



New York City Fire Department
Interim Guidance for COVID-19 Response

Emergency Tents and Other Temporary Medical Facilities
New York City Fire Code Requirements

April 8, 2020

Emergency Tents and Other Temporary Medical Facilities

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Scope and Applicability

This interim guidance from the New York City Fire Department is intended for hospitals, design professionals, vendors, government agencies, and other stakeholders involved in the design, erection and use of emergency medical tents and conversion of existing buildings to temporary medical facilities in New York City during the COVID-19 response.

This guidance contains a summary of applicable Fire Code provisions, the nature and extent of Fire Department inspections to be anticipated, and contact information for key Fire Department personnel available to answer questions.

The information contained in this guidance is for the convenience of stakeholders and does not supplant applicable laws, rules and regulations.

Notification to the Department

Any hospital, vendor or other party that erects a tent for purposes of the COVID-19 response shall promptly notify the New York City Fire Department by dialing 311 and asking for the FDNY Customer Service Center. The caller should be prepared to provide information concerning the size and location of the tent, the expected occupant load, how space heating is being provided, and the nature and extent of flammable and combustible gases, liquids and materials to be stored, used or handled.

Similarly, any entity that seeks to convert all or a portion of an existing building for use as a temporary medical facility must also notify the Fire Department by dialing 311 and asking for the FDNY Customer Service Center. The caller must provide the address of the building and contact information.

For questions regarding this process or for assistance with any aspect of FDNY Business, please contact us by dialing 311 and asking to speak with FDNY Customer Service Center, or via email at FDNY.BusinessSupport@FDNY.nyc.gov.

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General Fire Safety Requirements for Conversion of an Existing Building to a Temporary Medical Facility

Any changes to use, egress or occupancy, including the emergency conversion of a building or part thereof to a temporary medical facility, shall be filed with the Department of Buildings as described in the "[Supplemental Information from the New York City Department of Buildings](#)" section of this guide.

Means of Egress:

1. The means of egress system of the existing building or part thereof **has not been** designed for use as a medical facility and must be carefully assessed by a registered design professional to establish the maximum number of occupants within the space, required egress width and number and location of egress doorways. The egress plan shall be readily available at the site at all times.
2. All required exits, as determined by the registered design professional, shall be free of obstructions and accessible at all times.
3. If any installation (temporary partitions, tents or equipment) will obstruct the visibility of exits, additional temporary exit directional signs, complying with the provisions of the Building Code, shall be provided.
4. If the premises have not been already provided with emergency power, a temporary emergency backup generator shall be provided.

Fire Protection Systems and Equipment:

1. The fire protection systems in the existing building, including but not limited to the fire alarm, sprinkler, and standpipe systems, must in proper working order or restored to such condition.
2. Temporary partitions, tents, equipment or other installations shall avoid interfering with the operation fire protection devices, such as sprinkler heads or smoke detectors, to the maximum extent possible. If partial obstruction of the devices cannot be avoided, the following shall be performed:
 - a. existing fire protection systems shall be extended to provide proper protection within the temporary structure, or
 - b. if the extension of the systems is not practical or achievable, alternative fire protection, such as single-station smoke alarms, shall be provided inside each individual space to provide some early warning. Based on the assessment by a Fire Department representative, additional fire protection measures may be required.
3. Access to the fire department connections for sprinkler and/or standpipe systems shall be free of obstructions and readily accessible.
4. Access to all fire protection equipment, including but not limited to portable fire extinguishers and standpipe hose connections, shall be readily accessible for use.
5. Sufficient number of portable fire extinguishers shall be provided, with a minimum rating of **2-A:10-B:C**, which shall be kept in a conspicuous location where they will be readily

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accessible and available for immediate use, but not more than 75 feet of travel distance from any part of the emergency medical facility. Additional portable fire extinguishers shall be provided for fire hazards associated with the permitted activity when required by FC906 and the rules.

6. If any installation will obstruct the visibility of fire protection equipment, such as fire department connections (hose outlets), fire alarm panels, or portable fire extinguisher, additional signs shall be provided to identify their location.

