Cleveland Clinic
Fire Safety Management Plan
2022

Reviewed 12.20.2021

I. PURPOSE

The purpose of the Fire Safety Management Plan is to establish and maintain a fire safe environment. Plan activities include:

- Fire prevention.
- Protecting patients, personnel, visitors, and property from fire, smoke and other products of combustion.
- Defining the facility's occupancy type in order to comply with the NFPA 101, 2012 Edition, Life Safety Code.

II. SCOPE

The Fire Safety Management Plan is designed to minimize the risk of fire and to assure appropriate, effective response to fire emergencies that could affect patients, employees, visitors, or property. The program is also designed to assure compliance with applicable codes and regulations.

The program applies to the main campus and regional operation sites. The program at the Lou Ruvo Center for Brain Health in Las Vegas, Nevada is administered by facility leadership. The Department of Accreditation keeps a current listing of all sites.

III. OBJECTIVES

A. An annual self-assessment of the Joint Commission Standards EC.01.01.01, EC.02.03.01 excluding EP2 (Smoking is prohibited on Cleveland Clinic property), EC.02.03.03, EC.02.03.05 and all elements of performance will be performed. Specialty group summary reports for compliance with EC.02.03.01 excluding EP2, EC.02.03.03, and EC.02.03.05 will be included in the self-assessment. Any EP scored not compliant or partially compliant will be addressed as an added objective to this plan.

B. Fire safety will be promoted through worker information such as Cleveland Clinic Learning Center (CCLC), fire drills, audits, inspections, and trainings. Trainings include fire safety training, OR fire safety training, annual fire plan reviews and fire extinguisher training. Compliance will be tracked using Verge and by evaluating the fire drills. In-service training will be held or EHS will provide solutions to management to correct any items that are found to be deficient.

C. EHS will continue to revise and update Enterprise Fire Plans as necessary.

D. The Office of Construction will continue oversight of construction and renovation projects for any scheduled evening, weekend and holiday work on Main Campus with the use of the CRRAS Survey Inspection form. Inspections will also cover Off Campus facilities that are a Main Campus Entity. The inspections will include all shifts, weekends and holidays. EHS will monitor the reports to ensure that they are accurate and are being completed.

E. EHS will continue focusing on safety items noted in The Joint Commission survey. This includes ensuring that construction sites in healthcare occupancies are smoke tight, the combustible load is reduced to the lowest level possible, proper housekeeping is followed and egress routes are maintained.

F. EHS will implement a new Hot Work Standard Operating Procedure. The SOP will outline new measures to ensure safer practices when conducting hot work operations. These protocols will be tracked and documented.

G. EHS will implement changes to the protocols for conducting fire watches

H. EHS will implement a new guideline dictating when daily inspections will be required for activities which impact the means of egress. These inspections will be tracked and documented.

I. Fire and Life Safety team (FLS) will perform, monitor, or otherwise ensure Inspection, Testing and Maintenance (ITM) is conducted at all facilities listed under HCO #7001.

J. All fire alarm, suppression, and other related devices, their locations, inspection schedule, tracking, recall and repair activities will be documented.

K. Asset management of all CCMC fire and life safety systems and equipment will continue to be developed and maintained in a graphical format, utilizing dedicated vendor software platforms.

L. All portable fire extinguishers will be inspected, tested, and documented per requirements.

Fire Safety Management Process

EC.01.01.01: The hospital plans activities to minimize risks in the environment of care.

EP7: The hospital has a written plan for managing the following: Fire safety.

This document is the Fire Safety Management Plan.

EC.02.03.01: The hospital manages fire risks.

EP1: The hospital minimizes the potential for harm from fire, smoke, and other products of combustion.

Continuous Readiness Rounds include fire safety components.

Interim Life Safety Measures are implemented as necessary.

Construction projects are inspected for compliance with Interim Life Safety Measures and fire hazards.

The Facilities Management team created the Above Ceiling checklist to identify the hazards present and provide corrective actions. Follow-up actions will be tracked using the Work Order system and evaluated on a monthly basis. The deficiencies identified during the annual mock survey will be reported at the Environment of Care (EOC) meetings.

EP.4: The hospital maintains free and unobstructed access to all exits.
Note: This requirement applies to all buildings classified as business occupancy. The "Life Safety" (LS) chapter addresses the requirements for all other occupancy types.

