have external tanks that will provide an additional 24 hours of fuel at full load. Both generators have auto fuel fill solenoids fitted that will ensure that the tanks underneath the generators will not go below half full.

The generator located at substation no.1 is a synchronised unit and hence will run in parallel with the ESB mains (no interruption in power to return to mains following a power outage). To facilitate this a G10 relay unit is fitted in this substation.

Each generator is brought on line via a changeover panel fitted with motorised/spring loaded circuit breakers and mains/generated mains detection equipment.

Further to this, there are critical areas which are fed by UPS's. These are, namely:

- 1 4 designated beds in recovery.
- 2 Main Theatres
- 3 Eye Theatre
- 4 ICU
- 5 CCU
- 6 A/E Resuscitation room
- 7 A/E procedure room

- 8 X-Ray Pacs control rooms
- 9 Cath Lab
- 10 Standby Telephone System
- 11 Intercom
- 12 Public Address
- 13 Paging System

Regional Ambulance Centre

The Regional Ambulance centre is feed via a low voltage supply at 400 volts. Emergency backup is provided by 1 No. 40 KVA standby diesel powered generator.

The generator has an oil storage tank located underneath which will provide 8 hours of fuel running at full load. This generator also has an external tank that will provide an additional supply of oil to the unit. The generator is brought on line via a changeover panel fitted with contactors and mains/generated mains detection equipment.

Further to this, there is 1 no. 10 KVA UPS that provides secure power to control room equipment and to 4 no. PABX central switchboards.

11.3 BACK UP SYSTEMS

UPS machines are one form of back up system used, though they will sustain load for only a short period of time. UPS machines are covered under Section 21 of this manual.

11.4 ACTION CARDS

Refer to the following Action Cards in relation to Electricity

ACTION CARD NO. 28 - Failure

ACTION CARD NO. 29 - Repair

ACTION CARD NO. 30 - Resuming Normal Operations

ACTION CARD NO. 61 – Generator Checklist

12.0 WATER

This part contains contingency procedures for all Water services entering the hospital campus of the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The Estates Maintenance Department holds contact details of appropriate staff and contractors associated with Water.

12.1 LOCATION OF WATER SUPPLIES

Asset No.	Location	Equipment
52000	Old hospital roof	Water Tank

52001	Old hospital roof	Water Tank
52002	Nurses home roof	Water Tank
52003	5B roof	Water Tank
52004	5B roof	Water Tank
52005	Phase 1 Roof	Water Tank
52006	Phase 1 Roof	Water Tank
52007	Phase 1 Roof	Water Tank
52008	Phase 1 Roof	Water Tank
52009	Phase 1 Roof	Water Tank
52010	Phase 1 Roof	Water Tank
52011	Plant Room Phase 2	Water Tank
52012	Plant Room Phase 2	Water Tank
52013	Plant Room Phase 2	Water Tank
52014	Boiler House Phase 2	Water Tank
52015	Boiler House Phase 2	Water Tank
52016	Plant Room Phase 2	Water Tank
52017	Boiler House Phase 2	Water Tank
52018	Boiler House Phase 2	Water Tank
52024	Oncology Roof	Water Tank
52025	Oncology Roof	Water Tank
52026	Boiler House Phase 2	Water Tank
52424	Ambulance Centre	Water Tank
52425	Ambulance Centre	Water Tank
52426	Ambulance Centre	Water Tank

12.2 DESCRIPTION OF WATER SYSTEM

The mains water supply for the hospital is provided from the local County Council main reservoir. This supply in turn feeds tanks in various locations listed these tanks serve the areas below. Where the water is required to be at higher pressure this is achieved using booster pumps.

12.3 DESCRIPTION OF BACKUP WATER SYSTEM

The tanks in the various locations have enough capacity to maintain a water supply for one day provided a local contingency plan is implemented in each area. In the event of mains water supply failure, the Hospital cold water storage tank has a supply for one day based on normal consumption. In this event 50% of the water consumption can be defined as non- critical and it is the responsibility of each department to put their water plans into place during failure of the water supply.

12.4 ACTION CARDS

Refer to the following Action Cards in relation to Water

ACTION CARD NO. 31 - Failure
ACTION CARD NO. 32 - Repair
ACTION CARD NO. 33 - Resuming Normal Operations

13.0 GAS

This part contains contingency procedures for all Gas services entering the hospital campus of the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with Gas.

13.1 LOCATIONS SERVED BY GAS SUPPLIES

Main Boiler house
5 B Boiler house
Phase 1 Boiler house
Phase 2 Boiler house
Oncology Boiler house
Maintenance Boiler house
Kitchen

13.2 TYPE OF SYSTEM

Natural gas is supplied to the hospital from the mains line outside the front boundary wall. The gas is piped around the hospital to the various locations listed above.

13.3 DESCRIPTION OF SYSTEM

The main hospital boilers, satellite boilers and main kitchen are primarily gas operated.

A main gas line system is routed around the hospital grounds. Where a gas supply is required an isolating valve, pressure regulator and slam shut valve are installed, the slam shut valve is activated by the fire alarm or gas detection systems.

13.4 DESCRIPTION OF BACKUP SYSTEM

Each boiler house location has capabilities for 24 hr oil backup if the gas fails. (The boilers are dual fuel and normally operate using gas but have the capability to switch over and run on light oil.) The kitchen has a gas supply for cooking. This supply services only the fryers and grills.

13.5 NUMBER AND TYPE OF SUPPLIES FEEDING SYSTEM

One gas supply from the main line feeds the system.

13.6 ACTION CARDS

Refer to the following Action Cards in relation to Gas

ACTION CARD NO. 34 - Failure

ACTION CARD NO. 35 - Repair

ACTION CARD NO. 36 - Resuming Normal Operations

14.0 OIL

This part contains contingency procedures for all Oil services entering the hospital campus of the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with Oil.

14.1 LOCATIONS SERVED BY OIL SUPPLIES

Asset No.	Location	Equipment
13291	Phase 2 Roof	Oil Tank
13531	Phase 2 Roof	Oil Tank
14408	Oncology Roof	Oil Tank
14800	Phase 1 Roof	Oil Tank
14798	Behind Mortuary	Oil Tank
14799	Behind Mortuary	Oil Tank

14.2 TYPE OF SYSTEM

The system is a gravity feed oil supply from an oil tank located at areas listed above, providing a backup to the boilers which are normally run on natural gas. Electric Generators are also oil fed and they have a back up oil tank that will supply 24 Hours of oil (at full load) to the generator.

14.3 DESCRIPTION OF SYSTEM

The oil system is simply an oil tank with an oil line feeding the dual fuel burners in the various boiler houses. See section on boilers for locations and further details on the burners. The main hospital boilers and satellite boilers are primarily gas operated. Each location has capabilities for 24 hr oil backup if the gas fails. (The boilers are dual fuel and normally operate using gas but have the capability to switch over and run on light oil.)

14.4 DESCRIPTION OF BACKUP SYSTEM

This system is a backup system for the natural gas system and therefore the backup to this backup is to refill the oil tank as it runs low refer to the action card, failure of system, for the phone numbers of the oil supply company.

14.5 ACTION CARDS

Refer to the following Action Cards in relation to Oil

ACTION CARD NO. 37 - Failure

ACTION CARD NO. 38 - Repair

ACTION CARD NO. 39 - Resuming Normal Operations

15.0 TELEPHONES

This part contains contingency procedures for all the PABX services serving the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with communications.

The systems covered under this section are as follows:

- 1 Main P.A.B.X.
- 2 Back up P.A.B.X.
- 3 Voicemail System

15.1 LOCATION OF SYSTEM

ASSET ID	DESCRIPTION	LOCATION
10032	Main Telephone Exchange	EMD 18 PABX Room
12342	Standby Telephone Exchange	EMD 18 PABX Room
12341	Telephone C/O Panel	EMD 18 PABX Room
12345	Backup Battery	EMD 18 PABX Room
12340	Distribution Board	EMD 18 PABX Room
12343	Repartee Voicemail	EMD 18 PABX Room

15.2 TYPE OF SYSTEM

The main system is a Siemens Hicom 350E
The backup is a Nitsuko DXE 32.

15.3 DESCRIPTION OF SYSTEM

The telecommunications system in place is located in the basement PABX Room, comprising of 1200 extensions, 60 Primary Rate ISDN (digital) channels and 40 VPN analogue circuits. This system allows for the use of the "48 + extn no" facility over the PRA's for DDI (direct dial inwards). There are 4 no. 2Mb links installed on the PABX – These are links to Catherine Street, St Josephs Hospital, Central Stores, and Environmental Health sites. These links allow internal communications to MWHB sites. Catherine St is where the hub for this service is located. The VPN analogue lines allow cheaper rate calls to be made to specific sites, eg. other Health Boards, as well as standard rate calls. The system has a 10 hour battery back up. This is located in the main switchroom alongside the P.A.B.X. There is a voicemail system connected to the PABX which serves all sites on the Limerick MWHB voice network. The system is maintained via a DMS server located in the PABX room. This server also records and provides call account management details.

15.4 DESCRIPTION OF BACKUP TELEPHONE SYSTEMS

An emergency standby PABX system is also provided. This system is a Nitsuko DXE 32 and it comprises of 16 analogue circuits and 44

extensions. The extensions from this system are supplied to critical locations only. A list of these is contained in [Action Card No 39](#). The DDI facility is not available to this system. This system has a back up which is supplied from a UPS fitted in the main switchroom. The UPS will run this system for 30 mins in the event of power failure. A third back-up is provided whereby stations can be connected directly to external lines. A list of station numbers to external lines is contained in [Action Card No 40](#).

In addition there are private lines that do not go through the main P.A.B.X.

There is a Changeover mechanism located in the switchroom to allow fast, easy conversion from one system to another in the event of one of the systems going down. It should be noted that there is no link whatsoever between the systems mentioned above and that only one system can be connected at any one time. The switching from one system to another is manual (by means of a switch located in Main Reception) and will be performed by trained Receptionist or maintenance staff only

In the event of a failure in the Siemens communication system, the Receptionist staff will connect to the Stand-by P.A.B.X.

In the event of a failure in the Stand-by communication system, the Receptionist staff will connect stations directly to external lines.

In the event of internal telephone systems failing the following alternatives are available :

- Ambulance radio
- Mobile telephones
- Emergency Intercom between critical areas
- Public address system

15.5 NO. AND TYPE OF SUPPLIES

The main system is fed locally through a battery management system located beside it in the basement. The batteries provide a ten hour backup.

The backup system is fed from a UPS in the fire alarm plant room. The switchover panel is fed from a UPS located in the Fire alarm plant room.

15.6 ACTION CARDS

Refer to the following Action Cards in relation to Telephones

ACTION CARD NO. 40 - Failure

ACTION CARD NO. 41 - Repair

ACTION CARD NO. 42 – Resuming Normal Operations

ACTION CARD NO. 62 – Standby PABX Extension Numbers

ACTION CARD NO. 63 – Direct Line Numbers

16.0 PAGING

This part contains contingency procedures for all the Paging systems serving the Mid-Western Regional Hospital and Mid-Western Regional Maternity Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with paging systems.

The systems covered under this section are as follows:

- 1 Paging systems
- 2 Backup Paging System

16.1 LOCATION OF SYSTEMS

Equipment for the system is located as follows:

- 1) Telecomms room in Basement of Mid-Western Regional Hospital Dooradoyle.
- 2) Roof, roof plantroom and medical liftshaft Plantroom of Mid-Western Regional Hospital Dooradoyle.
- 3) Reception Desk of Mid-Western Regional Hospital Dooradoyle.
- 4) Accident & Emergency Reception of Mid-Western Regional Hospital Dooradoyle.
- 5) Ward 5B of Mid-Western Regional Hospital Dooradoyle.
- 6) Telecomms room on Ground floor of St Munchins Maternity Hospital.

Asset ID	Equipment	Location
10669	Main Paging System	EMD 18 PABX Plant room
12335	Backup Paging System	EMD 10 Plant room communications
13625	Console	Main Reception Desk
14539	Console	EMD 18 PABX Plant room
12948	Console	A & E Reception
20307	Booster	St Munchins EMD 206 PABX room
10743	Teleprotect Transmit/Rec	Ward 5B
10681	Teleprotect Transmit/Rec	EMD 18 PABX Plant room
14859	Transmitter	Medical Liftshaft Plantroom

16.2 TYPE OF SYSTEMS

Both the Main and Backup systems are Multitone Access 3000 paging systems.

16.3 DESCRIPTION OF MAIN SYSTEM

The user pager in use is a Multitone RPR552. There are currently 445 pagers in use on the system. There are 6 telephone interfaces to the system, four for 83; 2060, 2061, 2062, and 2466. One for 63; 2663 and external access via 061 301132. There is an interface for the BMS, this is located in the Electrical foremans office. There is an interface for the Fire Alarm, this is located in the basement telecomms room in Dooradoyle. The Nurses mobile alarms in A & E and the Intruder Alarms throughout the site are connected to the Paging system.

There are 3 Access 1000 Programming/Paging consoles. One at Main reception, one at A & E reception and one in the basement PABX room. These are primarily used by reception staff for Team Paging. For example, the Regional Cardiac Arrest Team carry dedicated RPR552 pagers. These are distinguished by a yellow label and the absence of a 3-digit pager number. Their team paging number is 10. In the event of a cardiac emergency anywhere in the hospital a person alerts reception giving an exact location. The receptionist translates this location into a code using a chart located on the reception desk and then alerts the Cardiac Team using the paging console as follows:

- Press Cancel key to clear display
- Press Red Team Call key
- Enter Team no: 10
- Press Enter key
- Key in location no:
- Press Red Team Call key

The dedicated cardiac pagers will then alarm while displaying the location of the emergency. The cardiac arrest pagers are dedicated to this purpose only. Some of the other 445 standard pagers are also programmed for team paging, eg: team 12 is the Surgical team. All members of this team can be summoned by team paging no: 12.

