

## **Environment of Care**

### **Fire Safety Management Plan – 2014**

**Updated 4.29.2014**

#### **PURPOSE**

The purpose of the Fire Safety Management Plan is to ensure that all facilities are designed, constructed, maintained, and operated to minimize the risk of fire and the possibility of a fire emergency requiring evacuation of occupants. Risk of fire is minimized by: Appropriate construction and arrangement of facilities and spaces; Effective training of staff; and adherence to operating and maintenance procedures.

#### **SCOPE**

The Fire Safety Management Plan at TJUH Inc. applies to all facilities as listed below and to all fire safety processes, activities, departments, structures and grounds as well as patients, staff, students, and visitors. The Fire Safety Management Plan addresses elements necessary to provide a physical environment free of hazards related to fire or life safety deficiencies. TJUH, Inc.'s Fire Safety Management Plan provides for continuous protection of all patients, staff, students, and visitors from the effect of fire and the products of combustion and provides for the safe use of the buildings and grounds. The Fire Safety Management Plan encompasses all fire safety aspects of building design, all mechanical fire detection and suppressions systems, and the facility fire response policies and procedures.

TJUH facilities covered by this management plan are as follows:

- Gibbon/Bodine Building, 111 South 11<sup>th</sup> Street - All floors and areas except 1<sup>st</sup> floor leased business occupancies.
- Main Building, 132 South 10<sup>th</sup> Street - All floors and areas.
- Thompson/Tower Building, 1020 Sansom Street - All floors and areas.
- Foerderer Pavilion Building, 117 South 11<sup>th</sup> Street – All floors and areas.
- Jefferson Hospital for Neuroscience, 900 Walnut Street – All floors and areas except for 1<sup>st</sup> floor leased business occupancy and business occupancies on the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> floors. 2<sup>nd</sup> floor Infusion space and 3<sup>rd</sup> floor Surgical Family Waiting are included.
- Medical Office Building (MOB), 1100 - 1104 Walnut Street – 1<sup>st</sup> and 2<sup>nd</sup> floor Surgical Center; 3<sup>rd</sup> and 4<sup>th</sup> floor Breast Care Imaging Center; and 8<sup>th</sup> floor Clinical Lab for Cell Therapy.
- 925 Chestnut Street – 2<sup>nd</sup> floor Infusion Center.

- Clinical Office Building (COB), 909 Walnut Street – Basement and 1<sup>st</sup> floor Radiology space; and 3<sup>rd</sup> floor Oral Surgery suite.
- Methodist Hospital, 2301 South Broad Street – All floors and areas.
- Methodist Hospital, 1300 Wolfe Street – All floors and areas.
- Methodist Hospital, 2422-24 S. Broad Street - All floors and areas.

## OBJECTIVES

The objectives of the Fire Safety Management Plan include:

- Comply with all relevant fire safety codes, standards and regulations.
- Enforce current fire safety practices for patients, staff, students, and visitors.
- Provide fire safety education and training as appropriate.
- Monitor the effectiveness of the fire safety program.
- Identify opportunities to improve fire safety performance and develop and implement improvements.

## AUTHORITY

The Chair of the Safety Management Subcommittee is responsible for the program's strategic design and overall plan development, implementation, monitoring, and performance improvement. The Hospital Fire Marshals at the respective Center City and Methodist campuses are responsible for the day-to-day operation of the Hospitals' fire safety plan. Performance reporting for the program is monitored by the Environment of Care Committee.

