Revised on 3/24/2016

FIRE DEPARTMENT • CITY OF NEW YORK

STUDY MATERIAL
FOR THE EXAMINATION FOR
CERTIFICATE OF FITNESS

FOR

Supervision of Storage, Handling and Use of Portable Space Heaters Fueled by Piped Natural Gas

G-93

INSIDE THIS BOOKLET YOU WILL FIND THE FOLLOWING:

- **NOTICE OF EXAMINATION (NOE)**
- **STUDY MATERIAL & Technical Policy and Procedure Notice (TPPN) # 2/07 "The Installation of Outdoor Natural Gas Fired Heaters in Unenclosed Sidewalk Cafes" Issued by New York City Department of Buildings.**

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NOTICE OF EXAMINATION

Title: Examination for Supervision of Storage, Handling and Use of Portable Space Heaters Fueled by Piped Natural Gas (G-93)

Date of Exam: Written exams are conducted Monday through Friday (except legal holidays) 8:00 AM to 2:30 PM.

REQUIREMENTS FOR WRITTEN EXAM

Applicants who need to take the exam must apply in person and bring the following documents:

1. Applicants must be at least 18 years of age.
2. Applicants must have a reasonable understanding of the English language.
3. Applicant must provide two forms of identification; at least one identification must be government issued photo identification, such as a State-issued Drivers' License or Non Driver's License or a passport.
4. Applicants must present a letter of recommendation from his/her employer. The letter must be on official company letterhead, and must state the applicant's full name, experience and the address where the applicant will work. If the applicants are self-employed or the principal of the company, they must submit a notarized letter attesting to their qualifications. For more info:
   - Sample of recommendation letter: http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-samplerec-letter.pdf
   - Sample of self-employed letter: http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-sample-selfrec-letter.pdf
5. Applicants must present a completed application for Certificate of Fitness (A-20 Form). http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-application-form.pdf
6. Applicants not currently employed may take the exam without the recommendation letter. If the applicants pass the exam, FDNY will issue a temporary letter with picture for the job seeking purpose. The C of F card will not be issued unless the applicants are employed and provide the recommendation letter from his/her employer.
7. Special requirement for the G-93 Certificate of Fitness: None
8. **APPLICATION FEE:**

   Pay the **$25** application fee in person by one of the following methods:
   - Cash
   - Credit card (*American Express, Discover, MasterCard, or Visa*)
   - Debit card (*MasterCard or Visa*)
   - Personal or company check or money order (*made payable to the New York City Fire Department)*

For fee waivers submit: ***(Only government employees who will use their C of F for their work- related responsibilities are eligible for fee waivers.)***

- A letter requesting fee wavier on the Agency's official letterhead stating applicant full name, exam type and address of premises; ***AND***
- Copy of identification card issued by the agency

A convenience fee of 2.49% will be applied to all credit card payments.

9. EXAM INFORMATION

The **G-93** exam will consist of **25** multiple-choice questions, administered on a "touch screen" computer monitor. It is a time-limit exam. Based on the amount of the questions and reference material provided, you will have 38 minutes to complete the test. A passing score of at least 70% is required in order to secure a Certificate of Fitness.

Call (718) 999-1988 for additional information and forms.

Please always check for the latest revised booklet at FDNY website before you take the exam.

http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-g93-noe-study-materials.pdf

10. If all the requirements are met and applicant passes the exam a certificate will be issued the same day. Applicants who fail the exam will receive a failure report. To retake the exam applicants will need to submit a new application and payment.

RENEWAL REQUIREMENTS

This Certificate of Fitness must be renewed every ***THREE YEARS***. The renewal fee is **$15**. FDNY also reserves the right to require the applicants to take a re-examination upon submission of renewal applications.

You will receive a courtesy notice of renewal 90 days before the expiration date. However, it is your responsibility to renew your Certificate. It is very important to renew your C of F before it expires. Renewals submitted 90 days (up to one year) after the expiration date will incur a $25 penalty in addition to the renewal fee. Certificates expired over one year past expiration date will not be renewed. New exams will be required.

To change a mailing address:

- Submit a letter requesting the change of mailing address and a copy of your C of F with $5.00 fee.

To change a work location,

- Submit a letter from your current employer (on company letterhead) confirming that you are an employee and stating your new work location with a copy of your C of F and a $5.00 fee

To request a replacement certificate:

- Submit a driver's license or passport, social security number, mailing address and a $5.00 fee.

The certificate can be renewed <u>On-line</u>, <u>by Mail</u> or <u>in Person</u>.

- **<u>Renewal online</u>**

If you are an individual, make sure you have your 12 digit Certificate of Fitness Access ID. This can be found on your Renewal Notice. If you do not have your Renewal Notice, your Access ID is your 8 digit Certificate of Fitness number and the last four digits of your social security number. If you are submitting renewals on behalf of a company's employees, the company must be approved by FDNY and have an 8 digit Company Code. To request approval, email pubrenew@fdny.nyc.gov.

Renewal fee can be paid by one of the following methods:

- Credit card (American Express, Discover, MasterCard, or Visa)
- Debit card (MasterCard or Visa)
- E-check

A fee exempted applicants cannot renew online only by mail or in person.

If all the requirements are met, the certificate of fitness will be mailed out within 10 days.

For online renewal go to: **https://a836-citypay.nyc.gov/citypay/FDNYCOF**

- **<u>Renewal by mail</u>**

Mail your Renewal Notice (or if you did not receive a Renewal Notice, a copy of your certificate), along with your fee payment Personal or company check or money order (made payable to the New York City Fire Department)
For fee waivers submit: ***(Only government employees who will use their C of F for their work- related responsibilities are eligible for fee waivers.)***

- A letter requesting fee waiver on the Agency's official letterhead stating applicant full name, exam type and address of premises; ***AND***
- Copy of identification card issued by the agency and if applicable, supporting documents to:

NYC Fire Department (FDNY)
Cashier's Unit
9 MetroTech Center, 1st Floor
Brooklyn, NY 11201

If all the requirements are met, the certificate of fitness will be mailed out within four to six weeks.

