



National Green Hospital Standards

Prepared by,

Health and Environment Leadership Platform,
Quality and Accreditation Institute

Stakeholder Consultation

National Green Hospital Standards

Dear All,

Attached is the first draft of 'National Green Hospital Standards' prepared by Health & Environment Leadership Platform (HELP) and Quality & Accreditation Institute (QAI).

We are publishing the first draft on our web portals and circulating it for comments until March 20th. These standards would be used to accredit hospitals as green hospitals.

If you could kindly take a look and send back your comments on or before March 20th it would enrich this first of its kind accreditation tool.

Please send your comments to shriram@ccdcindia.org

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Introduction

The damage caused by Climate change is not limited to human health today, and is projected to have a greater and wider impact in the foreseeable future. The cumulative threats of Climate change to health have been extensively discussed for decades now and understanding on the issue has evolved and, in the meanwhile, so have the impacts. By 2030, Climate change could cause irreversible negative impacts on health which, it is estimated, could push more than 100 million people back to extreme poverty. Cardiovascular diseases, respiratory illnesses, etc. have direct correlation with air pollution and rise in emissions that drive Climate change will further increase these health issues. Rising sea levels and temperatures, different patterns of precipitation, and more frequent extreme weather conditions are the predominant causes leading to negative health outcomes (World Bank, 2017). To remain operational during extreme weather events, health systems must enable their facilities to be resilient to the impacts of Climate change and respond to the long-term, climate-induced changes in disease patterns, while also responding to the respiratory and cardiovascular disease caused by air pollution. As a large consumer of energy, and products, paradoxically the health sector also contributes to these environmental health problems, even as it attempts to address their impacts. Responding to these issues, there is a growing movement towards Climate-Smart, low-carbon healthcare. Key elements of Climate-Smart, low-carbon healthcare include:

- Health system design and models of care based on appropriate technology, coordinated care, emphasis on local providers, and driven by public health needs
- Building design and construction based on low carbon approaches
Investment programs in renewable energy and energy efficiency
- Waste minimization and sustainable healthcare waste management
- Sustainable transport and water consumption policies

- Low-carbon procurement policies for pharmaceuticals, medical devices, food, and other products
- Resilience strategies to withstand extreme weather events (World Bank 2017)
- These low-carbon approaches also provide numerous co-benefits, these include:
 - Improved health status by reduction in environmental pollution and Climate change
 - Improved health system efficiency and cost savings
 - Decreased escalation of costs through molding technology and models of care to the
 - environment and disease burden
 - Stimulated and anchored local economies

The health sector is already responding to these challenges in many countries throughout the world. Participants in Healthcare Without Harm's 2020 Healthcare Climate Challenge have already represented the interest of more than 10,000 hospitals and health centres in 23 countries, working to reduce greenhouse gas emission, improve resilience to Climate change and encourage physicians, staff and communities, through leadership efforts, to understand and respond to the health impacts of Climate change.

Why do we need Green Buildings?

Cities have often been blamed for causing an alarming increase in the ecological footprint since the dawn of industrial revolution (Satterthwaite, 1999). Recently, rampant urbanization has also been blamed for world's GHG emissions and disproportionately contributing towards global Climate change (Sánchez-Rodríguez, 2005). According to estimates by the United Nations Environment Program, incessant

growth in the construction sector could double the emissions by 2050, Considering how compelling amounts of GHG emissions are generated through construction materials, especially insulation materials, and refrigeration and cooling systems (Brown, Marilyn A, 2008) adopting green buildings is thus more vital now than ever before. Green Buildings give a wide range of economic and environmental benefits to sustainable design, often achieved through the use of global and regional standards and systems available (Omer, 2008). According to a study by ECB, a certified green building can save energy, carbon, water, and waste, resulting in savings from 30 to 97%. Many sustainable buildings have also seen increase of up to 6.6% as return on investment, 3.5% increase in occupancy, and increase of 3% in rent. Further, increased productivity, ambience, occupant health, better indoor air quality, are some of the other benefits of green buildings (Miller, 2008).

Increasing burden on the Health sector

Hospitals energy consumption and waste generation affects the environmental health and the health of every person in that surrounding area. However, hospital owners can be responsible for treatment within their limitations of the hospital area, but they are also responsible for the hospital buildings' environmental performance, health promotion of customers, and employees. The figure 1 below shows how environmental impact caused by the hospital can increase the need for medical services, and this, in turn can lead to the increased contamination (Azmal, 2014).