A Teleprotect 900 system has been installed in ward 5B to protect the staff from personal attack. Twenty six Infrared transmitter locators are positioned throughout the ward. The staff carry Ascom U970 personal alarms, these pick-up their location from the locators as the staff move around the ward. Alarms can be activated by depressing a red button on the top of the unit, or by means of a pullcord, or by means of a mercury tilt switch that activates if the unit is left in a horizontal position (Man Down). When an alarm is activated it sends a signal to the Paging system, this alerts a number of 5B and Security staff Panic Alert pagers, giving the location of the attacked staff member. The Teleprotect 900 system is controlled by a PC (Compaq Evo, 08647) in the 5B Receptionists office. This computer must never be switched off!

16.4 DESCRIPTION OF BACKUP SYSTEM

The Backup System is also a Multitone Access 3000. The system and transmitter are located in the Telecomms plantroom on the roof of the Mid-Western Regional Hospital Dooradoyle. The Back-up system also has its own separate antennae. The switch to transfer from the Main system to the Backup system is situated under the Access 3000 Console at the Main Reception Desk of the Mid-Western Regional Hospital Dooradoyle. The Back-up system has only two telephone interface cards, this limits the no. of persons able to use the system simultaneously to two. Both these interfaces are for 83. There is no access for 63 or externally through 061 301132. It is worth noting that in the event of the telephone system failing while the back-up paging system is in use that St Munchins Maternity Hospital will be unable to use the paging system.

16.5 NUMBER AND TYPE OF SUPPLIES

The Main paging system is fed by a 3 KVA UPS. It should last for 30 mins approx on the UPS. It is located in the Fire Alarm room beside the Telecomms room in the basement of the Mid-Western Regional Hospital Dooradoyle. The Backup system is fed from a mains socket in the EMD 10 Plant room.

16.6 ACTION CARDS

Refer to the following Action Cards in relation to Paging Systems

ACTION CARD NO. 43 - Failure

ACTION CARD NO. 44 - Repair

ACTION CARD NO. 45 – Resuming Normal Operations

17.0 PUBLIC ADDRESS

This part contains contingency procedures for all the Public Address system serving the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with Public Address.

LOCATION OF SYSTEM

ASSET	EQUIPMENT	LOCATION
14591	PA Mainframe	Direct Payments Office
14590	PA Amplifier	Direct Payments Office
14589	PA Amplifier	Radiology
14592	PA Amplifier	Rainbow Ward

14593	PA Amplifier	Laboratory
12961	PA Amplifier	Emergency Department
10921	PA Amplifier	Emergency Department Reception
10346	PA Amplifier	Admissions
14758	PA Amplifier	Oncology Centre
14757	CD Player	Oncology Centre
14594	PA Amplifier	Oncology Centre

17.1 DESCRIPTION OF SYSTEM

The public address system in place was installed by Sound Productions. There are 3 main paging microphones installed, 1 of which is a 16 zone microphone, located at Outpatients reception. The other 2 microphones are located 1 at main reception and 1 in the Major Emergency Control room (Medical Boardroom). The system comprises of 1 mainframe that houses an amplifier, audio combiner, microphone rack, etc. This mainframe is located in the direct payments office located behind OPD reception. The amplifier that serves the "Old Hospital" PA system is located here also. The mainframe feeds onto a number of smaller amplifiers. These amplifiers are located in and provide public address facilities to the following areas:

Sunshine Ward
Rainbow Ward
Admissions
Emergency Department
Emergency Department Reception
Radiology Department
Oncology Centre
Patient Support Centre

Individual microphones are fitted in these areas so that local paging can be carried out.

The Laboratory has a PA system that is used for local paging only and is not interfaced into the main hospital system.

17.2 BACK UP SYSTEM

The main backup that this system has is that the mainframe and "Old Hospital" amplifier are feed from a UPS which is located beside the mainframe. The UPS will run the public address system for 60 mins on continuous operation. There is no standby system installed to provide public address services in the event of failure of the mainframe system. Local paging would not be affected by failure of the mainframe system.

17.3 SUPPLIES FEEDING THE SYSTEM

The system is fed from DC 1(Phase 1) GS 20, and is backed up via UPS as mentioned above.

17.4 ACTION CARDS

Refer to the following Action Cards in relation to Public Address

ACTION CARD NO. 46 - Failure

ACTION CARD NO. 47 - Repair

ACTION CARD NO. 48 – Resuming Normal Operations

18.0 EMERGENCY INTERCOM

This part contains contingency procedures for the Emergency Intercom system serving the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with the Emergency Intercom.

18.1 LOCATION OF SYSTEM

The system is located throughout the hospital.

ASSET	EQUIPMENT	LOCATION
14764	TD-3H/B Handset	School Of Nursing Portacabin 5
14765	TD-3H/B Handset	Classroom 1
14766	TD-3H/B Handset	Conference Room 2 nd Floor Nurses Home
13621	TD-12H/B Handset	Main Reception
12965	TD-12H/B Handset	Emergency Department Nurses Station
14767	TD-12H/B Handset	Medical Boardroom
14760	TD-3H/B Handset	General Managers Office
14762	TD-3H/B Handset	ICU
14759	TD-3H/B Handset	CCU
14763	TD-3H/B Handset	Pharmacy
14098	TD-3H/B Handset	Main Theatre Reception
14761	TD-3H/B Handset	Laboratory
12966	Main System Controller	Emergency Department Nurses Station

18.2 DESCRIPTION OF SYSTEM

The Emergency Intercom system in place is an Aiphone selective call intercom system, which will allow communication between the major and/or critical areas of the hospital. The areas covered under this system and the communications available on each handset are as follows:

Handset Location	Can Contact	Is contactable by
Main Reception	Emergency Department	Emergency Department
	Medical Boardroom	Medical Boardroom
	General Managers Office	General Managers Office
	ICU	ICU
	CCU	CCU
	Pharmacy	Pharmacy
Emergency Department	Main Reception	Main Reception
	Medical Boardroom	Medical Boardroom
	General Managers Office	Conference Room 2 nd NH
	ICU	General Managers Office
	CCU	ICU
	Pharmacy	CCU
	Theatre	Pharmacy
	Laboratory	Laboratory
		Main Theatre
Medical Boardroom	Main Reception	Main Reception
	Emergency Department	Emergency Department
	General Managers Office	Classroom 1
	ICU	School Of Nursing Cabin 5
	CCU	General Managers Office
	Pharmacy	ICU
		CCU
		Pharmacy
		Laboratory
Classroom 1	School Of Nursing Cabin 5	School Of Nursing Cabin 5
	Medical Boardroom	Conference Room 2 nd NH

	Conference Room 2 nd NH	
School Of Nursing Cabin 5	Classroom 1	Classroom 1
	Medical Boardroom	Conference Room 2 nd NH
	Conference Room 2 nd NH	
Conference Room 2nd NH	School Of Nursing Cabin 5	Classroom 1
	Classroom 1	School Of Nursing Cabin 5
	Emergency Department	
General Managers Office	Main Reception	Main Reception
	Emergency Department	Emergency Department
	Medical Boardroom	Medical Boardroom
ICU	Main Reception	Main Reception
	Emergency Department	Emergency Department
	Medical Boardroom	Medical Boardroom
		Main Theatre
CCU	Main Reception	Main Reception
	Emergency Department	Emergency Department
	Medical Boardroom	Medical Boardroom
Pharmacy	Main Reception	Main Reception
	Emergency Department	Emergency Department
	Medical Boardroom	Medical Boardroom
Laboratory	Emergency Department	Emergency Department
	Main Theatre	
	Medical Boardroom	
Main Theatre	ICU	Laboratory
	Emergency Department	Emergency Department

18.3 NUMBER AND TYPE OF SUPPLIES

This system is feed from the UPS which covers the Procedures room in A/E. This system will run for 30 mins in the event of loss of mains supply.

18.4 ACTION CARDS

Refer to the following Action Cards in relation to Emergency Intercom

ACTION CARD NO. 49 - Failure

ACTION CARD NO. 50 - Repair

ACTION CARD NO. 51 – Resuming Normal Operations

19.0 AIR CONDITIONING

This part contains contingency procedures for the Air conditioning at the Mid-Western Regional Hospital. Refer to [Section 4](#) for Action Cards.

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with lift equipment.

19.1 LOCATION OF SYSTEM

The Air conditioning system has equipment in the following locations:

ASSET ID	EQUIPMENT	LOCATION
10007	A.H.U. 23	Plant room phase 1
10012	A.H.U. 14	Plant room phase 1
10047	A.H.U. 11	Plant room phase 1
10053	A.H.U. 12	Plant room phase 1
10060	A.H.U. 13	Plant room phase 1
10076	A.H.U. 25	Plant room phase 1
10090	A.H.U. 22	Plant room phase 1
10091	A.H.U. 27	Plant room phase 1
10104	A.H.U. 21	Plant room phase 1
10126	A.H.U. 19	Plant room phase 1
10127	A.H.U. 16	Plant room phase 1
10129	A.H.U. 26	Plant room phase 1
10130	A.H.U. 18	Plant room phase 1
10143	A.H.U. 24	Plant room phase 1
10148	A.H.U. 15	Plant room phase 1
10171	A.H.U. 28	Plant room phase 1
10180	A.H.U. 20	Plant room phase 1
10190	A.H.U. 29	Plant room phase 1
10992	A.H.U. 17	Plant room phase 1
10677	A.H.U.	Kitchen roof
10690	A.H.U.	Kitchen roof
12357	A.H.U.	Kitchen roof
10726	A.H.U.	A&E roof
10024	A.H.U. 10	Roof phase 1
10025	A.H.U. 3	Roof phase 1
10027	A.H.U. 9	Roof phase 1
10038	A.H.U. 7	Roof phase 1
10039	A.H.U. 5	Roof phase 1

10040	A.H.U. 4	Roof phase 1
10046	A.H.U. 6	Roof phase 1
10049	A.H.U. 1	Roof phase 1
10057	A.H.U. 2	Roof phase 1
10159	A.H.U. 8	Phase 1 roof
10084	A.H.U.	Phase 2 roof

ASSET ID	EQUIPMENT	LOCATION
10114	A.H.U.	Phase 2 roof
10128	A.H.U.	Phase 2 roof
10162	A.H.U.	Phase 2 roof
10709	A.H.U.	X-ray roof
10720	A.H.U.	X-ray roof
10897	A.H.U.	Phase 1 roof
10929	A.H.U.	Phase 1 roof

19.2 TYPE OF SYSTEMS

The air conditioning in the hospital is mainly carried out by air handling units that are used in conjunction with extract fans. Some areas that are not served by an air handling units have split air conditioning units installed.

19.3 DESCRIPTION OF SYSTEMS

The air handling units consist of a cabinet which takes in air from the outside, filters it and blows the air through a heating or cooling coil, and then into the rooms being air conditioned, via ducts and outlet grills. The air in the room is extracted by means of an extract fan to allow circulation. All the air handling units are fitted with a heating coil to heat the air and some are fitted with a cooling coil which gives a cooling function. Chilled water is required to flow through the cooling coil for cooling and hot water is required to flow through the heating coil for heating.

The split type system has an outdoor unit and usually has heating and cooling functions.

19.4 DESCRIPTION OF BACKUP SYSTEM

There is not any backup to the air conditioning system.

19.5 NUMBER AND TYPE OF SUPPLY FEEDING SYSTEM

Air handling units require three-phase electrical supplies and split systems require either single phase or three-phase electrical supplies. In some cases both types of supplies are required for split systems. Chilled water and hot water are required for the heating and cooling coils on air handling units.

19.6 ACTION CARDS

Refer to the following Action Cards in relation to Air Conditioning

ACTION CARD NO. 52 - Failure

ACTION CARD NO. 53 - Repair

ACTION CARD NO. 54 – Resuming Normal Operations

20.0 PNEUMATIC CONVEYOR

This part contains contingency procedures for the Pneumatic Conveyor system serving the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with the Pneumatic Conveyor.

20.1 LOCATION OF SYSTEM

The system is located throughout the hospital.

ASSET	EQUIPMENT	LOCATION
13612	User Station	Haematology
13613	User Station	Laboratory Reception
14344	User Station	Histology
13611	User Station	Oncology
14352	User Station	Serology
14357	User Station	Microbiology
12478	User Station	Ward 1C
12764	User Station	Ward 1B
13124	User Station	Emergency Department
11849	User Station	Ward 1D
12471	User Station	Ward Trauma
14776	User Station	Ward 3C
14777	User Station	Ward 3D
14778	User Station	Ward 3A
12790	User Station	Pharmacy
14775	User Station	Ward 4B
14770	User Station	ICU
14773	User Station	Day Ward
14774	User Station	Dialysis
10043	Main Station/User station	Biochemistry
14565	User Station	Rainbow Ward
14581	User Station	Caterpillar
14575	User Station	Sunshine Ward
14772	User Station	Physiotherapy
14768	Blower Motor	Basement

20.2 TYPE OF SYSTEM

The Pneumatic conveyor system is an air operated system.

20.3 DESCRIPTION OF SYSTEM

The Pneumatic Conveyor system comprises of 24 user stations, 13 diverter stations and 1 blower motor. There are also approx 70 canisters in the system.

When a person wishes to send a message from one area of the hospital to another, they place their message into a canister, go to the nearest user station and enter the 4 digit number of the station that the canister is to go to. They then place their canister into the user station and wait for it to go.