- **Renewal in person**

Submit your Renewal Notice (or if you did not receive a Renewal Notice, a copy of your certificate), along with your fee payment by one of the following methods:

- Cash
- Credit card (*American Express, Discover, MasterCard, or Visa*)
- Debit card (*MasterCard or Visa*)
- Personal or company check or money order (*made payable to the New York City Fire Department)*

For fee waivers submit: ***(Only government employees who will use their C of F for their work- related responsibilities are eligible for fee waivers.)***

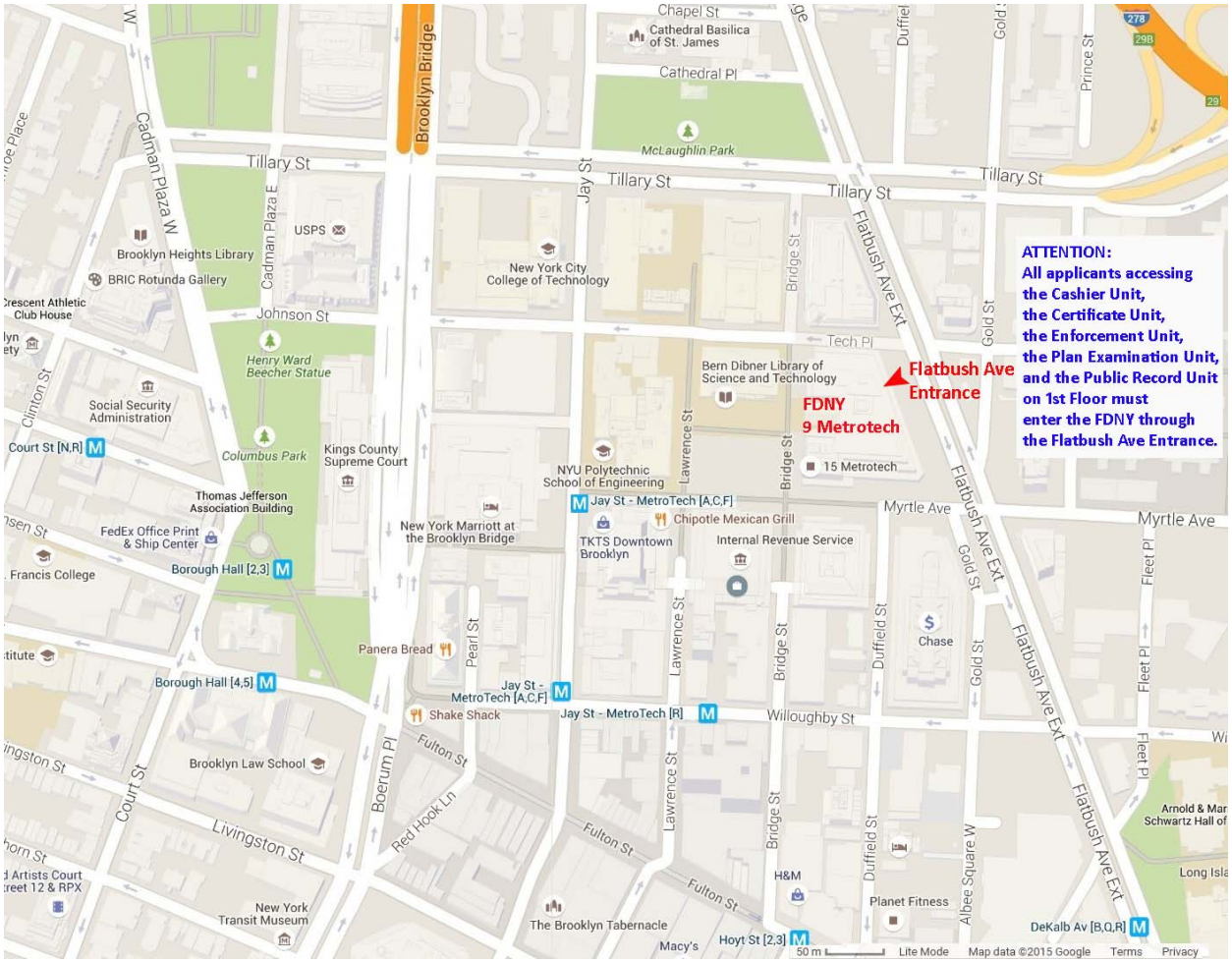
- A letter requesting fee waiver on the Agency's official letterhead stating applicant full name, exam type and address of premises; ***AND***
- Copy of identification card issued by the agency and if applicable, your supporting documents to:

NYC Fire Department (FDNY)
Cashier's Unit
9 MetroTech Center, 1st Floor
Brooklyn, NY 11201

If all the requirements are met, the certificate of fitness will be issued the same day.

A convenience fee of 2.49% will be applied to all credit card payments for original or renewal certificates.

EXAM SITE: **FDNY Headquarters,** 9 MetroTech Center, Brooklyn, NY. Enter through the **Flatbush Avenue entrance (between Myrtle Avenue and Tech Place)**.



About The Study Material

These study materials will help you prepare for the written examination for the Certificate of Fitness for Supervision of Portable Natural Gas Heaters (G-93). The study materials include information taken from the New York City Fire Code (FC) and Fire Department Rules (RCNY). The study material does not contain all the information you need to know in order to perform the responsibilities of supervising portable natural gas heaters. It is your responsibility to become familiar with all applicable laws, rules and regulations of the federal, state and city agencies having jurisdiction, even though such requirements are not included in this study material. You need to be familiar with the Fire Code Chapter 3 Section 313 (313.6) for storage, handling, and use of portable fueled equipment in order to adequately prepare for the exam. **It is critical that you read and understand this booklet to help increase your chance of passing this exam.**

About the Test

You must pass a multiple choice test to qualify for the Certificate of Fitness. A score of 70% correct is required in order to pass the test. All questions have four answer options. Only ***one*** answer is correct for each question. If you do not answer a question, or if you mark more than one answer to a single question, your answer to that question will be scored as incorrect. Read each question carefully before marking your answer. There is no penalty for guessing.

