

# **San Francisco General Hospital ENVIRONMENT OF CARE (EOC)/SAFETY MANAGEMENT 2006 Annual Report**

The intent of SFGH's EOC/Safety Program is to provide for a safe and effective environment of care for patients, visitors, volunteers and staff in accordance with organizational needs and regulatory requirements. The Environment of Care (EOC) Safety Program encompasses the following seven elements:

- Emergency Management
- Safety Management
- Hazardous Materials/Waste Management
- Medical Equipment Management
- Utility Management
- Fire/Life Safety
- Security Management

The Environment of Care (EOC) committee membership is comprised of program managers for each of the seven EOC elements (facility service, bio-medical engineering, environmental health and safety, emergency preparedness and security), representatives from nursing, infection control, clinical laboratory, environmental services, pharmacy and quality management. The EOC committee meets on a monthly basis. The committee has been tasked with setting and prioritizing the medical center's safety goals/performance standards and assessing whether those goals have been met. Opportunities for improvement identified during ongoing hazard surveillance, risk assessment, and other EOC activities drive the selection of special EOC projects and initiatives. These projects and initiatives further enable the EOC Committee to proactively promote a culture of safety awareness and action throughout the entire Hospital community, going above and beyond the Elements of Performance in the EOC Chapter of the 2006 JCAHO Accreditation Manual and other regulatory standards. Each EOC element submits quarterly monitoring reports to the EOC Committee for review and approval.

## REPORTS ON THE EOC SAFETY ELEMENTS

### 1. Emergency Preparedness

**Objective:** To adequately prepare staff to function in a competent and safe manner in response to either an internal or external disaster. It is the intent of SFGHMC that staff is prepared to be self-sufficient both in the home and the workplace for at least 72 hours following a disaster.

#### Accomplishments

- Reviewed, revised and distributed the Emergency Response Plan to meet current JCAHO standards.
- Evaluated our progressive disaster exercise program to ensure full compliance with 2006 JCAHO standards
- Implemented policies and procedures for the SFGHMC Decontamination Program and Team.
- Collaborated with Infection Control and Pharmacy to develop the SFGHMC Pandemic Influenza Plan, and tested the basic components of the plan through a Citywide Tabletop Exercise hosted by the Department of Public Health's Communicable Disease Control and Prevention branch.
- The Emergency/Disaster Preparedness Committee developed and implemented basic plans and procedures for patient triage, distribution and treatment for a mass casualty incident.

#### Opportunities for Improvement

- Further development and testing of hospital-wide mass casualty response procedures including "Code Triage" alerting and other preparatory activities.
- Implement Disaster Service Worker, National Incident Management System, and updated Hospital Incident Command System training programs.
- Further integration of physician services into emergency preparedness training and exercises for more coordinated response.
- Evaluation and improvement of unit-based, horizontal and vertical evacuation procedures through functional exercises.
- Development of contingency plans and priority actions for clinicians and other hospital staff to follow during brief or sustained power outages.

**Annual Program Review:** As required by JCAHO, the Emergency Preparedness program objectives, scope, performance, and effectiveness were reviewed and evaluated by the EOC Committee and were found to be effective.

## 2. Safety Management

**Objective:** To provide for a safe environment through ongoing assessments that identify conditions or practices related to the buildings, grounds, equipment, occupants, and internal physical systems that are potential safety risks.

### Accomplishments

- 100% of EOC Safety Inspection Rounds were conducted for buildings and grounds, patient care and non-patient care areas.
- Collaborated with a multidisciplinary group (Nursing, Quality Management, Stop Smoking Program, Eligibility and Pharmacy) to develop the SFGHMC PATCH Program (Providing Assistance Tobacco Cessation Hospital), and tested the basic components of the In-patient smoke cessation program through a pilot in Nursing unit 5D.
- Utilized the TMS system to track deficiencies/work orders noted during EOC Rounds. Collaborated with a multidisciplinary group (Nursing, Quality Management, DPH OSH, Material Management and Local 790) to develop the SFGHMC Ergonomics Committee. The first project of the committee was “Safe Patient Handling”, reviewed/assessed and purchased new hospital beds, auxiliary equipment. Developed a “Safe Patient Handling” training program. Also, reinstated the concept of the lifting team on a 24/7 basis as the “Patient Handling Service”, motto being “RIGHT equipment + RIGHT number of staff = Safe Patient Handling”.

