Hot Work Program
(EHS Program Manual 2.3)

1.0 Overview

Environmental Health and Safety (EHS) at Weill Cornell Medicine (WCM) has developed this Hot Work Program to promote a safe work atmosphere. This Program complies with the New York City Fire Code and applies to all employees and contractors who perform or supervise hot work activities in any building or structure, on building roofs, or on building setbacks.

All hot work requires WCM authorization, regardless of whether a fire department issues a permit or if the work is performed inside or outside. Hot work authorization may also be needed for non-fire causing work (e.g., work involving excessive dust or steam).

2.0 Table of Contents

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3.0 Objectives

The Hot Work Program aims to prevent fires resulting from temporary operations that produce heat, sparks, hot slag, or have open flames. This includes, but is not limited to, brazing, cutting, grinding, soldering, thawing pipes, torch-applied roofing, and welding.

4.0 Roles and Responsibilities

4.1 ENVIRONMENTAL HEALTH AND SAFETY (EHS)

EHS duties include:

- Review and approve all Safe Work Authorizations requests for hot work permits.
- Manage fire alarm systems and take necessary actions to prevent false activations during hot work activities.
- Inspect hot work areas periodically to ensure there are no fire safety hazards present.
- Ensure that hot work is performed as required by this Program and in compliance with the New York City Fire Code.
- Provide education and training to WCM staff and contractors as needed.
- Maintain all records associated with hot work (e.g., Pre-Hot Work Checklist Forms, Off-hours Risk Assessments, Off-hours Responsible Person Checklist, Atmospheric Monitoring Forms, Cancelled Permits, and Training Records).

4.2 CAPITAL PLANNING

Capital Planning responsibilities include:

- Provide contractors with a copy of this Hot Work Program.

- Ensure that contractors hired by or working for Capital Planning perform work according to this program and in compliance with the New York City Fire Code.
- Confirm that contractors hired by or working for Capital Planning obtain permits and other approvals required to store, handle, or use compressed gases as required by the New York City Fire Code.
- Submit a Safe Work Authorization request for Hot Work Permits for contractors hired by or working for Capital Planning.
- Notify EHS **at least 5 business days in advance** when requesting a hot work permit for off-hours work.

4.3 FACILITIES MANAGEMENT & CAMPUS OPERATIONS

Obligations include:

- Provide contractors with a copy of this Hot Work Program.
- Ensure that contractors hired by or working for E&M perform work according to this program and in compliance with the New York City Fire Code.
- Verify that contractors hired by or working for E&M obtain permits and other approvals required to store, handle, or use compressed gases as required by the New York City Fire Code.
- Submit a Safe Work Authorization request for Hot Work Permits for contractors hired by or working for E&M.
- Notify EHS **at least 5 business days in advance** when requesting a hot work permit for off-hours work.

4.4 CONTRACTORS AND WCM STAFF PERFORMING HOT WORK

Contractors and WCM employees performing hot work must:

- Comply with this Hot Work Program.
- Maintain required FDNY Certificates of Fitness.
- Obtain required FDNY Permits.
- Contact EHS with any questions or concerns regarding safety at hot work sites.

Note: Contractors are prohibited from altering, disabling, removing, or modifying any fire protection system, device, or related fire protection equipment (including portable fire extinguishers).

4.5 RESPONSIBLE PERSON FOR HOT WORK AREA

For all hot work operations, the requester of the permit must designate a Responsible Person for the hot work area. Hot work operations must be conducted under the general supervision of the Responsible Person.

The Responsible Person must:

- Ensure that the hot work is performed in compliance with the terms and conditions of this Program.
- Inspect the hot work area and ensure the Pre-Hot Work Inspection Checklist is completed before authorizing hot work to begin.
- Periodically monitor the work as it is being performed to ensure there are no fire safety hazards.
- Maintain the Pre-Hot Work Checklist at the work site during the work, making it available for inspection by a representative of EHS or the fire department.

5.0 FDNY Certificate of Fitness Requirements

Individuals performing hot work or acting as a Fire Guard for hot work activities are required to hold valid FDNY Certificates of Fitness for the duties they are carrying out.

The Certificate of Fitness holder must keep the Certificate of Fitness upon his or her person or otherwise have readily available for inspection by any representative of EHS or the fire department, at all times while conducting or supervising the material, operation, or facility for which the certificate is required.