Sample Questions

1. Which of the following are allowed to be used/displayed while taking a Certificate of Fitness examination at 9 Metro Tech Center?

I. cellular phone
II. study material booklet
III. reference material provided by the FDNY
IV. mp3 player

A. III only
B. I, II, and III
C. II and IV
D. I only

Only reference material provided by the FDNY is allowed to be used during Certificate of Fitness examinations. Therefore, the correct answer would be A. You would touch "A" on the computer terminal screen.

2. If you do not know the answer to a question while taking an examination, who should you ask for help?

A. the person next to you
B. the firefighters
C. the examiner in the testing room
D. you should not ask about test questions since FDNY staff cannot assist applicants

You should not ask about examination questions or answers since FDNY staff cannot assist applicants with their tests. Therefore, the correct answer would be D. You would touch "D" on the computer terminal screen.

3. If the screen on your computer terminal freezes during your examination, who should you ask for help?

A. the person next to you
B. the firefighters
C. the examiner in the testing room
D. the computer help desk

If you have a computer related question, you should ask the examiner in the testing room. Therefore, the correct answer would be C. You would touch "C" on the computer terminal screen.

DEFINITIONS

CERTIFICATE OF FITNESS. A written statement issued by the commissioner authorizing the operation of a business to install, alter, test or repair liquid motor fuel storage and dispensing equipment and systems or flammable or combustible liquid storage systems, for which such certificate is required by this code or the rules.

GENERAL SUPERVISION. Except as otherwise provided in this code, supervision by the holder of any department certificate who is responsible for performing the duties set forth in FC113.2 but need not be personally present on the premises at all times.

> **FC113.2**: **Duties.** In addition to any other responsibilities specified in this code or the rules, a certificate holder shall be responsible for:
>
> **1.** the storage, handling, use, operation, maintenance, inspection, testing, repair and/or supervision of the material, operation or facility, and emergency preparedness, for which the certificate is required, in accordance with this code, the rules, and any other applicable laws, rules and regulations.
> **2.** notifying the department of any fire, explosion, reportable leak or other release of hazardous material, or other emergency related to the duties of his or her certificate.
> **3.** keeping such certificate upon his or her person or otherwise readily available on the premises for inspection by any representative of the department, at all times while conducting or supervising the material, operation, facility or emergency preparedness for which the certificate is required.

NATURAL GAS. A mixture of hydrocarbon gases and vapors, consisting principally of methane in gaseous form.

OPEN FLAME. A flame that is generated by any material or device in a sustained and controlled manner and that is not securely enclosed by noncombustible material, such as a candle that is unenclosed or enclosed in a globe or lantern, or a gas light lantern, but not a flame contained in a furnace or other similar approved device, equipment or system. Torches operated in accordance with FC Chapter 26 and lighted smoking paraphernalia shall not be considered an open flame.

OPEN-FLAME DEVICE. Any device utilizing an open flame.

PERMIT. A written statement issued by the commissioner authorizing the manufacture, storage, handling, use or transportation of a hazardous material, or other material, or to conduct an operation or to maintain a facility, for which a permit is required by this code.

PERSONAL SUPERVISION. Except as otherwise provided in this code, supervision by the holder of any department certificate who is required to be personally present on the premises, or other proximate location acceptable to the department, while performing the duties for which the certificate is required.

PIPED NATURAL GAS. Natural gas supplied by means of piping connected to a distribution system operated by a public utility.

PORTABLE FUEL EQUIPMENT. Any portable device, equipment or system, whether or not flue-connected, that utilizes a flammable or combustible liquid or flammable gas as a fuel, except an open-flame device.

PORTABLE SPACE HEATER. Any portable equipment designed or used for space heating that utilizes a combustible liquid or flammable gas as a fuel, whether or not flue-connected.

INTRODUCTION

Outdoor natural gas fired heaters have become very popular with food service operators as an effective method of extending the outdoor dining season. A sidewalk café with added warmth can be operational earlier in spring and later into the fall by providing additional heat to an area that would otherwise be unpleasantly cold. An outdoor heater can not only warm the sidewalk café in a cool summer night helping to keep customers comfortable and relaxed but it can also add to the ambiance of the dining experience.

Similar construction and operation principles are integrated in heaters produced by different manufacturers. The most wide-spread model is the one that incorporates a gas-fired burner located beneath a dome-shaped reflector. These heaters are available in permanent pole-mount, freestanding pole-mount and suspended unit configurations.

Suspended Unit

Pole-Mount

All required Fire Department permits and Certificates of Fitness must be obtained prior to operation of the heaters and copies of the permit and Certificates of Fitness shall be conspicuously posted on the premises. Every Certificate of Fitness holder shall additionally have the certificate in his or her possession while performing such supervisory duties. The operation of such heaters with no permit or an expired permit is unlawful.

The requirement to obtain an annually renewable Fire Department permit and for the supervision by a person holding a Certificate of Fitness (G-93) **only applies to the use of portable configurations**, coupled to the natural gas supply by means of flexible hose connectors. Such equipment is also subject to an annual inspection by a Fire Department representative in connection with permit renewal applications.

Pursuant to the NYC Zoning Resolution and §2-55 of Title 6 of the Rules of the City of New York, "Physical Criteria for Unenclosed Sidewalk Cafes", the portable natural gas heaters must be removed daily when the unenclosed sidewalk café closes for the day.

General Safety Regulations

All natural gas heaters and the natural gas heater components used in connection with such heaters shall be approved for use in New York City. The Certificate of Fitness holder must take special care when connecting and disconnecting the hoses to the heaters. The heaters, valves, hoses, and related equipment should be inspected for physical damage.

No connections of natural gas to the heaters, testing and/or equipment replacement shall be performed at times when the occupancy is open for business or when customers are present. All portable natural gas equipment set up operations shall be completed before the cafe opens to the public.