When the 4 digit number is entered into the system, the system lines up the diverters, so that the canister is provided with the appropriate route to get to the receiving station. The blower motor is then started by the system, in either suction mode or blow mode depending on the route. (The sending of a canister may require both suction mode and blow mode depending on the route).

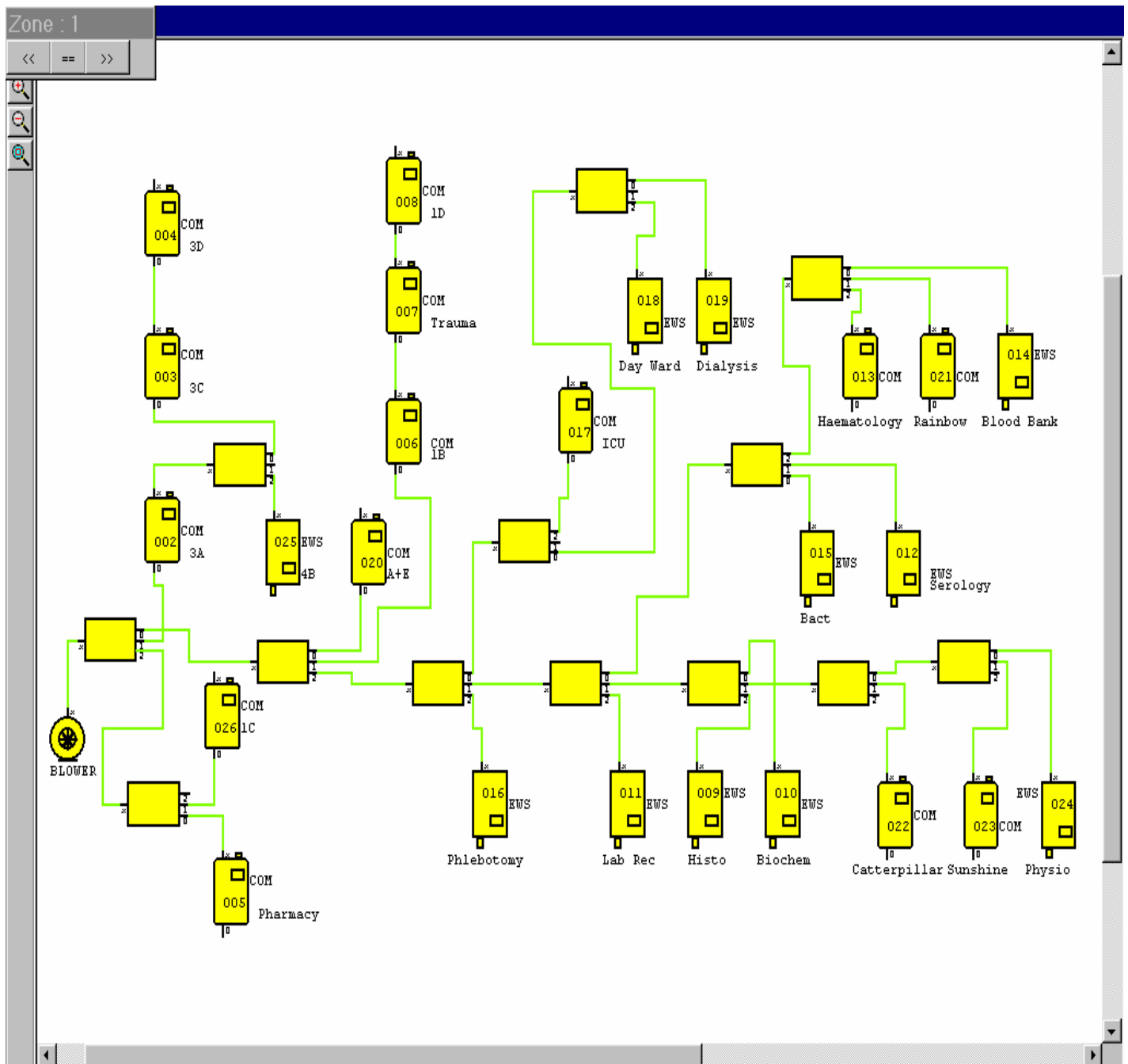
Each time a transaction is completed by the system a log of the event is printed to the system printer located in the Biochemistry Lab.

The system is capable of sending only one canister at a time, so if the system is busy, a queuing system is set up whereby the queued canisters are sent according to the time the canister was placed into the user station.

If one station were to go into fault then the entire system goes into fault.

To prevent the spread of airborne infections from the Emergency Department to other areas of the hospital, a kill switch is located in the sister's office in the emergency department. This kill switch removes supply to the blower motor and puts the system into fault, thereby disabling the system.

A map of the system is given on the following page.



20.4 SUPPLIES FEEDING SYSTEM

The system is fed via 2 no. power supplies. One of these is located at the main station in the Biochemistry laboratory. The second supply, a 3 phase supply, is located at the blower motor in the basement.

20.5 ACTION CARDS

Refer to the following Action Cards in relation to Pneumatic Conveyor

ACTION CARD NO. 55 - Failure

ACTION CARD NO. 56 - Repair

ACTION CARD NO. 57 – Resuming Normal Operations

21.0 UPS

This part contains contingency procedures for UPS machines serving the Mid-Western Regional Hospital. Refer to Section 4 for [Action Cards](#).

The **Estates Maintenance Department** holds contact details of appropriate staff and contractors associated with UPS machines.

21.1 LOCATION OF SYSTEMS

UPS systems are located throughout the hospital.

ASSET	EQUIPMENT	LOCATION	AREA COVERED	SUPPLIER	HOSPITAL
10002	15 KVA UPS	Phase 1	Theatre 7,8,9	Secure Power Systems	MWRH
13312	Battery Unit	Plant Room	A/E Recovery Room & Theatre	Secure Power Systems	MWRH
10017	15 KVA UPS	Phase 1	Theatre 4,5,6	Secure Power Systems	MWRH
20154	25 KVA UPS	Roof Plant Rm	Neo Natal	Secure Power Systems	Maternity
20189	Battery Unit	Roof Plant Rm	Neo Natal	Secure Power Systems	Maternity
10063	15 KVA UPS	Phase 1	Theatre 1,2,3	Secure Power Systems	MWRH
12336	3 KVA UPS	Plant Room	PABX Room	Secure Power Systems	MWRH
10041	20 KVA UPS	Phase 1	ICU & Recovery	Secure Power Systems	MWRH
20279	3 KVA UPS	House	Recovery Room	Secure Power Systems	Maternity
13306	6 KVA UPS	A/E X-Ray	Processing Room	Secure Power Systems	MWRH
10110	25 KVA UPS	Phase 2 Plant Rm	Biochemistry Lab	Secure Power Systems	MWRH
10307	Battery Unit	A/E X-Ray	Processing Room	Secure Power Systems	MWRH
10871	UPS	Pac's Room	Pac's Room	Secure Power Systems	
13311	6 KVA UPS	A/E	A/E Recovery Room & Theatre	Secure Power Systems	MWRH
12992	3 KVA UPS	Eye Theatre	Eye Theatre	Secure Power Systems	MWRH
13917	10 KVA UPS	Ambulance Centre	Ambulance Centre Control Room	Secure Power Systems	MWRH
12346	15 KVA UPS	Cat Scan Plant Room	CCU	Pat Smith Engineering	MWRH
	1 KVA UPS	Direct Payments Off.	PA System	Secure Power Systems	MWRH
14769	3 KVA UPS	Radio Station	Radio Station	Secure Power Systems	MWRH

21.2 TYPE OF SYSTEMS

UPS systems consist of single phase units and of three phase units. The autonomy of each UPS may be different (Autonomy refers to how long the batteries will last for a given load).

21.3 DESCRIPTION OF SYSTEM

UPS systems provide uninterrupted conditioned supply to the equipment connected to the output of the unit. They have inbuilt batteries that will maintain the output in the event of loss of mains.

During normal operation the batteries are being constantly charged. During loss of mains the batteries discharge over a period of time into the output or load, depending on the autonomy of the UPS.

If the UPS detects a major fault (in the mains input or in the output) it will go off line (or into internal bypass). By doing this the UPS protects itself. Going off line means that the battery element of the UPS and the line conditioning element of the UPS are switched off (ie. The inverter/rectifier switches off). If a power failure were to occur when the unit is off line, the output will be affected through loss of power.

Larger UPS's (Above 3 KVA) are fitted with an External Bypass. This comprises of a panel on the wall beside the UPS machine. The panel has 2 supplies running through it. These supplies are usually fed from the same board, but in some cases are fed from different boards. The first supply is the normal supply feeding the UPS. The second supply is an alternative supply that is only used during external bypass. The panel has 2 switches on it. Switch no.1 (right hand side switch) connects the second supply to the load. Switch no. 2 isolates the UPS from all supplies. The UPS must be off line before it is switched to external bypass, otherwise the inverter/rectifier may be damaged beyond repair. Once a UPS is in external bypass, the UPS is effectively isolated and can be maintained, removed or replaced. If a power failure were to occur when the unit is in external bypass, the load being fed will be affected through loss of power.

21.4 ACTION CARDS

Refer to the following Action Cards in relation to UPS

ACTION CARD NO. 58 - Failure

ACTION CARD NO. 59 - Repair

ACTION CARD NO. 60 – Resuming Normal Operations

ACTION CARD NO 1

STERILIZERS (Failure)

Estates Maintenance Department Contacts for Sterilizers (The Mid-Western Regional Hospital) are:

- 1) Mechanical Services Officer, Liam Ryan, 087 9076644
- 2) Technical Services Supervisor, Tony McBride, 087 6782572
- 3) On call plumber, Pager 200
- 4) On call Electrician, Pager 100

External Contractors are:

Manepa	01-2959191 (For equipment in C.S.S.D.)
Davidson and Hardy	1800 –709080 (Kestrel and Falcon autoclaves)
The Medical supply company	01-8224222 (Boxer autoclave)
Power Air	087-2677934 Billy Coleman

ACTIONS IN THE EVENT OF FAILURE OF STERILIZERS

- ❑ **QUANTIFY THE PROBLEM AS MUCH AS POSSIBLE (CHECK AIR, CHECK STEAM, CHECK ELECTRICAL POWER)**
- ❑ **CONTACT EITHER ON CALL ELECTRICIAN ON PAGER 100 OR ON CALL PLUMBER ON PAGER 200, AS APPROPRIATE.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, AS REQUIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - *ELECTRICAL/MECHANICAL FOREMAN*
 - **MECHANICAL TECHNICIAN**
- ❑ **FOLLOWING INSTRUCTION OR IF UNABLE TO CONTACT THE ABOVE CALL THE APPROPRIATE CONTRACTOR.**

ACTION CARD NO 2

STERILIZERS (Repair)

Estates Maintenance Department Contacts for Sterilizers (The Mid-Western Regional Hospital) are:

- 1) Mechanical Services Officer, Liam Ryan, 087 9076644
- 2) Technical Services Supervisor, Tony McBride, 087 6782572
- 3) On call plumber, Pager 200
- 4) On call Electrician, Pager 100

External Contractors are:

Manepa	01-2959191 (For equipment in C.S.S.D.)
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Davidson and Hardy	1800 –709080 (Kestrel and Falcon autoclaves)
The Medical supply company	01-8224222 (Boxer autoclave)
Power Air	087-2677934 Billy Coleman

SERVICE CONTRACT DETAILS

The service and repair of the kestrel and Falcon 30 autoclave is subject to a service contract with Davidson and Hardy.

The service and repair of the boxer autoclave is subject to a service contract with The Medical Supply Company.

There is not any service contract with Manepa.

Details of these service contracts can be found in the service contracts files located in the service officers office.(Davidson and Hardy file no. 3.004. The Medical supply co. file no.3.009)

DOCUMENTS, MANUALS AND DRAWINGS

Manuals for sterilization equipment in Microbiology are held in Public Health Lab.