### Opportunities for Improvement

- In collaboration with DET, develop and implement an orientation for new Physicians to SFGHMC and an orientation to EOC/Safety for Managers/Supervisors.
- Promote SFGHMC as a Smoke Free Environment utilizing additional signage and smoke cessation programs directed not only at patients but staff.
- Utilize the TMS system to track/close out EOC rounds deficiencies/work orders reported as complete.

**Annual Program Review:** As required by JCAHO, the Safety Management program objectives, scope, performance, and effectiveness were reviewed and evaluated by the EOC Committee and was found to be effective.

### 3. Hazardous Materials/Waste Management

**Objective:** Properly manage identified and potential hazards, handle and store hazardous materials, monitor and dispose of hazardous gases and vapors, manage waste streams, respond to spills of hazardous materials. Provide staff with the appropriate skills and knowledge to safely use and handle hazardous materials/waste. Maintain documentation required by local, regional, state, and federal environmental health and safety rules and regulations.

#### **Accomplishments**

- Removed all non-compliant eyewash stations throughout the hospital
- Updated all hospital-wide Hazardous Materials Inventory
- All permits and manifests documentation are current.

#### **Opportunities for Improvement**

- Continue to replace all necessary eyewash stations with current ANSI-approved models
- Develop a computer based Hazard Communication Training session for Health Stream
- Update MSDS's for all hazardous materials
- Enhance hospital-wide recycling efforts, waste reduction practices (including use of more biodegradable products)
- Continue to track compliance on TB rooms – monitor negative pressure room monthly. Replacement of duct work, identify replacement for RS1000 (6 new units require in-service.)
- Develop and implement RCRA pharmacy waste disposal process

**Annual Program Review:** As required by JCAHO, the Hazardous Materials/Waste Management program objectives, scope, performance, and effectiveness were reviewed and evaluated by the EOC Committee and was found to be effective.

## 4. Medical Equipment Management

**Objective:** The assessment and control of the clinical and physical inventory of fixed and portable electrical equipment used for the diagnosis, treatment, monitoring, and care of patients. This program is in place to ensure that all medical equipment, products, devices and non-medical equipment used throughout the Medical Center comply with appropriate safety and operational standards prior to initial use and on an ongoing basis. To ensure that all medical equipment, products, devices and non-medical equipment used to support the SFGH Medical Center mission, complies with appropriate safety and operational standards prior to initial use and on an ongoing basis.

### Accomplishments

- Implemented a new automated Device Alert system that targets specific users to save time in reviewing Alerts; monitors all departments' response rates; and maintains an ongoing database of problem resolution actions. All representatives from all clinical departments were trained in operation of the system.
- Implemented a color-coded PM sticker, which made it easier to identify equipment to verify that was in compliance.
- Electronically documented and tracked BME deficiencies identified during EOC rounds, assisting in ensuring follow-up and resolution.
- Incorporated periodic battery replacement program into PM program to maintain equipment function as long as possible in the event of a power failure.

### Opportunities for Improvement

- Maintain monthly PM completion rates above 95% to meet JCAHO standards.
- Provide staff with outside training to expand and improve the department's technical skills and capabilities on at least two pieces of equipment that will reduce equipment downtime.
- Improve new tracking system for Device Alerts to include providing responses and Alert resolution monthly update reports to QM and department managers.
- Develop an ongoing program to review equipment condition, to provide an annual schedule of recommended equipment replacement.
- Enter EOC rounds notification and responses onto the TMS maintenance system to facilitate tracking.
- Create a vendor services management program to monitor existing vendor qualifications and proactively add new vendors as 'city qualified vendors', to avoid equipment downtime

**Annual Program Review:** As required by JCAHO, the Medical Equipment Management program objectives, scope, performance, and effectiveness were reviewed and evaluated by the EOC Committee and were found to be effective.