Interior Furnishings and Maintenance of Required Fire-Rated Construction:

1. All required fire-resistance-rated construction, including walls, firestops, shaft enclosures partitions, smoke barriers, floors, fire-resistive coatings and sprayed fire-resistant materials applied to structural members, shall be maintained intact and in good working order. If construction necessitates drilling holes in fire-rated walls or other fire-rated construction or equipment, the holes shall be professionally sealed to restore the fire-rating of the construction.
2. All required fire doors shall be maintained in good working order.
3. Any installation of combustible partitions, for patient separation or otherwise, shall be treated with a flame retardant by a person holding a Fire Department Certificate of Fitness (C15) with the use of an approved type of chemical, or covered in an inherently flame-resistant material. An affidavit of flame-retardant treatment or proof of inherent flame-resistance shall be available for inspection at the site. (A testing report from a nationally recognized laboratory or certification from other qualified flame-retardant treatment professionals acceptable to the Department indicating that the material has passed Test 1 or Test 2, as outlined in NFPA 701, is also acceptable.
4. All tents and similar structures erected indoors shall also comply with “[General Fire Safety Requirements for Tents and Other Membrane Structures.](#)”

Emergency Planning and Preparedness:

1. Evacuation and relocation areas for each proposed patient area to which the patients can be safely moved in a timely manner during a fire or other emergency conditions shall be designated.
2. Written emergency procedures for the sheltering in place, in-building relocation, partial evacuation and/or evacuation of building occupants in response to a fire or other emergency conditions shall be developed.
3. If the premises is equipped with a fire alarm system that is required to have specific fire and life safety staff, such staff shall be on duty at all times.
4. Emergency response team (fire brigade), responsible to report a fire or other incident to the fire department, assist in evacuation, and control a small fire until the arrival of the Fire Department shall be designated and trained.
5. Initial training with all designated fire and life safety staff and medical staff shall be performed before the occupancy of the premises and the refresher training shall be performed at least monthly.

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6. Unless a registered design professional determines that the existing fire protection system is adequate for a temporary medical facility (which is unlikely, as the facility will be occupied by persons incapable of self-preservation), a fire watch shall be maintained by a person holding a Fire Department Certificate of Fitness (COF) as a fire guard for building impairment (F01). At least one fire guard shall be present for each 50,000 square feet of the facility, and shall have no other duties.)

Hazardous Materials:

1. Hazardous materials within occupied space shall be limited only to those required for the operation of the temporary medical facility.
2. The storage, handling and use of each hazardous material at the premises will be assessed by a Fire Department representative and direction given as to appropriate safeguards.

General Fire Safety Requirements for Tents and Other Membrane Structures

Tents of any size must be installed and operated in accordance with Section FC2404 of the New York City Fire Code.

1. Fire apparatus access (FC503):

The following requirements will provide adequate fire apparatus access to the tent site and firefighter access to individual tents. However, these requirements may be reduced if necessary, with FDNY approval based on an assessment of site conditions.

- a. If not installed on a street (with FDNY approval), provide fire apparatus access to the tent site as follows:
 - i. 34 feet roadway width (if vehicles will be parked on the street/road/access lane); or
 - ii. 22 feet unobstructed roadway (if no vehicles will be parked on the street/road/access lane); and
 - iii. 14 feet unobstructed vertical clearance; and
 - iv. all-weather driving surface constructed of asphalt, concrete or other approved permeable or impermeable material.
- b. Locate tents:
 - i. A maximum of 150 feet from the street, with fire apparatus access road or access lane of 22 feet to each tent; and
 - ii. A maximum of 300 feet from the street hydrant, yard hydrant or other FDNY-approved water supply.

Specific questions concerning fire apparatus access requirements or requests for a variance may be directed to Battalion Chief Simon Ressler at (718-999-0392) or simon.ressner@fdny.nyc.gov.

2. Flame-resistant treatment (FC2404.2):

- a. Tent materials and their appurtenances, sidewalls, drops and tarpaulins, floor coverings, and curtains that cover exit openings shall be composed of flame-resistant material meeting the flame propagation performance criteria of NFPA 701 **or**, alternatively, shall be treated with a flame retardant.
- b. If material will to be treated with a flame retardant, it shall be performed by a certificate of fitness (COF) holder (C15) with the use of an approved type of chemical and following Fire Department rules (3 RCNY 805-01). See the list of approved chemicals at <https://www1.nyc.gov/assets/fdny/downloads/pdf/business/coa-approved-flame-resistant-chemicals.pdf>.
- c. Membrane structures shall have a label permanently affixed to them identifying the type and quality of the fabric or other material, or

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- d. If the material was alternately treated with a NYC-approved chemical by a COF holder, an Affidavit of Flame-Retardant Treatment shall be available at the site.