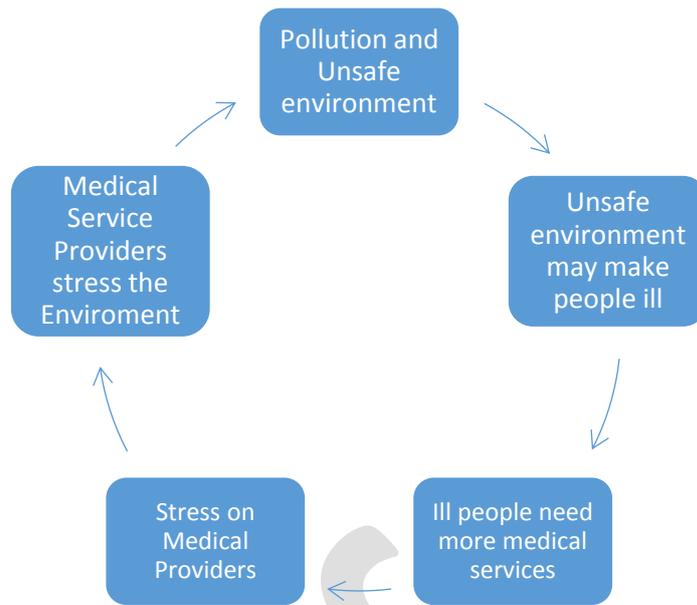


Figure 1. Relationship of environmental damage, increased illness, and environmental impacts of healthcare services. (source: Reller, 2000).

Chapter 1: Site Selection

Site selection and construction planning are the first building blocks in a Green Healthcare system. The decision made at this stage would have some of the biggest impact and would also pave way for a healthy green building. The choice of site location thus will influence access, resource consumption, and other related impacts on the natural health system. Healthcare facilities unlike development of other kinds, must serve people from all social classes. Thus, healthcare facilities must prioritize developed areas and previously developed sites in order to refrain from contributing to a continued "urban sprawl"- a global, multifaceted concept centred on expansion on auto-orientated, low-density development. Research suggest that residents of sprawling neighbourhood tend to emit more pollution and suffer from traffic fatalities; continuous urban sprawling may contribute to more pollution of air, water, and natural habitat.

STANDARDS AND CRITERION

Standard SS. 1: Hospital shall have a defined criteria for construction requirement

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| | <p>a. Hospital has fulfilled the norms of local statutory bodies, towards environment protection and safety.</p> |
| <p>Criterion</p> | <p>b. Hospital has fulfilled norms of this site to not create any adverse environmental impact. These shall include greenfield, brownfield and grey field sites as defined below:</p> <p>Greenfield sites are places that have never been built on before.</p> <p>Brownfield sites are places that have been built on before but now are disused.</p> <p>Grey field (are similar to brown field) sites are economically obsolescent, outdated, failing, moribund and/or underused real estate land.</p> |

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| Standard SS: 2 | Hospital shall ensure conservation and preservation of available natural resources |
| Criterion | <p>a. Hospital has ensured conservation and preservation of available natural resources.</p> <p>b. Hospital has ensured optimization of the use of natural resources (water, land, soil etc.) during construction.</p> <p>c. Efforts have been made to plan for rain water harvesting at the construction site.</p> <p>d. Hospital has ensured optimal natural open space for the patients, families and staff members.</p> |
| Standard SS: 3 | Hospital shall have a plan & monitoring mechanism during construction to reduce noise pollution, air pollution, soil erosion and airborne dust generation |
| Criterion | <p>a. Hospital have a plan & monitoring mechanism during construction to reduce noise pollution, air pollution, soil erosion and airborne dust generation.</p> <p>b. Hospital management has ensured that environmental aspect impact studies shall be carried out for hazard identification & risk assessment (HIRA) for material usage in construction.</p> <p>c. Hospital management had ensured that the material used for construction is not harmful for the occupants, environment and neighbours.</p> |
| Standard SS: 4 | Hospital shall adhere to statutory norms to ensure facility, patient and staff safety in all areas |
| | <p>a. Objective of facility safety is to provide employees with a safe and healthy workplace.</p> <p>b. Ensure that the building design caters to differently abled and senior citizens</p> |