## RISK ASSESSMENT

Abnormal hazardous conditions, potentially hazardous situations, unsafe behaviors and relative risks are identified and assessed through ongoing facility-wide risk assessment processes. These processes are designed to proactively evaluate the impact of building, grounds, equipment, materials, operations and internal physical systems on patient, staff, student, and visitor safety. The Safety Sub-Committee works with the Environment of Care Committee and Risk Management Department to identify, analyze, and control environmental risks to patient, staff, student, and visitor safety that may contribute to undesirable outcomes. These assessment processes include:

- Annual subcommittee multi-disciplinary Risk Assessment
- Environmental Safety Tours
- Statement of Conditions surveys
- Failure / User error / Service interruption reporting and analysis of fire alarm, suppression and detection systems.
- Patient Safety Net (PSN)
- SAFE Line (955-SAFE; 5-7233)

## PERFORMANCE ELEMENTS

The Fire Safety Management Plan includes provisions for, but not limited to, the inspection, maintenance, repair, and implementation of interim safety measures as needed for the following life safety systems according to applicable NFPA codes:

1. Fire detection and fire alarm systems
2. Smoke and fire dampers
3. Smoke and fire doors
4. Automatic fire suppression systems
  - 4.1. Kitchen Hood Systems
  - 4.2. Halon Systems
  - 4.3. Clean Agent Systems
  - 4.4. Water Based Fire Sprinkler Systems
5. Fire pumps
6. Fire extinguishers
7. Standpipe systems
8. Sliding and rolling fire doors
9. Exit signs and other signage

The “Fire Response Plan – Code Red” also includes the Hospital-wide response to Fire or Smoke – Code Red alert. All aspects of the Fire Safety Management Plan will be documented and all documentation will be kept on file.

### **Standard EC.02.03.01 – The hospital manages fire risks.**

#### **EC.02.03.01 (1)**

The hospital minimizes the potential for harm from fire smoke, and other products of combustion.

TJUH, Inc. will protect its patients, staff, students, visitors, and property by providing appropriate fire protection systems and equipment, employee training and Interim Life Safety Measures. The hospital buildings are equipped with fire detection and suppression systems that are inspected in accordance with the appropriate NFPA standards.

The hospital, all buildings in which patients are seen or treated, and buildings under the ownership or control of Thomas Jefferson University Hospital Inc. will maintain compliance with the appropriate provisions of the Life Safety Code of NFPA. The Director of Facilities Operations at the Center City campus and the Director of Facilities Management at the Methodist campus are responsible to ensure and manage all structural elements of life safety within said buildings.

#### **EC.02.03.01 (2)**

If patients are permitted to smoke, the hospital takes measures to minimize fire risk.

TJUH, Inc. is a non-smoking facility and does not permit smoking within any building.

**EC.02.03.01 (4)**

The hospital maintains free and unobstructed access to all exits.

TJUH, Inc. will maintain free and unobstructed access to all exits. The hospital will conduct safety rounds on a regular basis to ensure compliance.

**EC.02.03.01 (9)**

The hospital has a written fire response plan.

TJUH, Inc. maintains a written fire response plan. Emergency procedures will be coordinated between the hospital Fire Marshal and department leaders. For each area identified as “High Risk,” the Fire Marshal, in collaboration with department leaders, will develop department-specific emergency procedures according to the need of the services they provide.

**EC.02.03.01 (10)**

The written fire response plan describes the specific roles of staff and licensed independent practitioners at and away from a fire's point of origin, including when and how to sound fire alarms, how to contain smoke and fire, how to use a fire extinguisher, and how to evacuate to areas of refuge.

The organization’s Fire Response Plan – Code Red, describes the Roles & Responsibilities of staff and LIPs, including how to:

- Respond at and away from fire point of origin
- Activate and sound fire alarms
- Defend in place
- Contain smoke and fire
- Use a fire extinguisher
- Prepare for building evacuation

**Standard EC.02.03.03 - The hospital conducts fire drills.**

**EC.02.03.03 (1)**

The hospital conducts fire drills once per shift per quarter in each building defined as a health care occupancy by the Life Safety Code. The hospital conducts quarterly fire drills in each building defined as an ambulatory health care occupancy by the Life Safety Code.

Fire drills are conducted quarterly on all shifts in healthcare occupancies. All drills are documented and documentation is maintained on file.