3. **Means of egress:**

- a. Means of egress shall be designed and constructed in accordance with Chapter 10 of the Building Code (2014 BC 3102.10).
- b. Travel distance to an exit from any point shall not exceed 75 feet, unless otherwise approved by the DOB (2014 BC 3102.10).
- c. Guy wires, guy ropes and other support members shall not cross a means of egress at a height of less than 8 feet (FC 2404.4.4).
- d. Exit openings from tents shall remain open unless covered by a flame-resistant curtain, complying with the following requirements:
 - i. Curtains shall be free sliding on a metal support. The support shall be a minimum of 80 inches above the floor level at the exit. The curtains shall be so arranged that, when open, no part of the curtain obstructs the exit.
 - ii. Curtains shall be of a color, or colors, that contrasts with the color of the tent.
 - iii. Curtains shall be flame resistant.

4. **Portable fire extinguishers**

One or more portable fire extinguishers with a minimum rating of **2-A:10-B:C**, which shall be kept in a conspicuous location where they will be readily accessible and available for immediate use, but not more than 75 feet of travel distance from any part of the tent. Additional portable fire extinguishers shall be provided for fire hazards associated with the permitted activity when required by FC906 and the rules.

5. **Smoking (FC 2404.6):**

- a. Smoking shall not be allowed.
- b. "No Smoking" signs complying with the requirements of FC310 shall be conspicuously posted.

6. **Tent Placement:**

- a. As per Section BC3102.9 of the 2014 Building Code, unless otherwise approved by the Department of Buildings:
 - i. 30 feet in any direction to:
 - 1) an unprotected opening;
 - 2) required exterior stairway or corridor;

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- 3) any required exit door, on the same level or above the level of such structure.
- b. As per Chapter 24 of the Fire Code:
- i. 3 feet clearance between the equipment and inside tent and interior tent perimeter (FC2404.11);
 - ii. 12 feet unobstructed fire break around the tents (free from guy ropes or other obstructions) (FC2404.3.3).
 - iii. 20 feet of parked vehicles/internal combustion engines (FC2404.3.2);
 - iv. 20 feet from generators (FC2404.19);
 - v. 20 feet from refueling operations (FC2404.17.3);
 - vi. 20 feet from open flame or other devices emitting flame, fire or heat (FC2404.7);
 - vii. 30 feet from any vegetation (FC 2404.21);
 - viii. 30 feet from any combustible waste or storage of combustible materials (FC 2404.22);
 - ix. 50 ft from flammable/combustible liquids (FC2404.17.2);
 - x. Non-medical chemical storage and/or equipment shall not be permitted inside tents, unless necessary.

Guidelines for Heating of Tents

1. For human comfort heating, options are limited to natural gas or electric heating and in some instances fuel oil with a temporary set-up. The space heating system/equipment should be of an indirect type. Diesel fuel is strongly preferred to LPG. Indirect diesel-fueled heating system/equipment is commonly used in space heating for tents. Indirect diesel-fueled space heaters for space heating in tents should comply with the following recommendations for acceptable use:
 - a) Indirect fired heaters shall be listed for the intended use.
 - b) Indirect fired heaters shall run on diesel fuel only.
 - c) Indirect fired heaters shall not be located inside of the tents.
 - d) Indirect fired heaters shall not be located within ten (10) feet of any combustible material.
 - e) Operation of the heaters shall be under the personal supervision of a Certificate of Fitness holder (**S-92**).
 - f) Security personnel shall ensure that the public shall not be allowed access to the indirect fired heaters, and the area where diesel fuel is stored/handled.
 - g) Spill-absorbing materials including, but not necessarily limited to, absorbent socks, absorbent pads and absorbent powders, in quantities sufficient to handle at least a 200-gallon spill, shall be provided onsite for immediate use.
 - h) At least one (1) portable fire extinguisher with a minimum **20-B:C** rating shall be provided for each indirect fired heater.
 - i) **“No Smoking”** signs shall be conspicuously posted.
 - j) All applicable requirements of the Fire Code (including Chapter 24 Tents and Other Membrane Structures) and the Building Code (including Chapter 31 Special Structures) shall be complied with.