Natural gas heaters shall be operated with all panels, covers and guards in place. Any part or component removed for cleaning or maintenance must be properly re-installed before using the heater. The heating element or combustion chamber of heaters shall be permanently protected so as to prevent accidental contact by persons or material.

Heaters shall be equipped with a tilt or tip-over switch that automatically shuts off the flow of gas if the appliance is tilted more than 15° from the vertical. Portable heaters shall be installed in a heavy, tip-proof base to ensure safe operation and stability. Heaters shall always be placed and used on firm, level and stable incombustible surfaces. Heaters shall never be moved while in operation, and shall not be operated in the rain, high-wind or dusty conditions.

The Certificate of Fitness holder should never attempt to perform any type of repairs to the heaters. Equipment should only be services or repaired according to manufacturer's instructions.

Natural Gas

Natural gas is a gaseous fossil fuel consisting primarily of methane but includes significant quantities of ethane, butane, propane, carbon dioxide, nitrogen, helium and hydrogen sulfide. Nitrogen, helium, carbon dioxide and trace amounts of hydrogen sulfide, water and odorants are also be present in trace amounts.

Natural gas is often informally referred to as **"gas"**, especially when compared to other energy sources such as petroleum products. Before natural gas can be used as a fuel it must undergo extensive processing to remove almost all materials other than methane.

Processed natural gas is tasteless and odorless. However, before gas is distributed to end-users, it is odorized by adding small amounts of odorants (mixtures of t-butyl mercaptan, isopropyl mercaptan, tetrahydrothiophene, dimethyl sulfide and other sulfur compounds), to assist in leak detection. Breathing natural gas in trace amounts is harmless, however, natural gas is a simple asphyxiant and can kill if it displaces air to the point where the oxygen content will not support life.

Natural gas is a flammable gas. It can be hazardous to life and property by explosion. Natural gas is lighter than air, and tends to escape into the atmosphere. However, when natural gas is confined, such as within a building or other enclosed space, gas concentrations can reach explosive levels and, if ignited can result in blasts that could destroy buildings. Methane has a lower explosive limit of 5% in air, and an upper explosive limit of 15%.

ANY NATURAL GAS LEAK SHALL BE REGARDED AS A SERIOUS HAZARD THAT REQUIRES IMMEDIATE RESPONSE!

LOCATION OF HEATERS

Heaters ***shall be***:

- located outdoors
- at least 5 feet from any building or structure

Heaters ***shall not*** be:

- located beneath or closer than 5 feet to combustible decorations, overhangs, awnings, sun control devices, or similar combustible attachments to buildings or structures
- located within 5 feet of exits or exit discharges

All clearance distances shall be maintained around the portable natural gas heaters as specified by the **M.E.A. resolutions issued for such heater**. When the clearance requirements are not specified in the heaters M.E.A. resolutions, the most stringent requirement from the Department of Buildings TPPN 2/07, and the manufacturers' instructions shall apply.

When more than one heater is used in an area to provide an overlap in heating patterns, the multiple heaters shall be located at distances as specified by the MEA resolutions, TPPN 2/07 and the manufacturer's instructions.

Certain items or materials when stored under the heater head or placed too close to the heater head can be subject to radiant heat and could be damaged or ignited. Care must be taken to avoid this condition. Combustible or flammable materials, including decorations, should not be hung from the heaters or placed near the heaters while in operation.

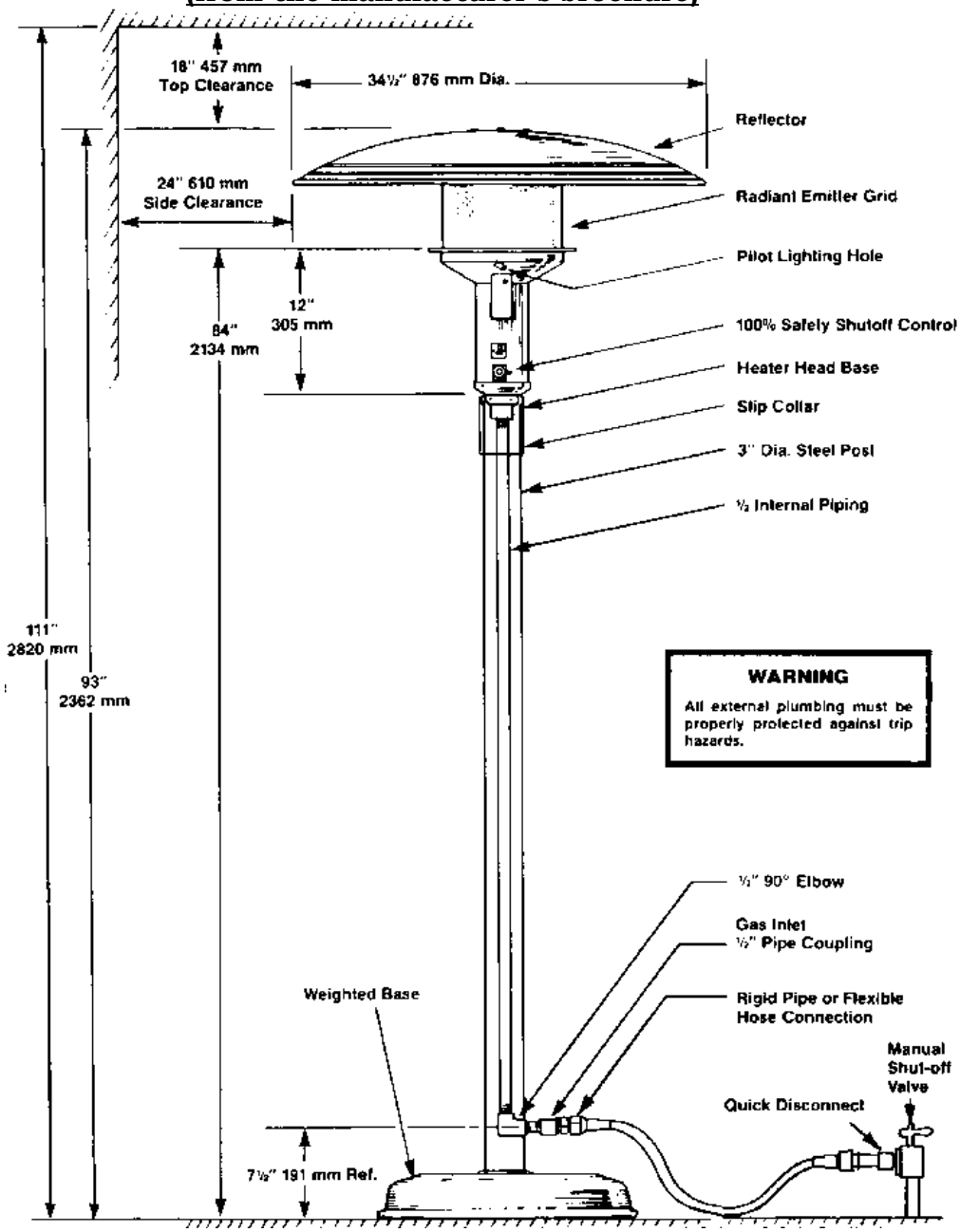
Children and adults should be alerted to the hazards of high surface temperatures of the main burner and reflector and should be instructed to stay away from these areas. Children should be carefully supervised when near the heaters. Children should not be allowed to push, climb on, or swing on the heaters. This could not only cause property damage, but also serious injury, even death.

