NON-MEDICAL EQUIPMENT MANAGEMENT PROGRAM

I. PURPOSE:

To establish procedures and to delineate responsibilities to promote safe and effective use of non-medical equipment.

II. POLICY:

This policy establishes the Non-medical Equipment Management Program. The Medical Center complies with the criteria established by the Joint Commission (JC), VA, National Fire Protection Association (NFPA), and the ECRI Institute and reviews the recommendations of the original equipment manufacturers, for preventive maintenance and service of non-expendable equipment, and expendable equipment and when possible for personally owned equipment used at the Medical Center and CBOCs. Research, Home Based Health Care, and Prosthetic Consolidated Program have responsibility for their equipment management.

III. DEFINITIONS:

A. Areas: The areas of the Medical Center and CBOCs are divided into three classes of patient susceptibility to electricity, primarily dependent upon the basis of contact with electric conductors in the environment as follows:

1. Non-Patient Areas: Administrative areas and areas where patients have little or no direct contact with electrical and electronic equipment.

2. General Patient Care Areas: Areas where patients have or may have direct contact with non-invasive electrical or electronic equipment.

3. Critical Care Areas: (formerly Electrically Susceptible Patient Areas [ESPA]): Areas suitable for intracardiac connection, areas where patients are subjected to invasive monitoring or therapy using direct pathways to the cardiac musculature. The following patient care areas are designated as Critical Care Areas:

Post Anesthesia Care Units
Operating Room Suites
Emergency Room

Appropriate precautions (i.e. insulating the patient from line powered devices) must be provided by the clinical staff to those patients that are transported with invasive monitoring to general patient areas such as Nuclear Medicine, CT, and other Radiology Service rooms.

B. Equipment: Equipment is divided into categories as follows:

1. Medical equipment is equipment used for the diagnosis, therapy or physiological monitoring of a patient. Clinical Engineering is responsible for the Medical Equipment Management Program.

2. Non-medical equipment is general use equipment such as medical media devices, dietetics equipment, beds, lifts, exam tables, and computers etc.

3. Utilities or facilities equipment (i.e. HVAC, window air conditioners, nurse call systems, electrical systems, fire alarm systems, security systems and piped medical gas system etc) are covered by the Utility Management Program.

C. Patient Care vicinity: Defined by NFPA as a space with surfaces likely to be contacted by the patient or an attendant who can touch the patient. In a patient room, this encloses a space within the room not less than 6 ft beyond the perimeter of the bed in its normal location, and extending vertically not less than 7.5 ft above the floor.

IV. RESPONSIBILITIES:

A. Facilities Management Team Leader is responsible for overall administration of the Non-medical Equipment Management Program. Engineering Managers are responsible for the implementation of the Non-medical Equipment management program, quality improvement, education, consultation and repair of non-medical equipment.

B. Information Resource Management Service is responsible for the initial assessment, risk evaluation, repair and maintenance of computer equipment and peripherals.

C. Logistics Service Manager ensures that all newly purchased non-medical equipment is fully documented and is inspected/tested by Facilities Management Service (FMS) before delivery to the end user. Logistic Service assures that FMS evaluates all equipment turned in for replacement or surplus, before the equipment leaves the Medical Center. The Personal Property Management Section of Logistic Service maintains a current and accurate inventory of all non-medical equipment including personal property, non-expendable, and expendable equipment.

D. Contracting Officer and Contracting Officer's Technical Representatives (COTRs) in FMS are responsible for assuring that all contractor-installed utilities and equipment comply with contract specifications in regard to electrical safety and incoming inspection testing. Also, the appropriate service is notified to evaluate equipment for inclusion in the appropriate Equipment Management Program and that data is entered in AEMS/MERS.

E. Local Managers, Care Line Managers and supervisors are responsible for ensuring and documenting that the operators of equipment receive orientation and

continuing education in equipment use, electrical safety and failure response, and are competent in equipment use.

F. Personnel utilizing equipment are responsible for routine functional verification, daily calibrations, quality control, user maintenance and documentation of these routine checks.

V. PROCEDURES:

A. Pre-purchase Specifications: Prior to the purchase of any piece of equipment, the requesting Service Line Manager obtains and provides technical specifications and installation requirements and provides information on equipment request form via SharePoint:https://vaww.visn1.portal.va.gov/manchester/misc/equip/EquipmentRequest/Forms/Summary.aspx. Logistics Service will ensure that two owner/operators manuals (hardcopy and electronic copy) are provided with each device. User/Maintenance training will be considered a line item on the purchase of all new equipment.