Specific questions concerning space heating requirements may be directed to Kam Chan at (718) 999-1507 or David Kahn at (718) 999-1009.

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Guidelines for Storage and Use of LPG for Water Heating

The following conditions are required for acceptance to store/use LPG for water heating for medical tents, and for the inspection unit (District Office) to follow when conducting the inspection for issuance of such permit:

1. LPG containers shall be located outside the membrane structure. Pressure relief valves shall be pointed away from the membrane structure.
2. LPG containers shall have a minimum separation between the container and structure of not less than 10 feet.
3. LPG containers shall not exceed 100 pounds LPG capacity. If possible, total storage/use of LPG shall not exceed 400 pounds. LPG containers not connected for use shall be stored in a metal open fence enclosure at least 6 feet in height, secured by a locked gate opening outward, or by a lockable ventilated metal locker of an approved type. Such enclosure or locker shall be securely mounted, and the storage area shall be protected from tampering and unauthorized access/use. LPG containers shall not be stacked.
4. The pressure of the LPG leaving the containers shall be stepped-down by means of approved LPG regulators. The regulators shall be UL listed for LPG service.
5. LPG hot water heaters shall be of a type listed/approved by a nationally recognized testing lab (e.g., ETL, CSA, UL, FM, etc.)
6. LPG shall be withdrawn from the containers in the vapor-state only. Accessible LPG shutoff valves shall be provided, and clearly identified.
7. Security personnel shall be provided at all times, 24\7. Such personnel shall ensure that the LPG containers utilized for water heating, and the LPG storage area are protected from tampering and unauthorized access/use.
8. No combustible material (e.g. wood, paper, rubbish) shall be allowed within 10 feet of the LPG storage/use area.
9. Warning signs shall be provided in the area where LPG containers are stored/used. Signs shall indicate: “DANGER - FLAMMABLE GAS – KEEP FIRE OR FLAME AWAY – NO SMOKING”, in accordance with 29 CFR 1910.145(D).
10. 24\7 Certificate of Fitness coverage shall be provided by personnel holding G23 or G44 certificate.
11. In addition to the coverage provided by personnel holding G23 or G44 certificates, one (1) NYC Certified Fire Guard shall be required to be on continuous duty 24\7. Such Fire Guard shall supervise the water heaters with regard to LPG containers being utilized, and shall maintain a logbook with entries made at least every two (2) hours. In

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the case of any unusual occurrence, such as an LPG leak, the LPG shutoff valves shall be immediately closed, and the FDNY shall be notified. The Fire Guard shall not be assigned any duties other than to remain alert and guard against fire, and shall be alert to sparks, the transmission of heat, and the potential ignition of combustible material. Such Fire Guard shall be responsible for insuring that fire extinguishing equipment is readily accessible. At least one **2-A:20-B:C** portable fire extinguisher shall be provided for this Fire Guard.

12. All applicable requirements of the Fire Code (including Chapter 24 Tents and Other Membrane Structures) and the Building Code (including Chapter 31 Special Structures) shall be complied with.
13. A site-specific Fire Department permit shall be obtained from the District Office. The applicant shall contact District Office Headquarters at (718) 403-4000, in order to make arrangements for the required FDNY site inspection.

Specific questions concerning storage/use of LPG for water heating requirements may be directed to: Chief Inspector Richard Shaw at (929) 271-2717; Chief Inspector Ronald Riccitelli at (347) 585-4016; or Chief Inspector Daniel McBeth at (929) 210-1338.

Fire Department District Offices will inspect for conditions contrary to fire and life safety, particularly with regard to the storage/use of LPG for water heating, and work with hospitals to promptly implement corrective measures as warranted.

