

Policy No. 138

Policy: Confined Space Entry Program

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#### **APPLICATION**

NYU Langone

#### **PURPOSE**

To protect personnel who enter permit-required confined spaces (PRCS) from potential hazards.

To comply with the Occupational Safety and Health Administration (OSHA) standards on Confined Space Entry (General Industry: 29 CFR 1910.146 and Construction: 29 CFR 1926 Subpart AA).

#### POLICY AND GENERAL INFORMATION

## 1.0 **Application**

NYU Langone includes NYU Langone Health System (the System), NYU Hospitals Center (including the NYU Lutheran and HJD campuses), NYU School of Medicine, NYU Lutheran Family Health Centers, and all entities that are controlled by the System. This policy applies to:

- All indoor and outdoor areas of all NYU Langone owned and leased facilities.
- All employees, contractors and consultants of NYU Langone

The primary departments and divisions impacted by the program are:

- Facilities Operations, HJD Facilities Engineering, Lutheran Facilities
   Management, referred to collectively as Facilities
- Real Estate
- RED+F Design and Construction
- All contractors and subcontractors.

### 2.0 **Definitions**

**Attendant** refers to an individual stationed outside a PRCS who assesses the status of authorized entrants and performs the duties specified in the applicable OSHA General Industry and Construction PRCS standards.

**Authorized Entrant** refers to an employee who is authorized to enter a PRCS.



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Competent person means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate them.

#### Confined space means a space that:

- Is large enough and so configured that a person can bodily enter and perform assigned work; and
- Has limited or restricted means for entry or exit (e.g., tanks, vessels, boilers, pits, vaults, manholes, sewers, drains, water mains, ceiling plenums, ductwork, etc.); and
- Is not designed for continuous occupancy.

**Confined space entry permit** (Permit) refers to NYU Langone's pre-numbered two-copy form that incorporates the information in Appendix A and is completed in accordance with Appendix B.

**Controlling Contractor** refers to the employer that has overall responsibility for construction at the worksite (e.g. prime contractor, general contractor, construction manager).

**Entry supervisor** refers to the person who is responsible for determining if acceptable entry conditions are present at a permit space where entry is planned, for authorizing entry, overseeing entry operations, and for terminating entry as required by the applicable OSHA General Industry and Construction PRCS standards. On construction projects, the entry supervisor must meet OSHA's definition of a qualified person (see below).

**Permit-required confined space (PRCS)** has one or more of the following characteristics:

- Contains or may contain a hazardous atmosphere;
- Contains a material that may engulf an entrant;
- Has an internal configuration that can trap or asphyxiate an entrant;
- Has any other serious health or safety hazard.

**Permit-required confined space program** means the employer's overall program for controlling, and, where appropriate, protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

**Qualified person** means one who, by possession of a recognized degree, certificate or professional standing, or who by extensive knowledge, training and experience, has



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successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project.

#### 3.0 Responsibilities

#### 3.1 **Environmental Health and Safety (EH&S)** is responsible for:

- Developing the Confined Space Entry Program (the Program) and collaborating with others to implement and maintain it.
- Training relevant groups, including Facilities, Real Estate, and RED+F Design and Construction, on:
  - The requirements of the Program.
  - The use of equipment for pre-entry and continuous atmospheric testing within the PRCS.
  - The use of personal protective equipment.
- Functioning as a consultant on an as needed basis for confined space entry issues, such as work with or around hazardous chemicals.
- Evaluating the effectiveness of the Program and recommending changes as needed

#### 3.2 **Facilities and Real Estate** are responsible for:

- Managing the Program and the permitting process in facilities they maintain.
- Ensuring that all PRCS are identified and included in the Program.
- 3.3 The Vice Presidents and Directors of Facilities, Real Estate and RED+F

  Design and Construction are responsible for compliance within their
  departments and divisions. Their responsibilities include, but are not limited to:
  - Implementing the Program within their departments and divisions.
  - Ensuring all requirements of this policy are followed.
  - Ensuring all confined space work is identified and included in the Program.
  - Ensuring all personnel who are covered by the Program are trained in confined space entry and the use of personal protective equipment prior to the assignment to confined space operations.
  - Ensuring that personal protective, testing and rescue/retrieval equipment are readily available to all personnel who are included in the Program.
  - Ensuring contractors comply with this policy.