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| Standard SS:5 | Hospital adopts best practices to reduce harm to environment and community. |
| Criterion | <ul style="list-style-type: none"><li data-bbox="459 358 1551 582">a. Encourage use of public transport, so as to reduce negative impacts caused from automobile use.<li data-bbox="459 582 1551 806">b. Encourage the use of non-fossil fuel vehicles, thereby reducing negative impacts resulting from fossil fuel based automobiles.<li data-bbox="459 806 1551 1034">c. Control soil erosion and sedimentation, thereby, reducing negative impacts to the site and surroundings. |

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Chapter 2: Indoor Air Quality

Indoor pollutants originate from both indoor and outdoor sources. Indoor sources include – office equipment such as printers, fax machines, and photocopiers; cleaning products, and equipment; and the ventilation system. Although most healthcare facilities are smoke-free zones, the location of the hospitals decides the level of pollutants it receives from the outdoor environment. As restoring and safeguarding health is the main purpose of healthcare facilities, maintaining good indoor air quality becomes critical and imperative for a green hospital. hospitals should therefore give utmost importance to indoor air quality as prolonged exposure to high levels of pollutants may easily affect the vulnerable group and also cause illness to the healthcare workers

| Standard and Criterion | |
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| Standard IAQ.1: | The organization has a documented process for maintaining the indoor air quality standards according to National/International Health Standards. |
| | <ul style="list-style-type: none"> a. The organization comply with National/International indoor air quality standards |
| | <ul style="list-style-type: none"> b. The process should include the monitoring of indoor environmental standards like, temperature, humidity, TVOC, particulate matter, CO_x, NO_x, SO_x, and Ozone |
| Standard IAQ. 2: | Conduct indoor air quality testing on a monthly basis in critical zones to determine the level of pollutants. |

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| | <p>a. The organization defines its critical zones such as Intensive Care Units, Neonatal Care Units etc.</p> |
| | <p>b. Conduct Indoor Air Quality testing in all critical zones to quantitate air quality levels</p> |
| | <p>c. Contaminant, PM 2.5 should not exceed 10 micrograms per cubic meter</p> |
| | <p>d. Contaminant, TVOC should not exceed 500 micrograms per cubic meter</p> |
| | <p>e. Indoor Air Quality Index levels should comply with National/International Health Standards</p> |
| | <p>f. A list of all equipment used for air monitoring/ testing is maintained and, equipment are properly maintained and calibrated</p> |
| <p>Standard IAQ. 3:</p> | <p>Ensure all occupied spaces including administrative and recreational areas have proper ventilation, thereby improving health and well-being of all patients, visitors and hospital staff.</p> |
| | <p>a. Maintain mechanical ventilated spaces to facilitate fresh air ventilation in all regularly occupied areas to meet minimum ventilation rates, as prescribed in ASHRAE 170-2013 ‘Ventilation of Health Care’ – Table 7 ‘Design Parameter’.</p> |
| | <p>b. Ensure atleast 50% of the occupied spaces shall have an opening (door/ ventilators/ windows) to the outdoor environment.</p> |
| | <p>c. Prohibit tobacco smoking within the campus to minimize the exposure of pollution sources and adverse health impacts.</p> |

- d. A 'No Smoking' sign or a message to demonstrate that smoking is prohibited in the hospital campus should be displayed at the entrance of the hospital.

Standard IAQ. 4:

Avoid the use of fossil fuel in artificial power generation

- a. As an energy back up use some form of renewable energy to avoid emissions from fossil fuel generators within the healthcare facility

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Chapter 3: Energy and Ambience

A good hospital design should maximize on natural day light. Use of natural light helps the patients and members of the staff. Exposing the skin to sunlight helps them enhance their health and wellbeing, and reduce stress level, thus improving quality of care. A good lighting structure helps eliminates Sick Building Syndrome for both patients and staff members (Rashid, 2008). Natural light also combats seasonal affective disorder or winter depression through view connectivity of natural vistas. Artificial lighting should not be compromised in sensitive areas like operation theatre, medical dispensaries, and other important areas. Maximizing on natural light can also be beneficial in saving energy.