Guidelines for Storage and Use of Oxygen (Medical Gas)

1. Fire Department permits

Section FC105.6 of the 2014 NYC Fire Code (FC) requires a Fire Department permit to store, handle or use of oxygen in quantities exceeding:

- a. Compressed gaseous oxygen (O₂) - **504 SCF**;
- b. Cryogenic liquefied oxygen (LO₂):
 - **10 gallons** indoors
 - **50 gallons** outdoors

2. Indoor/outdoor medical oxygen :

- a. **Indoor medical oxygen manifolds** (typically connecting compressed O₂ cylinders at 2,200 psig) should be sited inside a dedicated, 1-hour fire-rated room, under automatic sprinkler protection and under adequate mechanical ventilation (1 CFM/ft²), per Section FC3006; maintained at room temperature (typically ~70°F), away from heating sources; under adequate lighting; secured from unauthorized access; storing no other chemicals or systems (mechanical/HVAC, electrical, etc.); and clean, storing no combustibles, trash or ignition sources.
- b. **Indoor medical oxygen quantities** Indoor medical oxygen quantities should be limited to 6,000 SCF per room (typically (24) H-size O₂ cylinders; (1) 180-L/47-gal LO₂ container). Rooms housing 6,000-20,000 SCF of oxygen should be of NYC DOB-approved high-hazard construction (*e.g.*, 2-hour fire rating, explosion-proof electrical, enhanced ventilation, etc.), have manifold with 24/7 remote telemetry, and have oxygen sensor, alarming to a constantly-monitored location at 22.5% O₂ and 23.5% O₂, whereupon trained staff should investigate. Rooms should not house more than 20,000 SCF (typically (80) H-size O₂ cylinders; (4) 180-L/47-gal LO₂ containers) of oxygen indoors.
- c. **Outdoor medical oxygen manifolds** (typically connecting portable LO₂ containers at ~20 psig) should be sited on ground level, 50 ft away from patient areas, 15 ft from combustibles/vegetation and 10 ft from building exits, per FC Table 3204.3.1.1, and 10 ft from parked vehicles and 8 ft from drains/sewers, per NFPA 55 (2010) Table 9.3.2; be sited on compatible surface (no asphalt or bitumen); be rated for outdoor conditions; be inside protective enclosure or equivalent; have adequate lighting; and have vehicle protection, as necessary.
- d. **Medical oxygen manifolds** (indoor/outdoor) should be NEPA 99-compliant; be installed by manufacturer-approved technicians per manufacturer's instructions; be secured from movement; be sited ~5 ft above floor/ground; be clearly marked with supplied gas; regulate oxygen to correct pressure (typically 55 psig); and have downstream pressure relief (typically 75 psig), discharging to safe locations outdoors. Cylinder pigtails should be listed for oxygen service, clean and within ~3 years of manufacture. LO₂ hoses should be listed for oxygen service, clean, and stamped with MAWP (typically 1,000 psig) and manufacture date (typically within 5 years).

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- e. **Vaporizers** serving LO₂ containers should be ASME B31.3-compliant, **confirmed with documentation submitted to Fire Department Laboratory Unit inspectors**; have adequate pressure relief below MAWP (typically 450 psig); be sited on compatible surface, having drip pans underneath as necessary; be secured from movement; and have space for natural ventilation.
- f. **Medical oxygen cylinders/containers** should be DOT-approved (typically DOT-3AA for O₂; DOT-4L for LO₂); be secured/strapped upright when in use; be clearly marked as storing oxygen; be of medical grade; not be refilled on site (delivery only); and be delivered by reputable suppliers. O₂ cylinders should have protective valve caps on and be strapped/secured upright when in storage (no cylinder nesting). LO₂ containers should have functional pressure relief valves (typically 22 psig) and rupture disks (typically 200 psig), discharging to safe locations.
- g. **Manifold electrical components** should be installed by certified technicians; be vapor-proof, suitable for oxygen exposure; be sited ~5 ft above floor/ground; and have all wiring inside protective conduit, clearly marked as such.
- h. **Medical oxygen piping/hosing** should be NFPA 99-compliant, brazed Type K/L copper, or other NFPA 99-compliant material (*e.g.*, Meditrac), installed in accordance with manufacturer's instructions; not be painted; and be clearly marked/color-coded as conveying oxygen and with direction of flow (every 20 ft, each valve, each turn, both sides of wall/ceiling/floor, etc.).
- i. **Hot work:** Brazing (with flammable gas (*e.g.*, acetylene) and oxygen) should comply with NFPA 99 (2005) Section 5.1.10.5 and NYC Fire Code (2014) Chapter 26; be performed by operators qualified to ASME B&PVC Section IX, and holders of Fire Department Certificates of Fitness (COF) G-60: "Use of Flammable Gases with Oxygen or Use of LPG/CNG for Hot Work Operations" and E-60: "Fire Guard for Torch Operations"; and be under Fire Department hot work permit, issued by Construction, Demolition & Abatement (CDA) Unit.
- j. **Medical oxygen shutoff valves** should be clearly marked with function and areas served. Emergency oxygen shutoff valves should be visibly marked/placarded, with warning not to close unless authorized.
- k. **Medical oxygen outlets** should be clearly labeled as such.
- l. **Manifold systems** should be connected to hospital medical gas alarms and/or be under 24/7 remote telemetry.
- m. **Testing:** Manifold/piping systems should be subject to ASSE 6010 installer and third-party ASSE 6030 verification tests as specified in NFPA 99, **confirmed with signed affidavits submitted to Fire Department Laboratory Unit inspectors**.