B. Incoming Inspection: Upon arrival at the facility of any non-medical device or equipment (expendable, non-expendable, or personal property), Logistics Service submits a work order to FMS for incoming inspection. Equipment supplied and used by a JC accredited vendor for clinical services must have full documentation available for review by FMS.

C. Preventive Maintenance Program:

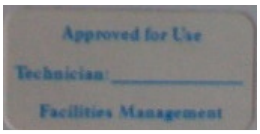
1. **ALL** electrically powered equipment or devices that are intended for use in patient care areas shall be risk assessed and tested in accordance with the current edition of NFPA-99 before being put into service for the first time and after repair or modification. Re-testing shall be at intervals indicated in NFPA-99. Devices that have been tested/inspected shall be labeled according to section V of this policy. This requirement does not include non-clinical communication devices, computers or peripherals. Computers and peripherals do not receive an incoming inspection unless they are used in the patient vicinity in a critical care area. When an incoming inspection is required, this will be performed by IRM.

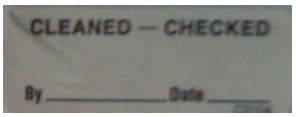
2. Testing – both first time and periodic - for common household type electrical appliances that are readily available on the commercial market, and are not intended to be used by patients, or in patient care areas, testing is not necessary. Staff must to ensure that their personal items do not have damaged electrical cords, missing guards or covers, or any other obvious defects/safety hazards. Staff is expected to use their appliances as intended by the manufacturer. Annually a group consisting of a representative from Clinical Engineering, Safety and FMS will do a risk assessment of these types of electrical appliances by general category (i.e. computers, microwaves, radios, hair styling appliances, coffee makers, etc.). The intent is to determine if there have been any problems or issues with a particular category of appliance that would warrant further

monitoring. The risk assessment will follow the same process as used for patient related appliances.

3. If a device is found to be defective, it is appropriately labeled and removed from service. The operator of the device is informed as to repair status. If a device cannot be located for preventive maintenance, a request will be sent to the area manager to make it available.

4. Labeling - A labeling program is followed. Some old style stickers exist and are still valid and will be replaced during PM or repair of the device. Any of the labels shown below are valid:





5. See Attachment A for "Risk Assessment Criteria for Non-Medical Equipment Management Program & Criteria for PM Interval".

6. See Attachment B for "Risk Assessment Category Worksheet"

D. Equipment Use and Repair: Operators of all electrical or mechanical equipment shall inspect each device before each use for proper inspection label and for potential hazards such as broken or damaged plugs, frayed line cords, abnormal operation, obvious chassis damage, overheating, or tingling sensation when touched. If the operator suspects a hazard or malfunction, then the equipment may not be used unless it is considered essential to patient care. In such cases, the equipment should be closely monitored until repaired or replaced. For non-medical equipment repairs, contact FMS. **For an after-hours emergency, contact the AOD who will call the FMS on-call staff. If a device is found to be defective, it should be appropriately labeled and removed from service. Non-emergent repairs of non-medical equipment can be requested through the DHCP ward work order system.** FMS works with AMM when a hazard or a recall associated with a device exists. If equipment is no longer economical to repair, a memorandum will be sent to the Manager to initiate a turn-in.

E. Quality Management Program: The Non-medical equipment management program is monitored for effectiveness through a QM program. The QM program identifies and documents equipment failures and user errors that have or may have an adverse effect on patient safety or the quality of care. Significant findings are reported to the Environment of Care Committee.

VI. EMPLOYEE EDUCATION:

A. FMS orients their new employees and assesses their need for training. They provide continuing education for employees who maintain equipment and assess the

effectiveness of the training. Supervisors are responsible for maintaining this documentation, and assuring that their employees are competent.

B. All Supervisors are responsible for assuring and documenting that their employees receive the necessary orientation and continuing education on equipment use and electrical hazards. Supervisors assure that their employees are competent to use their equipment.

C. Employees are responsible for using equipment in a proper and safe manner.

VII. SPECIFIC RESTRICTIONS:

A. **Under no circumstances** are extension cords to be brought into the Medical Center by staff, patients or visitors. The FMS Electric Shop shall be responsible for providing and testing extension cords provided a bona fide need exists. Requests must be submitted for approval to FMS.

