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Instructions

for

Obtaining Fire Protection System Modification Permits

REVISION

Rev No.	DCN No.	Change Summary	Release Date	DCN Initiator	Document Owner
1	DCN0703	Initial Release	7-31-12	K. Chakmakas	P. O'Dea

Prior revision history, if applicable, is available from the Document Control Office.

1. PURPOSE

The purpose of this document is to ensure all College of Nanoscale Science and Engineering (CNSE) facility fire protection system modifications:

1). are designed, tested and commissioned appropriately.

2). are properly documented and record drawings accurately reflect as-built conditions.

3). are performed in accordance with appropriate protocol to maintain fire protection system integrity.

2. SCOPE

2.1 A Fire Protection System Modification Permit (CFM-00009-F1) must be submitted when work activities within the facility will modify a fire protection system and / or its components.

2.2 These work instructions apply to all CNSE employees, tenant employees, contractors and sub-contractors that are engaged in work activities within the CNSE facility.

3. DEFINITIONS

3.1 Fire Protection System:

3.1.1 Includes fire alarm system and fire sprinkler systems.

3.1.2 Includes stand-alone fire detection or suppression systems connected to site-wide fire alarm system – such as cleanroom tools.

3.2 Modification:

3.2.1 The addition, removal or reconfiguration of system components or devices. This includes the addition of new buildings or subsystems to the Fire Alarm System.

3.2.2 Disconnection of any fire alarm device – even temporarily.

3.2.3 Replacement of system components or devices.

3.2.4 Relocation of system components or devices.

3.3 Component or Devices:

3.3.1 Includes but is not limited to: smoke detectors, heat detectors, horn/strobes, door hold open devices, on board tool fire detection, sprinkler heads, valves, tamper switches, flow switches, etc.

3.4 Fire Protection System Operator:

3.4.1 Individual designated on the 'CNSE-System Owners_RESPONSIBILITY MATRIX'.

4. RESPONSIBILITIES

4.1 Compliance with this procedure is the responsibility of the contractor, tenant, or CNSE employee responsible for the Fire Protection System work.

5. ASSOCIATED DOCUMENTS

5.1 **CFM-00004** Obtaining Work Authorization Permits

5.2 **CFM-00004-F1** Work Authorization Permit Form

5.3 **CFM-00009-F1** Fire Protection System Modification Permit

5.4 **CFM-00009-F2** Fire Protection System Modification Permit Log

6. PROCEDURE

6.1 Permitting

6.1.1 Information for the proposed fire protection system modification shall be provided on Part 1 of the Fire Protection System Modification Permit form. The form shall be completed and submitted as a sub-permit to a Work Authorization Permit (CFM-00004-F1) a minimum of seven (7) days prior to scheduled start of the work. This is to allow sufficient time to review design information and determine potential impacts of work activities and coordinate them with the appropriate parties. The duration of the review will vary depending upon the complexity and scope of the proposed modification. Requestors are encouraged to provide complete details of the work to be performed with applicable engineering data including but not limited to hydraulic calculations (by a New York State licensed fire protection engineer), applicable code references (NFPA), etc.

6.1.2 The permit form shall not be modified (i.e. addition of contractor logo, etc.).

6.1.3 The requestor shall submit the permit for review at the daily permit meeting. The daily meeting is currently held in CESTM, Rm. CR-1 from 8:30am to 9:00am, Monday through Friday. Permits can also be dropped off in the 'drop box' mounted to the wall outside CR-1.

6.1.4 **NOTE**: Permit meetings will not take place during Research Foundation holidays, please visit the following website to view a list of the Research Foundation holidays: http://hr.albany.edu/content/sponsor.asp

6.1.5 Two (2) copies of the permit form shall be submitted. One (1) that shall be stamped 'approved' and contain all approval signatures that shall be returned to the requestor; and one (1) shall be kept by the Facilities group for record. If the requestor is not present, they will be placed on the bottom shelf of the drop box located outside CESTM, Rm. CR-1 for pick up in the future. Requestor is responsible for picking up their copy of the approved permits.

6.1.6 A sample 'Fire Protection System Modification Permit' is provided for reference and example in Appendix A.

6.2 Design Review

6.2.1 Design review will include review of the submitted permit form and supporting data by Facilities Operation Group (FOG), Environmental Health and Safety (EHS) and Code Compliance personnel. Additional information may be requested in order to approve the permit.

6.2.2 The system modification can proceed after authorized FOG, EHS and Code Compliance personnel have approved and signed off on Part 2 of the Fire Protection System Modification Form.

6.3 Installation

6.3.1 The system installation or modification will be performed in accordance with all site permits and procedures. Contractor shall coordinate all work with the owner's representative. Work performed on the site is permitted by various internal groups to prevent impact to facility operations. Contractor must comply with site safety and procedural requirements. Permit procedures can be found at:

http://cnse.albany.edu/WorldClassResources/ContractorFormsTraining.aspx

6.4 Testing

6.4.1 Applicable testing shall be performed to verify the integrity of the system modification.

6.4.2 Testing shall be performed as per applicable NFPA requirements. Testing shall include but not be limited to:

a) Sprinkler system pressure testing.
b) Sprinkler system activation device testing (flow or tamper switch).
c) Sprinkler system flow testing.
d) Fire alarm system activation audio/visual testing.
e) Fire alarm system horn/strobe audible level (dB) testing.
f) Fire alarm device activation (smoke/heat detector) testing.