**EC.02.03.03 (2)**

The hospital conducts fire drills every 12 months from the date of the last drill in all freestanding buildings classified as business occupancies and in which patients are seen or treated.

Fire drills in freestanding buildings classified as business occupancies will be conducted every 12 months. All drills are documented and maintained on file.

**EC.02.03.03 (3)**

When quarterly fire drills are required, at least 50% of the drills are unannounced.

Fire drills are conducted on each shift quarterly and at least 50% are unannounced. Documentation is maintained on file.

**EC.02.03.03 (4)**

Staff who work in buildings where patients are housed or treated participate in drills according to the hospital's fire response plan

Fire drills are conducted in all areas and staff from all areas respond to the alarm as required in the fire response plan. Staff participation is noted on fire drill forms.

**EC.02.03.03 (5)**

The hospital critiques fire drills to evaluate fire safety equipment, fire safety building features, and staff response to fire. The evaluation is documented.

Fire drills are critiqued after each drill. Any necessary education is provided at the time of the fire drill. Fire drill summary reports are prepared and maintained by the hospital Fire Marshal. The effectiveness of the fire drill response training is reviewed and modified as necessary.

**Standard EC.02.03.05 – The hospital maintains fire safety equipment and fire safety building features.**

The following fire safety equipment and fire safety building features are tested as required by the applicable NFPA Standards. All testing is documented. (Numbers below correspond to EP numbers).

1. All supervisory signal devices (except valve tamper switches) are tested at least quarterly.
2. All valve tamper switches and water flow devices are tested at least quarterly.
3. All duct detectors, electromechanical releasing devices, heat detectors, manual fire alarm boxes and smoke detectors are tested at least every 12 months.
4. Occupant alarm notification devices, including all audible devices, speakers and visible devices are tested at least every 12 months.
5. Off-premises emergency services notification transmission equipment is tested at least quarterly.
6. For water-based automatic fire-extinguishing systems, all fire pumps are tested every week under no-flow conditions.
7. (The hospital has no water-storage tanks for which to test high- and low-water level alarms).
8. (The hospital has no water-storage tanks for which to test water-storage tanks temperature alarms during cold weather).
9. For water-based automatic fire-extinguishing systems, main drain tests are conducted every 12 months at all system risers.
10. For water-based automatic fire-extinguishing systems, all fire department connections are inspected quarterly.
11. For water-based automatic fire-extinguishing systems, all fire pumps are tested every 12 months under flow.
12. Every 5 years, the hospital conducts water-flow tests for standpipe systems.
13. Kitchen automatic fire-extinguishing systems are inspected for proper operation every 6 months (actual discharge of the fire-extinguishing system is not required).
14. Carbon dioxide and other gaseous automatic fire-extinguishing systems are tested for proper operation every 12 months. (Actual discharge of the fire-extinguishing system is not required).
15. All portable fire extinguishers are clearly identified and are inspected at least monthly.

16. Every 12 months, the hospital performs maintenance on portable fire extinguishers.
17. (The hospital has no standpipe occupant hoses to test)
18. All fire and smoke dampers are operated one year after installation and at least every six years (with fusible links removed where applicable) to verify that they fully close.
19. All automatic smoke-detection shutdown devices for air-handling equipment are tested every 12 months.
20. Every 12 months, the hospital tests sliding and rolling fire doors for proper operation and full closure.
21. (EP25) The Hospital will maintain documentation of all maintenance, testing and inspection activities of fire alarm and fire suppression systems. Documentation will include the name of the activity, the date of the activity, the required frequency of the activity, the name and contact information for the person who performed the activity, the NFPA standard referenced, and the results of the activity.

**Standard EC.04.01.01 – The hospital collects information to monitor conditions in the environment.**

**EC.04.01.01 (1)**

The hospital establishes processes for continually monitoring, internally reporting, and investigating the following:

- Fire safety management problems, deficiencies, and failures

Based on its processes, the hospital reports and investigates the following:

**EC.04.01.01 (9)**

Fire safety management problems, deficiencies, and failures.