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- 3.4 **Forepersons and managers** are responsible for:
  - Implementing and maintaining the Program at their facility.
  - Notifying EH&S of PRCS work two (2) weeks in advance.
  - Ensuring that the entry supervisor, attendant and authorized entrants have the required training.
  - Ensuring their employees have the required safety equipment.
  - Ensuring shutdown of necessary utilities.
- 3.5 **Project managers (PMs)** (e.g., design, construction, renovation, operations, and maintenance) and **Tenant Coordinators (TCs)** are responsible for:
  - Implementing and maintaining the Program at their facility or on their project.
  - Ensuring employees and contractors comply with this policy by;
    - Incorporating the requirements of the policy into the specifications for the work.
    - Informing contractors about the requirements of this policy during the bidding process.
    - Notifying EH&S of PRCS work two (2) weeksone (1) week in advance.
    - Coordinate the shutdown of necessary utilities. Discussing the Permit, training requirements, required safety equipment, air monitoring results, and work area preparation and maintenance with employees and contractors.
- 3.6 **Controlling contractors and subcontractors** are responsible for:
  - Complying with all provisions of the OSHA Confined Spaces in Construction standard and the requirements of this policy.
  - Informing managers, PMs and TCs about the existence, creation and modification of confined spaces during construction or renovation at least two (2) weeks in advance
  - Preventing unauthorized entry to confined space by posting warning signs consistent with Paragraph 4.0 of this Policy and securing confined space entry by locked cover, hatch or other effective means.
  - Obtaining copies of PRCS training documents for the entry supervisor, attendant and authorized entrants and ensuring that the entry supervisor meets OSHA's definition of a qualified person.



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 Obtaining and reviewing the contractor's written permit-required confined space program.

## 3.7 **Workers who enter permit-required confined spaces** are responsible for:

- Attending training on confined space entry prior to assignment to confined space operations.
- Requesting a Permit prior to entering any permit-required confined space.
- Following the requirements of the Permit.
- Immediately notifying their supervisors of any pertinent problems.

# 4.0 Permit-required confined space identification and signage

- 4.1 **On the Superblock, HJD, and Lutheran** Facilities identifies all permit-required confined spaces and installs signs on or stencils each space reading DANGER PERMIT-REQUIRED CONFINED SPACE DO NOT ENTER. A list of permit-required confined spaces on the superblock is included as Appendix C.
- 4.2 **At offsite locations** Real Estate or building management identifies all permit-required confined spaces and installs signs on or stencils each space reading DANGER PERMIT-REQUIRED CONFINED SPACE DO NOT ENTER. A list of permit-required confined spaces at offsite locations is included as Appendix C.

#### 5.0 Confined space entry procedures

- 5.1 The foreman, manager, PM or TC shall contact EH&S two (2) weeks prior to scheduling work in a PRCS and provide a brief scope of work to be performed therein.
- 5.2 Prior to working in a confined space, the entry supervisor shall evaluate all potential hazards e.g., slips, trips and falls, and implement appropriate controls.
- Prior to working in a permit-required confined space, personnel shall obtain a Permit from Facilities or Real Estate and complete it. A sample Permit is included as Appendix A. Instructions for completing the Permit are included as Appendix B.
  - For in-house work, the entry supervisor shall:
    - Prepare the work area for confined space entry.



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- Complete entry permit, as detailed in Appendix B.
- Have the appropriate manager (the entry supervisor) sign and authorize the work.
- For work done by contractors, the manager, PM or TC shall initiate the Permit.
  - The PM shall coordinate the work with the appropriate Facilities manager, property owner or TC.
- 5.4 The entry supervisor shall complete and sign the Permit in the presence of the controlling contractor's competent person following the steps listed above (under in-house work). The roles and duties of the entry team shall be made clear prior to the entry.
  - For entries performed by in-house staff, the entry supervisor shall be the appropriate manager or foreman.
  - For entries performed by contractors, the entry supervisor shall be designated by the contractor entering the PRCS. The entry supervisor shall report to the controlling contractor's competent person during the entry and following the conclusion of the entry.
- 5.5 A completed and authorized Permit shall be valid until:
  - The end of the workers' shift or the work is completed, whichever comes first;
     or
  - There is an emergency involving or affecting the work area.
- 5.6 The hard copy of the signed Permit shall be posted in the work area until the Permit is no longer valid or the work is completed. The manager, PM or TC keeps the carbon copy.
- 5.7 During the entry, the entry supervisor shall stay in radio contact with the attendant. The attendant shall call the entry supervisor when the work is complete or in case of an emergency.
  - In the case of an emergency, the entry supervisor shall
    - Contact 911 and indicate that a confined space rescue is required
    - Contact Telecommunications at 33911 or 212-263-911