B. Adapters and extension cords will be permitted only if they meet the requirements of NFPA-99, - Current Edition. **EXCEPTION:** Three to two-prong adapters shall not be permitted under any circumstances.

C. Equipment found to be unsafe must be removed from service. Repetitive equipment failures shall be tracked and reported to the Environment of Care Committee by FMS.

D. All heating devices are prohibited in all patient care areas.

E. Any device with a heating element used in non-patient care areas must be equipped with a temperature-limiting device.

F. Personal property specifically prohibited from use at the medical center includes, but is not limited to, portable space heaters, toasters, toaster ovens, hot plates, hot pots, rice cookers, electric skillets, and electric power tools.

G. Personal items that are permitted include, but are not limited to, radios, clocks, and chargers for cell phones and PDAs.

VIII. REFERENCES

Joint Commission Publications:
EBAPAC09 - Ambulatory
EBAPLT09 - Long Term Care
EBAPHC09 - Home Care

IX. RESPONSIBLE FOR FOLLOW UP:

Facilities Chief

X. RESCISSION

Medical Center Policy 138-18, dated November 2010

/s/
Tammy Krueger
Medical Center Director

Distribution: http://vaww.visn1.va.gov/intranet/Manchester/docs/policies/

(Automatic Expiration: April 2017)

VA MEDICAL CENTER
MANCHESTER, N.H.

RISK ASSESSMENT CRITERIA FOR NON-MEDICAL EQUIPMENT MANAGEMENT PROGRAM AND CRITERIA FOR PM INTERVAL

RISK ASSESSMENT CRITERIA FOR NON-MEMP

According to the Non-medical Equipment Management Plan, all non-medical equipment will be evaluated for inclusion in the Preventive Maintenance program for the Non-medical Equipment Management Program (Non-MEMP) upon initial inspection.

Non-medical equipment is defined as any equipment that is not used in the diagnosis, therapy or physiological monitoring of a patient. Equipment used in the listed manner is included in the Medical Equipment Management program and will be covered by the Medical Equipment Management Policy.

Facilities engineering will assign a numerical value, the Equipment Management Number (EM), to all equipment based on the Location, Impact and Maintenance Requirements (including Equipment History).

> Equipment Management Number (EM) = Location + Impact + Maintenance Requirement.

Devices with JC "Yes" in AMES/MERS and having an EM greater than or equal to 12 and will be included in the Non-medical Equipment Management Preventive Maintenance Program.

Equipment Location

A device's location is its most significant attribute, and it constitutes 50% of the EM. Location is subdivided into three main categories: Critical Care area or Wet location, Patient Care area, and Non-patient care area. Because devices used in Critical Care areas and Wet locations pose the greatest injury risk, these areas were determined to be the most significant and were given a higher point value. This location is followed by the three types of patient care areas. The final category is the Non-patient care areas. Locations are further explained within each category.

Location	Sub-Location	Value
Critical Care	Operating Room	8
	Recovery	7
	Emergency Room	6
Patient Care	Nursing Home Care	5

	Outpatient Diagnostic	4
	Outpatient Treatment	3
Non Patient Care	Office Areas	2
	Computers & related	1
	Other	0

Impact of Failure

The impact of failure associated with the equipment constitutes 25 % of the EM. In assessing the vulnerability, we ask the question, "What are the possible consequences to the patient and/or staff in the event of failure or malfunction?" and give the risk assessment value as follows:

Malfunction could result in:	Application Value
Death	4
Injury	3
Inability to perform job function	2
Inconvenience	1
No Significant Impact	0

Maintenance Requirements

Maintenance requirements constitute 25% of the EM. In addition to actual manufacturer maintenance requirements, frequency of use and incident history is considered when assigning a value. Incident history for new equipment is examined by using specific equipment histories in the AEMS/MERS database for similar equipment.

Value	Maintenance Classification
4	*Extensive*: includes, but is not limited to, major calibration requirements, lubricating, major adjustments, testing, replacement of parts (usually PM kits are required), and electrical safety testing.
3	*Above Average*: includes, but is not limited to, some calibration requirements, lubricating, some adjustments, testing, replacement of parts as needed, and electrical safety testing.

2	*Average*: includes, but is not limited to, minor calibration requirements, lubricating, minor adjustments, testing, filter changes, cleaning and electrical safety testing.
1	*Below Average*: includes basic operational verification and electrical safety
0	*Minimal*: includes visual inspection only. Used when maintenance requirements are primarily the responsibility of the equipment user.