ACTION CARD NO 3

STERILISERS (Resuming Normal Operations)

Estates Maintenance Department Contacts for Sterilizers (The Mid-Western Regional Hospital) are:

- 1) Mechanical Services Officer, Liam Ryan, 087 9076644
- 2) Technical Services Supervisor, Tony McBride, 087 6782572
- 3) On call plumber, Pager 200
- 4) On call Electrician, Pager 100

External Contractors are:

Manepa	01-2959191 (For equipment in C.S.S.D.)
Davidson and Hardy	1800 –709080 (Kestrel and Falcon autoclaves)
The Medical supply company	01-8224222 (Boxer autoclave)
Power Air	087-2677934 Billy Coleman

RESUMING NORMAL OPERATIONS

- ❑ **ENSURE THAT STERILIZATION EQUIPMENT IS TESTED THOROUGHLY.**
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE ENGINEER (IF CALLED IN).**
- ❑ **INFORM ALL NECESSARY STAFF THAT SYSTEM IS REPAIRED.**

ACTION CARD NO 4

CATERING (Failure)

Estates Maintenance Department Contacts for the Catering Systems are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Services Officer, Larry Murphy, 086 6692111
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

CFS, Carey Food Equipment Services 061 302096
Joe Carey (mobile) 087 2530261

Cross Refrigeration 061 417415

Kelly Refrigeration 065 6820997

Masser Hammond 021 4341202
Tom Collopy: 087 2052427

ACTIONS IN THE EVENT OF FAILURE OF CATERING EQUIPMENT

- **QUANTIFY THE PROBLEM AS MUCH AS POSSIBLE**
 - **IS IT AN INDIVIDUAL APPLIANCE THAT HAS FAILED OR HAVE ALL THE GAS/ELECTRIC APPLIANCES FAILED.**
 - **IF THERE IS A BACKUP OR ALTERNATIVE APPLIANCE, INSTRUCT STAFF TO MOVE TO THIS AND THEN ISOLATE THE FAULTY APPLIANCE.**
 - **IF A FAULT OCCURS IN A FREEZER/COLDROOM THEN KEEP THE DOOR CLOSED UNTIL THE SERVICE COMPANY COME AND MONITOR THE TEMPERATURE. IF REPAIR WILL BE PROLONGED THEN INSTRUCT STAFF TO MOVE CONTENTS ANOTHER FREEZER.**

- ❑ **CONTACT ON CALL ELECTRICIAN ON PAGER 100, OR ON CALL PLUMBER ON PAGER 200, AS APPROPRIATE.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, IF NECESSARY**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **ELECTRICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
- ❑ **FOLLOWING INSTRUCTION, OR IF UNABLE TO CONTACT THE ABOVE, CALL THE APPROPRIATE SERVICE COMPANY AS LISTED ABOVE.**

ACTION CARD NO 5
CATERING (Repair)

Estates Maintenance Department Contacts for the Catering Systems are:

- 4) Electrician on Call, Pager 100
- 5) Electrical Services Officer, Larry Murphy, 086 6692111
- 6) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

CFS, Carey Food Equipment Services 061 302096
Joe Carey (mobile) 087 2530261

Cross Refrigeration 061 417415

Kelly Refrigeration 065 6820997

Masser Hammond 021 4341202
Tom Collopy: 087 2052427

SERVICE CONTRACT DETAILS

Service contract details for the above listed companies can be found in the Service Contract files located in the service officer's office.

ACTION CARD NO 6
CATERING (Resuming Normal Operations)

Estates Maintenance Department Contacts for the Catering Systems are:

- 7) Electrician on Call, Pager 100
- 8) Electrical Services Officer, Larry Murphy, 086 6692111
- 9) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

CFS, Carey Food Equipment Services 061 302096
Joe Carey (mobile) 087 2530261

Cross Refrigeration 061 417415

Kelly Refrigeration 065 6820997

Masser Hammond 021 4341202
Tom Collopy: 087 2052427

RESUMING NORMAL OPERATIONS

- ❑ ENSURE THAT EQUIPMENT IS TESTED THOROUGHLY.
- ❑ OBTAIN A FULLY COMPLETED SERVICE SHEET FROM ANY SERVICE ENGINEER THAT WAS CALLED IN.
- ❑ INFORM ALL NECESSARY CATERING AND ESTATES MAINTENANCE DEPARTMENT STAFF THAT EQUIPMENT HAS BEING REPAIRED.

ACTION CARD NO 7

MEDICAL GASES (Failure)

Estates Maintenance Department Contacts for medical gases (The Mid-Western Regional Hospital) are:

- 1) Mechanical Services Officer, Liam Ryan, 087 9076644
- 2) Technical Services Supervisor, Tony McBride, 087 6782572
- 3) On call plumber Pager 200
- 4) On call electrician Pager 100

External Contractors are:

Hospital technical systems 01-4551163

B.O.C. gas services

01-4091804 (outlet points)

ACTIONS IN THE EVENT OF FAILURE OF MEDICAL GASES

- ❑ **QUANTIFY THE PROBLEM AS MUCH AS POSSIBLE**
 - **CHECK ELECTRICAL POWER,**
 - **CHECK COMPRESSOR/VACUUM PUMP**
 - **CHECK BACKUP MANIFOLDS IN THE CASE OF OXYGEN OR NITROUS OXIDE).**
- ❑ **CONTACT EITHER ON CALL ELECTRICIAN ON PAGER 100 OR ON CALL PLUMBER ON PAGER 200, AS APPROPRIATE**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, AS REQUIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **MECHANICAL TECHNICIAN**
- ❑ **FOLLOWING INSTRUCTION OR IF UNABLE TO CONTACT THE ABOVE CALL THE APPROPRIATE CONTRACTOR.**

ACTION CARD NO 8

MEDICAL GASES (Repair)

Estates Maintenance Department Contacts for medical gases (The Mid-Western Regional Hospital) are:

- 1) Mechanical Services Officer, Liam Ryan, 087 9076644
- 2) Technical Services Supervisor, Tony McBride, 087 6782572
- 3) On call plumber Pager 200
- 4) On call electrician Pager 100

External Contractors are:

Hospital technical systems

01-4551163

B.O.C. gas services

01-4091804 (outlet points)

SERVICE CONTRACT DETAILS

The service and repair of the medical gas system is subject to a service contract with:
Hospital Technical systems Ltd.

Details in file no.3.006

B.O.C. Gas services Ltd. (outlet points only)

Details in file no.3.002

These files are located in the service officer's office.

DOCUMENT, MANUALS AND DRAWINGS

Drawings for the medical gas system can be found in the drawing cabinet in the service officer's office.

MEDICAL GASES (Resuming Normal Operations)

Estates Maintenance Department Contacts for medical gases (The Mid-Western Regional Hospital) are:

- 1) Mechanical Services Officer, Liam Ryan, 089076644
- 2) Technical Services Supervisor, Tony McBride, 087 6782572
- 3) On call plumber Pager 200
- 4) On call electrician Pager 100

External Contractors are:

Hospital technical systems 01-4551163

B.O.C. gas services 01-4091804 (outlet points)

RESUMING NORMAL OPERATIONS

- ❑ **ENSURE THAT MEDICAL GAS SYSTEM IS TESTED THOROUGHLY.**
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE SERVICE ENGINEER.**
- ❑ **INFORM ALL THE NECESSARY STAFF THAT THE MEDICAL GAS SYSTEM IS REPAIRED.**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **MECHANICAL TECHNICIAN**

ACTION CARD NO 10

LIFTS (Failure)

Estates Maintenance Department Contacts for the lift System (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100,
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Mid Western Lift Services Ltd., 061-400123

ACTIONS TO BE TAKEN IN THE EVENT OF LIFT FAILURE

- ❑ **QUANTIFY THE PROBLEM AS MUCH AS POSSIBLE. CHECK TO SEE ARE THERE ANY PASSENGERS TRAPPED IN THE LIFT, IF PASSANGERS ARE TRAPPED, THEN:**
 - **GO TO ACTION CARD NO. 64 FOR RELEASE OF PASSENGERS FROM ROPE TYPE LIFT**
 - **GO TO ACTION CARD NO. 65 FOR RELEASE OF PASSENGERS FROM HYDRAULIC TYPE LIFT**
- ❑ **CONTACT THE ON CALL ELECTRICIAN ON PAGER 100.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING:**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **MECHANICAL TECHNICIAN.**
- ❑ **FOLLOWING INSTRUCTION OR IF UNABLE TO CONTACT THE ABOVE CONTACT MID-WESTERN LIFT SERVICES.**

ACTION CARD NO 11

LIFTS (Repair)

Estates Maintenance Department Contacts for the lift System (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100,
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Mid Western Lift Services Ltd., 061-400123

SERVICE CONTRACT DETAILS

The service and repair of the Lift system is subject to a service contract with Mid Western Lift Services Ltd. Details of this contract can be found in Service Contracts File No:3.009 located in the service officers office.

DOCUMENT, MANUALS AND DRAWINGS

ACTION CARD NO 12

LIFTS (Resuming Normal Operations)

Estates Maintenance Department Contacts for the lift System (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100,
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Mid Western Lift Services Ltd., 061-400123

RESUMING NORMAL OPERATIONS

- ❑ **ESTATES MAINTENANCE DEPARTMENT TO INSPECT AND CHECK LIFT SYSTEM TO ENSURE IT IS OPERATING TO NORMAL STANDARDS.**
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE SERVICE ENGINEER (IF CALLED IN)**
- ❑ **INFORM ALL NECESSARY STAFF THAT LIFT SYSTEM IS REPAIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **MECHANICAL TECHNICIAN**
 - **ON-CALL ELECTRICIAN**
 - **MAIN RECEPTION**
 - **SECURITY**

ACTION CARD NO 13

BOILERS (Failure)

Estates Maintenance Department Contacts for Boilers (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100
- 2) Plumber on call, Pager 200
- 3) Mechanical Services Officer, Liam Ryan, 087 9076644
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Lenmac 061202277
Noel Drummond 087 2123580

ACTIONS TO BE TAKEN IN THE EVENT OF BOILER FAILURE

- ❑ **CALL ON-CALL ELECTRICIAN ON PAGER 100, OR ON-CALL PLUMBER ON PAGER 200, AS APPROPRIATE**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, IF REQUIRED:**

- **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **MECHANICAL TECHNICIAN.**
-
- ❑ **CHECK THE BOILER PANEL TO MAKE SURE THE BURNER HAS NOT TRIPPED OUT.**
 - ❑ **IF THERE IS A LOCKOUT ON THE PANEL AN ELECTRICIAN WILL HAVE TO RESET IT.**
 - ❑ **IF THE BURNER IS LOCKED OUT AN ORANGE LIGHT WILL APPEAR ON THE FRONT OF THE UNIT THIS MUST BE PRESSED TO RESET THE BURNER.**
 - ❑ **IF THE BURNER HAS LOCKED OUT DUE TO GAS SUPPLY FAILURE SWITCH THE BURNER OVER TO OIL AND RESET IT.**
 - ❑ **TO OPERATE THE BOILER IN MANUAL MODE THE BOILER CONTROL ON THE PANEL MUST BE SWITCHED TO HAND THE BOILER WILL NOW OPERATE INDEPENDENTLY OF THE BMS AND WORK TO A PRESET TEMPERATURE ON THE BOILERS CONTROL PANEL THIS TEMPERATURE SHOULD BE APPROX 80 – 90 DEGREES.**
 - ❑ **FOLLOWING INSTRUCTION OR IF UNABLE TO CONTACT THE ABOVE CONTACT SERVICE COMPANY.**

ACTION CARD NO 14

BOILERS (Repair)

Estates Maintenance Department Contacts for Boilers (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100
- 2) Plumber on call, Pager 200
- 3) Mechanical Services Officer, Liam Ryan, 087 9076644
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Lenmac 061202277
Noel Drummond 087 2123580

SERVICE CONTRACT DETAILS

The service and repair of Boilers are subject to a service contract with Lenmac Services Ltd. Details of this contract can be found in Service Contracts File No:3.008 located in the service officer's office.

ACTION CARD NO 15

BOILERS (Resuming Normal Operations)

Estates Maintenance Department Contacts for Boilers (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100
- 2) Plumber on call, Pager 200
- 3) Mechanical Services Officer, Liam Ryan, 087 9076644
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Lenmac 061202277
Noel Drummond 087 2123580

RESUMING NORMAL OPERATIONS

- ❑ IF THE BURNER HAS BEEN SWITCHED FROM GAS TO OIL, SWITCH IT BACK TO GAS.
- ❑ THE BOILER MUST BE TURNED BACK TO AUTO ON THE CONTROL PANEL IF THE PROBLEM WITH THE BMS HAS BEEN SORTED OUT.
- ❑ THE BOILER MUST BE OBSERVED TO MAKE SURE IT OPERATES CORRECTLY UNDER NORMAL OPERATIONS.
- ❑ OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE SERVICE ENGINEER (IF CALLED IN)
- ❑ INFORM ALL NECESSARY STAFF THAT BOILERS ARE REPAIRED
 - TECHNICAL SERVICES SUPERVISOR
 - MECHANICAL SERVICES OFFICER
 - ELECTRICAL/MECHANICAL FOREMAN
 - MECHANICAL TECHNICIAN

ACTION CARD NO 16

BMS (Failure)

Estates Maintenance Department Contacts for BMS (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100
- 2) Plumber on call, Pager 200
- 3) Mechanical Services Officer, Liam Ryan, 087 9076644
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

Manutec	069 68144
Ceil Haskett	087 2668348

ACTIONS TO BE TAKEN IN THE EVENT OF BMS FAILURE

- ❑ **CALL ON-CALL ELECTRICIAN ON PAGER 100, OR ON-CALL PLUMBER ON PAGER 200, AS APPROPRIATE**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, IF REQUIRED:**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **MECHANICAL TECHNICIAN.**
- ❑ **IN THE EVENT OF THE BMS FAILING TO OPERATE, ALL INTERFACED SYSTEMS SHOULD BE ISOLATED FROM THE BMS AND OPERATED MANUALLY. THIS WILL INCLUDE THE FOLLOWING SYSTEMS:**
 - **BOILERS**
 - **AIR CONDITIONING**
 - **HEATING AND VENTILATION**

ACTION CARD NO 17

BMS (Repair)

Estates Maintenance Department Contacts for BMS (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100
- 2) Plumber on call, Pager 200
- 3) Mechanical Services Officer, Liam Ryan, 087 9076644
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

<u>External Contractors</u> are:	Manutec	069 68144
	Ceil Haskett	087 2668348

SERVICE CONTRACT DETAILS

The service and repair of the BMS system is subject to a service contract with Manutec Ltd. Details of this contract can be found in Service Contracts File No: 2.016 located in the service officer's office.