| STANDARDS AND CRITERION | |
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| Standard EAA.1 | Requirements for new health facilities |
| Criterion | <ul style="list-style-type: none"> a. New electrical appliances shall have a minimum 3-star rating from Bureau of Energy Efficiency or equivalent recognized organization to minimize the energy input b. Demonstrate that refrigerants used in the facility Heating, Ventilation & Air-conditioning (HVAC) equipment are CFC (Chloro Fluoro Carbon)free. c. Hospital shall have a plan for installation of energy system compliant to statutory norms. |
| Standard EEA.2 | Incorporate optimised energy consumption devices |
| | <ul style="list-style-type: none"> a. Use of occupancy sensors in passageways, storage rooms, labs, and in places the occupancy is minimal |

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| <p>Criterion</p> | <p>b. Use of low-energy LED lighting to save indoor lighting energy cost</p> <hr/> <p>c. Use task lights to provide illumination in areas like consulting rooms, labs, and wards.</p> <hr/> <p>d. Installation of equipment like air-conditioners, heating systems, fans, motors, and pumps shall have appliances which have a minimum 3-star rating from Bureau of Energy Efficiency or equivalent recognized organization to minimize the energy input</p> |
| <p>Standard EEA.3</p> | <p>Ensure the facility has a strategy for optimization of energy usage and saving.</p> |
| <p>Criterion</p> | <p>a. Demonstrate that the annual energy consumption in the facility is within the Energy Performance Index (EPI) limits as mentioned in the table (appendix)</p> <hr/> <p>b. Demonstrate that the facility shall have proper accountability for measurement and verification of all energy usage</p> <hr/> <p>c. Demonstrate that the facility have a plan for usage of renewable as an alternative to fossil fuel back up</p> |
| <p>Standard EEA.4</p> | <p>Ensure regularly occupied spaces are adequately ventilated, thereby improving health and well-being of the occupants</p> |
| | <p>a. Organization makes provisions to ensure adequate ventilation in regularly occupied spaces.</p> |
| | <p>b. Incorporate principle of healing architecture by connecting indoor environment with outdoors, thereby facilitating faster</p> |

recovery. The facility occupants must have direct access either to sky or flora or fauna and shall not have any obstruction views of atleast 8 meters

- c.** Incorporate a green corridor that demonstrates at least 15% of the project area is covered with green open spaces.
- d.** Demonstrate that at least 10% of the green open spaces are designed as patient centric healing garden

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Chapter 4: Water Use

Hospitals are one of the largest customers for municipal water and sewer. The design of a hospital building landscape and site has a significant impact on community water resources. And therefore given this extensive use, to most extent, facilities should decrease their dependence on water. Installation of rainwater harvesting system will help reduce the municipal water demand and enhance the ground water table. The aim should be to manage rainwater on site through a range of devices, such as planting, green roofs, rainwater cisterns or bio-retention facilities that capture rainfall at or near the source. For an effective use of the water resource, first there needs to be proper awareness on part of the patients and the hospital staff in order to make efficient use of the water resources.

| STANDARDS AND CRITERION | | |
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| Standard | WU.1: | Enhance efficiency of plumbing fixtures by design |
| Criterion | a. | Hospital uses water efficient fixtures which complies with the national/ international plumbing code like Uniform Plumbing Code - India |
| | b. | Hospital demonstrates that there are no drips, leaks and unnecessary flows in bathroom, laundry, kitchen, labs, green cover (garden/ plantation sites) etc. |
| | c. | |
| Standard | WU.2: | Hospital treats waste water generated on-site, so as to avoid polluting the receiving streams by safe disposal. |
| | a. | Hospital demonstrates that waste water generated on-site is treated inside the facility |

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| Criterion | b. | Hospital uses treated waste water for irrigation, toilet flushing etc. to reduce dependence on potable water. |
| | c. | Policies and procedures for treatment of waste water and use of treated water are documented and are made available to each staff responsible for the activity. |
| | d. | Hospital ensures compliance to applicable laws/ regulations. |
| | Standard | WU.3: Hospital demonstrates efficient management of water saving |
| Criterion | a. | Hospital encourages use of rainwater harvesting system to help reduce the municipal water demand and enhance ground water table. |
| | b. | Hospital uses pervious, porous, or permeable paving systems that allow rain water to filter into the ground |
| | c. | |
| Standard | WU.4: | Hospital use sub-metering to improve water performance of the healthcare facilities, and thereby save potable water |
| | a. | Hospital demonstrates sub-metering of water |
| | b. | Hospital demonstrates sub-metering of water of municipal supply |
| | c. | Hospital demonstrates sub-metering of water of ground water |
| | d. | supply |
| | e. | Hospital demonstrates sub-metering of water from treated waste water |
| | | Hospital demonstrates sub-metering of water consumption for air-conditioning cooling tower makeup |