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- 5.8 The entry supervisor, foreman and controlling contractor's competent person shall inspect the work area periodically during the work to ensure that the conditions of the Permit are maintained.
- 5.9 The manager or controlling contractor's competent person shall debrief the employees or contractor who completed the work regarding any challenges encountered during the work. The results of the debriefing will be communicated to EH&S.
- 5.10 When the work is completed and the authorized entrants have left the confined space, all systems shall be returned to their original condition. The Facilities manager or TC shall check the work area and authorize systems to be put back into service.
- 5.11 The Permit shall be closed by the entry supervisor by filling out Section 10 of the Permit
- 5.12 The foreman or controlling contractor's competent person shall return the Permit to the Facilities or TC's office.
  - For in-house work, the foreman returns the hard copy to the office. The manager who signed the Permit puts the two copies together.
  - For work done by contractors, the controlling contractor's competent person returns the hard copy to Facilities or the TC.
- 5.13 Facilities managers shall forward Permits for completed work to EH&S on a daily basis.
- 5.14 EH&S shall evaluate Permits received to ensure compliance with this policy and make recommendations for changes as necessary.

#### 6.0 **Construction**

- Prior to construction activities, the PM shall notify EH&S of any potential PRCS' within their work area.
- During construction activities, the controlling contractor's competent person shall notify the PM of the creation or modification of any PRCS (i.e. temporary crawlspaces) and the PM shall notify EH&S.



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## 7.0 **Training**

- 7.1 Managers and the controlling contractor's competent person shall ensure that the entry supervisor, attendant and authorized entrants provide evidence of PRCS training and are familiar with the:
  - Requirements of this policy.
  - Proper preparation of a confined space for entry.
  - Potential hazards encountered in a PRCS.
  - Use of proper safety equipment and PPE.
  - The duties and responsibilities of each member of the confined space entry team.
  - Emergency procedures (e.g., employee injury protocols)
- 7.2 EH&S will assist with training of medical center employees (e.g., on the use of air monitoring equipment and personal protective equipment).
- 7.3 Training shall be conducted:
  - Before a worker is first assigned to confined space entry.
  - Before a worker is assigned new confined space entry tasks.
  - Whenever there is a change in procedures or new hazards are introduced.
  - Whenever there are deviations from the requirements of the policy, or there are inadequacies in a worker's knowledge or use of these procedures.
- 7.4 Each department/division shall maintain training records for its employees.
  - Records shall include the dates of training, subjects covered, names of employees trained and name and signature of the trainer.
  - Records shall be maintained for 1 year past the last day of employment.
  - Copies of records shall be provided to EH&S upon request.

#### 8.0 **Program evaluation**

EH&S conducts an annual evaluation of the Program as part of the annual evaluation of NYUHC's Environmental Safety Management Plan.

**Appendix A** Sample Confined Space Entry Permit



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Appendix B	Instructions for Preparing a Confined Space for Entry and Completing the Permit
Appendix C	List of Permit-Required Confined Spaces in Facilities Owned by NYU Langone

Issue date	03/2017
Replaces	04/2012
Reviewed by	E. Cintron, Real Estate
_	R. Cohen, Facilities Operations
	N. Ejaz, Lutheran Safety Officer
	J. Goldberg, Environmental Health and Safety
	D. Rubbo, HJD Engineering
	P. Schwabacher, Facilities Management
	HJD Environment of Care (EOC) Committee
	Lutheran EOC Committee
	Lutheran Family Health Centers EOC Committee
	NYUHC Environment of Care Committee

# **Summary of Revisions**

Revision date	Section	Changes
February 2017	Application	Changes NYULMC to NYU Langone
-	1.0	Defines NYU Langone
	2.0	Updates definitions
		Adds definitions for competent person and controlling contractor
	3.4, 3.5, 3.6	Updates responsibilities for forepersons, PMs, and controlling
		contractors
	4.0 and 5.0	Adds Lutheran
		Updates confined space entry procedures
	7.0	Updates training requirements
	Review by	Adds review by Lutheran Safety Officer, and HJD, Lutheran, and
		Lutheran Family Health Centers EOC Committees
	Summary of	Adds Summary of Revisions
	Revisions	
	Appendix A-	Updates appendices
	C	