Audits are conducted to ensure free and unobstructed access to exits. Continuous monitoring is conducted by security technicians on a daily basis to ensure that no unapproved locking hardware is present. Data will be tracked using the work order system on a monthly basis and presented to the EOC. This EP will also be assessed during the annual mock survey conducted by regulatory compliance and findings will be shared at EOC meetings.

EP.9: 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 and report fire alarms, how to contain smoke and fire, how to use a fire extinguisher, how to assist and relocate patients, and how to evacuate to areas of refuge. Staff and licensed independent practitioners are periodically instructed on and kept informed of their duties under the plan. A copy of the plan is readily available with the telephone operator or security.
Note: For full text, refer to NFPA 101-2012: 18/19.7.1; 7.2.

Written fire response plans are posted on the Intranet site within Environmental Health and Safety home page.

EP.11: Periodic evaluations, as determined by the hospital, are made of potential fire hazards that could be encountered during surgical procedures. Written fire prevention and response

procedures, including safety precautions related to the use of flammable germicides or antiseptics, are established.

EP.12: When flammable germicides or antiseptics are used during surgeries utilizing electrosurgery, cautery, or lasers, the following are required:
- Nonflammable packaging
- Unit-dose applicators
- Preoperative "time-out" prior to the initiation of any surgical procedure to verify the following:
 - Application site is dry prior to draping and use of surgical equipment
 - Pooling of solution has not occurred or has been corrected
 - Solution-soaked materials have been removed from the operating room prior to draping and use of surgical devices

(For full text, refer to NFPA 99-2012: 15.13)

EP.13: The hospital meets all other Health Care Facilities Code fire protection requirements, as related to NFPA 99-2012: Chapter 15.

EC.02.03.03: The hospital conducts fire drills.

EP. 1: The organization conducts fire drills once per quarter in each 24-hour-care building under its control. (See also LS.01.02.01, EP 11; LS.02.01.70, EP 4; LS.04.01.20, EP 9)

Note 1: Individuals served may, but need not be, evacuated during drills.
Note 2: In shared facilities, drills need to be conducted only in areas of the building that the organization occupies.
Note 3: This element of performance does not apply to facilities housing three or fewer individuals served.

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. (See also LS.01.02.01, EP 11:LS.02.01.70, EP4; LS.03.01.70, EP 6)

Note 1: Evacuation of patients during drills is not required.
Note 2: In leased or rented facilities, drills need be conducted only in areas of the building that the hospital occupies.

> Drills are conducted once per shift per quarter in the hospital buildings. Areas that do not achieve a passing score are tested again after an educational discussion by the area supervision. The drill also tests employee knowledge of fire plan components.

EP.2: The organization conducts fire drills every 12 months from the date of the last drill in each area that is defined as a business occupancy by the Life Safety Code and in which care, treatment, or services are provided.

Note: In leased or rented facilities, drills need to be conducted only in areas of the building that the organization occupies.

Fire drills are conducted at the required frequency.

EP.3: When quarterly fire drills are required, 100 % are unannounced.

Unannounced fire drills are conducted.

EP.4: Staff who work in buildings where individuals served are housed or treated participate in drills according to the organization's fire response plan. (See also EC.02.03.01, EP 10)
Note: When drills are conducted between 9:00 p.m. and 6:00 a.m., the organization may use alternative methods to notify staff instead of activating the building's fire alarm system.

Staff participate in fire drills. This includes kitchen staff and all employees of restaurants at main campus. Participation is recorded. Alternative methods are used when appropriate. Evaluations will be done by EHS and during the annual mock survey. Findings will be reported to the EOC.

EP.5: The organization critiques fire drills to evaluate fire safety equipment, fire safety building features, and staff response to fire. (See also EC.02.03.01, EP 10)

Fire drills are critiqued.

EC.02.03.05: The organization maintains Fire Safety equipment and Fire Safety building features.

As required by EC.02.03.05, the inspection and testing program of fire protection equipment and systems will be efficient and up to date. There are regular modifications of system inventory based upon new facilities coming on line and others being removed. All records for inspection and testing are reviewed regularly by Cleveland Clinic Facilities Regulatory Compliance Team as well as various regulatory and fire control agencies.