5.1 TORCH OPERATORS

Hot work conducted with an open-flame torch can only be performed by individuals holding a current Certificate of Fitness for Torch Use of Flammable Gas (G-60), issued by the FDNY. The operator must have the Certificate of Fitness in their possession during torch operations.

Torch operators must:

- Ensure that all hot work is coordinated with EHS, that proper authorization has been obtained, and that appropriate precautions are taken regarding fire alarm systems.
- Coordinate with Fire Guard(s) to ensure proper maintenance and housekeeping of the site prior to and during the work.
- Perform torch operations safely.

5.2 ARC WELDING

Arc Welding can only be performed by individuals holding a current Certificate of Fitness for Torch Use of Flammable Gas (G-60) issued by the FDNY, New York City Department of Buildings (DOB) Welder License, or a welder's license issued by any other state, county, or local authority that certifies training to the American Welder's Society Standards.

5.3 FIRE GUARDS

All hot work operations require a Fire Guard. Fire Guards must maintain a Fire Watch and ensure adherence to fire safety guidelines.

Fire Guards are required to have a current Certificate of Fitness for Fire Guard for Torch Operations and Construction Sites (F-60) issued by the FDNY, which must be in their possession during torch operations.

Fire Guards must:

- Know potential hazards and hazard control measures of the hot work site.
- Maintain Pre-Hot Work Check Form on site until the conclusion of the work.
- Verify proper maintenance and housekeeping of the site prior to and during the work.
- Confirm proper posting of the EHS Hot Work Permit, with the caution side out, in a conspicuous location outside the hot work area.
- Maintain proficiency in the use of portable fire extinguishers, fire reporting notification, and evacuation procedures.
- Ensure that a portable fire extinguisher with at least a 2-A:20-B:C rating (a minimum 3- A:40-B:C rating fire extinguisher on torch-applied roofing system operations) is readily accessible within 30 feet of the location where hot work is performed and where the Fire Guard is positioned.
- Complete the Pre-Hot Work Checklist and Fire Guard Daily Logbook Sheet.

Note: The hot work crew must provide their own fire extinguisher. Building fire extinguishers cannot be moved or relocated.

5.3.1 Fire Watch

One certified Fire Guard for torch operations is required per spark-producing tool (e.g., chop saw, grinder) or open flame torch and may not perform other work except Fire Guard duties.

During Fire Watch:

- Fire Guard(s) must observe the entire hot work area.
- Fire Guard(s) are authorized to stop work if necessary and restore safe conditions within the hot work area(s).
- **Hot work conducted in areas with vertical or horizontal fire exposures that are not observable by a single individual must have additional personnel assigned to ensure that all exposed areas are monitored.**
- The Fire Watch must continue for a minimum of 30 minutes after the conclusion of the work.
- **If the Fire Guard must leave the work site, all hot work must stop.**

- **Individuals assigned to Fire Guard duty are responsible for identifying and extinguishing spot fires and reporting such fires to the Fire Department and EHS. If it appears possible to extinguish the fire safely, the Fire Guard should attempt to do so. At no point should one place their life or safety in jeopardy for a fire.**

5.3.2 Special Regulations of Fire Watch in the Torch-Applied Roof System

The torch-applied roof system is a bituminous roofing method using membranes that are adhered by heating with a torch and melting asphalt back-coating instead of mopping hot asphalt for adhesion.

A torch-applied roof system must not be operated on roofs constructed of combustible materials. Fire Guards must be on continuous duty during all torch operations on the roof of a building.

There must be one Fire Guard on the roof for each torch operator, and an additional Fire Guard is required one floor level below the work area. The Fire Guard must ensure that sparks do not cause a fire on the lower floor.

The Fire Watch must continue for a minimum of 60 minutes after the conclusion of the work.

A minimum 3-A: 40-B: C rating fire extinguisher must be readily accessible within 30 feet of the hot work location and the Fire Guard. Fire Guards may use garden hoses connected to a reliable water supply or buckets of water.

6.0 Compressed Gas Handling, Use, and Storage

6.1 GENERAL GUIDANCE

6.1.1 Labeling

The contents of any compressed gas container must be clearly identified. Gas identification should be stenciled or stamped on the container itself or on a label typically applied near the container's neck.

