

 <p>Policy and Procedure</p>	Subject / Title:	Policy No.: 743-125-01
	<u>MAINTENANCE:</u> <u>INFECTION</u> <u>CONTROL</u> <u>GUIDELINES</u>	Origination Date: 8/80
		Last Revision Date: 5/09
		Last Review Date: 7/12
Department:	By: <u>Warren Okabayashi,</u> <u>Institutional Facilities Superintendent</u>	_____ Name and Title Plan for revision o yes o no
Maintenance	Supersedes Policy:	Page 1 of 7

I. PURPOSE:

To provide guidelines to assist the Maintenance Department in providing a hygienic environment through systematic inspection and preventive maintenance of all equipment, established routines for emergency repairs, and by proper care of the entire physical structure.

II. POLICY:

A. Responsibilities of the Institutional Facilities Superintendent:

1. Develop and approve the department's infection control policies and procedures.
2. Provide orientation and instruction in department policies and procedures.
3. Assure safe health status of the department's employees.
4. Assure proper adherence to practices of infection control policies and procedures.
5. Assure attendance of department staff in mandatory infection control inservices (includes 100% attendance of all newly hired personnel in the infection control orientation.).
6. Submit departmental infection control policies and procedures to the Infection Control Committee, for review and approval, at least every two (2) years.
7. Report any potential infectious disease situation to the Infection Control Coordinator or Chairperson of the Infection Control Committee.

B. Responsibilities of all department personnel:

1. Comply with the hospital's infection control policies.
2. Submit to pre-employment and annual health screening as outlined in Human Resources Department policies.
3. Adhere to the provision of the hospital's Infection Control Policies, Occupational Exposure to Blood borne Pathogens Control Program, and the Tuberculosis Exposure Control Program.

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4. Comply with Standard Precautions and Transmission-based isolation policies.

5. Attend mandatory Infection Control inservices.

C. Maintenance Services:

1. Maintaining and inspecting all equipment as well as providing emergency repairs of All essential equipment.

2. Implementing a prompt, reliable system of notification of defects in equipment as Well as structures, and availability of repair capabilities.

3. Certify safe status of physical plant and equipment through Environment of Care Rounds, Building Maintenance Program, Utility / Equipment / Infection Control Risk Assessments, and Interim Life Safety Measures.

4. Plans and make recommendations in the development of the physical facility.

5. Air conditioning system

a. Regularly inspect and service the air conditioning, heating, electrical, Refrigerating and plumbing systems.

b. Replace air-handling filters semi-annually. Check and service air filtration system on a regularly scheduled basis.

c. Maintain heating and cooling systems at optimal temperatures and humidity at all times.

d. Clean air conditioning coils and drip pans on a regular schedule.

e. Clean and sterilize humidification equipment regularly to avoid contamination of the air conditioning systems.

f. Monitor the handling of wall regulators, the cleaning of central vacuum suction traps and the disposition of exhaust air intake of the ventilation system.

6. Ventilation System

a. Air intakes and outlets

- Discharge and exhaust air opening and re-circulating air intakes are located at least 3 inches above floor.

- When located less than seven feet above the floor, inlet and outlet opening should be protected by a grill or screen with opening not larger than ½ inch mesh.

- All air supplies to sensitive areas such as surgery, delivery room, nurseries, etc. are delivered at or near the ceiling.

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- At least two exhaust outlets are used in all operating rooms and delivery rooms.
 - This air is supplied from the outside; all air is exhausted directly outdoors and no recirculation occur within the areas.
 - Annual air balance testing for isolation rooms, operating room, decontamination and autopsy for negative and positive pressure. Report to be submitted to the Infection Control Committee.
- b. Air filters on air condition units
- Clean or replace unit filters when the resistance to air flow has increased to two times the original resistance or when the manufacturer recommends it. If filters are the automatic liquid adhesive type, sludge should be quarterly removed from the liquid adhesive reservoir.
 - Disposable filters should never be cleaned and reused.
 - Central type filters are changed semi-annually throughout the hospital.
- c. Ventilation and Anesthetizing Locations
- When properly filtered, 80% of the air may be re-circulated with no more contamination than if 100% outdoor air is filtered in the same manner.
 - Positive air pressure relative to the air pressure of adjoining areas shall be maintained in the anesthetizing locations, thus eliminating infiltration of contaminate air.
 - Ventilation systems shall incorporate HEPA filters with an efficiency of not less than 90%.
 - 50% to 60% humidity controls airborne bacteria.
 - Degrees F., humidity (%)
 - Operating Room – 70-76 degrees/50-60% humidity
 - Delivery – 70-76 degrees/50-60% humidity
 - Recovery – 75 degrees/50-60% humidity
 - Nursery – 75-80 degrees/50% humidity
 - Intensive Care – 70-80 degrees/50-60% humidity
- d. Piped-In Gases
- Oxygen, nitrous oxide, or other flammable gas systems are installed and operated in compliance with the National Fire Protection Association standards.