Note: This standard does not require the hospital to have the types of fire safety equipment and building features described below; however, if these types of equipment or features exist within the building, the following maintenance, testing, and inspection requirements apply.

Elements of Performance for EC.02.03.05

EC.02.03.05: EP1: At least quarterly, the hospital tests supervisory signal devices on the inventory (except valve tamper switches). The results and completion dates are documented.
Note 1: For additional guidance on performing tests, see NFPA 72-2010: Table 14.3.1.

EC.02.03.05: EP2: Every 6 months, the hospital tests vane-type and pressure-type water flow devices and valve tamper switches on the inventory. The results and completion dates are documented.

Note 1: For additional guidance on performing tests, see NFPA 72-2010: Table 14.4.5.

EC.02.03.05: EP3: Every 12 months, the hospital tests duct detectors, heat detectors, manual fire alarm boxes, and smoke detectors on the inventory. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 72-2010: Table 14.4.5; 17.14.

EC.02.03.05: EP4: Every 12 months, the hospital tests visual and audible fire alarms, including speakers and door-releasing devices on the inventory. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 72-2010: Table 14.4.5.

EC.02.03.05: EP5: Every 12 months, the hospital tests fire alarm equipment on the inventory for notifying off-site fire responders. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 72-2010: Table 14.4.5.

EC.02.03.05: EP6: For automatic sprinkler systems: The hospital tests electric motor–driven fire pumps monthly and diesel-engine-driven fire pumps weekly under no-flow conditions. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 25-2011: 8.3.1; 8.3.2.

EC.02.03.05: EP7: For automatic sprinkler systems: Every six months, the hospital tests water-storage tank high- and low-water level alarms. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 25-2011: 9.2.1; Table 9.1.1.2.
Not applicable. Cleveland Clinic does not have any water storage tanks.

EC.02.03.05: EP8 For automatic sprinkler systems: Every month during cold weather, the hospital tests water-storage tank temperature alarms. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 25-2011: 9.2.4; Table 9.1.1.2.
Not applicable. Cleveland Clinic does not have any water storage tanks.

EC.02.03.05: EP9: For automatic sprinkler systems: Every 12 months, the hospital tests main drains at system low point or at all system risers. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 25-2011: 13.2.5; 13.3.3.4; Table 13.1.1.2; Table 13.8.1.

EC.02.03.05: EP10: For automatic sprinkler systems: Every quarter, the hospital inspects all fire department water supply connections. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 25-2011: 13.7; Table 13.1.1.2.

EC.02.03.05: EP11: For automatic sprinkler systems: Every 12 months, the hospital tests fire pumps under flow. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 25-2011: 8.3.3.

EC.02.03.05: EP12: Every five years, the hospital conducts hydrostatic and water-flow tests for standpipe systems. The results and completion dates are documented.

Note: For additional guidance on performing tests, see NFPA 25-2011: 6.3.1; 6.3.2; Table 6.1.1.2.

Evaluations occur during continual readiness rounds and the annual mock survey conducted by the regulatory compliance department. The Fire and Life Safety team also performs preventative maintenance on the systems and documents deficiencies and corrective actions. The work order system will be used to track data monthly and preventative maintenance rates will be presented to the EOC on a quarterly basis.

EC.02.03.05: EP13: Every six months, the hospital inspects any automatic fire-extinguishing system in a kitchen. The results and completion dates are documented.
Note 1: Discharge of the fire-extinguishing systems is not required.
Note 2: For additional guidance on performing inspections, see NFPA 96-2011: 11.2.

EC.02.03.05: EP14: Every 12 months, the hospital tests carbon dioxide and other gaseous automatic fire-extinguishing systems. The results and completion dates are documented.
Note 1: Discharge of the fire-extinguishing systems is not required.
Note 2: For full text, refer to NFPA 13-2010: 21.4.1.6(1).

EC.02.03.05: EP15: At least monthly, the hospital inspects portable fire extinguishers. The results and completion dates are documented.
Note 1: There are many ways to document the inspections, such as using bar-coding equipment, using check marks on a tag, or using an inventory.
Note 2: Inspections involve a visual check to determine correct type of and clear and unobstructed access to a fire extinguisher, in addition to a check for broken parts and full charge.
Note 3: For additional guidance on inspection of fire extinguishers, see NFPA 10-2010: 7.2.2; 7.2.4.