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| Standard | WU. 5 Hospital works on action items for new buildings and construction |
| Criterion | <ul style="list-style-type: none"> <li data-bbox="379 459 1436 560">a. Minimize or eliminate the need for potable water for irrigation through the use of native, drought-tolerant landscape materials. <li data-bbox="379 604 1308 649">b. Use recycled grey water for irrigation and toilet flushing <li data-bbox="379 705 1348 750">c. Installation of water efficient faucets and toilet equipment. |

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Chapter 5: Bio-Medical Waste Management

Hospitals waste management has been brought into attention after the new notification of the Bio-Medical Waste Management Rules, 2016. The Rules make it mandatory for the healthcare establishment to segregate, disinfect and dispose their waste in an eco-friendly manner. Improperly segregated contaminated sharps or any infected disposal pose great health risk associated with hospital waste. This sluggish approach to bio-medical waste can increase risk of nosocomial infections in patients. Poor waste management in hospitals can lead to change in the microbial ecology and spread of antibiotic resistance.

Waste segregation in hospitals takes place at different points and in phases. The waste needs to be segregated at point source. Without source separation and recycling activities in place, biomedical waste may get disposed with general waste. Thus, the first step is to adopt a source segregation method. Normally, many hospitals around the world apply for a three-colored container system, one each for general waste, infectious waste and sharps. Among healthcare waste, sharps are a major concern for all healthcare workers– doctors, nurses, midwives, healthcare workers, recycler and community–alike. Proper precautions and trainings need to be conducted to prevent occupational hazards while handling bio-medical waste, especially while handling sharps.

Segregated bio-medical waste further needs to be transported, handled, treated and disposed regularly. The collected waste would then be handed over to a common bio-medical waste management facility for treatment, processing and final disposal.

STANDARDS AND CRITERION

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| Standard | BMWM.1: Hospital demonstrates segregation of municipal waste generated at source |
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| Criterion | a. | Hospital ensures availability of separate bins to collect dry waste and wet waste, at all floors and common areas of the facility, as applicable. |
| | b. | Hospital has a system to transport the collected waste to a centralised facility. |
| | c. | Hospital implements a documented system of safe disposal of the waste including e-waste. |
| Standard | BMWM. 2: | Hospital demonstrates proper segregation of bio-medical waste at source of generation. |
| Criteria | a. | Hospital comply with applicable laws for bio-medical waste generation, handling and disposal. |
| | b. | Hospital demonstrates segregation of bio-medical waste at source, so as to prevent direct exposure, improving sanitation & hygiene |
| | c. | Hospital ensures availability of adequate resources including separate bins at all floor levels to collect biomedical waste. |
| | d. | Provide separate collection system (at lab & centralized level) to carry chemical liquid waste leading to effluent treatment system (ETP) |
| Standard | BMWM.3 : | Establishment of Bio-medical waste management system |
| Criterion | a. | Set up a waste management committee. |
| | b. | Establish procedures, inspection protocols and materials for safe handling of waste |
| | c. | Train and educate healthcare workers regularly about the importance of bio-medical waste and also its hazardous impacts if not handled with care |

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| <p>Standard</p> <p>BMWM.4</p> <p>:</p> | <p>A documented policy exists to address health needs of staff</p> |
| | <p>a. Provide appropriate infection control measures & systems in healthcare facilities, thereby reducing the hospital acquired infections</p> <hr/> <p>b. Ensure adequate & well designed isolation rooms, thereby eliminate the risk of Hospital Acquired Infections (HAI)</p> <p>Ensure good sanitation & hygiene, design & maintenance practices, to reduce cross infections, thereby reducing risk of Hospital Acquired Infections</p> <p>Ensure effective organic waste management, so as to avoid domestic waste being sent to landfills</p> |