The Safety Officer(s) and Fire Marshal are responsible for managing processes that continuously monitor and internally report planned and emergent fire safety deficiencies and failures. This is accomplished through various means, all of which are monitored, reported, and investigated as the problems, deficiencies, and failures warrant.

- Hot work permits are required for all hot work conducted in hospital facilities and are administered by the Fire Marshal in order to identify risks and implement fire safety precautions and fire watches.
- Planned and emergent fire suppression and fire alarm system impairments are continuously monitored through a system impairment process, including the use of “red tag” permits for those impairments.
- As notified of life safety deficiencies or system impairments, the Fire Marshal conducts risk assessments and ensures implementation of interim life safety measures for each significant deficiency or impairment.
- Every fire drill is critiqued. The Fire Marshal reviews the findings of the critiques and develops action plans for correction including additional education.
- Safety and the Fire Marshal participates in various safety surveys and monitors deficiencies and their correction.

**EC.04.01.01 (15)**

Every 12 months, the hospital evaluates each environment of care management plan, including a review of the plan's objectives, scope, performance, and effectiveness.

The annual evaluation of the Fire Safety Management Plan includes a review of the objectives, scope, performance and effectiveness. The evaluation provides the basis for performance improvement and development of the plan for future risk assessments.

TJUH also complies with Life Safety Standards and Elements of Performance, including those noted below which are particularly related to Fire Safety.

**Standard LS.01.01.01 – The hospital designs and manages the physical environment to comply with the Life Safety Code.**

**LS.01.01.01 (1)**

The hospital assigns an individual(s) to assess compliance with the Life Safety Code, complete the electronic Statement of Conditions (e-SOC), and manage the resolution of deficiencies.

TJUH, Inc. utilizes a life safety code expert (consultant) with Life Safety Code compliance expertise. It is the responsibility of Facilities Compliance Director, to manage the e-SOC processes, including assessment, reporting, and resolution of deficiencies. Facilities Design and Construction is responsible for completing the repair of Environment of Care and Life Safety deficiencies requiring contractors.

**LS.01.01.01 (2)**

The hospital maintains a current electronic Statement of Conditions (e-SOC).

TJUH, Inc. utilizes a life safety code expert (consultant) with Life Safety Code compliance expertise. It is the responsibility of Facilities Compliance Director, to maintain a current electronic Statement of Conditions. The Statement of Conditions is maintained electronically in the TJC Connect extranet e-SOC account.

**LS.01.01.01 (3)**

When the hospital plans to resolve a deficiency through a Plan for Improvement (PFI), the hospital meets the time frames identified in the PFI accepted by The Joint Commission.

PFI completions are managed according to the time frames identified in the PFI's accepted by the Joint Commission in the electronic Statement of Conditions.

**Standard LS.01.02.01 – The hospital protects occupants during times when the Life Safety Code is not met or during periods of construction.**

TJUH, Inc.'s Interim Life Safety Measures (ILSM) Policy 118.06 identifies processes and procedures for assessing and implementing ILSM's. The need for ILSM's is assessed and ILSM's as required are implemented for LS deficiencies.

## **ORIENTATION AND EDUCATION**

Orientation and education for individuals is managed and documented through Human Resources and, individual departments. This training includes, but is not limited to:

- New employee orientation - Fire Safety training regarding R.A.C.E., P.A.S.S., Evacuation, and General Fire Safety is given to all new employees during New Employee Orientation. New employee orientation is delivered by a multi-disciplinary team including members from Environmental Health & Safety.
- Annual continuing education - Based on requirements of various healthcare regulatory agencies and identified internal needs, a core curriculum of mandatory course requirements are established each year. Computer-based training is utilized as the method to ensure compliance with annual mandatory fire safety training for all employees.
- Department-specific training - Department heads design educational programs for Fire Safety that meet their individual department needs. It is the responsibility of each department to:
  - Ensure that each employee is assigned the correct fire safety curriculum for participation in the computer based training program.
  - If the department does not participate in the computer based training program, designate an individual to be the trainer/educator for the department with regard to Fire Safety.
  - Ensure that all employees within the department receive Fire Safety training.
  - Reassess operations to ensure that any actual or potential fire safety hazards are identified and reported for inclusion in the educational program.
- Contract employees - Contract employees receive annual training on Jefferson Policies regarding Fire Safety. Jefferson's Department of Environmental Health & Safety provides fire safety related information to contractors.