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- Meditrac piping systems should only be installed by those certified in ASSE-6010 and by Meditrac.
- n. **Signage** should be posted at manifold systems, indicating compressed/liquefied medical oxygen hazards/prohibitions, no smoking, no open flames, and 24/7 emergency supplier telephone number.
 - o. **Fire extinguishers** (e.g., 20-Lb, Class ABC dry chemical) should be near manifold systems, in compliance with Section FC906.
 - p. **Fire Department liaisons**, capable of directing firefighters to incident area, should be assigned to designated staff for all shifts.
 - q. **Supplier training:** Staff in charge of medical oxygen systems should be trained by oxygen supplier on emergency procedures.
 - r. **Supervision** of medical oxygen systems should be under holders of, or those familiar with, Fire Department Certificates of Fitness (COF) G-71: “Supervision of Piped Non-Flammable Medical Gases” and/or G-79: “Supervision of Storage, Handling and Use of Commercial Cryogenic Systems”.
 - s. **Oxygen supplier vehicles** should be registered with DOT to transport hazardous materials and/or inspected by Fire Department Hazardous Cargo Unit.
 - t. Upon completion of installation, schedule inspection with the FDNY Laboratory Inspection Unit.
- 3. Indoor storage of compressed gaseous medical oxygen cylinders** (not manifolded; for individual patient use):
- a. **Location:** Cylinders should be located inside a dedicated storage room or at a designated storage area, clearly demarcated as such; on ground/1st floor; ~50 ft away from patient areas; away from hazards, egress paths and exits; 1-hour fire-rated or of non-combustible construction (floor, walls, ceiling); under automatic sprinkler protection; under adequate mechanical ventilation (typically 1 CFM/ft²); maintained at room temperature (typically ~70°F), away from heating sources; under adequate lighting; secured from unauthorized access; storing no other chemicals or systems (mechanical/HVAC, electrical, etc.); and clean, storing no combustibles, trash or ignition sources.
 - b. **Cylinders** (typically 2,200 psig) should be DOT-approved (typically DOT-3AA); be clearly marked as storing oxygen; be of medical grade; be limited to 250 SCF capacity (H-size); be stored/strapped upright on floor, on approved carts or inside approved cages, or stored in approved racks, with any casters locked from movement; be sorted by cylinder size; be arranged to offer adequate access; be tagged as full or empty; be separated full from empty, marked with signage; have valves closed; have

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- protective valve caps on; be securely transported on approved carts; not be filled on site (delivery only); be delivered by reputable supplier; and be under recorded inventory control.
- c. **Quantities:** Total indoor oxygen quantities should be limited to 20,000 SCF (D-size = 14 SCF 1,428 cylinders; E-size = 25 SCF 800 cylinders; M-size = 125 SCF 160 cylinders; K-size = 250 SCF 80 cylinders).
 - d. **Signage** should be posted at cylinder storage room/area, indicating compressed medical oxygen hazards/prohibitions, no smoking, no open flames, and 24/7 supplier emergency telephone number. No smoking signs should be prominently posted where oxygen is used.
 - e. **Fire extinguishers** (e.g., 20-Lb, Class ABC dry chemical) should be near cylinder storage room/area and throughout facility.
 - f. **Fire Department liaisons**, capable of directing firefighters to incident area, should be assigned to designated facility staff.
 - g. **Supplier training:** Staff in charge of cylinder storage room/area should be trained by oxygen supplier on emergency procedures.
 - h. **Supervision** of cylinder storage room/area should be performed by holders of, or those familiar with, Fire Department Certificate of Fitness (COF) G-71: "Supervision of Piped Non-Flammable Medical Gases".
 - i. **Hazardous Cargo Unit inspection:** Oxygen supplier vehicle/truck should be registered with DOT to transport hazardous chemicals and/or inspected by Fire Department Hazardous Cargo Unit (as applicable).