EM = Location + Impact + Maintenance

Devices with an EM greater than or equal to 12 will be included in the Non-medical Equipment Management Preventive Maintenance Program.

CRITERIA FOR PM INTERVAL

All non-medical equipment assessed to be included in the Non-MEMP will be evaluated to determine the Preventative Maintenance Interval. The Maintenance Requirement score, as shown below, determines the PM Interval.

Maintenance Requirement Score	Minimum PM Interval
0	Upon Repair
1	Upon Repair
2	Upon Repair
3	Annual
4	Semi-Annual

Equipment may exceed the minimum PM interval as determined by manufacturer requirements or equipment history.

ATTACHMENT B
MCP 138-18

	Category Title	Location	Impact	Maintenance	**Total Score**	JC	**PM Frequency**	Comments		
1	ANALYZER-SAFETY				**0**					
2	AUGER MACHINE				**0**					
3	BATH WHIRLPOOL				**0**					
4	BLAST CLEANING MACHINE				**0**					
5	BLENDER-FOOD				**0**					
6	CAST CUTTER				**0**					
7	CLEANER PRESSURE				**0**					
8	COFFEE PERCOLATOR				**0**					
9	COLLATOR-PAPER				**0**					
10	COLLECTOR UNIT-DUST				**0**					
11	CONVEYOR				**0**					
12	CONVEYOR STORAGE RACK				**0**					
13	CUTTER GAUZE/BANDAGE				**0**					
14	DENTAL TREATMENT UNIT				**0**					
15	DETECTOR-GAS LEAK				**0**					
16	DISPENSER-MILK				**0**					
17	DISPENSER-TABLEWARE				**0**					
18	DRILL-BRIDGEWORK DENTAL				**0**					
19	DRYER-CLOTHES				**0**					
20	ELECTRIC GRILL				**0**					
21	ENGRAVING MACHINE				**0**					
22	FLYTRAP ELECTORCUTING				**0**					
23	FURNACE DENTAL				**0**					
24	GAS/OXYGEN DETECTOR				**0**					
25	GRINDER				**0**					
26	GRINDING MACHINE				**0**					

27	GRINDING MACHINE				**0**					
28	HEAT SEALER				**0**					
29	HEATER HEAT TREATMENT PAD				**0**					
30	HEATER-DISPENSER				**0**					
31	LIFT PATIENT				**0**					
32	LIGHT-SURGICAL				**0**					
33	MIXER				**0**					
34	OVEN/WARMING HOLDING CABINET				**0**					
35	OVEN BAKING & ROASTING DECK				**0**					
36	PACKING MACHINE				**0**					
37	PATCHING MACHINE				**0**					
38	PLASMA CUTTER				**0**					
39	POLISHER-FLOOR				**0**					
40	PRINTING MACHINE BLUEPRINT				**0**					
41	PROJECTOR				**0**					
42	SAW-AND				**0**					
43	SAW-POWER				**0**					
44	SAW-SCROL				**0**					
45	SCRUBBING MACHINE				**0**					
46	SEWING MACHINE				**0**					
47	SHAMPOOING MACHINE				**0**					
	Category List				**0**					
48	SHAMPOOING MACHINE				**0**					
49	SHREDDER-PAPER				**0**					
50	SILVER RECOVERY EQUIPMENT				**0**					
51	SLICER-MEAT				**0**					
52	TABLE TREATMENT				**0**					

53	TABLE-STEAM ELECTRIC				**0**					
54	TOASTER				**0**					
55	TRIMMER DENTAL				**0**					
56	TRUCKPALLET POWERED				**0**					
57	TRUCK-TRAY-BULK CART				**0**					
58	URN-COFFEE				**0**					
59	VACUUM CLEANER				**0**					
60	VEGETABLE PEELING MACHINE				**0**					
61	WASHING MACHINE HOUSEHOLD				**0**					
	Location						Impact			
		Operating Room		8				Death		4
		Recovery		7				Injury		3
		Emergency Room		6				Inability to perform job function		2
		Nursing Home Care		5				Inconvenience		1
		Outpatient Diagnostics		4				No significant impact		0
		Outpatient Treatment		3						
		Office Areas		2			Maintenance			
		Computers & related		1				Extensive		4
		Other		0				Above Average		3
								Average		2
	JC							Below Average		1
		Yes						Minimal		0
		No								

	PM Frequency	Upon Repair								
		Annual								
		Semi Annual								