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- Filter mechanisms are in place to decrease the incidence of contamination.
- Quarterly preventive maintenance and annual testing by contract vendor to ensure compliance per NFPA 99.

e. Water Supply System

- Water supply lines must be checked regularly for cracks, leaks, rust, and potential blockage of debris.
- Chlorination procedures must be instituted at once whenever repairs are done to the water supply lines.
- Vacuum breakers must be installed in water supply lines and must be routinely checked to ensure proper function.
- Distilled water equipment must also be checked routinely in order to ensure its integrity.
- Hand washing facilities must be kept in good working order.
- Water supply is obtained from the public water supply system. Water samples are taken and test on a regular basis from the hospital water system in Hale Ho'ola by the Department of Water Supply. Copies of this test will be forwarded to Hilo Medical Center and kept on file.
- Hospital water supply is not connected with other piping system that could allow contamination.
- A reserve source of portable water will be available through arrangements with Civil Defense for the contracting of water hauling tankers.

f. Plumbing

- In accordance with plumbing codes, air gaps must be installed in liquid plumbing and must be regularly checked for cracks, leaks or blockage and repaired immediately if there are any detectable defects.
- Drains in areas such as surgery and delivery room are not connected with other units.
- Aerators shall not be installed on faucets.
- Ice machines should be thoroughly cleaned quarterly and Housekeeping Department to clean exterior monthly.

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g. Food Service Equipment

- Proper temperatures must be maintained for food serving units using refrigeration or hot service elements. These must be checked on a regularly scheduled or as needed basis.
- Cleanliness and proper functioning of food preparation and food serving equipment must be maintained at all times.
- Refrigerators must be equipped with thermometers and must be checked routinely or as needed to keep them in good working order so that proper temperatures are maintained at all times.

h. Housekeeping Equipment

- The Maintenance Department is responsible for repairing and maintaining all housekeeping equipment in a state of readiness in order that housekeeping personnel may perform their duties adequately.

i. Environmental Items

- Ceilings, walls, floors, windows and doors should be inspected regularly and kept in good repair at all times in order to maintain a clean and safe environment. Any openings or breaks in the walls, foundations, window frames, etc. shall be repaired immediately in order to preserve a clean environment. Acoustical surfaces for walls or ceiling are not used for surgery, kitchens, obstetrical units, nurseries and treatment rooms where cleaning problems are most important.
- Rodents and all other pests must be controlled or control supervised by the Maintenance Department. Non-patient areas shall be treated as needed with appropriate approved insecticide. In patient rooms, insecticides shall be used for a definite and specific problem only, selecting the lowest possible level of toxicity.

g. Waste Management

- Waste for disposal should be properly handled and appropriate safety precautions observed during handling of wastes for disposal.
- Appropriate equipment or barriers such as gloves, rubber apron, and face shield should be used when handling contaminated and infectious waste.
- Waste should be properly contained in appropriate bags for disposal at the landfill (county rubbish dump).
- Waste must be transported to the appropriate collection area for disposal.

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- Bags of waste must be retained in watertight receptacles of impervious materials with tight-fitting closures that will protect the contents from flies, insects, rats and other animals.
- Infectious waste such as culture plates, tubes, used syringes, needles, sharps, pathological wastes shall be properly processed by autoclaving before transport to the landfill.
- Autoclave infectious waste shall be appropriately bagged for transport and disposal to the landfill.
- Infectious waste must be properly bagged or labeled (red bag and/or universal label for biohazard).
- Liquid waste is to be discarded into appropriate clinical sink for disposal into the sewer system.
- Disposable receptacle used to retain liquid waste is to be properly discarded.

D. Guidelines for Maintenance Personnel Working in Isolation Units:

In order to safeguard patients, visitor, and hospital personnel from direct or indirect transmission of infectious agents while maintaining equipment located within rooms or areas occupied by the patients in isolation, certain general rules and specific procedures must be observed.

1. There must be full cooperation by all concerned to carry out a safe isolation Procedure.
2. All requests coming from these units to the Maintenance Department should be marked "Isolation" so that maintenance personnel will be made aware.
3. Maintenance personnel should check with nursing personnel before entering the Isolation room.
4. Maintenance personnel should observe isolation technique according to the patient's condition (see card on the door).
5. These employees should always wash hands thoroughly with soap and water prior to entering or leaving the isolation unit.
6. Used personal protective equipment must be discarded in the appropriate receptacle.
7. These employees should not spend any more time within an isolation unit than is necessary to complete the job.
8. Only tools and repair parts that are to be used should be taken into an isolation unit (leave all excess tools outside the unit).

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E. Handling of Tools and Test Equipment by Maintenance Personnel

1. Tools and test equipment introduced into patient care areas must be clean.
2. Tools and test equipment taken into an isolation unit must be placed upon a clean cloth or clean paper towels in order to protect them from contamination.
3. An appropriate method of disinfection for tools and test equipment must be established and used consistently in order to avoid cross-contamination. Consult with the Infection Control Committee for guidelines.
4. In extreme cases, some testing equipment may be sent to Central Service for sterilization after properly coordinating such a request with the supervisor for Central Service.
5. Equipment sent for repair or servicing from an isolation room should be thoroughly cleaned and disinfected by unit personnel before sending.
6. Maintenance personnel should repair equipment on site whenever possible. In these instances, equipment should be cleaned, disinfected and removed from the isolation by nursing personnel before the repair.

F. Standards of Appearance and Personal Hygiene

1. All clothing should be kept clean, in good repair and maintained in such a manner as to ensure a neat and presentable appearance.
2. All maintenance personnel should observe acceptable standards of personal hygiene and cleanliness.
3. Maintenance personnel should comply with the appropriate dress regulation and Policies established within each clinical area, the wearing of mask, cap and gown in the operating rooms, delivery rooms, newborn nurseries and isolation rooms in accordance with infection control policies.
4. Clothing, shoes, heavy boots and coveralls should be changed when they become so soiled with contaminated wastes.