## **PROGRAM EFFECTIVENESS**

Program effectiveness will be regularly monitored using significant incidents as well as trending of performance measures to indicate the effectiveness of the processes and/or systems in place. Performance monitoring and assessments of program effectiveness will be reported to the Safety Management Sub-committee. Significant events and outcomes of regular trending is reported by the Safety Management Sub-Committee Chair to the Environment of Care Committee monthly meetings at least quarterly or immediately as an exception for serious events.

## PERFORMANCE MONITORING

The following performance measures are established for 2014:

### **Exit Doors Unobstructed**

Exit doors being maintained unobstructed will be monitored and calculated monthly. The numerator is the number of exit doors found compliant with no obstructions during Environment of Care Safety Tours for the month. The denominator is the total number of exit doors observed during Environment of Care Safety Tours conducted during the month. The goal is a compliance rate of 95% or greater. Results will be reported monthly to the Safety Subcommittee for review and Quarterly to the Environment of Care Committee.

### **Unauthorized Appliances**

Unauthorized appliances found in areas will be monitored and calculated monthly. The numerator is the number of spaces observed compliant with regard to unauthorized appliances during Environment of Care Safety Tours for the month. (Observed spaces include break areas, conference rooms, storage rooms, mechanical rooms, nurses stations, etc. where unauthorized appliances may be found). The denominator is the total number of work spaces observed during Environment of Care Safety Tours conducted during the month. The goal is a compliance rate of 90% or greater. Results will be reported monthly to the Safety Subcommittee for review and Quarterly to the Environment of Care Committee.

### **Unobstructed Fire Extinguisher Cabinets**

Unobstructed fire extinguisher cabinets will be monitored and calculated monthly. The numerator is the number of fire extinguisher cabinets found compliant with no obstructions during Environment of Care Safety Tours for the month. The denominator is the total number of fire extinguisher cabinets observed during Environment of Care Safety Tours conducted during the month. The goal is a compliance rate of 95% or greater. Results will be reported monthly to the Safety Subcommittee for review and Quarterly to the Environment of Care Committee.

### **Storage (boxes etc.) not less than 18" below sprinkler heads**

Storage (boxes etc.) not less than 18" below sprinkler heads will be monitored and calculated monthly. The numerator is the number of storage areas (with shelving or cabinets making it possible to store materials less than 18" below sprinkler heads) observed to be compliant during Environment of Care Safety Tours for the month. The denominator is the total number of storage areas observed during Environment of Care Safety Tours conducted during the month. The goal is a compliance rate of 90% or greater. Results will be reported monthly to the Safety Subcommittee for review and Quarterly to the Environment of Care Committee.

## ANNUAL EVALUATION

The annual evaluation of the Fire Safety Management Program will include a review of the scope according to the current Joint Commission standards to evaluate the degree in which the program meets accreditation standards and the current risk assessment of the hospital. A comparison of the expectations and actual results of the program will be evaluated to determine if the goals and objectives of the program were met. The overall performance of the program will be reviewed by evaluating the results of performance improvement outcomes. The overall effectiveness of the program will be evaluated by determining the degree that expectations were met. The performance and effectiveness of the Fire Safety Management Plan will be reviewed by the Environment of Care Committee.

Reviewed and submitted by

Joseph E. Byham,  
Safety Subcommittee Chair  
Director of Environmental Health & Safety