For example, the manufacturer's brochure shows for the "Sunglow" heaters the "Top Clearance" as 18 inches (see Dimensional Schematic Drawing on the next page). The clearances required by TPPN # 2/07 and by the M.E.A. resolution are 24" from the top of the reflector and 24" from sides of the reflector. Therefore, the "Top Clearance" shall be 24". M.E.A. required clearances are shown in the following Table. Such clearance requirement applies to distances to chairs, tables, awnings and other combustible materials.

Table with required clearances specified in the M.E.A. resolutions

Heater - Model	MEA Resolution	Side Clearance (inches)	Ceiling Clearance (inches)	Clearance Below (inches)
SunGlow - A242	211-94-E Vol. II	**24**	**24**	**48**
Patio Comfort–NPC05-SS	565-06-E	**27**	**24**	**80**
Patio Comfort–NPC05-AB	565-06-E	**27**	**24**	**80**

DIMENSIONAL SCHEMATIC DRAWING
WITH REQUIRED CLEARANCE DISTANCES
(from the manufacturer's brochure)



HEATER CONNECTIONS

The type and installation of flexible gas hose connectors must comply with the requirements of the National Fuel Gas Code, Fuel Gas Code of New York State and of TPPN 2/2007. Such requirements include, but are not limited to the following:

- Flexible hose connectors shall be MEA approved, and such connections shall be made in accordance with the terms and conditions of the MEA approval and manufacturers' recommendations.
- Flexible hoses shall be of minimum practical length, but in no event to exceed eight (8) feet.
- Flexible hose connections must be visible and entirely within the same space as the heater being served.
- Flexible hose connectors shall be protected against physical and thermal damage.
- Flexible hoses shall not be a tripping hazard and must be protected by bridging in compliance with Local Law 58 of 1987 and Reference Standard RS 4-6 of the NYC Building Code, to allow accessibility and to protect the hose from damage.
- An accessible shut-off valve must be provided in the rigid piping immediately upstream from each flexible hose connector.
- Outside connection points shall comply with ANSI Z-21.90 "Standard for Gas Outlets", and shall be in lockable receptacles, made of corrosion-resistant metallic materials, suitable for outdoor use. Receptacles shall be recessed and locked closed when not in use.
- Only persons holding of a Fire Department Certificate of Fitness (G-93) shall connect and disconnect the natural gas supply to the outdoor natural gas heaters.

Natural Gas Main Line

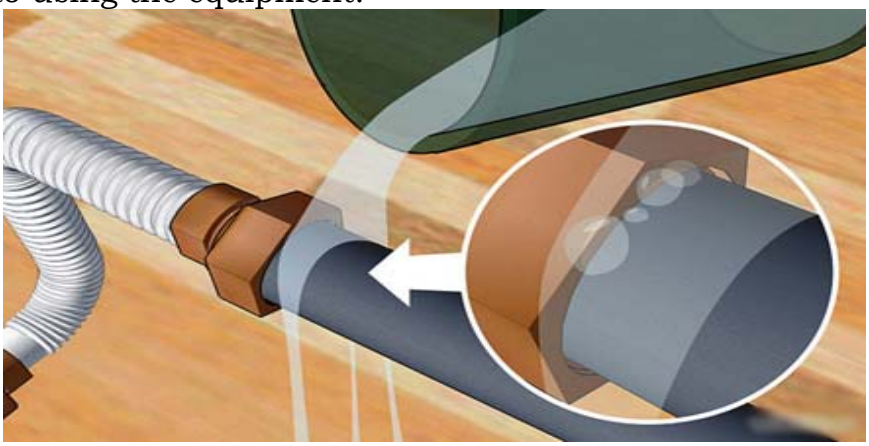
- All gas piping shall be installed, maintained and repaired only by New York City Licensed Plumbers.
- The natural gas main distribution system supplying natural gas to the heaters shall have a manual shut-off valve for both emergency use and locking out the system when not in use.
- An emergency automatic gas shut-off valve, activated by either a low pressure sensor or an emergency switch, shall be installed on the main gas line. The low pressure sensor shall be connected to an audible and visible alarm utilizing a bell or horn and a flashing device.

- The natural gas emergency switch and shut-off valves shall be identified by durable signs.

PREPARING FOR DAILY USE

The natural gas hose connection between the heater and the wall or other approved gas supply connection valve shall be checked daily for gas leaks prior to operation of the heating equipment.