4. Outdoor liquid oxygen trailers

- a. **Clearance distances:** Trailer should be sited on ground level, 50 ft away from patient areas, 15 ft from combustibles/vegetation and 10 ft from building exits, as per Table FC3204.3.1.1, and 10 ft from parked vehicles and 8 ft from drains/sewers, per NFPA 55 (2010) Table 9.3.2.
- b. **Fill connection(s)** should be capped when not in use, be accessible and have catchment/drip plate, as necessary.
- c. **Tanks:** Trailer tanks should be ASME B&PVC-compliant, **confirmed with Form U1As submitted to Fire Department Laboratory Unit inspectors.**
- d. **Vaporizers:** Trailer vaporizers should be ASME B31.3-compliant, **confirmed with signed affidavit submitted to Fire Department Laboratory Unit inspectors.**

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- e. **Pressure-regulating manifold** on trailer should correctly regulate gaseous oxygen pressure (typically 55 psig) into EOSC and have adequate downstream pressure relief (typically 75 psig). EOSC pressure relief valve should be functional (typically 75 psig).
- f. **LO₂ system components** (*e.g.*, tanks, vaporizers, gauges, valves, etc.) on trailer should be appropriately marked/identifiable. Emergency oxygen shutoff valves should be visibly marked/placarded, with warning not to close unless authorized.
- g. **Trailer-EOSC hose/piping connection** should be listed for gaseous/liquid oxygen at operating pressures (~40-60 psig); be protected/secured from tampering; and be leak/pressure tested (~60 psig) by ASSE 6030 verifier, **confirmed with signed affidavit submitted to Fire Department Laboratory Unit inspectors.**
- h. **Vehicle protection:** Trailer should have vehicle protection (*e.g.*, Jersey barriers) and be secured from unauthorized access (*e.g.*, fencing).
- i. **Medical gas alarms:** Trailer should be connected to hospital medical gas alarms and/or have tank oxygen levels manually monitored/recorded by trained hospital staff at least daily.
- j. **Remote telemetry:** Trailer should be monitored for proper operation by 24/7 remote telemetry, if possible.
- k. **Signage** should be posted on/near trailer, indicating medical oxygen hazards/prohibitions, no smoking, and 24/7 emergency telephone number.
- l. **Fire extinguisher(s)** (*e.g.*, 20-Lb, Class ABC dry chemical) should be available near trailer.
- m. **Supplier training:** Staff in charge of trailer should be trained by oxygen supplier on normal and emergency procedures.
- n. **Supervision** of trailer by should be by holders of, or those familiar with, Fire Department Certificate of Fitness (COF) G-79: "Supervision of Storage, Handling and Use of Commercial Cryogenic Systems".
- o. **Trailer inspection** should be completed by supplier (at garage/depot and on site) for proper operation (*e.g.*, tanks, vaporizers, pressure reliefs/regulators, gauges, valves, trailer integrity, trailer wheels chocked/brakes engaged, etc.), **confirmed with signed affidavit/completed checklist submitted to Fire Department Laboratory Unit inspectors.**
- p. **Hazardous Cargo inspection:** Before/upon arrival of trailer, schedule inspection of trailer with Fire Department Hazardous Cargo Unit.

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5. Contact Information

a. **Hazardous Control Group:**

Director of Hazardous Control Group, Chief Inspector Sandy Camacho, (718) 999-2464 (office), (646) 578-1924 (mobile) or sandy.camacho@fdny.nyc.gov.

b. **Hazardous Cargo Unit:**

Deputy Chief Inspector Michael Fredericks, (718) 752-0296 (office), (917) 572-2732 (mobile) or michael.fredericks@fdny.nyc.gov.

c. **Laboratory Unit Inspection:**

- Chief Inspector William Romer, (718) 999-8104 (office), (516) 351-3951 (mobile) or william.romer@fdny.nyc.gov.
- Deputy Chief Inspector Boris Fourmanov, at (718) 999-2464 (office), (917) 923-3757 (mobile) or boris.fourmanov@fdny.nyc.gov.

d. **CDA Unit**

Executive Director of Fire Suppression Group and CDA Unit, Chief Inspector Louis Cendagorta, (718) 999-2519 (office), (929) 276-5090 (mobile) or louis.cendagorta@fdny.nyc.gov.