Do not rely solely on the color of the container to identify the contents. Do not use any container that is unmarked or has conflicting marking or labels.

6.1.2 Refilling Compressed Gas Containers

Refilling gas containers in New York City is illegal. Empty containers must be handled in the same manner as full containers.

Gas containers must be replaced when they are empty. They should be marked empty and stored separately from full containers, with their container valve or regulator tap closed.

Vendors must promptly remove all empty containers.

6.1.3 Always Replace the Protective Cap or Collar

Most gas containers have a protective cap, while LP Gas containers have a collar. These devices protect the container control valve from physical damage. The protective cap is shaped like an inverted cup and is screwed on top of the gas container. The protective collar is welded onto the top of the container and extends above the height of the container control valve.

Protective caps must be in place when the gas container is not in use.

6.1.4 Temperature and Physical Damage

All gas containers and related equipment must be protected from extreme temperature and physical damage. For example, gas containers for temporary stationary service must be placed on a firm and non-combustible foundation. **High temperatures (e.g., above 125 ºF) can cause the pressure inside the container to increase to a dangerous level.**

A protective partition must be used to shield the containers that are exposed to hot air blown by a heating appliance.

All containers must be secured in an upright position and must not be stacked or stored on shelves.

6.1.5 Handling of Cylinders

Compressed gas cylinders must always be transported on wheeled cylinder carts with retaining straps or chains. Cylinders must be secured in a boot or by a chain to fixed support to prevent them from being dropped or falling over when in use. **Cylinders must not be banged, dropped, or strike each other or against other hard surfaces.**

When transporting cylinders, a valve cover must be in place at all times. **Do not use the valve cover to lift cylinders; they could be damaged and become unattached, causing the cylinder to drop on a hard surface and potentially resulting in an explosion.**

6.2 FDNY PERMITS

A Hot Work Permit issued by WCM EHS authorizes specified hot work at a specific location, date, and time.

Additional FDNY Permits are required to conduct hot work if:

- Using oxygen and a flammable, or
- Storing, using, or handling any flammable gas (e.g., LPG or CNG or acetylene) in excess of 400 SCF.

6.2.1 Types of FDNY Permits

FDNY Permits are categorized as:

- **Site-Specific Permit:** Such permit authorizes the permit holder to store, handle, use flammable gases, or conduct a torch operation at a specific location. A site-specific permit may be permanent or temporary. Permanent permits are valid for 12 months only. Temporary permits may be valid from one day to 12 months, depending on the construction or operation need.
- **Citywide Permit:** A citywide permit is valid for up to 30 days, and all gas containers must be removed from the site at the end of each workday. A new application must be submitted if a single job will last more than 30 days.

7.0 .Hot Work Locations

***All hot work requires a WCM Hot Work Permit, regardless of whether a fire department permit has been issued.**

7.1 AUTHORIZED AREAS

Hot work may be conducted in the following areas:

- Designated Areas designed for hot work operations.
    - A specific area within a maintenance shop dedicated to hot work operations only;
    - Approved by EHS and specified in writing;
    - Does not require a daily issuance of a hot work permit;
    - EHS will conduct semi-annual inspections to ensure compliance with required safety precautions,
    - The only types of hot work that can be conducted in a designated area without further approval from EHS:
        - Soldering
        - Brazing
        - Plasma Cutting
        - Grinding

  Only WCM E&M personnel are authorized to conduct permitted hot work in a designated location.
- Permit-Required Areas authorized by EHS:
    - Requires the issuance of a hot work permit.

7.2 REQUIRED SAFETY PRECAUTIONS FOR DESIGNATED HOT WORK AREAS

- Can only be authorized in shops located in non-combustible or fire-resistive buildings;
- The area to be designated within the shop must be free of combustible or flammable content;
- Must be screened off from the rest of the shop by fire-resistive or non-combustible screens (not welding blankets);
- Must be equipped with a 10 lb ABC fire extinguisher dedicated to the space (EHS will provide fire extinguisher if needed).

7.3 RESTRICTED AREAS

Hot work is prohibited in the following areas.

- Any confined space without special written authorization from EHS.
- Areas not authorized by EHS.
- Spaces where combustible material is located within 35 feet.
- Areas where the sprinkler system is impaired.
- Spaces with the potential for an explosive atmosphere, such as locations where flammable gases, liquids, or vapors are present or an excessive amount of dust.
- Areas with readily ignitable materials, such as storage of large quantities of bulk sulfur, baled paper, cotton, lint, dust, or loose combustible materials.