ACTION CARD NO 18

BMS (Resuming Normal Operations)

Estates Maintenance Department Contacts for BMS (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100
- 2) Plumber on call, Pager 200
- 3) Mechanical Services Officer, Liam Ryan, 087 9076644
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

<u>External Contractors</u> are:	Manutec	069 68144
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Ceil Haskett

087 2668348

RESUMING NORMAL OPERATIONS

- ❑ **WHEN THE BMS SYSTEM IS REPAIRED THE CONTROLS MAY BE SWITCHED BACK TO AUTO ON THE CONTROL PANEL.**
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE SERVICE ENGINEER.**
- ❑ **INFORM ALL NECESSARY STAFF THAT BMS SYSTEM IS REPAIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **MECHANICAL TECHNICIAN**

ACTION CARD NO 19

FIRE (Failure)

Estates Maintenance Department Contacts for the Fire Alarm System (The Mid-Western Regional Hospital) are:

- 2) Electrician on Call, Pager 100
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Siemens Fire Safety 01-4508920

Mike Condon
086 - 8505118

ACTIONS IN THE EVENT OF FAILURE OF FIRE ALARM SYSTEM

- ❑ **QUANTIFY THE PROBLEM AS MUCH AS POSSIBLE**
- ❑ **CONTACT THE ON CALL ELECTRICIAN ON PAGER 100.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, AS REQUIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **ELECTRICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
- ❑ **FOLLOWING INSTRUCTION, OR IF UNABLE TO CONTACT THE ABOVE, CALL SIEMENS FIRE SAFETY AS PER ABOVE.**
- ❑ **INSTIGATE FIREWATCH AS FOLLOWS:**
 - **MINIMUM OF TWO PERSONS TO CARRY OUT FIREWATCH, ONE TO BE MEMBER OF ESTATES MAINTENANCE DEPARTMENT.**
 - **ESTATES MAINTENANCE DEPARTMENT TO DECIDE ON TEAMS REQUIRED – MINIMUM OF 2 REQUIRED FOR HOSPITAL SITE.**
 - **FIREWATCH TEAMS TO BE ALLOCATED HOSPITAL AREA AND TO WALK AROUND - ALL HOSPITAL AREAS TO CHECK FOR FIRE AND SECURITY OF BUILDING.**
 - **AS A MINIMUM, FIREWATCH TO BE CARRIED OUT EVERY 4 HOURS (THIS WILL INCLUDE INSPECTION OF BOILER-HOUSES AND GENERATOR ROOMS)**
 - **UNOCCUPIED AREAS TO BE CHECKED AND LOCKED OFF. (TO BE PERIODICALLY CHECKED AS PART OF FIREWATCH.)**
 - **FIREWATCH TEAMS TO CLOSE ALL FIRE DOORS IN THEIR AREAS.**

ACTION CARD NO 20

FIRE (Repair)

Estates Maintenance Department Contacts for the Fire Alarm System (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Services Officer, Larry Murphy, 086 6692111
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Siemens Fire Safety, 01-4508920
Mike Condon, 086 - 8505118

SERVICE CONTRACT DETAILS

The service and repair of the Fire Alarm system is subject to a service contract with Siemens Fire Safety Ltd. Details of this contract can be found in Service Contracts File No: 2.017 located in the service officers office.

DOCUMENT, MANUALS AND DRAWINGS

Drawings for the Fire Alarm system can be found in the Fire Alarm drawings and information folder, this is located in the Service officer's office.

ACTION CARD NO 21

FIRE (Resuming Normal Operations)

Estates Maintenance Department Contacts for the Fire Alarm System (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 1) Electrical Technician, Pat Cassidy, 5111
- 2) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are: Siemens Fire Safety, 01-4508920
Mike Condon, 086 - 8505118

RESUMING NORMAL OPERATIONS

- ❑ **ENSURE THAT FIRE ALARM SYSTEM IS TESTED THOROUGHLY**
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE SIEMENS ENGINEER**
- ❑ **INFORM ALL NECESSARY STAFF THAT FIRE ALARM SYSTEM IS REPAIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **ELECTRICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
 - **ON-CALL ELECTRICIAN**
 - **MAIN RECEPTION**
 - **SECURITY**

- ❑ **STAND DOWN FIREWATCH**
- ❑ **RECORD ALL DETAILS IN FIRE ALARM LOG BOOK**

ACTION CARD NO 22

SECURITY (Failure)

Estates Maintenance Department Contacts for Security System(The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pat Cassidy, 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are:

INTRUDER ALARMS:

- ADT: 021 4275757 / 086 8342361
- ETL: 1850 304300, look for ETL
- MANTECH: 061 340230 / 086 8161402

CCTV:

- SKS (Seamus McMahon) 01 4565655 / 087 2596955

TELEALARM NURSECALL:

- B.P. Multipage (Dave Purcell) 01 6708555 / 087-9477267

ACTIONS IN THE EVENT OF FAILURE OF A SECURITY SYSTEM

- ❑ **QUANTIFY THE PROBLEM AS MUCH AS POSSIBLE, IS THERE POWER IN THE AREA? IS IT PLUGGED IN? ETC.**
- ❑ **CONTACT THE ON CALL ELECTRICIAN ON PAGER 100.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, AS REQUIRED**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
 - **ELECTRICAL SERVICES OFFICER**

- ❑ **FOLLOWING INSTRUCTION, OR IF UNABLE TO CONTACT ANY OF THE ABOVE, CONTACT THE RELEVANT SERVICE COMPANY.**

ACTION CARD NO 23

SECURITY (Repair)

Estates Maintenance Department Contacts for Security System(The Mid-Western Regional Hospital) are:

- 4) Electrician on Call, Pager 100
- 5) Electrical Technician, Pat Cassidy, 5111
- 6) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are:

INTRUDER ALARMS:

- ADT: 021 4275757 / 086 8342361
- ETL: 1850 304300, look for ETL
- MANTECH: 061 340230 / 086 8161402

CCTV:

- SKS (Seamus McMahon) 01 4565655 / 087 2596955

TELEALARM NURSECALL:

- B.P. Multipage (Dave Purcell) 01 6708555 / 087-9477267

SERVICE CONTRACT DETAILS

The service and repair of the Security systems are subject to service contracts with the companies listed above. Details of these contracts can be found in Service Contracts Files located in the service officer's office.

ACTION CARD NO 24

SECURITY (Resuming Normal Operations)

Estates Maintenance Department Contacts for Security System(The Mid-Western Regional Hospital) are:

- 7) Electrician on Call, Pager 100
- 8) Electrical Technician, Pat Cassidy, 5111
- 9) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are:

INTRUDER ALARMS:

- ADT: 021 4275757 / 086 8342361
- ETL: 1850 304300, look for ETL
- MANTECH: 061 340230 / 086 8161402

CCTV:

- SKS (Seamus McMahon) 01 4565655 / 087 2596955

TELEALARM NURSECALL:

- B.P. Multipage (Dave Purcell) 01 6708555 / 087-9477267

RESUMING NORMAL OPERATIONS

- ❑ **ENSURE THAT THE FAULTED SECURITY SYSTEM IS TESTED THOROUGHLY**
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE ENGINEER**
- ❑ **INFORM ALL NECESSARY STAFF THAT SECURITY ALARM SYSTEM IS REPAIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **ELECTRICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
 - **ON-CALL ELECTRICIAN**
- ❑ **STAND DOWN ANY EXTRA SECURITY INITIATIVES THAT MAY HAVE BEEN PUT IN PLACE DURING THE FAILURE PERIOD.**

ACTION CARD NO 25

NURSE CALL (Failure)

Estates Maintenance Department Contacts for the Nurse Call System (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Services Officer, Larry Murphy, 086 6692111
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

Ackerman: Connexus Communications: 01 4604722 / 086-2647361

Mediplex: Medical Systems Ireland 01 8308855
Despro Mediplan Ltd: 0044 114 269 7361

ACTIONS IN THE EVENT OF FAILURE OF A NURSES CALL SYSTEM

- ☐ **QUANTIFY THE PROBLEM AS MUCH AS POSSIBLE. IS THE PROBLEM LOCAL TO ONLY ONE ROOM IN A WARD OR IS THE ENTIRE WARD AFFECTED?**
- ☐ **CONTACT THE ON CALL ELECTRICIAN ON PAGER 100.**
- ☐ **CALL SOME OR ALL OF THE FOLLOWING, AS REQUIRED**
 - **ELECTRICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
- ☐ **FOLLOWING INSTRUCTION, OR IF UNABLE TO CONTACT ANY OF THE ABOVE, CONTACT THE RELEVANT SERVICE COMPANY.**
- ☐ **ALL AREAS OF AFFECTED WARD TO BE ISSUED WITH HAND BELL TO SUMMONS NURSE.**
- ☐ **PATIENTS TO BE ASKED TO BE VIGILANT FOR THEIR NEIGHBOURS AND NURSES TO INCREASE OBSERVATION.**
- ☐ **WARDS WITH NON-AMBULANT OR SEDATED PATIENTS TO INCREASE OBSERVATION.**

ACTION CARD NO 26

NURSE CALL (Repair)

Estates Maintenance Department Contacts for the Nurse Call System (The Mid-Western Regional Hospital) are:

- 4) Electrician on Call, Pager 100
- 5) Electrical Services Officer, Larry Murphy, 086 6692111
- 6) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

Ackerman: Connexus Communications: 01 4604722 / 086-2647361

Mediplex: Medical Systems Ireland 01 8308855
Despro Mediplan Ltd: 0044 114 269 7361

SERVICE CONTRACT DETAILS

There is no service contract on the Nurses call systems as there are separate systems in each area of the hospital. It is possible, though not preferrable, to operate without a Nurses call system for a period of time. The system is maintained on a day to day basis by the Estates Maintenance Department.

DOCUMENT, MANUALS AND DRAWINGS

ACKERMAN CLINO-OPT 90 AND CLINO-OPT 99: Manuals and information are filed in the 'Nurse Call' file, in the service officer's office.

MEDIPLEX SERIES 85: Manuals and details are filed in Section 7 of the Phase 1 Electrical Maintenance Manual (06), in the service officer's office.

ACTION CARD NO 27

NURSE CALL (Resuming Normal Operations)

Estates Maintenance Department Contacts for the Nurse Call System (The Mid-Western Regional Hospital) are:

- 7) Electrician on Call, Pager 100
- 8) Electrical Services Officer, Larry Murphy, 086 6692111
- 9) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

Ackerman: Connexus Communications: 01 4604722 / 086-2647361

Mediplex: Medical Systems Ireland 01 8308855
Despro Mediplan Ltd: 0044 114 269 7361

RESUMING NORMAL OPERATIONS

- ❑ **ENSURE THAT THE SYSTEM IS TESTED THOROUGHLY**
- ❑ **IF AN ENGINEER HAS BEEN CALLED TO REPAIR A NURSE CALL SYSTEM THEN OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THEM.**
- ❑ **INFORM ALL NECESSARY STAFF THAT NURSE CALL SYSTEM IS REPAIRED**
 - **WARD SISTER**
 - **ELECTRICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
 - **ON-CALL ELECTRICIAN**
- ❑ **STAND DOWN ANY EXTRA INITIATIVES THAT, MAY, HAVE BEEN PUT IN PLACE DURING THE FAILURE PERIOD.**

- ❑ **COLLECT ALL BELLS AND RETURN TO ELECTRICAL STORE.**

ACTION CARD NO 28
ELECTRICITY (Failure)

Estates Maintenance Department Contacts for Electricity (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: ESB Emergency Number 1850 – 372999
 Locally Clem Cusack 087-2352086

FG Wilson 01 – 4508322

Powerohm Ambulance Centre Only
061-506600 or

Eugene Mulcahy 087 - 2520900

ACTIONS IN THE EVENT OF FAILURE OF ELECTRICITY SUPPLY

- ❑ *CONTACT ON-CALL ELECTRICIAN ON PAGER 100.*
- ❑ *CONTACT TSS AND ELECTRICAL SERVICES OFFICER.*
- ❑ *ENSURE THAT MAIN BREAKERS ARE NOT TRIPPED.*
- ❑ *CONTACT AND REMAIN IN CONTACT WITH E.S.B. THROUGHOUT POWER FAILURE.*
- ❑ *CARRY OUT RESETS AS DETAILED IN ACTION CARD NO. 30.*
- ❑ *MONITOR GENERATORS EVERY 30 MINUTES AS PER ACTION CARD NO. 61.*
- ❑ *MONITOR GENERATOR LOAD AND PREPARE TO SHED LOAD IF REQUIRED. (TURN OFF ELECTRICAL SUPPLY TO LESS CRITICAL AREAS.*

ACTIONS IN THE EVENT OF FAILURE OF GENERATED SUPPLY

- ❑ *QUANTIFY REASON FOR GENERATOR TRIPPING.*
- ❑ *CONTACT ON-CALL ELECTRICIAN ON PAGER 100, IF NOT ALREADY ON SITE.*
- ❑ *CONTACT TSS AND ELECTRICAL SERVICES OFFICER, IF NOT ALREADY ON SITE.*
- ❑ *CONTACT FG WILSON (OR POWEROHM IN THE CASE OF THE AMBULANCE CENTRE) AND TELL THEM TO ATTEND SITE WITHOUT DELAY. GET MOBILE NUMBER FOR ENGINEER ON ROUTE TO SITE.*
- ❑ *FIRST ELECTRICAL STAFF TO ARRIVE ARE TO START TO TRACE FAULT USING WIRING DIAGRAMS PRESENT IN GENERATOR ROOMS AND ARE TO CONTACT ENGINEER ON ROUTE TO SITE.*

ACTION CARD NO 29

ELECTRICITY (Repair)

Estates Maintenance Department Contacts for Electricity (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: ESB Emergency Number 1850 – 372999
Locally Clem Cusack 087-2352086

FG Wilson 01 – 4508322

Powerohm Ambulance Centre Only
061-506600
or Eugene Mulcahy 087 - 2520900

Service Contract Details

The ESB perform checks on the 10KV system within the hospital twice yearly, with one major inspection per year. Details of this contract are held in the service officers office in service contract folder 2.014.