## 5. Utility Management

**Objective:** To provide a safe, controlled, comfortable environment; assesses and minimizes the risk of failures and outlines appropriate responses to failures; and ensures operational reliability and effectiveness of all utility systems.

### Accomplishments

- Installation of the Apogee Energy Management System. Facility Services operators will now have greater control and management of critical mechanical infrastructure. Equipment will be better monitored and controlled, increasing normal run time duty and minimizing need for emergency repairs. The operational expectation is better control of the physical environment within the Main Hospital for patients, staff and visitors.
- The equipment asset database was increased by approximately 25%. Equipment in this database will now be part of the preventive maintenance program. Equipment maintained on a calendar or run time cycle has shown an increase in reliability, decrease in emergency down time and a cost benefit in labor savings. Overall benefit to the SFGHMC will be a higher degree of equipment readiness.
- Decrease of routine work orders in Main Hospital due to 2<sup>nd</sup> year implementation of maintenance sweeps program. The Facility Services Department has taken a pro-active approach to the maintenance of patient care areas focusing on mechanical, electrical, plumbing and interior finishes. Regularly scheduled maintenance events have decreased the number of routine work requests, increased labor efficiency resulting in cost savings and increased compliance with performance elements in the Environment of Care.
- Implementation of a contract-based maintenance and repair program for the medical gas system has resulted in an 80% reduction in system faults. System wide components are now individually tested and documented in an annual report. Any noted system deficiencies are then scheduled for immediate repair.
- Increased the reliability of document and specimen delivery in the Main Hospital by renovating 30 pneumatic tube system stations. New control features have replaced the original 30-year-old equipment allowing operators more effective control in maintaining and trouble shooting the system. The result is fewer lost or delayed documents and specimens and less down time recovering from system faults.
- Chiller – Planning and procurement of Chillers was completed. Installation also completed in July 2006.

- A Building Management Plan was implemented in 2005; this proactive approach to building maintenance is expected to reduce the number of request for service.
- The contract for the seismic upgrade of the service building has been awarded. Estimated start date for this project is second quarter 2006/07. This upgrade will ensure operational reliability of the power plant and it's service to the campus.
- Repaired the domestic hot water heater, creating a back up for domestic hot water.
- Developed a facilities staff-training program that addresses utility systems and policies ensure staff's continuous readiness to met the objectives of the utilities management program.
- HVAC – Installation of constant air volume boxes in an attempt to maintain the system at design levels. (Boxes regulates the amount of air supply)

### **Opportunities for Improvement**

- Implementation of a new paging system capable of contacting discreet groups on the system will eliminate the need for multiple pagers and increase pager coverage on the SFGHMC Campus. The benefit to all staff will be a reliable, discriminating system allowing efficient targeting of staff resources when responding to emergencies.
- Continue systematic of upgrades of nurse call systems in patient care wards. The existing system technology is becoming more difficult to support.
- Facility Service personnel will increase measures to ensure operational capability in the Power Plant. Aging components of the electrical distribution system requires replacement or upgrading to ensure the hospitals ability of the emergency power system to service the load when necessary.

**Annual Program Review:** As required by JCAHO, the Utility Management program objectives, scope, performance, and effectiveness were reviewed and evaluated by the EOC Committee and was found to be effective.

## 6. Fire Life Safety

**Objective:** To provide for a safe facility, protection of patients, visitors, employees and property from fire and the products of combustion, fire safety prevention, training and drills, fire response plans, well maintained protection systems, and a medical center design which inherently protects against fire.