# **Sample Confined Space Entry Permit**

	Entry Permit (v	alid for 8 h	ours only)									
Date: Start time:				: AM/PM				iration time	: A	AM/PM		
Building:				Location:								
Job supervisor:				Equipment to be worked on:								
Reason for En	itry:											
Location of ne	earest fire alarn	1 pull statio	n:		Near	est tele	phone:					
Rescue proced	lures: Attempt 1	non-entry res	scue. Call 3	3-911 (Mai	n Can	npus), 3	3-911 (HJ	D), 911 (All	other loca	tions). Alert	dispatcher	
of a confined s	pace emergency											
SECTION 2: Permit Space Hazards				SECTION 3: Hazard Elimination								
Oxygen Deficient/Enriched				Contact Irritant				Lockout/Tagout				
Flammable Gases/Vapors/Liquids				Engulfment				Empty	/Clean			
Combustible Dust				Entrapment				Blank				
Toxic Gases/Vapors (Specify)				Hot W	/ork			Ventila	ation			
Electri	Electrical/Mechanical Hazard			Heat/0	Cold S	tress		Barrier	·s			
Chemi	ical Hazard		Otl	ner:			C	ther:				
SECTION 4: 1	Personal Protec	tive Equipr	nent			SECT	TON 5: S	afety Equip	ment			
X Chem	nical Splash	Ir	npervious S	Suit		X	Full B	ody Harness		X Safety Li	ine	
Goggles	-							-				
X Imper	rvious Boots	H	lard hat				Escape I	Bottle		GFCI		
Hearing	g Protection	R	espiratory	Protection			Tripod/			Radios		
Covera			iloves				Low Vo	Itage Tools		Fire Extir	ng.	
Other:		Other:					Explosio	n Proof Equ	ipment			
Other:		Other:						Monitor for	-			
SECTION 6: A	Atmospheric M		to be done	prior to ent	trv an	d conti				0 mins)		
Model:	•	81	Serial #	_	•		<u> </u>	Monitor		,		
Field Check:	Pass F	ail		tion Due:				Monitor				
		****	Initial					111011101	(~1 <b>g</b> 11)*			
Parameter	Acceptable C	Conditions	Results	Time	Res	ults	Time	Results	Time	Results	Time	
Oxygen	>19.5% and <											
	19.5% and <	-23.3/0										
LEL		23.370										
LEL	<10% LEL											
LEL VOCs	<10% LEL Contact EH&	S										
LEL VOCs H <sub>2</sub> S	<10% LEL Contact EH& Contact EH&	S S										
LEL VOCs H <sub>2</sub> S CO	<10% LEL Contact EH&	S S										
LEL VOCs H <sub>2</sub> S CO Other:	<10% LEL Contact EH& Contact EH&	S S										
LEL VOCs H <sub>2</sub> S CO Other: Other:	<10% LEL Contact EH& Contact EH& Contact EH&	S S S	s Between	Entrant(s)	and A	Attenda	nt					
LEL VOCs H <sub>2</sub> S CO Other: Other: SECTION 7:	<10% LEL Contact EH& Contact EH& Contact EH& Contact EH&	S S S		Entrant(s)	and A							
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#### **SECTION 1**

When it is determined that a permit-required confined space must be entered to do work, the entry supervisor will complete Section 1 of the Permit. The REASON FOR ENTRY section should state the work to be completed in the confined space (e.g., welding).

#### **SECTION 2**

#### **Permit Space Hazards**

The entry supervisor will examine the permit-required confined space for potential hazards and will complete Section 2 of the Permit. EH&S shall be used as a consultant for potential hazards.

#### **SECTION 3**

#### **Hazard Elimination**

The entry supervisor, along with other applicable personnel, shall perform hazard elimination to the extent feasible and complete Section 3 of the Permit. Examples of hazard elimination are below.

#### Lockout/Tagout

OSHA-compliant lockout/tagout procedures should be followed. If there is no equipment requiring lockout/tagout N/A should be checked.

## **Equipment emptying and cleaning**

The confined space to be entered should be empty of its contents and cleaned if necessary as to not cause any hazard to the workers that will be entering it. If the confined space contained chemicals or chemicals are used to clean the confined space, EH&S should be contacted for disposal of these chemicals, cleaning solution and any rinse water that may contain chemical contaminants. If no cleaning is necessary, N/A should be checked. If the equipment cannot be cleaned, EH&S should be contacted for any special procedures that may be necessary.