8.0 Fire Safety Guidelines

All employees and/or contractors performing hot work in any WCM space must follow the fire safety guidelines listed below.

8.1 COMBUSTIBLE MATERIALS

- All combustible materials and waste must be relocated at least 25 feet (35 feet when cutting with a torch, welding, or metal grinding) from the area where hot work is to be performed, or appropriate shield(s) or welding blankets must be utilized to prevent sparks, slag, or heat from igniting exposed combustibles.
- Combustible floors (except wood on concrete) must be kept wet, covered with damp sand, or protected by fire-resistant shields. Personnel operating arc welding or cutting equipment must be protected from possible electrical shock when floors are wet.
- Combustible waste shall not be allowed to accumulate on floors and other surfaces within the hot work area. Hot work areas shall be regularly cleaned, and combustible waste must be removed and disposed of lawfully.
- Partitions segregating hot work areas from other areas of the building shall be of noncombustible construction to prevent the passage of sparks, slag, and heat from the hot work area.

8.2 FIRE-RESISTANT SHIELDS / CURTAINS

- Openings or cracks in walls, floors, ducts, or shafts within 35 feet of the hot work area must be tightly covered to prevent the passage of sparks to adjacent combustible areas, shielded by metal fire-resistant guards, or provided with curtains to avoid the passage of sparks or slag.
- Approved welding curtains or flash screens must be used in and around the active work areas to protect others from welding, cutting, or grinding operations.
- Where cutting or welding is performed near walls, partitions, ceilings, or roofs of combustible construction, fire-resistant shields or guards must be provided to prevent ignition.

8.3 FIRE PROTECTION SYSTEMS

- Where hot work is performed close to sprinklers, noncombustible barriers or damp cloth guards must shield the individual sprinkler heads and shall be removed when the work is completed. If the work extends over several days, the shields must be removed at the end of each workday.
- Where fire hose lines are required, they shall be connected, charged, and ready for operation.
- **Sprinkler system protection shall not be shut off or impaired while hot work is performed, unless approved by the fire commissioner.**
- **Approved special precautions shall be taken by EHS to avoid accidental operation of fire detection system(s).**

8.4 SMOKE EATERS

Smoke eaters or Welding Fume Extractors must be utilized during hot work in occupied spaces or elsewhere when required by EHS to help remove toxic gas, dust, fumes, vapors, and smoke. Exhausting fumes and/or smoke by way of a building system is not permitted unless approved by WCM Engineering and Maintenance (E&M).

8.5 FIRE EXTINGUISHERS

A portable fire extinguisher with at least a 2-A:20-B:C rating (a minimum 3- A:40-B:C rating fire extinguisher on torch-applied roofing system operations) must be readily accessible within 30 feet of the location where hot work is performed and where the Fire Guards are positioned.

Fire extinguishers used for hot work must be in good working order:

- Pressure gauge in the “green”;
- Safety Pin in place with tamper seal;
- Cylinder must be undamaged and equipped with a nozzle.

If a fire extinguisher is discharged/needle of pressure gauge in the “red,” a fully charged replacement is required before work can resume.

8.6 HIGH HAZARD LOCATIONS

Cutting or welding torches are not allowed in high-hazard areas, such as rooms containing flammable gases, vapors, liquids, dust, or any other materials that catch fire easily.

8.7 OXYGEN AND ACETYLENE CONTAINER STORAGE

Oxygen and acetylene containers used for torch operations may be stored overnight on the floors where the torch work is being conducted only in an unoccupied building, and only in an approved FDNY storage area.

Reserve storage of oxygen or acetylene containers is not allowed. Any containers that are not necessary for the day’s torch operations are considered reserve storage. Reserve storage of the containers must be in reserve storage areas approved by FDNY.