The Fire Department recommends the use of a portable combustible gas leak detector that should be *readily* available on the premises. In the absence of such portable combustible gas leak detector, natural gas connections must be checked daily using a soap and water solution. After verifying that the connections are secure, a soap and water mixture shall be brushed on each connection. The connection should be checked to see if any air bubbles are present. If no air bubbles are visible there should be no leak. However, if bubbles are present there may be a problem with the connection. The suspected hose connector should be disconnected, inspected and cleaned. If no defects are apparent, the hose may be reconnected and the leak test repeated. If bubbles continue to be visible after the retest, this indicates that there is a defect with the gas connection. The hose connector shall be disconnected from the heater, and the defective hose connection or other defective component replaced prior to using the equipment.



A lighted flame (for example, a match or a propane torch) should never be used when checking a connection for a natural gas leak.

MAINTENANCE, INSPECTION and RECORDKEEPING

Maintenance

The Certificate of Fitness holder should not attempt to perform any repairs to the heaters. This equipment is very sensitive and shall be serviced and/or repaired by a representative of the manufacturer or an authorized professional in accordance with the manufacturer's instructions.

Certain operational conditions such as being near the ocean, dusty areas, high humidity areas, high wind condition areas, and heavy use of the heaters, may require more frequent cleaning or maintenance. It is imperative that the control compartment, burner system, and circulating air passages of the heater be kept clean. The manufacturer or qualified service personnel can provide additional information.

Heaters are manufactured from weather resistant materials and only require minimum cleaning and maintenance. Cleaning must be performed when the heaters are shut down and cool to the touch. Heaters will be safe to operate and last longer if they are properly cleaned and maintained. It is very important that the air required for the combustion process is not blocked from entering the burner. Orifices, burner vents, and other openings must be kept free of dirt and insect webs.

Never use flammable or corrosive cleaning agents to clean or for maintenance purposes. Emitter grid or burner area shall never be cleaned using any flammable, combustible or corrosive cleaning products, including any flammable/combustible/corrosive spray products.

The burner ports must also be kept clear so that the burner burns uniformly and the flow of gas is not restricted. If a heater is not performing adequately, it will be necessary to check the burner and burner vents.

Inspection

The certificate of fitness holder periodically conduct a visual inspection of all natural gas fired heaters that are in use. Such inspections shall be conducted as frequently as needed to ensure the safe operation of the heaters. All natural gas fired heaters that are connected for use but not in use, including the outdoor gas service line shut-off valve, shall be inspected at least once every work day. The certificate of fitness holder shall ensure that all such appliances, hoses and equipment are in a safe condition and proper working order and are otherwise installed, maintained and operated safely and in compliance with the requirements of the heater manufacturer, the Department of Buildings Technical Policy and Procedure Notice (TPPN), and the Department of Buildings Material and Equipment Acceptance (MEA) resolutions issued for the heaters.

The heaters, valves, hoses, and related equipment should also be inspected for physical damage. Special care should be taken to identify any defects that may cause a leak. Defective gas components, including but not limited to tubing, fittings valves, strainers and filters, shall be replaced. Defective components shall not be repaired. An adequate supply of spare parts and ***materials must be available on the premises for replacement.*** Any defective components that are discovered must be replaced before the heating equipment may be connected or used again.

Heaters shall be visually inspected daily, both before and during use. It is recommended that a qualified service technician or a licensed plumber conduct a safety inspection of the natural gas heaters at least annually.

In a salt air or ocean environment, corrosion and rust occurs at a far greater rate than in non-ocean areas. Under these conditions, more frequently inspections may be required to examine for corrosion and components that require replacement.

Malfunction

If any malfunctions or defects of the natural gas heating equipment are discovered during hours when the establishment is open to public, the heater shall be promptly shutdown and the natural gas supply valve attached to the heaters shall be closed. The cause of such malfunction and defect, shall be investigated only after the occupancy is closed for business and when no customers are present, unless it is a gas leak which should be immediately investigated.

Recordkeeping

At least one copy of the manufacturer's operating and maintenance instructions for the portable natural gas fired heaters, and the Materials and Equipment Acceptance resolutions issued by the Department of Buildings for the heaters and the hose connectors used should be readily available on the premises.

A record of all daily inspections performed of the portable natural gas heaters, including any action taken, should be documented by the Certificate of Fitness holder in a bound log book kept on the premise.

Records must be kept on the premises or other approved location for a minimum of 3 years. The commissioner may prescribe the form and format of such recordkeeping.

The logbook, records, permits, and Certificates of Fitness must be made available to any Fire Department representative upon request.

General Inspection *(Sample Checklist located in Appendix A)*
The Certificate of Fitness holder is required to make regular inspections and patrols of the assigned area of responsibility. These inspections will vary depending on the location. However, the following general guidelines will apply for all locations:

- The entire premise must be checked daily for potential fire ignition sources. Any potential ignition source that is discovered must be corrected or removed immediately. For example, frayed electrical wires and defective electronic components must be removed from the premises, replaced or properly repaired.

- Rubbish and other combustible waste shall not to be allowed to accumulate indoors. This is a fire hazard. It may be easily ignited by a stray spark. All rubbish and other combustible waste shall be promptly removed from the premises.

CERTIFICATE REVOCATION AND SUSPENSION

The commissioner may, at any time, revoke or suspend a certificate for misconduct, or other good cause. The certificate holder shall be afforded notice and an opportunity to be heard prior to any such suspension or revocation except that, in the circumstance of an imminent threat to public safety, such notice and opportunity to be heard may be given promptly after such revocation or suspension.

FIRE PROTECTION

All fire extinguishers must be conspicuously located. Signs must be conspicuously posted indicating the locations of the extinguishers. Signs describing how to use the fire extinguishing devices must also be posted. The certificate of fitness holder must make sure that the extinguishers are inspected at the designated time intervals. The fire extinguishers must be recharged after each time they are used, or as required for the type of extinguisher provided.