#### All lines disconnected, blanked or plugged

All pipelines that are connected to a confined space must be disconnected, blanked or plugged so that no contaminants will enter the confined space during entry. In the case of confined spaces that cannot be completely isolated (e.g., sewers), as much isolation as possible should be done to reduce the possibility of any contaminants or sudden flooding.

#### Ventilation

Forced air ventilation into the confined space is necessary if the atmospheric checks indicate that there is an oxygen deficiency, the L.E.L exceeds 10% or there may be a toxic chemical in the confined space. If the atmospheric checks cannot be maintained within the required levels continuous forced air ventilation should be used. If continuous forced air ventilation does not meet the required levels respirators may be necessary. EH&S should be contacted before using respirators. All ventilation equipment must be explosion proof.

#### **Barriers**

A barrier shall be installed to prevent anyone from falling into the confined space and to keep pedestrians away from it.

#### **SECTION 4 and 5**

## Personal Protective Equipment and Safety Equipment

Workers entering a confined space must be given the following safety equipment at a minimum:

- Chemical Splash Goggles
- Impervious Boots
- Safety Harness/Lifeline

In addition, lighting should be provided to illuminate the work area inside the confined space. All lighting must be explosion proof. A radio for the attendant should be provided to be used in case of an emergency requiring rescue of an injured worker(s) in a confined space. A continuous air monitor should be on at all times during the confined space entry to determine if the atmosphere inside the confined space changes during the entry operation.

#### Other Equipment that may be necessary

The entry supervisor should check on the Permit any other equipment that the workers may need to enter the confined space. This may include, but is not limited to, the equipment listed in Sections 4 and 5 of the Permit

#### **SECTION 6**

#### **Atmospheric Monitoring**

Personnel shall use a continuous air monitor to do a pre-entry atmospheric check in the confined space for oxygen deficiency and percent of the lower flammable limit (L.F.L.). Additional test for toxicity (for any chemical that was contained or maybe contained in the confined space) may also be done. These tests are done using a monitor that has a current calibration. The percent oxygen should be 19.5-23.5%. The L.F.L. should be less than 10%. For toxicity, EH&S should be contacted to determine the appropriate levels not to be exceeded. The person conducting the test will sign next to the results for the pre-entry atmospheric checks when the levels are within the prescribed limits. Atmospheric monitoring shall be conducted continuously during entry and recorded every 30 minutes during the entry.

If any of these tests are not in the prescribed range, forced ventilation into the confined space should be used until the required levels are met. The source of the air for forced ventilation should be from a location that is not contaminated with pollutants.

#### **SECTION 7**

#### **Communication Procedures**

The entry supervisor should determine the most effective way for the authorized entrant(s) and the attendants to stay in contact. This may include, but is not limited to, voice or visual communication or two-way radio communication.

Cell phones shall not be used for communication within a PRCS.

#### **SECTION 8**

#### Personnel

The entry supervisor will list the workers that will enter the confined space (the authorized entrant[s]). The entry supervisor will also write the name of the attendant that will be monitoring the entrants inside the confined space, informing the entrants of any change in the continuous air monitor, and using the radio for keeping the entry supervisor informed or for calling for rescue. The entry supervisor should review the Permit and procedures to be used in the confined space with the entrant(s) and attendant. The entry supervisor will contact the manager for authorization to enter the confined space. The foreman and manager will sign and enter the date and time on the Permit.

The hard copy of the Permit remains at the confined space. The manager keeps the carbon copy. After the work is done or the Permit is no longer valid, the hard copy is returned to the office and matched up with the carbon copy. Both copies are sent to EH&S on a daily basis.

#### EMERGENCY PROCEDURES

In case of worker injury, the attendant should contact the foreman, manager, and/or entry supervisor on the radio and request assistance. The attendant shall never try to enter a confined space to assist an injured worker(s). The attendant shall only hold the lifeline and try to assist the injured worker to exit the confined space. If other workers are in the area of the confined space, their assistance should be requested. If the worker (s) are not able to leave the confined space and no other workers can assist the attendant, the foreman should pull the nearest fire alarm or call 911 to indicate that a Fire Department confined space rescue is necessary. NYU Langone employees who respond should assist in trying to retrieve the workers in the confined space but should NEVER enter a confined space.

ONLY QUALIFIED AND TRAINED RESCUE PERSONNEL CAN PERFORM ENTRY RESCUES. NO OTHER PERSONNEL CAN PERFORM ENTRY RESCUES.