All Generators are on service contract. All contracts cater for 2 no. service visits per year. Service Contract documentation can be found in service contract folders 2.015 in the case of FG Wilson and in folder 2.017 in the case of Powerohm. All folders are located in the service officers office.

Technical Manuals and Drawings

Technical manuals and drawings for ESB systems and generators can be found in the service officers office.

ACTION CARD NO 30

ELECTRICITY (Resuming Normal Operations)

Estates Maintenance Department Contacts for Electricity (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: ESB Emergency Number 1850 – 372999
Locally Clem Cusack 087-2352086

FG Wilson 01 – 4508322

Powerohm Ambulance Centre Only
061-506600 or
Eugene Mulcahy 087 - 2520900

RESUMING NORMAL OPERATIONS

*THE FOLLOWING ITEMS OF PLANT WILL BE REQUIRED TO BE RESET
FOLLOWING A TOTAL POWER FAILURE IN AREAS COVERED UNDER
GENERATOR NO. 1*

- | | |
|---|--|
| <input type="checkbox"/> SSD
AUTOCLAVES | -PRESS YELLOW RESET BUTTON ON 3 NO. |
| <input type="checkbox"/> SSD BOILER HOUSE
COMPRESSORS | -RESET DOL STARTERS ON 2 NO. AIR |
| <input type="checkbox"/> SSD BOILER HOUSE
CHIEFTAIN BOILER | -RESET EXTRA LOW WATER ALARM ON |
| <input type="checkbox"/> SSD BOILER HOUSE
NOT TRIPPED OUT | -CHECK GAS BURNERS TO ENSURE THEY ARE |
| <input type="checkbox"/> PHASE 2 PLANT ROOM | -RESET UPS |
| <input type="checkbox"/> PHASE 2 BOILER HOUSE | -RESET UPS |
| <input type="checkbox"/> PHASE 2 BOILER HOUSE | -CHECK BURNERS (3) AND RESET IF
NECESSARY |

*THE FOLLOWING ITEMS OF PLANT WILL BE REQUIRED TO BE RESET
FOLLOWING A TOTAL POWER FAILURE IN AREAS COVERED UNDER
GENERATOR NO. 2*

- | | |
|---|--|
| <input type="checkbox"/> WARD 5B BOILER HOUSE | -CHECK BURNER AND RESET IF NECESSARY |
| <input type="checkbox"/> MAIN BOILER HOUSE | -CHECK BURNERS (2) AND RESET IF
NECESSARY |
| <input type="checkbox"/> PABX ROOM | -RESET AIR CONDITIONING |

❑ NUCLEAR MEDICINE -CHECK AIR CONDITIONING UNIT

❑ MAIN KITCHEN -RESET KNOCKOUT CONTACTOR

THE FOLLOWING ITEMS MAY ONLY BE RESET AFTER ESB MAINS POWER HAS BEEN RESTORED IN FULL.

❑ *NURSES HOME ELECT. RM -RESET KNOCKOUT SUPPLY TO SCHOOL OF NURSING*

❑ PORTACABINS -RESET TIME CLOCKS IN CABINS

❑ GENERATOR HOUSE NO.2 -RESET KNOCKOUT CONTACTOR

ACTION CARD NO 31

WATER (Failure)

Estates Maintenance Department Contacts for Water (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Limerick Corporation 061 417833

ACTIONS TO BE TAKEN IN THE EVENT OF WATER FAILURE

❑ **CALL ON-CALL ELECTRICIAN ON PAGER 100, OR ON-CALL PLUMBER ON PAGER 200, AS APPROPRIATE**

❑ **CALL SOME OR ALL OF THE FOLLOWING, IF REQUIRED:**

- **TECHNICAL SERVICES SUPERVISOR**
- **MECHANICAL SERVICES OFFICER**
- **MECHANICAL TECHNICIAN.**
- **DIRECTOR OF NURSING**
- **SENIOR NURSE ON DUTY**

❑ **FAILURE OF WATER SUPPLY – AFFECTED DEPARTMENTS TO ADOPT LOCAL DEPARTMENT CONTINGENCY PLANS AND STAFF TO FOLLOW WATER MINIMISATION PROCEDURES WHICH WILL INCLUDE ELECTRIC/GAS ISOLATION OF WATER BOILERS, DISHWASHERS AND BEDPAN WASHERS.**

- ❑ **AS A PRIORITY THE FOLLOWING DEPARTMENTS MUST BE CONTACTED:**
- **DIALYSIS UNIT**
 - **INFECTION CONTROL**
 - **CATERING**

ACTION CARD NO 32

WATER (Repair)

Estates Maintenance Department Contacts for Water (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Limerick Corporation 061 417833

SERVICE DETAILS

Information on water services can be found in file no 3.021 located in the service officer's office.

DRAWINGS

Drawings for the water system are located in the drawings cabinet in the technical services office.

ACTION CARD NO 33

WATER (Resuming Normal Operations)

Estates Maintenance Department Contacts for Water (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: Limerick Corporation 061 417833

RESUMING NORMAL OPERATIONS

- ❑ **ESTATES MAINTENANCE DEPARTMENT TO CHECK MAIN TANKS AND CARRY OUT A FLUSH THROUGH OF THE SYSTEM IN ACCORDANCE WITH LOCAL GUIDANCE. ON REINSTATEMENT OF MAINS WATER**
- ❑ **STAFF SHOULD CHECK THE OPERATION OF SERVICES, E.G. TOILETS, TAPS, WASHING MACHINES ETC, AND DRAW OFF A QUANTITY OF WATER FROM ALL DRINKING WATER OUTLETS.**
- ❑ **AS A PRIORITY THE FOLLOWING DEPARTMENTS MUST BE CONTACTED:**
 - **DIALYSIS UNIT**
 - **INFECTION CONTROL**
 - **CATERING**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, AS REQUIRED:**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **MECHANICAL TECHNICIAN.**
 - **DIRECTOR OF NURSING**
 - **SENIOR NURSE ON DUTY**

ACTION CARD NO 34

GAS (Failure)

Estates Maintenance Department Contacts for Gas (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: BORD GAIS 1850 673322

ACTIONS TO BE TAKEN IN THE EVENT OF GAS FAILURE

- ❑ **CALL ON-CALL PLUMBER ON PAGER 200.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, IF REQUIRED:**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **MECHANICAL TECHNICIAN.**
- ❑ **NOTIFY OTHER DEPARTMENTS USING GAS AND THEY WILL IMPLEMENT THEIR LOCAL CONTINGENCY PLANS THIS INCLUDES CATERING.**
- ❑ **TECHNICAL SERVICES STAFF TO SWITCH BOILERS FROM OIL TO GAS AND ENSURE OPERATION OF HEATING AND HOT WATER SUPPLIES.**
- ❑ **ESTATES MAINTENANCE DEPARTMENT TO ISOLATE GAS MAINS ON FAILURE OF SUPPLY AND SWITCH OFF ALL GAS APPLIANCES.**

ACTION CARD NO 35

GAS (Repair)

Estates Maintenance Department Contacts for Gas (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: BORD GAIS 1850 673322

SERVICE DETAILS

Information on gas services can be found in the Technical Services office.

DRAWINGS

Drawings for the Gas system are located in the drawings cabinet in the Technical services office.

ACTION CARD NO 36

GAS (Resuming Normal Operations)

Estates Maintenance Department Contacts for Gas (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are: BORD GAIS 1850 673322

RESUMING NORMAL OPERATIONS

- ❑ *ESTATES MAINTENANCE DEPARTMENT SWITCH ON GAS SUPPLY AND ENSURE CORRECT OPERATION OF ALL GAS APPLIANCES BEFORE USE.*
- ❑ **INFORM THE RELEVANT AREAS THAT THE GAS SUPPLY IS RESTORED AND THAT GAS APPLIANCES NEED TO BE CHECKED TO MAKE SURE THEY ARE NOT LEFT TURNED ON.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, AS REQUIRED:**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **MECHANICAL TECHNICIAN.**
 - **DIRECTOR OF NURSING**
 - **SENIOR NURSE ON DUTY**

ACTION CARD NO 37

OIL (Failure)

Estates Maintenance Department Contacts for Oil (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

TARA OIL	061 440077
JAMES O MAHONY	087 2573635

ACTIONS TO BE TAKEN IN THE EVENT OF OIL FAILURE

- ☐ **CALL ON-CALL PLUMBER ON PAGER 200.**
- ☐ **NOTIFY THE MECHANICAL SERVICES OFFICER AND THE TECHNICAL SERVICES SUPERVISOR.**
- ☐ **CALL TARA OIL.**

ACTION CARD NO 38

OIL (Repair)

Estates Maintenance Department Contacts for Oil (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

TARA OIL	061 440077
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JAMES O MAHONY

087 2573635

ACTION CARD NO 39

OIL (Resuming Normal Operations)

Estates Maintenance Department Contacts for Oil (The Mid-Western Regional Hospital) are:

- 1) Plumber on call, Pager 200
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

TARA OIL	061 440077
JAMES O MAHONY	087 2573635

RESUMING NORMAL OPERATIONS

- ❑ IF THE OIL COMPLETELY RAN OUT THE SYSTEM MAY BE AIR-LOCKED AND WILL HAVE TO BE BLED. THIS WILL HAVE TO BE DONE BY A PLUMBER OR THE BURNER SERVICE COMPANY LENMAC 061 202277.
- ❑ NOTIFY THE MECHANICAL SERVICES OFFICER AND THE TECHNICAL SERVICES SUPERVISOR.

ACTION CARD NO 40

TELEPHONES (Failure)

Estates Maintenance Department Contacts for the Telephone System(The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Services Officer, Larry Murphy, 086 6692111
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contacts are:

Siemens Communications: 1890 743636
Eircom Govt Service centre: 1800 234000
Eircom VPN A/C Manager, Gerry Morrissey: 087 2579793

ACTIONS IN THE EVENT OF FAILURE OF COMMUNICATIONS

- ❑ **QUANTIFY THE EXTENT OF THE FAILURE BY:**
 - **TRY TO RING OTHER LIMERICK HOSPITALS USING 4-DIGIT EXTENSIONS.**
 - **TRY TO RING OTHER LIMERICK HOSPITALS USING OUTSIDE LINES.**
 - **TRY TO RING IN TO THE REGIONAL USING A MOBILE PHONE.**
- ❑ **CONTACT THE ON CALL ELECTRICIAN ON PAGER 100 AND THE ELECTRICAL SERVICES OFFICER OR THE TECHNICAL SERVICES SUPERVISOR.**
- ❑ **IF THE MAIN TELEPHONE SYSTEM IS 'DEAD', RECEPTION STAFF TO SWITCH TO THE STANDBY PABX, POS 2 ON THE SELECTOR SWITCH AT MAIN RECEPTION DESK. ACTION CARD NO. 62 IS TO BE PHOTOCOPIED AND DISTRIBUTED TO ALL LOCATIONS LISTED ON ACTION CARD 62.**
- ❑ **IF THE STANDBY PABX FAILS - RECEPTION STAFF TO CONNECT OUTSIDE LINES DIRECTLY TO WARDS BY SWITCHING SELECTOR SWITCH TO POS 3. ACTION CARD NO. 63 IS TO BE PHOTOCOPIED AND DISTRIBUTED TO ALL AREAS ON CARD 63.**
- ❑ **IN THE EVENT OF ELECTRICITY FAILURE, THE MAIN COMMUNICATIONS SYSTEM HAS A 10 HOUR BATTERY BACK UP. THE STANDBY SYSTEM HAS A 30 MIN BACK UP.**

ACTION CARD NO 41

TELEPHONES (Repair)

Estates Maintenance Department Contacts for the Telephone System(The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Services Officer, Larry Murphy, 086 6692111
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contacts are:

Siemens Communications:

1890 743636

Eircom Govt Service centre:

1800 234000

Eircom VPN A/C Manager, Gerry Morrissey:

087 2579793

SERVICE CONTRACT DETAILS

The service and repair of the Telephone system is subject to a service contract with Siemens Communications Ltd. Details of this contract can be found in Service Contracts File No: 2.017 located in the service officer's office.