8.8 GAS WELDING AND CUTTING REQUIREMENTS

- Devices or attachments mixing air or oxygen with flammable gases before consumption, except at the burner or in a standard torch or blowpipe, are prohibited.
- Containers, valves, regulators, hose, and other apparatus and fittings for oxygen must be kept free of oil or grease.
- Oxygen containers, apparatus, and fittings may not be handled with oily hands, oily gloves, or greasy tools or equipment.
- Acetylene gas must be stored, transported, and used in the vertical, upright position.
- Place cylinders away from the welding operation so that they will not be unduly heated by radiation from heated materials.
- Oxygen and fuel gas containers must be located at a sufficient distance from the hot work area to protect containers from heat, sparks, slag, or misdirection of the torch flame.

- The torch valve must be closed, and the gas supply to the torch completely shut off when hot work operations are discontinued for 1 hour or more.
- Proper cylinder carts must be used for moving or relocating tanks.
- A suitable cylinder truck, chain, or another steadying device must be used to keep cylinders from being knocked over while in use.
- Tanks or cylinders of compressed gases must always be properly secured in an upright position.

Oxygen and fuel gas container valves must be accessible to the torch operator or Fire Guard for immediate shut off from the gas supply in the event of an emergency.

8.9 CONFINED SPACE

Any hot work to be conducted in a confined space also requires a permit from EHS to approve entry into the area.

Please refer to the EHS Confined Space Program Manual for additional information.

8.10 NOTIFICATIONS

Fire Guards must know whom to call to report a fire and have a method of communicating directly to emergency services and EHS.

Fire Guards must:

- . Immediately activate the building's fire alarm system and then call 911 to report the emergency.
- Know the location of fire extinguishers and emergency exits.

Any incident involving notification of the emergency services must be reported to EHS.

If a fire caused by hot work is extinguished immediately, EHS must still be notified.

8.11 INSPECTION REPORT

Logbooks or inspection reports shall be prepared and endorsed by Fire Guards (Fire Guards for hot work operation and Fire Guards for supervising construction site from 4:00 pm-12:00 am).

Fire Guards should enter in the log/report the condition of all fire suppression/ firefighting equipment at the site, including the standpipe and/or sprinkler, and the presence of fire extinguishers on each floor.

The log/report must be present for FDNY review at the site and contain the results of inspections, any deficiencies discovered, and the name of the Fire Guard who conducted the inspections.

8.12 PROHIBITED OPERATIONS

The following hot work operations are not permitted:

- Welding or cutting operations supported by or resting on compressed gas containers.
- Torch-applied roof system operations on roofs constructed of combustible materials.
- Use of acetylene generators.

9.0 Electrical Arc Hot Work

Arc welding is a type of soldering that uses a power supply to create an electric arc between an electrode and the base material, to melt the metals at the welding point. They can use either direct (DC) or alternating (AC) current and consumable or non-consumable electrodes. Getting the arc started is called striking the arc. An arc may be struck by either lightly tapping the electrode against the metal or scratching the electrode against the metal at high speed.

9.1 ARC WELDING GENERAL REQUIREMENTS

- **The frame or case of electric hot work machines (except internal-combustion-engine-driven machines) must be grounded.** Ground connections must be mechanically strong and electrically adequate for the required current.
- **Damaged cables must be removed from service until properly repaired or replaced.**
- Welding rods should be stored in the container on the welding machine; do not throw on floors or staging.
- Welding current return circuits from the work to the machine must have proper electrical contact at joints. The electrical contact must be periodically inspected.

9.2 EMERGENCY DISCONNECT

A switch or circuit breaker must be provided so that fixed electric welders and control equipment can be disconnected from the supply circuit. The disconnect must be installed as required by the Electrical Code.

10.0 Hot Work Authorization Permit Procedures

EHS must issue Hot Work Authorization Permit prior to the start of any hot work.

Hot work authorization will not be issued on days when the sprinkler, standpipe, or fire alarm system of the building is disabled for maintenance, repair, or emergencies, regardless of previous scheduling.

10.1 EMERGENCY HOT WORK AUTHORIZATION PERMIT (E.G., BROKEN STEAM PIPE, WATER LINE, ETC.)

To request an emergency Hot Work Authorization Permit, call the Fire Safety Phone Number: 347-735-9262

10.2 NORMAL BUSINESS HOURS REQUESTS

Safe Work Authorization requests for hot work or dust permits must be submitted through the EHS web portal “Salute” at least 48 hours in advance.

- If more than one crew is performing hot work on the requested date(s), you must submit a separate request for each crew.
- A single request can cover multiple days provided the days requested all fall within the same business week.