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Chapter 6: Green House-Keeping

The consequences of poor housekeeping facilities can cause WASH-related illness within the healthcare facility. An estimated 15% of patients get affected by illness related to healthcare and develop infections during their stay in hospitals. Thus, maintaining high level of hygiene and sanitation is essential for a green healthcare facility. Accumulation of dust, soil and microbial contaminants on surface is a potential source of hospital acquired infections. Effective and efficient cleaning methods and schedules are therefore necessary to maintain a clean and healthy environment in healthcare buildings. Use of cleaning products which have no carcinogen agents must be encouraged and provision of personnel training for safe handling and disposal of hospital waste, and consideration must be given to install waste water treatment system within the hospital vicinity will also be helpful in containing the spread of disease and infection which may arise from the hospitals.

| STANDARDS AND CRITERION | | |
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| Standard | GHK.1: | Hospital shall ensure use of low pollutant emitting materials used in the facility. |
| Criterion | a. | The facility prepares a list of chemicals and products used for housekeeping (maintaining cleanliness of the facility). |
| | b. | The facility ensures that the list contains low pollutant emitting materials. |
| Standard | GHK.2: | Hospital shall have a protocol for procuring of Products, Materials and Equipment (environmental friendly Preferable) |
| | a. | Cleaning products and materials that are procured are environmentally benign while still maintaining the high level of cleanliness required in the facility. |

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| Criterion | b. | Products that are manufactured with carcinogens, mutagens and teratogens aerosols; asthma-causing agents (asthmagens), respiratory irritants, and chemicals that aggravate existing respiratory conditions are not procured |
| | c. | Usage of aldehyde products for fumigation and fogging are banned at the facility |
| | d. | Hospital shall have an ongoing induction training programme for all the housekeeping staff for the cleaning of all the areas in the hospital. Remarks: Hospital shall have an annual training programme for all the staff |
| Standard | GHK.3: | Provide appropriate infection control parameters & systems in healthcare facilities, thereby reducing the nosocomial infection |
| Criterion | a. | Demonstrate that the minimum efficiency reporting values in all spaces to meet ASHRAE 170 – 2013 'Ventilation of Health Care' |
| | b. | Demonstrate that the pressurization methodology in all regularly occupied spaces shall meet the pressure relationship to the adjacent areas, as prescribed in ASHRAE 170-2013 'Ventilation of Health Care' |
| Standard | GHK.4: | Hospital shall have a policy for correctly labelling and properly storing all chemicals as per manufacturers' recommendations. |
| | a. | All the chemicals and drugs used in the facility are correctly labelled. |
| | b. | All the chemicals used in cleaning and sanitation are properly |
| | c. | labelled and stored. The professionals handling the chemicals are trained |

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| Standard | GHK.5: Organization shall have a process for housekeeping and cleaning agents with defined criteria considering performance / people / planet and pricing |
| Criterion | <ul style="list-style-type: none"> <li data-bbox="376 506 1481 645">a. Hospital has housekeeping and cleaning policies and procedures in accordance with the size and complexity of the services <li data-bbox="376 656 1374 757">b. Hospital has a selection procurement committee which gets guidance from Infection Control Committee. <li data-bbox="376 801 1493 969">c. Hospital has defined criteria for selection of housekeeping products. Criteria for selection shall refer to use of Non-hazardous Cleaning Agents. These are agents that reduce environmental pollutants; <li data-bbox="376 1014 1082 1048">d. Hospital doesn't use formalin products. <li data-bbox="376 1104 1465 1205">e. Hospital has ensured the reduction of Volatile Organic Compound (VOC) emissions inside and outside buildings. <li data-bbox="376 1249 1501 1406">f. The hospital has procedures to assist the housekeeping personnel to carry out their assigned duties while practicing infection control activities. |

Chapter 7: Procurement of Materials and Resources

An effective sustainable strategy for greener practices in hospitals is to adopt Environmentally Preferred Purchasing (EPP). It is defined as purchasing products or services which have less damaging impact to the environment and human health.