ACTION CARD NO 42

TELEPHONES (Resuming Normal Operations)

Estates Maintenance Department Contacts for the Telephone System(The Mid-Western Regional Hospital) are:

- 4) Electrician on Call, Pager 100
- 5) Electrical Services Officer, Larry Murphy, 086 6692111
- 6) Technical Services Supervisor, Tony McBride, 087 6782572

External Contacts are:

Siemens Communications:

1890 743636

Eircom Govt Service centre:

1800 234000

Eircom VPN A/C Manager, Gerry Morrissey:

087 2579793

RESUMING NORMAL OPERATIONS

- ❑ **SWITCH FROM STANDBY TO MAIN SYSTEM**
- ❑ **ENSURE THAT TELEPHONE SYSTEM IS TESTED THOROUGHLY BY:**
 - RING INTERNAL EXTENSIONS
 - RING EXTERNAL NUMBERS
 - RING INTO THE HOSPITAL USING A MOBILE PHONE.
 - TEST THE PAGING INTERFACE BY ATTEMPTING TO PAGE A KNOWN PAGER.
 - MAKE CALLS TO ALL OTHER SITES ON THE NETWORK
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM ANY SERVICE ENGINEER CALLED IN TO ASSIST.**
- ❑ **INFORM ALL NECESSARY STAFF THAT TELEPHONE SYSTEM IS REPAIRED**
 - TECHNICAL SERVICES SUPERVISOR
 - ELECTRICAL SERVICES OFFICER
 - ELECTRICAL/MECHANICAL FOREMAN
 - ELECTRICAL TECHNICIAN
 - ON-CALL ELECTRICIAN

ACTION CARD NO 43

PAGING (Failure)

Estates Maintenance Department Contacts for the Paging System (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Services Officer, Larry Murphy, 086 6692111
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contacts are: BP Multipage Dave Purcell, 01 6708555 / 087 9477267

ACTIONS IN THE EVENT OF FAILURE OF THE PAGING SYSTEM

- ❑ **QUANTIFY THE EXTENT OF THE PROBLEM AS MUCH AS POSSIBLE:**
 - **IS THE REGULAR 83 INTERFACE WORKING?**
 - **IS THE EMERGENCY 63 INTERFACE WORKING?**
 - **CAN YOU PAGE USING THE EXTERNAL INTERFACE 061 301132?**
 - **CAN YOU PAGE FROM THE MATERNITY HOSPITAL?**
 - **IS IT POSSIBLE TO PAGE FROM CONSOLES?**
- ❑ **INSTRUCT RECEPTIONIST STAFF TO CONTACT THE ON CALL ELECTRICIAN BY PHONE IF IT IS NOT POSSIBLE TO PAGE.**

- ❑ **SWITCH OVER TO THE BACK-UP PAGING SYSTEM BY PRESSING THE SWITCHOVER BUTTON SITUATED UNDER THE ACCESS 3000 CONSOLE AT THE MAIN RECEPTION DESK IN THE REGIONAL HOSPITAL DOORADOYLE.**
- ❑ **CHECK THE OPERATION OF THE BACK-UP PAGING SYSTEM BY PAGING A KNOWN PAGER USING THE 83 INTERFACE. NB. THE 63 INTERFACE AND THE EXTERNAL 061 301132 INTERFACE DO NOT WORK WITH THE BACK-UP SYSTEM.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING, AS REQUIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **ELECTRICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
- ❑ **FOLLOWING INSTRUCTION, OR IF UNABLE TO CONTACT ANY OF THE ABOVE, CONTACT THE RELEVANT SERVICE COMPANY.**

ACTION CARD NO 44

PAGING (Repair)

Estates Maintenance Department Contacts for the Paging System (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Services Officer, Larry Murphy, 086 6692111
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contacts are: BP Multipage Dave Purcell, 01 6708555 / 087 9477267

SERVICE CONTRACT DETAILS

The service and repair of the Paging system is subject to a service contract with B.P. Multipage Ltd. Details of this contract can be found in Service Contracts File No: 2.013 located in the service officers office.

DOCUMENT, MANUALS AND DRAWINGS

Manuals and information are stored in the 'Paging Systems' folder in the service officer's office

REPAIR

- **ENSURE THAT SYSTEM IS TESTED THOROUGHLY BY USING**
 - **83 INTERFACE**
 - **63 INTERFACE**
 - **061-301132 INTERFACE**
 - **CONSOLES**
 - **TEAM PAGES**
 - **TELEPROTECT**

A/E ALARMS

ACTION CARD NO 45

PAGING (Resuming Normal Operations)

Estates Maintenance Department Contacts for the Paging System (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Services Officer, Larry Murphy, 086 6692111
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contacts are: BP Multipage Dave Purcell, 01 6708555 / 087 9477267

RESUMING NORMAL OPERATIONS

- ❑ **PUT MAIN PAGING SYSTEM ON LINE**
- ❑ **TEST MAIN SYSTEM THOROUGHLY TO ENSURE THAT THE FOLLOWING ARE WORKING SATISFACTORILY**
 - **83 INTERFACE**
 - **63 INTERFACE**
 - **061-301132 INTERFACE**
 - **CONSOLES**
 - **TEAM PAGES**
 - **TELEPROTECT**
 - **A/E ALARMS**
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE SERVICE ENGINEER**
- ❑ **INFORM ALL NECESSARY STAFF THAT PAGING SYSTEM IS REPAIRED**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **ELECTRICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **ELECTRICAL TECHNICIAN**
 - **ON-CALL ELECTRICIAN**

ACTION CARD NO 46

PUBLIC ADDRESS (Failure)

Estates Maintenance Department Contacts for Public Address system (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are: Liddane's Public Address
Jack Liddane 086 – 2533684
061 - 357499

Sound Productions
Gerry O'Brien 086 – 2564107
01 - 4600470

ACTIONS IN THE EVENT OF FAILURE OF PUBLIC ADDRESS FACILITIES

- ❑ *CONTACT ON-CALL ELECTRICIAN ON PAGER 100.*
- ❑ *CONTACT ELECTRICAL SERVICES OFFICER.*
- ❑ *INFORM RECEPTION OF STATUS AND ADVISE THAT ALL WARD AREAS ARE MADE AWARE THAT THE SYSTEM IS INOPERABLE.*
- ❑ *INFORM RECEPTION TO CONTACT AREAS COVERED BY EMERGENCY INTERCOM AND TO INFORM THEM THAT THEY WILL BE CONTACTED BY THIS MEANS UNTIL THE SYSTEM IS REPAIRED.*
- ❑ *ON-CALL ELECTRICIAN TO CONTACT SERVICE COMPANY (LIDDANES' FIRST) AFTER INITIAL INVESTIGATIONS DEEM THIS APPROPRIATE.*

ACTION CARD NO 47

PUBLIC ADDRESS (Repair)

Estates Maintenance Department Contacts for Public Address system (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are: Liddane's Public Address
Jack Liddane 086 – 2533684
061 - 357499

Sound Productions
Gerry O'Brien 086 – 2564107
01 - 4600470

SERVICE CONTRACT DETAILS

There is no service contract on the PA system as there are several alternative means of contacting departments and areas of the hospital. It is possible to operate without PA system services for a period of time. The system is maintained on a day to day basis by the Estates Maintenance Department. The service company for the system is locally based.

TECHNICAL MANUALS AND DRAWINGS

A schematic drawing of the PA system is available in the Service Officers office in a file named PUBLIC ADDRESS.

ACTION CARD NO 48

PUBLIC ADDRESS (Resuming Normal Operations)

Estates Maintenance Department Contacts for Public Address system (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are: Liddane's Public Address
Jack Liddane 086 – 2533684
061 - 357499

Sound Productions
Gerry O'Brien 086 – 2564107
01 - 4600470

RESUMING NORMAL OPERATIONS

- ❑ *CONTACT ON-CALL ELECTRICIAN ON PAGER 100.*
- ❑ *VERIFY THAT ALL AREAS COVERED BY PUBLIC ADDRESS FACILITIES ARE WORKING CORRECTLY.*
- ❑ *CONTACT RECEPTION AND INFORM THEM THAT THE SYSTEM IS BACK ON-LINE AND THAT THEY MAY INFORM AREAS OF THIS FACT.*
- ❑ *CONTACT RECEPTION AND INFORM THEM THAT AREAS COVERED BY EMERGENCY INTERCOM MAY BE INFORMED THAT THE MAIN SYSTEM IS BACK ON-LINE.*
- ❑ *CONTACT ELECTRICAL SERVICES OFFICER.*
- ❑ *GET SERVICE DOCKET FROM SERVICE COMPANY.*

EMERGENCY INTERCOM (Failure)

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111

ACTIONS IN THE EVENT OF FAILURE OF EMERGENCY INTERCOM FACILITIES

- ❑ *CONTACT ON-CALL ELECTRICIAN ON PAGER 100.*
- ❑ *CONTACT ELECTRICAL SERVICES OFFICER.*
- ❑ *INFORM RECEPTION OF STATUS AND INFORM RECEPTION TO ADVISE ALL AREAS COVERED BY THE INTERCOM, THAT THE SYSTEM IS INOPERABLE.*
- ❑ *ON-CALL ELECTRICIAN TO CONTACT SERVICE COMPANY AFTER INITIAL INVESTIGATIONS DEEM THIS APPROPRIATE.*

ACTION CARD NO 50

EMERGENCY INTERCOM (Repair)

Estates Maintenance Department Contacts for Emergency Intercom system (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are: SKS Seamus Mc Mahon 01-4565655
087-2596955

SERVICE CONTRACT DETAILS

There is no service contract on the Emergency Intercom system as there are several alternative means of contacting departments and areas of the hospital. It is possible to operate without Emergency Intercom services for a period of time. The system is maintained on a day to day basis by the Estates Maintenance Department.

TECHNICAL MANUALS AND DRAWINGS

A schematic drawing of the Emergency Intercom system is available in the Service Officers office in a file named PUBLIC ADDRESS.

EMERGENCY INTERCOM (Resuming Normal Operations)

Estates Maintenance Department Contacts for Emergency Intercom system (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111

External Contractors are: SKS Seamus Mc Mahon 01-4565655
087-2596955

RESUMING NORMAL OPERATIONS

- ❑ *CONTACT ON-CALL ELECTRICIAN ON PAGER 100.*
- ❑ *VERIFY THAT ALL AREAS COVERED BY EMERGENCY INTERCOM FACILITIES ARE WORKING CORRECTLY.*
- ❑ *CONTACT RECEPTION AND INFORM THEM THAT THE SYSTEM IS BACK ON-LINE AND THAT THEY MAY INFORM AREAS OF THIS FACT.*
- ❑ *CONTACT ELECTRICAL SERVICES OFFICER.*
- ❑ *GET SERVICE DOCKET FROM SERVICE COMPANY.*

ACTION CARD NO 52

AIR CONDITIONING (Failure)

Estates Maintenance Department Contacts for the air conditioning System (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100,
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

Mulvaney air conditioning 061-301003

Master air 01-4602188

Manutec (Controls only) 069-68144

ACTIONS TO BE TAKEN IN THE EVENT OF AIR CONDITIONING FAILURE

- ❑ **QUANTIFY THE PROBLEM AS MUCH AS POSSIBLE**
- ❑ **CHECK THE FOLLOWING: ELECTRICAL SUPPLY, CHILLED WATER,HOT WATER,AIR INTAKE,FILTERS.**
- ❑ **CONTACT THE ON CALL ELECTRICIAN ON PAGER 100.**
- ❑ **CALL SOME OR ALL OF THE FOLLOWING:**
 - **TECHNICAL SERVICES SUPERVISOR.**
 - **MECHANICAL SERVICES OFFICER.**
 - **ELECTRICAL/MECHANICAL FOREMAN.**
 - **MECHANICAL TECHNICIAN.**
- ❑ **FOLLOWING INSTRUCTION OR IF UNABLE TO CONTACT THE ABOVE CONTACT THE RELEVANT SERVICE COMPANY CONCERNED.**

ACTION CARD NO 53

AIR CONDITIONING (Repair)

Estates Maintenance Department Contacts for the air conditioning System (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100,
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

Mulvaney air conditioning 061-301003

Master air 01-4602188

Manutec (Controls only) 069-68144

SERVICE CONTRACT DETAILS

The service and repair of the air conditioning system is subject to service contracts with:

Mulvaney air conditioning Details in file no. 3.009

Master air services

Details in file no. 3.009

Manutec

Details in file no. 2.016

These files are located in the service officer's office.

DOCUMENT, MANUALS AND DRAWINGS

Drawings of the air conditioning system are located in the drawing cabinet in the services officer's office.

ACTION CARD NO 54

AIR CONDITIONING (Resuming Normal Operations)

Estates Maintenance Department Contacts for the air conditioning System (The Mid-Western Regional Hospital) are:

- 1) Electrician on call, Pager 100,
- 2) Mechanical Services Officer, Liam Ryan, 087 9076644
- 3) Technical Services Supervisor, Tony McBride, 087 6782572

External Contractors are:

Mulvaney air conditioning 061-301003

Master air 01-4602188

Manutec (Controls only) 069-68144

RESUMING NORMAL OPERATIONS

- ❑ **ENSURE THAT THE AIR CONDITIONING SYSTEM IS TESTED THOROUGHLY.**
- ❑ **OBTAIN A FULLY COMPLETED SERVICE SHEET FROM THE SERVICE ENGINEER.**
- ❑ **INFORM ALL NECESSARY STAFF THAT THE AIR CONDITIONING SYSTEM IS REPAIRED.**
 - **TECHNICAL SERVICES SUPERVISOR**
 - **MECHANICAL SERVICES OFFICER**
 - **ELECTRICAL/MECHANICAL FOREMAN**
 - **MECHANICAL TECHNICIAN**
 - **ON-CALL ELECTRICIAN**

ACTION CARD NO 55

PNEUMATIC CONVEYOR (Failure)

Estates Maintenance Department Contacts for Pneumatic Conveyor system (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical services Supervisor, Tony Mc Bride, 087-6782572

External Contractors are:

APT Lt 01- 8413005
John Hughes 087 - 2580328
Pat Hughes 086 - 8176920

ACTIONS IN THE EVENT OF FAILURE OF PNEUMATIC CONVEYOR SYSTEM

- ❑ *CONTACT ON-CALL ELECTRICIAN ON PAGER 100.*
- ❑ *CONTACT TSS AND ELECTRICAL SERVICES OFFICER, IF REQUIRED.*
- ❑ *ON-CALL ELECTRICIAN TO PUT THE SYSTEM INTO AUTOMATIC CLEANING FOLLOWING ARRIVAL ON SITE.*
- ❑ *INFORM PORTERING STAFF THAT SYSTEM HAS FAILED AND THAT THEY ARE TO REMAIN ON STANDBY AS COVER MAY BE REQUIRED SHOULD SYSTEM REPAIR BE PROLONGED*

ACTION CARD NO 56

PNEUMATIC CONVEYOR (Repair)

Estates Maintenance Department Contacts for Pneumatic Conveyor system (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical services Supervisor, Tony Mc Bride, 087-6782572

External Contractors are:

APT Ltd 01- 8413005
John Hughes 087 - 2580328
Pat Hughes 086 – 8176920

Service Contract Details

APT perform two preventative maintenance checks on the Pneumatic Conveyor system per year. These checks include inspection of and replacement where required of limit switches, greasing and cleaning of all moving parts, inspection and testing of all motors, and housings. Details of this contract are held in the service officers office in service contract folder 2.013.