Fire Extinguishers

TPPN 2/07 required that at least one portable fire extinguisher of a minimum 2-A rating for every 2,500 square feet of floor area or fraction thereof shall be provided within 10 feet of the entrance to the café.

The Certificate of Fitness holder must know how and when to operate all fire extinguishers installed at the premises.

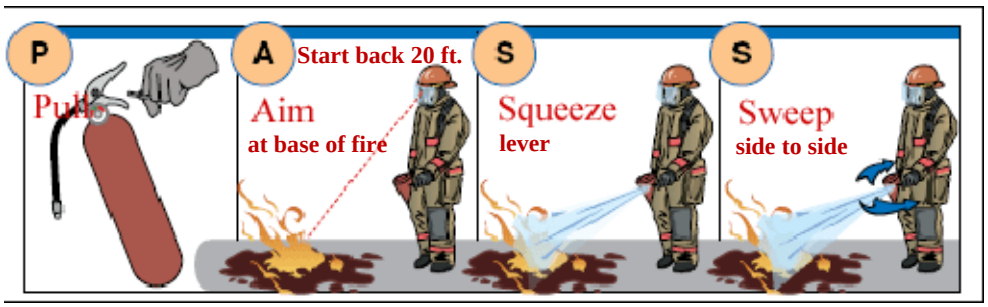
Travel Distance is the actual walking distance from any point to the nearest fire extinguisher.

According to the ***National Fire Protection Association (NFPA)*** **and** ***Fire Department Rule***, fire extinguishers are categorized according to their compatibility with the fuel they are expected to extinguish, or the danger of energized electrical equipment. Fuels include four basic groups: wood, liquids, metals, and animal fats; and the hazard of electrical conductivity. Further, extinguishers are designated by alphabetical letters and symbols as shown in the table below:

CLASSES OF FIRES	TYPES OF FIRES	PICTURE SYMBOL
A	Wood, paper, cloth, trash & other ordinary materials.	
B	Gasoline, oil, paint and other flammable liquids.	
C	May be used on fires involving live electrical equipment without danger to the operator.	
D	Combustible metals and combustible metal alloys.	
K	Cooking media (Vegetable or Animal Oils and Fats)	

In case of any fire, immediately call 911.

Fire extinguishers must be used in accordance with the instructions painted on the side of the extinguisher. They clearly describe how to use the extinguisher in case of an emergency. The Certificate of Fitness holder should be familiar with the use of portable fire extinguishers. When it comes to using a fire-extinguisher just remember the acronym P.A.S.S. to help make sure you use it properly. **P.A.S.S. stands for <u>P</u>ull, <u>A</u>im, <u>S</u>queeze, <u>S</u>weep.** An example of these instructions is depicted in the picture below.



Monthly Inspection-
a "quick check" that a portable fire extinguisher is available and will operate. It is intended to give reasonable assurance that the portable fire extinguisher is fully charged and operable.

This is done by verifying that:

- Fire extinguishers are in their assigned place;
- Fire extinguishers are not blocked or hidden;
- Fire Extinguishers have not been actuated or tampered with;
- Fire extinguishers show no visual sign of damage or abuse that prevents its operation;
- Pressure gauge reading or indicator on the fire extinguisher are all in the operable range or position;
- Ensure that the fire extinguishers tags are current;
- Pin and seals are in place;
- Nozzles are free of blockage.

A basic inspection is a *visual examination* of the portable fire extinguisher.

Annual Inspection
In addition, fire extinguisher maintenance should be performed once per year. It is a “thorough check” of the extinguisher. It is intended to give maximum guarantee that an extinguisher will operate successfully and safely in the event of a fire. It includes a thorough examination, any necessary repair, recharging and/or replacement. This annual inspection must be performed by W-96 Certificate of Fitness holder employed by a FDNY approved portable fire extinguisher company.

Notifications and Planning for Emergencies:
Every outdoor café should have an emergency response plan detailing procedures that must be followed during an emergency, fire, natural gas leak or other urgent situation. The plan shall include methods for fast and safe evacuation of the premise. The certificate of fitness holder must know and understand his or her responsibilities as they are outlined in the premise's emergency response plan. **These responsibilities may include shutting off gas supplies, notifying the Fire Department, assisting in the safe evacuation of the place, and extinguishing fires.**

The Fire Department strongly recommends that every employee of the establishment be familiar with the emergency response plan, and know the location & how to operate the safety devices, such as the natural gas shut-off valves. Training sessions should be conducted periodically and all employees should be knowledgeable of the safety procedures that must be followed during an emergency.

The Certificate of Fitness holder must know the locations of and how to operate all fire extinguishing devices, control devices, and fire alarm stations installed at the facility. In case of a fire, explosion, major spill or emergency, the Certificate of Fitness (C of F) holder must notify the Fire Department by phone immediately.

The Certificate of Fitness holder must contact the Fire Department directly by calling **911,** in the case of an emergency. It is also recommended that they have the Fire Department Borough Communication Office (listed below) posted near the phones most likely to be used in case of an emergency.

- Manhattan (212) 999-2222
- Bronx (718) 999-3333
- Brooklyn (718) 999-4444
- Queens (718) 999-5555
- Staten Island (718) 999-6666

After notification by phone, the local fire alarm must be sounded. In some cases, the activation of the fire alarm will transmit a signal to the Fire Department via a FDNY approved central station company. The C of F holder shall initiate an orderly evacuation when necessary following a hazardous incident, and take reasonable steps to isolate the hazard until the Fire Department arrives. The Certificate of Fitness holder must answer any questions asked by Firefighters and officers when they arrive. For example, he or she must indicate the location of the fire, describe the type of fire protection devices available, and describe the materials stored on the fire floor. The Bureau of Fire Prevention must be notified as soon as possible after an explosion or fire has occurred. The Bureau of Fire Prevention may require a detailed report on the causes and the consequences of the explosion or fire. Generally, this report must be filed within ten days after the incident.