10.2.1 Hours

Issued: Monday – Friday, 8:00 AM – 5:00 PM

Authorizations are granted on a first-come basis and may be delayed due to unforeseen circumstances.

10.2.2 Request Procedure

1. Log into “Salute” (https://ehs.salutesafety.com/users/sign_in) using your WCM credentials.
2. Click on “Request/Report” on the lower left side of the page.
3. Click on “New Request/Report” at the top right side of the page.
4. Select “Safe Work Authorizations” from the menu that appears.
5. Complete the “Overview” section of the page.
6. Select “Hot Work” and indicate the type of hot work (e.g., soldering, brazing, welding, etc.). **You must provide the following information for both the torch operator and fire guard:**
   - Name
   - Certificate of Fitness No.
   - Expiration Date
7. Upload digital copies of the Certificate of Fitness(es) (Request Attachments).
8. Complete the Location information.
9. Submit request on the upper right side of page.

10. EHS will review the request, and when necessary, contact the requestor to schedule a work-site inspection. This inspection is necessary to determine:
    - What hazards exist in the hot work area.
    - What precautions must be taken; and
    - What fire alarm devices, if any, must be disabled to prevent accidental activation.
11. EHS will return on the day of hot work to inspection precautions taken, disable the necessary devices (if any), and issue the hot work permit.

10.3 OFF-HOURS REQUESTS

Off-hours hot work is prohibited unless there is a compelling reason why such work cannot take place during regular working hours.

WCM Capital Planning or Engineering & Maintenance must submit off-hours requests via the procedure 10.2.2:

1. EHS will review the off-hours request and schedule a site visit to conduct an off-hours hot work risk assessment.

10.3.1 Approved Off-Hours Requests

- **Off-hours hot work must be conducted under the supervision of a responsible person other than the torch operator or Fire Guard.** EHS will pre-issue the hot work permit to this individual the day of or day prior to the date the hot work is to be conducted.
- If the hot work is related to a project, a representative of the General Contractor must be designated as the responsible person.
- If the hot work is being performed by a vendor for Engineering and Maintenance, a member of the Engineering and Maintenance Team must be designated as the responsible person.
- The responsible person is required to be on-site for the duration of the hot work and perform the following duties prior to authorizing the hot work:
    - Complete the Off-Hours Responsible Person Checklist.
    - Verify the hot work crew has conducted and completed their Pre-Hot Work Checklist.
    - Confirm that the torch operator and Fire Guard have a valid FDNY Certificate of Fitness and that this information is correctly documented on the Hot Work Permit.
    - Verify that the hot work crew has a fully charged 10 lb. ABC fire extinguisher readily available.
    - Ensure that all safety precautions required by the permit have been taken.
    - Conduct a fire safety briefing for the hot work crew, which must cover:
        - Location of nearest fire alarm manual pull station;
        - Location of the nearest backup fire extinguisher.
        - What to do in the event their work starts a fire:
            - Stop work;
            - Confine the fire by closing all doors to the area;
            - Activate fire alarm pull station;
            - Call 911;
            - Evacuate from area and report to lobby security.
    - Contact EHS for final authorization to begin the hot work and provide photo documentation of the following completed forms:
        - Responsible Person Form;
        - Pre-Hot Work Inspection Checklist;
        - Hot work Permit (only if there are changes in personnel listed on the form).

10.3.2 Unapproved Off-Hours Requests

If the Off-Hours Hot Work Permit Request is not approved, the requestor will either:

- Conduct hot work activity during regular business hours in compliance with this Program.
- Contact EHS to further discuss the hot work activity with the EHS Director or another authorized EHS representative.

10.4 HOT WORK DURATION

The Safe Work Authorization to conduct Hot Work is only valid for the time duration identified on the permit. **Hot Work Permits may not exceed an 8-hour period.**

If additional time is needed, the requester must ask EHS for an extension or the issuance of a new permit.

10.5 HOT WORK AUTHORIZATION PERMIT CLOSE-OUT PROCEDURES

Once the hot work is completed, the Fire Watch conducted by the Fire Guard must continue for a minimum of 30 minutes or a minimum of 60 minutes for Torch Applied Roof operations.

At the conclusion of the Fire Watch, the Fire Guard or Torch Operator must notify EHS at 347-735-9262 and send photo of the completed post-hot work inspection.