The contract also provides for phone support at a rate of 2 calls per week.

Technical Manuals and Drawings

Technical manuals and drawings for the Pneumatic Conveyor system can be found in the service officers office.

REPAIR

- ❑ *IF AUTOMATIC CLEANING IS NOT SUCESSFUL, THEN ELECTRICIAN TO LOCATE FAULT USING MANUALS.*
- ❑ *IF STILL NOT SUCESSFUL, THEN ELECTRICIAN TO CONTACT APT AND CALL THEM TO SITE IF REQUIRED.*
- ❑ *INFORM PORTERING STAFF THAT COVER WILL NOW BE REQUIRED, IF THIS IS THE CASE.*

ACTION CARD NO 57

PNEUMATIC CONVEYOR (Resuming Normal Operations)

Estates Maintenance Department Contacts for Pneumatic Conveyor system (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical services Supervisor, Tony Mc Bride, 087-6782572

External Contractors are:

APT Ltd 01- 8413005
John Hughes 087 - 2580328
Pat Hughes 086 – 8176920

RESUMING NORMAL OPERATIONS

- ❑ *VERIFY THAT ALL AREAS COVERED BY PNEUMATIC CONVEYOR ARE WORKING CORRECTLY.*
- ❑ *CONTACT PORTERING AND INFORM THEM THAT THE SYSTEM IS BACK ON-LINE AND THAT THEY MAY CEASE COVER.*
- ❑ *CONTACT TSS AND ELECTRICAL SERVICES OFFICER, IF REQUIRED.*
- ❑ *GET SERVICE DOCKET FROM SERVICE COMPANY.*

ACTION CARD NO 58

U.P.S. (Failure)

Estates Maintenance Department Contacts for UPS systems (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical Services Supervisor, Tony Mc Bride, 087-6782572

External Contractors are: Secure Power Systems Stephen Cullen 01-4506808

086-2340330

Pat Smith Engineering Padraig Smith 069-61066
087-2594051

Powerohm Ian Jackson 01-4030765
087-6833507
Eugene Mulcahy 087-2520900

ACTIONS IN THE EVENT OF FAILURE OF UPS SYSTEM

- ❑ *CONTACT ON-CALL ELECTRICIAN ON PAGER 100.*
- ❑ *CONTACT TSS AND ELECTRICAL SERVICES OFFICER, IF REQUIRED.*
- ❑ *ON-CALL ELECTRICIAN TO CHECK SUPPLIES PRESENT ON FAILED UPS SYSTEM FOLLOWING ARRIVAL ON SITE.*
- ❑ *IF POSSIBLE, ON-CALL ELECTRICIAN TO PUT THE SYSTEM INTO EXTERNAL BYPASS FOLLOWING CHECK OF SUPPLIES.*
- ❑ *ON-CALL ELECTRICIAN TO INFORM AREA(S) AFFECTED THAT THEY ARE NOT ON UPS.*
- ❑ *CONTACT RELEVANT SERVICE COMPANY.*

ACTION CARD NO 59

U.P.S. (Repair)

Estates Maintenance Department Contacts for UPS systems (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical Services Supervisor, Tony Mc Bride, 087-6782572

External Contractors are: Secure Power Systems Stephen Cullen 01-4506808

086-2340330

Pat Smith Engineering Padraig Smith 069-61066
087-2594051

Powerohm Ian Jackson 01-4030765
087-6833507
Eugene Mulcahy 087-2520900

Service Contract Details

All UPS systems have preventative maintenance contracts. The frequency of maintenance intervals are determined by the manufacturer of each system. All systems supplied by Powerohm and Pat Smith Engineering are maintained preventatively at six monthly intervals. All systems supplied by secure Power Systems are maintained at yearly intervals. Details of these contracts are held in the service officer's office in service contract folder 2.017

Technical Manuals and Drawings

Technical manuals for the UPS systems can be found in the Service Officer's office.

REPAIR

- ❑ *WAIT FOR SERVICE COMPANY TO ARRIVE ON SITE.*
- ❑ *LOCATE TECHNICAL MANUAL FOR SYSTEM.*
- ❑ *CONTINUE TO LIASE WITH AREA(S) AFFECTED BY FAILURE.*

- ❑ *CHECK SUPPLIES ARE PRESENT AND SOUND. INVESTIGATE IF OTHERWISE.*

ACTION CARD NO 60

U.P.S. (Resuming Normal Operations)

Estates Maintenance Department Contacts for UPS systems (The Mid-Western Regional Hospital) are:

- 1) Electrician on Call, Pager 100
- 2) Electrical Technician, Pager 583, Extension 5111
- 3) Electrical Services Officer, Larry Murphy, 086 6692111
- 4) Technical Services Supervisor, Tony Mc Bride, 087-6782572

External Contractors are: Secure Power Systems Stephen Cullen 01-4506808

086-2340330

Pat Smith Engineering Padraig Smith 069-61066
087-2594051

Powerohm Ian Jackson 01-4030765
087-6833507
Eugene Mulcahy 087-2520900

RESUMING NORMAL OPERATIONS

- ❑ *ENSURE ALL SUPPLIES ARE PRESENT.*
- ❑ *INFORM AREA(S) COVERED BY UPS SYSTEM THAT THE SYSTEM IS ABOUT TO BE BROUGHT BACK ON LINE.*
- ❑ *REMOVE UPS SYSTEM FROM EXTERNAL BYPASS TO INTERNAL BYPASS*
- ❑ *INSPECT SUPPLY. IF SUPPLY IS OK THEN PLACE UPS ON LINE.*
- ❑ *INSPECT SUPPLY.*
- ❑ *VERIFY THAT AREA(S) COVERED BY UPS SYSTEM PROPER SUPPLY VOLTAGES.*
- ❑ *INFORM AREA(S) COVERED BY UPS SYSTEM THAT SYSTEM IS REPAIRED*
- ❑ *GET SERVICE DOCKET FROM SERVICE COMPANY.*

- ❑ *CONTACT NECESSARY STAFF AND INFORM THEM THAT SYSTEM IS BACK ON-LINE.*

ACTION CARD NO 61

ELECTRICITY (Generator Checklist)

Time	Water Temp	Oil	Battery	Line Voltage			Phase Voltage			line Current			Fuel	Frequency	Run Time	RPM
		Pressure	Voltage	R	S	T	R-S	S-T	T-R	R	S	T	Level			

Date

Remarks

Signature

ACTION CARD NO 62

TELEPHONES (STANDBY PABX EXTENSION NUMBERS)

	NUMERICAL ORDER		ALPHABETICAL ORDER	
2010	RECEPTION HALL		1B CORRIDOR	2239
2061	BLEEP SYSTEM		A&E NURSES STATION	2343
2119	RECEPTION		AMBULANCE	2297
2135	WARD 2B NURSED STN.		BIOCHEMISTRY	2266
2138	ICU		BLEEP SYSTEM	2061
2157	CCU. NURSES STN.		BLEEP SYSTEM	2466
2172	RAINBOW NURSES STN.		Blood Bank	2267
2178	CATHERINE O'MALLEY		CASUALTY X-RAY	2332
2180	OP. THEATRE		CAT. SCAN	2669
2229	WARD 5B PORTABLE		CATHERINE O'MALLEY	2178
2234	WARD 2C CORRIDOR		CCU. NURSES STN.	2157
2239	1B CORRIDOR		CLINICAL/ENG/FAX	2762
2241	SECURITY		DR. RES TEA ROOM	2390
	HAEMATOLOGY/PORTABLE			
2258	E		EMERGENCY	2777
2266	BIOCHEMISTRY		FIRE PHONE	2666
			HAEMATOLOGY/PORTABLE	
2267	Blood Bank		E	2258
2281	NURSES STN.SUNSHINE		ICU	2138
2297	AMBULANCE		John Hennessy	2451
2332	CASUALTY X-RAY		Mark Sparling	2443
2337	PHARMACY		Maura Fitzgerald	2420
2343	A&E NURSES STATION		NURSES STATION	2400
2364	X-RAY		NURSES STN.SUNSHINE	2281
2390	DR. RES TEA ROOM		OP. THEATRE	2180
2400	NURSES STATION		PHARMACY	2337
2417	WARD 3B ELDERLY		PORTERS PORTABLE	2722
2420	Maura Fitzgerald		RAINBOW NURSES STN.	2172
2441	WARD 1D SR.OFFICE		RECEPTION	2119
2445	WARD 3D SR.OFFICE		RECEPTION HALL	2010
2466	BLEEP SYSTEM		SECURITY	2241
2530	WARD 4C CORRIDOR		Surgical Ward	
2561	WARD 1C NURSES STN		Trauma Ward	
2577	WARD 2D SR.OFFICE		WARD 1C NURSES STN	2561
2666	FIRE PHONE		WARD 1D SR.OFFICE	2441
2669	CAT. SCAN		WARD 2B NURSED STN.	2135
2681	WARD 3A NURSES STN.		WARD 2C CORRIDOR	2234
2709	WARD 3C SR.OFFICE		WARD 2D SR.OFFICE	2577
2722	PORTERS PORTABLE		WARD 3A NURSES STN.	2681
2762	CLINICAL/ENG/FAX		WARD 3B ELDERLY	2417

2777	EMERGENCY		WARD 3C SR.OFFICE	2709
2451	John Hennessy		WARD 3D SR.OFFICE	2445
2443	Mark Sparling		Ward 4B Inpatient Oncology	
	Trauma Ward		WARD 4C CORRIDOR	2530
	Surgical Ward		WARD 5B PORTABLE	2229
	Ward 4B Inpatient Oncology		X-RAY	2364

ACTION CARD NO 63

TELEPHONES (DIRECT LINE NUMBERS)

Location	Ext Line No
1B Ward	304031
1C Ward	304010
1D Ward	304012
2B Theatre	304011
2C Ward	304013
2D Ward	301611
3A Ward	304023
3B Ward	304022
3C Ward	304016
3D Ward	304025
4A Ward	304024
A/E Reception	304026
Ambulance Centre	304015
Assistant General Manager	304028
Assistant Matron(cordless)	304029
Casualty	304014
CCU Nurses Stn	304027
Doctors Residence	304020
Emergency Phone	304021
Fire Brigade	301820
General Manager	301898

ICU Nurses Stn	301225
Laboratory(Biochemistry)	302240
Laboratory(Haematology)	302299
Main Theatre	302334
P.A.B.X. room	301926
Paging System	227336
Paging System	229288
Pharmacy	304032
Porter Head	301165
Reception	301111
Reception	306888
Security	306927
Technical	303453
Technical	303452
X-Ray Main Desk	302791
Y2K Incident Control Room	307004
Y2K Incident Control Room	304097
Y2K Incident Control Room	306886
Y2K Incident Control Room	306910
Y2K Incident Control Room	303087
Y2K Incident room (FAX)	307003

ACTION CARD NO 64

LIFTS (RELEASE OF PASSENGERS – ROPE TYPE LIFT)

- ☐ **LOCATE POSITION OF LIFT CAR IN LIFT SHAFT AND TELL PASSENGERS TO REMAIN IN THE LIFT CAR AND KEEP CLEAR OF THE LIFT ENTRANCE.**
- ☐ **SWITCH OFF THE POWER SUPPLY**
- ☐ **HOLD MOVEMENT OF THE LIFT BY MEANS OF THE HAND WHEEL AT THE END OF THE MACHINE AND OPERATE THE BRAKE RELEASE LEVER.**
- ☐ **WIND THE MOTOR SLOWLY IN THE DIRECTION FOUND EASIEST CHECKING THE LIFT CAR POSITION UNTIL THE CAR PLATFORM IS NEAR A FLOOR.**
- ☐ **IMPORTANT: APPLY THE BRAKE.**
- ☐ **OPEN THE LANDING DOORS AT THE FLOOR WHERE THE LIFT IS WITH THE EMERGENCY KEY.**
- ☐ **PULL OPEN THE CAR DOORS AND ASSIST PASSENGERS FROM THE LIFT**
- ☐ **CLOSE CAR AND LANDING DOORS.**
- ☐ **RETURN EMERGENCY KEY TO A PLACE OF SAFE KEEPING**

ACTION CARD NO 65

LIFTS (RELEASE OF PASSENGERS – HYDRAULIC TYPE LIFT)

- ❑ **LOCATE THE POSITION OF THE LIFT CAR IN THE LIFT SHAFT AND TELL THE PASSENGERS TO REMAIN IN THE LIFT CAR AND KEEP CLEAR OF THE ENTRANCE.**
- ❑ **SWITCH OFF THE POWER SUPPLY.**
- ❑ **THE LIFT CAN BE LOWERED MANUALLY BY PRESSING THE RED BUTTON ON THE TANK LOCATED IN THE MACHINE ROOM, CHECKING THE LIFT CAR POSITION UNTIL THE CAR PLATFORM IS NEAR A FLOOR.**
- ❑ **OPEN THE LANDING DOORS AT THE FLOOR WHERE THE LIFT IS WITH THE EMERGENCY KEY.**
- ❑ **PULL OPEN THE DOORS AND ASSIST THE PASSENGERS FROM THE LIFT.**
- ❑ **CLOSE THE CAR AND LANDING DOORS.**
- ❑ **RETURN THE EMERGENCY KEY TO A PLACE OF SAFE KEEPING.**