6.4.3 Fire Protection System Operator or their designee shall witness all testing.

6.4.4 Documentation of testing shall be submitted to the Fire Protection System Operator. Test documents shall comply with NFPA requirements and standards. Documents shall include, as a minimum: the date of work, location of work (bldg. and area), description of system tested, pressures, durations, test methods, name of person performing the test, etc.

6.5 Permit Close Out

6.5.1 The permit will be closed after the following has been confirmed:

a) Fire Protection System Operator has verified the appropriate inspections and tests have been performed and applicable documentation has been provided.

b) Fire Protection System Operator has verified the Fire Alarm System Program has been updated (if applicable).

c) Fire Protection System Operator has verified the Fire Alarm System Graphics have been updated (if applicable).

d) Fire Protection System Operator has verified the *Contractor* Fire Alarm and / or Fire Protection System as-built information has been received.

e) Fire Protection System Operator has verified the *Facility* Fire Alarm and / or Fire Protection System as-builts have been updated.

f) Part 3 of the Fire Protection System Modification Permit form has been completed with signatures of applicable representatives.

g) The Fire Sprinkler System and Fire Alarm System Modification Logs have been updated with applicable information.

6.6 System Integrity Review

6.6.1 FOG will periodically procure the services of a qualified engineering firm to review the modifications to the fire sprinkler system. The engineering firm shall verify the systems still meet the designed intent with regard to zone capacity and fire pump capacity.

7. RECORDS

The Fire Protection System Operator shall maintain a Fire System Modification Permit Log to show and track status of each permit.

Completed Fire Protection System Modification Permits and associated documents shall be kept on file in the Facilities archive for at least ten (10) years.

8. APPENDIX

Appendix A –'Fire Protection System Modification Permit (CFM-00009-F1)' Instructional Form

Appendix B – 'Fire Protection System Modification Permit Log (CFM-00009-F2)' Sample Log

APPENDIX A

'Fire Protection System Modification Permit (CFM-00009-F1)' Instructional Form

College of Nanoscale Science & Engineering	FIRE PROTECTION SYSTEM MODIFICATION PERMIT	Form Number/Rev # CFM-00009-F1 R1

Permit #: 03-2011 (Assigned by SUNY)

PART 1: System Modification Information

Requestor Information

Requestor: John Public Phone #: 555-1212

Company: ABC Fire Protection Date: 02-Jul-11

Work Sponsor: Pat O'Dea

System To Be Modified: ☐ Fire Alarm ☒ Fire Sprinkler

Building(s): ☐ CESTM ☐ CUB ☐ HPM ☐ NFC ☐ NFE ☒ NFN ☐ NFS ☐ NFSX ☐ NFX ☐ Other

Location (Room #s, Area, etc.) NFN subfab near column H12.

Work Type:

☐ Tool Install ☐ New Construction ☒ Renovation / Modification ☐ Other:_____

Description of Work: Add a sprinkler head to gas cabinet C2H4.2

Do Not Write Below This Line – FOR SUNY USE ONLY – Do Not Write Below This Line

PART 2: Design Verification

SUNY Fire Protection System Owner: Pierre Torch (Print) _____ (Sign) Date: 09-Jul-11

SUNY EHS Representative: Jennifer Trodden (Print) _____ (Sign) Date: 09-Jul-11

SUNY Code Compliance: Bob Mason (Print) _____ (Sign) Date: 09-Jul-11

PART 3: Inspection, Testing, and Documentation

Inspection

Performed by: Pierre Torch (Print) _____ (Sign) Date: 16-Jul-11

Testing

Witnessed by: Pierre Torch (Print) _____ (Sign) Date: 16-Jul-11

Reports Received by: Pierre Torch (Print) _____ (Sign) Date: 16-Jul-11

Documentation

Fire Alarm Program Updated / Confirmed by: N/A (Print) _____ (Sign) Date: N/A

Fire Alarm Graphics Updated / Confirmed by: N/A (Print) _____ (Sign) Date: N/A

As-Built Drawings Accepted by: Pierre Torch (Print) _____ (Sign) Date: 31-Jul-11

APPENDIX B

'Fire Protection System Modification Permit Log (CFM-00009-F2)' Sample Log

FIRE PROTECTION SYSTEM MODIFICATION PERMIT LOG														
							Part 1	Part 2						
Permit No.	Date Permit Opened	Bldg.	Fire Prot. Zone #	Work Type	Work Description	Owner	Design Review Complete	Insp/Test Reports Accepted	Fire Alarm Program Updated	Fire Alarm Graphics Updated	Contractor Asbuilts Accepted	Facility Asbuilts Updated	Date Permit Closed	Notes
1-2011	########	NFC	n/a	Modification	Add new horn/strobe to subfab Rm. 123	P. Torch	1/25/2011	1/27/2011	1/27/2011	2/10/2011	2/3/2011			Work performed to meet sound levels.
2-2011	########	NFSX	1	Modification	Add head below stair landing	P. O'Dea	1/18/2011	N/A	N/A	N/A	1/28/2011			installed per NYS OFPC inspection
3-2011	2-Jul-11	NFN	4	Modification	Add sprinkler head to new gas cabinet C2H4.2.	J. Public	7/9/2011	7/16/2011	N/A	N/A	7/31/2011			Tool install