If applicable, EHS will enable any fire alarm system devices that were disabled to prevent accidental activations.

11.0 Training

Engineering & Maintenance Supervisors and their employees who perform hot work must attend Hot Work Program Training.

Capital Planning Project Managers should also attend Hot Work Program Training.

Employees who perform hot work activities or supervise hot work will receive initial training and an annual refresher on the Hot Work Program.

E&M must ensure their employee receive training. EHS will coordinate and track training requirements.

12.0 Record Retention, Availability, and Revisions

12.1 AUTHORIZATION RECORD REQUIREMENTS

Hot Work Authorization Permits, Pre-Hot Work Checklist Forms, and all required FDNY permits must be available for inspection by the FDNY during the performance of the hot work.

EHS will maintain the records for 48 hours after the work is complete.

12.2 REVISIONS

The Hot Work Program will be reviewed annually, and changes will be made should any deficiencies be identified during the annual review.

Updates to the New York City Fire Code, Rules, or Building Code will also trigger a review of the Program, and any necessary revisions will be made during the program review.

13.0 Definitions

- **Area Reviews:** Before hot work is authorized and at least once per day while the authorization is in effect, the hot work area shall be inspected by the responsible person to ensure that it is a fire-safe area.

- **Certificate Of Fitness:** A written statement issued by the FDNY commissioner certifying that the recipient has passed an examination as to his or her qualifications, or is otherwise deemed qualified to use or supervise the storage, handling, and use of material, conduct or supervise an operation, or supervise a facility for which such certificate is required by this code or the rules.
- **Designated Hot Work Area**: A specific location designed and approved for hot work operations that is maintained fire safe, such asa maintenance shop or a detached outside location, that is of non-combustible or fire-resistive construction, essentially free of combustible and flammable contents and suitably segregated from adjacent areas.
- **Fire Guard:** A person holding a certificate of fitness for such purpose, who is trained in and responsible for maintaining a Fire Watch, and performing such fire safety duties as may be prescribed by the commissioner.
- **Hot Work:** Cutting, welding, Thermite welding, brazing, soldering, grinding, thermal spraying, thawing pipe, cad welding, installation of torch-applied roof systems, or any other similar operation or activity. Hot work authorization may be required for non-fire causing work.
- **Hot Work Authorization Permit:** A special permit issued by WCM EHS that authorizes specified hot work at a specific location and time. Hot work permits issued by EHS must be available for inspection by any representative of the fire department during the performance of the work and for 48 hours after the work is complete.
- **Hot Work Equipment:** Electric or gas welding or cutting equipment used for hot work.
- **Non-fire Causing Work:** work that may interfere with fire protection systems but does not have the potential to start a fire. Some examples include work that may generate dust (e.g., sanding) or steam.
- **Responsible Person for Hot Work Area**: Hot work operations shall be conducted under the general supervision of the Responsible Person, who is required to perform and complete the pre-hot work check.
- **Permit-Required Hot Work Area:** Any location other than a designated area that was approved for hot work and is made fire-safe by removing or protecting combustibles from ignition sources.
- **Pre-Hot Work Check:** A pre-hot work check shall be conducted by the responsible person prior to work to ensure that all equipment is safe, and hazards are recognized and protected. A report of the pre-hot work check shall be kept at the work site during the work and made available for inspection by any representative of the department. The pre-hot work check shall be conducted at least once per day.
- **Responsible Person:** A person designated by EHS and trained in the fire safety hazards associated with hot work and in the necessary and appropriate measures to minimize those hazards.
- **Torch-Applied Roof System:** Bituminous roofing systems using membranes that are adhered to by heating with a torch and melting asphalt back coating instead of mopping hot asphalt for adhesion.
- **Torch Operator:** A person holding a certificate of fitness for such purpose, who is trained in and responsible for operating a torch or other equipment to conduct hot work safety.

14.0 References

- Welding and Other Hot Work: [FC Chapter 26]
- Fire Prevention During Welding, Cutting and Other Hot Work: [NFPA 51B, 2019 edition]
- Portable Fire Extinguishers [NFPA 10, 2018 Edition]
- Liquefied Petroleum Gases: [Rule 3809-01]
- Compressed Natural Gas [Rule 3508-01]
- New York City Fire Code
- Title 3 of the Rules of the City of New York (RCNY)