Emergency Tents and Other Temporary Medical Facilities

Supplemental Information from the New York City Department of Buildings

The New York City Department of Buildings has provided the following information to the Fire Department, for the benefit of stakeholders:

Three persons in the Department of Buildings (DOB) Manhattan Borough Office are points of contact for the purposes of submission and review of temporary use permits (TUPs) for emergency hospital facilities:

1. Borough Commissioner John Raine; JRaine@buildings.nyc.gov
2. Deputy Borough Commissioner Lisa Amoia; LAmoia@buildings.nyc.gov
3. Project Advocate Milagros Ramirez; MRamirez@buildings.nyc.gov

The Manhattan office will intake requests for TUPs for all Boroughs, and coordinate with each Borough Commissioner for issuance of TUP. The basic a-b-c procedure is as follows:

- a) Engineers and architects will file the application for Temporary Use Letter and the Alteration applications at Manhattan DOB, 280 Broadway, Manhattan.
- b) Engineers and architects will file Alteration applications for physical installations as they would normally; following any modified procedures broadcast in [DOB Service Updates](#).
- c) Construction can commence without permits for emergency installation pursuant to Administrative Code section 28-105.4, which allows such work to be commenced without permits, with application to be filed within 2 business days.

The following bulleted steps provide more detail. Typically, the architects and engineers who file these applications are already familiar with these procedures.

Interim emergency procedures for temporary use of hospital tent / temporary structures:

TUP (tent, etc.) per Administrative Code Section 28-111 ([AC 28-111](#)) [MANHATTAN IS CENTRAL UNIT]

- can be filed/issued prior to work permits for emergency work.
- submitted as a letter from registered design professional (RDP = architect or engineer); recent sample with approval attached.
- must assure RDP is retained for temporary structure application & permit per AC 28-111.1.1
- if tent, must commit to installation per manufacturer's instructions for securing tent
- application for temporary structure permit shall be made w/in 2 business days of commencement of emergency work, per [AC 28-105.4.1](#)
- must commit to responsible person reporting directly to RDP to monitor w/action plan
- must assure responsible person to initiate vacate &/or dismantling of any tent if inclement weather warrants

Emergency Tents and Other Temporary Medical Facilities

- approvals from DOT, DPR or other agencies may be required for temp structures in street / beyond property lines / within parks, etc.
- TUP can be issued for 90 days, extendable for demonstrated cause
- fee exempt (in most cases) per Buildings Bulletin 2014-027 ([BB 2014-027](#)), Section I.A

Alterations Type 2 & 3 (A2s & A3s) can be expedited for emergency work [FILED IN RESPECTIVE BOROUGHES; MANHATTAN CAN BE KEPT INFORMED TO HELP FACILITATE]

- After permits are issued, After-Hours Work Variances (AHVs) may be granted for emergency work justification (manual submission by drop-off at appropriate Borough Office)
- **AHV**s may be fee exempt (in most cases) per BB 2014-027, Section I.A

A1s for changes to use, egress or occupancy of existing structures may be able to be deferred by use of TUPs (&TPAs if necessary) [BOROUGHES]

Reference Materials

1. NYC Fire Code:
<https://www1.nyc.gov/site/fdny/codes/fire-code/fire-code.page>
2. NYC Fire Department Rules:
<https://www1.nyc.gov/site/fdny/codes/fire-department-rules/fire-dept-rules.page>
3. NYC Fire Department Certificate of Fitness:
<https://www1.nyc.gov/site/fdny/business/all-certifications/certificates-of-fitness.page>
4. Department of Buildings Codes:
<https://www1.nyc.gov/site/buildings/codes/2014-construction-codes.page>
5. National Fire Protection Association:
<https://www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/List-of-Codes-and-Standards>