EC.02.03.05: EP16: Every 12 months, the hospital performs maintenance on portable fire extinguishers, including recharging. Individuals performing annual maintenance on extinguishers are certified. The results and completion dates are documented.
Note 1: There are many ways to document the maintenance, such as using bar-coding equipment, using check marks on a tag, or using an inventory.
Note 2: For additional guidance on maintaining fire extinguishers, see NFPA 10-2010: 7.1.2; 7.2.2; 7.2.4; 7.3.1.

EC.02.03.05: EP17: The hospital conducts hydrostatic tests on standpipe occupant hoses five years after installation and every three years thereafter. The results and completion dates are documented.
Note: For additional guidance on hydrostatic testing, see NFPA 1962-2008 (Chapter 7), and NFPA 25-2011.Note 2: Where such occupant hoses exist, Cleveland Clinic Health System replaces these every 3 years in lieu of hydrostatic testing.

EC.02.03.05: EP18: The hospital operates fire and smoke dampers one year after installation and then at least every six years to verify that they fully close. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 90A-2012: 5.4.8; NFPA 80-2010: 19.4;

NFPA 105-2010: 6.5.

EC.02.03.05: EP19: Every 12 months, the hospital tests automatic smoke-detection shutdown devices for air-handling equipment. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 90A-2010: 6.4.1.

EC.02.03.05: EP20: Every 12 months, the hospital tests sliding and rolling fire doors, smoke barrier sliding or rolling doors, and corridor walls and partitions for proper operation and full closure. The results and completion dates are documented.
Note: For additional guidance on performing tests, see NFPA 80-2010: 5.2.14.3; NFPA 105-2010: 5.2.1; 5.2.2.

EC.02.03.05: EP25: The hospital has written documentation of annual inspection and testing of door assemblies by individuals who can demonstrate knowledge and understanding of the operating components of the door being tested. Testing begins with a pre-test visual inspection; testing includes both sides of the opening.
Note: For additional guidance on testing of door assemblies, see NFPA 101-2012: 7.2.1.5.10.1; 7.2.1.5.11; NFPA 80-2010: 4.8.4; 5.2.1; 5.2.3; 5.2.4; 5.2.6; 5.2.7; 6.3.1.7; NFPA 105-2010: 5.2.1.

EC.02.03.05: EP27: Elevators with fire fighters' emergency operations are tested monthly. The test completion dates and results are documented. (For full text, refer to NFPA 101-2012: 9.4.3; 9.4.6)

EC.02.03.05: EP28: Documentation of maintenance, testing, and inspection activities for Standard EC.02.03.05, EPs 1–20, 25 (including fire alarm and fire protection systems) includes the following:
- Name of the activity
- Date of the activity
- Inventory of devices, equipment, or other items
- Required frequency of the activity
- Name and contact information, including affiliation, of the person who performed the activity
- NFPA standard(s) referenced for the activity
- Results of the activity

Note: For additional guidance on documenting activities, see NFPA 25-2011: 4.3; 4.4; NFPA 72-2010: 14.2.1; 14.2.2; 14.2.3; 14.2.4.

EC.04.01.01: The hospital collects information to monitor conditions in the environment

Elements of Performance for EC.04.01.01: EP 9: Based on its process(es), the hospital reports and investigates the following: Fire safety management problems, deficiencies and failures.

All firefighting equipment is reviewed and inspected in accordance with the requirements stated in the Joint Commission standards.

The Facilities Engineering department inspects and records the number of inspections conducted on main campus for fire extinguishers, signal devices, tamper switches, flow devices, detectors, manual alarm boxes, visual and audible alarms, fire department connections, fire pumps static, main drain tests, fire

pumps under flow, standpipes, automatic extinguishing systems, halon and CO2 systems, dampers, HVAC shutdown systems, sliding/rolling doors or other equipment present on main campus. The work order system is used to track deficiencies and corrective actions. If deficiencies or failures are detected, they are corrected by the Facilities Engineering department. Fire management policies are updated in accordance with all state and federal standards in addition to findings from the annual mock survey or other inspections that are conducted.