### Accomplishments

- Initiated a project to augment the existing fire alarm system with a new, supportable system. The new fire alarm system will be capable of meeting existing requirements and supporting future construction projects to current code standards. Overall system reliability will be increased due to greater technical support and parts availability.
- Completed the removal of all roller latch hardware on all patient doors in the Main Hospital. This project was completed on schedule and done with minimal impact on patient care. The Main Hospital is now in compliance with the requirement that all patient doors be equipped with latching hardware.
- Increased Fire Life Safety training of Hospital staff by 20% by targeting off-hours shifts in the ED, OR and Dialysis. The SFGHMC Fire Marshall covering all aspects of fire life safety conducted training. These training sessions were above the threshold for required fire drills and will result in efficient staff response in the event of fire or an emergency.

### Opportunities for Improvement

- Systematic maintenance and repair of the Main Hospital fire and smoke dampers. Instituting a contract-based, scheduled maintenance and repair program will result in a documented system with fewer system failures. Any noted equipment deficiencies can be immediately repaired increasing the likelihood of containing smoke or fire in the building increasing fire safety for all SFGH patients, staff, and visitors.
- Continue project to augment existing fire alarm system
- Electronic Tracking System for SOC/PFI

**Annual Program Review:** As required by JCAHO, the Fire Life Safety Management program objectives, scope, performance, and effectiveness were reviewed and evaluated by the EOC Committee and was found to be effective.

## 7. Security Management

**Objective:** To provide a safe, secure and accessible facility; promote security awareness and education; prevent crime; to protect patients, visitors, staff and physicians from harm and reasonable fear of harm; to protect personal and hospital property from theft, misuse and vandalism; and to enforce medical center rules and policies.

### Accomplishments

- Instituted a new post in the Outpatient lobby to provide crowd control and reduce assaults in the area
- A Physical security assessment was completed in Bldgs. 80/90. Recommendations were submitted. Safety awareness presentations were made to staff. Elevator locks were changed in buildings 80 and 90 to reduce petty thefts
- Infant Security Task Force revised policy and procedures for Code Pink.
- Funding was identified, architectural plans were reviewed and approved by OSH PD. Installation of the Infant Security alarm system is scheduled for 2007.
- Hospitals Security Alarm monitoring system has been upgraded with a computer based program. This program is user friendly, efficient and versatile. Digital Video recorders were installed instead of the previous analog version. An upgrade of the Digital Video Recording system is in progress. The newer system will enable the department to archive for a longer period of time and to record incidents thru a DVD burner.
- A review/reassessment of the 2005 SFGH Campus Physical Security Assessment was completed. Recommendations were reprioritized and submitted for implementation.

### Opportunities for improvement

- Develop and implement a hospital lock-down procedure to adequately secure the facilities in the event of a disaster
- Installation of alarm system to bolster staff efforts to protect infants
- Assess current SFSD staffing level and post assignment to improve effectiveness of service delivery.
- Track the completion of prioritized workable projects identified in the 2006 SFGH Campus Physical Security Assessment.

**Annual Program Review:** As required by JCAHO, the Security Management program objectives, scope, performance, and effectiveness were reviewed and evaluated by the EOC Committee and was found to be effective.

In addition to the managing the seven elements of the EOC/Safety Management Program, the EOC Safety committee continued to work on the implementation of the Patient Decontamination Performance Improvement Project.

### **2006 EOC Performance Improvement Project**

This year's EOC Performance Improvement Project continued to be "Emergency Preparedness - Patient Decontamination", it included revising and developing and implementing procedures related to patient decontamination. This included identifying and training of a Patient Decontamination Team.

#### **Accomplishments in 2006 include:**

- Training including functional exercise of decontamination corridor set-up and patient assessment, washing, and treatment procedures was completed for 65 SFGH clinical and support services staff members during three trainings in August, with two additional trainings scheduled for late November 2006. Funding for Training Program and staff attendance at trainings was provided through various Federal and State grants totally over \$100K.
- Incorporation of new improved equipment, enabling SFGH to provide "instant-on" decontamination shower facilities for small events and significantly reducing the number of personnel required and time needed for larger-scale decontamination corridor set-up while providing for adequate containment of run-off, shelter, heating, gender separation and capabilities for handling non-ambulatory patients.

Participating departments have committed to ongoing development and quality improvement training to sustain patient decontamination capabilities.