While considering building material and resources for a green hospital should be prioritized according to health impacts associated with them. Every stage of material extraction, transport, use, and disposal has impacts on the ecosystem and human health. This can be reduced by choosing methods and procurements which don't have implications on the environment. Some examples of safe procurement include, supporting the use of local and regional materials, avoiding hazardous chemicals and materials such as asbestos, and metals such as mercury, lead and cadmium. Procurement of materials that are known or suspected to cause cancer or other serious health effects should be avoided. Further, since the staff comes in contact with the purchased products more than the patients, material used by them should also be reviewed before procurement. Thus, products which give out pollutants such as air toxins, which include dioxin and asbestos, and metals such as cadmium, mercury, chromium, and lead compounds and other products which has the probability of causing any reproductive effects or birth effects or any health impacts should be avoided. In addition to exposure from breathing air toxics, some air toxic pollutants such as mercury can deposit onto soils or surface waters, where they are taken up by plants and ingested by animals and eventually magnified up through the food chain. Thus, paints and coatings that are 100% lead and cadmium-free should be actively advocated and promoted. The existing inventory should be reviewed for all interior and exterior equipment, and instruments should be inspected for manufacturer, model, and technical specifications, including the mercury content in them. The products capable of causing any health impact should be avoided and eventually eliminated altogether.

Phasing out all mercury-based electrical devices and switching to LED lighting sources should be considered. Also, the elimination of mercury based medical devices and products should be carried out. Another method for greening is recycling. Facility managers must decide about items which are to be recycled. A good waste segregation plan with segregation on point source would help. Recyclable materials must be collected in using sources (for example: stores, kitchens, laundries, pharmacies and workshops) and then to be delivered to the central storage area for transportation purposes.

| STANDARDS AND CRITERION | |
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| Standard | PMR.1: The organization shall have a process for purchase and procurement of materials used |
| Criterion | <p>a. Hospital establishes a team responsible to ensure that purchase and procurement is as per defined policy.</p> <hr/> <p>b. Hospital document a policy to ensure Environmentally Preferred Purchasing</p> <hr/> <p>c. Established a documented purchase plan which highlights the importance for sustainable products.</p> <hr/> <p>d. Hospital has an evaluation criterion of the supply chain with regards environment performance</p> <hr/> <p>e. Hospital has ensured to procurement of environment friendly products. The product purchased shall be less toxic, minimally polluting, more energy efficient, safer and healthier for patients, workers, and the environment. The product shall contain higher recycled content, have less packaging and be fragrance-free.</p> |

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| Standard | PMR.2: | Use certified green building materials, products, and equipment, so as to reduce dependence on materials that have associated negative environmental impacts. |
| Criterion | a. | Products purchased have proper green certification |
| | b. | Products and equipment purchased have no associated negative environmental impacts |
| Standard | PMR.3: | Encourage the use of eco-certified interior products that consider impacts through the life cycle, thereby resulting in lower environmental impacts |
| Criterion | a. | There is a documented policy to encourage procurement of eco-certified interior products that have a longer life period and lower environmental impacts. |
| | b. | Hospital prepares a list of such eco-certified interior products using a collaborative approach. |

Chapter 8

Governance and Leadership (GAL)

Introduction

Each facility requires a governance structure that is ultimately responsible for ensuring all applicable requirements are known and implemented. This responsibility is derived from its legal identity and operational authority for all activities undertaken by the facility within the ambit of applicable laws and regulations. Each facility, regardless of its complexity, also has a formal structure. Leaders ensure that a system exists that promotes sustainability and safety.

| STANDARDS AND CRITERIA | |
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| Standard | GAL.1: The management of the hospital is committed to implement the concept of green healthcare. |
| Criterion | <p>a. The management document its vision, mission and values.</p> <p>b. Expectations of management and senior leaders to create and maintain a culture of green healthcare is documented.</p> |
| Standard | GAL.2: The management is accountable for compliance of applicable regulatory/ statutory/ legal requirements. |
| Criterion | <p>a. The management ensures compliance of applicable legal provisions related to environmental safety.</p> <p>b. The Management ensures that there is a plan in place to monitor legal compliances.</p> |

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| Standard | GAL.3: | The management receives reports on the compliance with the requirements of this standard from time to time. |
| Criterion | a. | The management receives timely reports on compliance with this standard from responsible teams. |
| | b. | Management ensures regular audits are conducted by trained personnel to verify implementation of the requirements of this standard. |
| | c. | Report to include all requirements of this standard |

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