Appendix A. Sample Daily Checklist

COF Holder's Name:			**Date:**
COF Number:			
Opening tasks	*Check off*	**Closing task**	*Check off*
Is there a copy of the MEA (Dept. of buildings) and the FDNY permit on site?	☐	Have all heaters been disconnected and removed from outdoors?	☐
Is there a copy of the manufacturer's operations and maintenance instructions?	☐	Is the premises clear of garbage accumulation?	☐
Has gas supply connection valve been checked for possible leaks? (soapy water test)	☐	Has outdoor gas service line shut-off valve been inspected?	☐
Have all heaters been checked for possible leaks? (soapy water test)	☐	Has daily inspection and actions taken been recorded in logbook?	☐
Have all hoses been checks for cracks, holes or other physical damage?	☐		☐
Has the premises been checked for potential fire ignition sources (frayed wires, defective electronic component, etc…)	☐		☐
Are all panels, covers, and guards been appropriately placed?	☐		☐
Have all heaters been placed with proper distances and clearances? (not within 5ft of exit or building)	☐		☐
Is the premises clear of garbage accumulation?	☐		☐
Have you done a complete visual inspection of the premises?	☐		☐
Have you done a complete visual inspection of the heaters?	☐		☐

Appendix B

Technical Policy and Procedure Notice # 2/07
"The Installation of Outdoor Natural Gas Fired Heaters in Unenclosed Sidewalk Cafes"

NOTE: Document available at New York City Department of Buildings web site:

http://www.nyc.gov/html/dob/downloads/pdf/tppn0207.pdf

New York City Department of Buildings
280 Broadway, New York, NY 10007-1801

Patricia J. Lancaster, FAIA, Commissioner

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ISSUANCE # 671

TECHNICAL POLICY AND PROCEDURE NOTICE # 2/07

TO: Distribution

FROM: **Fatma M. Amer, P.E.**
Deputy Commissioner & Chief Code Engineer

DATE: **July 25, 2007**

SUBJECT: **The Installation of Outdoor Natural Gas Fired Heaters in Unenclosed Sidewalk Cafes**

PURPOSE: To address the installation of outdoor gas fired heating devices by the owners and/or operators of sidewalk cafes throughout the five boroughs of New York City. Such unenclosed sidewalk cafes must be licensed by the Department of Consumer Affairs.

REFERENCES: *The installation of gas burning equipment shall comply with the applicable requirements of Article 5 of Subchapter 14, RS 14-2 and RS 14-6 of Chapter 1 of Title 27 of the Administration Code. The installation of gas piping shall comply with Subchapter 16 and Section §P115 of RS 16 of Chapter 1 of Title 27 of the Administration Code. The unit heaters shall be accepted for use in NYC in accordance with Section 27-131 and Section 27-135 of the Building Code.*

In addition to the code provisions above, sidewalk cafes shall also comply with applicable provisions of *Chapter 4 of Article I of the NYC Zoning Resolution and Chapter 35 of the Rules of the Fire Department.*

EFFECTIVE: Immediately

SPECIFICS: All applications for the installation of Natural Gas Fired Outdoor Heaters shall be filed by a New York State Licensed Architect or New York State Licensed Professional Engineer on behalf of the owners and/or operators of the sidewalk cafes. Such installations are filed with this department as Alteration Type II with a separate PL work type in accordance with Directive 14 of 1975. A New York City Licensed Master Plumber shall obtain a plumbing permit and perform all of the plumbing work in accordance with the provisions of Subchapter 16 and RS 16 of the Building Code. All work shall also comply with all of the following requirements:

1. Outdoor gas heaters must be of commercial grade with MEA approval.

2. The units and related piping shall be installed in accordance with the terms and conditions of the MEA approval and the manufacturers' recommendations.

3. Clearances shall be maintained around the units as recommended by the manufacturer and in no event shall such clearances be less than two feet.

4. Plans of the café submitted with Alteration Type II shall, at a minimum, indicate the following:
   - Tables and chairs layout,
   - Details of gas piping and connections,
   - Location of heaters and clearances from other objects as recommended by the manufacturer, and
   - Location of gas shut off valve and alarms.

5. Copy of the department's accepted plans shall be maintained on the premises and made available upon request by the department or the Fire Department.

6. Where flexible hose connectors are used to connect unit heaters to gas outlets, such flexible hoses shall be MEA approved. Such connection shall be made in accordance with the terms and conditions of the MEA approval and the manufacturers' recommendations. The maximum length of the flexible hoses shall be in compliance with the manufacturers' recommendations and in no event shall such length exceed 8 feet.

7. Hoses shall not be a tripping hazard and must be protected by bridging in compliance with LL58 of 1987 and RS 4-6 of the Building Code, both to allow accessibility and protect the hose from damage.

8. Outside connection points shall comply with ANSI Z-21.90, Standards for Gas Outlets, and shall be in lockable receptacles, made of corrosion-resistant metallic materials, suitable for outdoor use. Receptacles shall be recessed and locked closed when not in use.

9. All gas piping shall be installed only by NYC licensed plumbers and the distribution system shall have a manual shut off valve for both emergency use and locking out the system when not in use.

10. An emergency automatic gas shut off valve, activated by either a low pressure sensor or an emergency switch, shall be installed on the main gas line. The low pressure sensor shall be connected to an alarm that utilizes a bell or horn with a flashing device.

11. The emergency switch shall be identified by a sign posted in plain sight next to it.

12. At least one portable fire extinguishing device of a minimum 2-A rating for every 2,500 square feet of floor area or fraction thereof shall be provided within 10 feet of the entrance to the café.

13. Only designated employees who hold a FDNY Certificate of Fitness shall connect or disconnect the outdoor heaters.

14. All devices shall have wireless electric ignition devices. Open flame, match start and electrical hard-wired systems are not permitted.

15. The owners or operators of such outdoor heaters shall obtain a Fire Department permit prior to the operation of the equipment. Such equipment shall be subject to annual inspection by the Fire Department.

16. Unit heaters using LPG (Propane) shall be prohibited.