#### POST CONFINED SPACE ENTRY PROCEDURES

After the confined space entry work is completed, the space should be returned to its original condition. All lines should be reconnected, unblanked, or unplugged. Facilities electrical safety procedures shall be followed. The manager, TC or controlling contractor's competent person should check and authorize the confined space to be put back into service.

All equipment that was used in the confined space entry should be cleaned and returned to storage for future use. All personal protective equipment (e.g., goggles, suits, and boots) should also be cleaned and stored for future use. If disposable personal protective equipment was used and contaminated with chemicals, it should be put in a container and sent to the chemical waste vault for disposal (as per Safety Policy No. 108, Hazardous Waste Disposal).

If necessary, showers should be provided to workers after the confined space entry operation is completed.

#### List of Permit-required Confined Spaces in Facilities Owned by NYU Langone

**Superblock** 

**Domestic water tanks** 

660 First Avenue roof Skirball 25 (2 tanks)
MSB 10 (2 tanks) Tisch 20 (2 tanks)

Hot water tanks

MSB C007 (1 tank) Tisch 7 West MER (2 tanks)

Acid neutralizing tanks

Coles G-100 Skirball 1 (2 tanks) HCC garage Smilow cellar/ground

MSB 1, Medical Library

**Fuel oil vaults** 

MSB ground Smilow cellar

Skirball G-037 and G-047 (2 vaults) Tisch Receiving parking area

660 First Ave cellar

Reverse osmosis tank

Skirball 6

Vacuum and air tanks

MSB C 023, (3 tanks)

Sump pits (greater than 4 feet deep)

Greenberg SC2(2 pits) MSB C 068 Tisch C 21A HCC C-9A (2 pits) Schwartz East Tisch C 56 HCC C-52 West MER Schwartz West Tisch 160

MSB C006 Skirball (7 pits) MSB C 031A Smilow (5 pits)

**Crawl Spaces** 

660 First Ave 3<sup>rd</sup> floor Radiology Computer Storage Room (above Cytology Lab)

**Clinical Cancer Center** 

Domestic water tank, roof

Fuel Storage Tank - Room LL213

**HJD** 

Water tanks Sewer/ejector pit, SC3, C-304, Men's

Cold water tank, C1, C-119 Locker Room

Hot water tanks, C1, C-119 (2 tanks) Sewer/ejector pit, SC3, C-316, Maint.

Shop

Fuel oil vault

Fuel oil tank, SC3 by Passenger Storm pits

Elevators Storm pit, SC3, C-304, Men's Locker

Room

**Ejector pits** Storm pit, SC3, C-316, Maint. Shop

## List of Permit-required Confined Spaces in Facilities Owned by NYU Langone

#### **Energy Building**

## **Exhaust System**

Access hatch for exhaust breach to Boiler #1
Access hatch for exhaust breach to Boiler #2
Exhaust Duct for Gas Turbine/Boilers
Gas Turbine Exhaust (two hatches)

HRSG Exhaust Stack #1 HRSG Exhaust Stack #2 Roof exhaust access hatch

#### Boiler #1

Boiler #1 North Steam Drum (two hatches) Boiler #1 North Mud Drum (two hatches) Boiler #1 entrance Wind Box for Boiler #1

Boiler #1 Fan

#### Miscellaneous

Blow down tank Condensate receiver Condensate Polisher West Condensate Polisher East

De-aerator

#### **Ambulatory Care Center (ACC)**

Tank ACC-01

#### Translational Research Building (TRB)

Tank TRB-01

# 673 1st Avenue – CMC and OSC

Tank # 001 Tank # FOT-1

# Nelson Institute for Environmental Medicine - NIEM Underground fuel oil tanks

Tank E Tank S2

Revised: 02/2017

#### **HRSG**

HRSG Center (two hatches) HRSG CO Catalyst Chamber HRSG Ammonia Injection Chamber

TRSG Aminoma injection Chamber

**HRSG Steam Drum** 

HRSG Mud Drum East (two hatches) HRSG Mud Drum West (two hatches)

#### Boiler #2

Boiler #2 South Steam Drum (two hatches) Boiler #2 South Mud Drum (two hatches) Boiler #2 entrance Wind Box for Boiler #2 Boiler #2 Fan

Water Storage Feed Tank Ammonia Tank Hatch on Exhaust Breach for Gas Turbine Fuel Oil Tank Vault Sumps and Ejector Pits (3 pits)

# List of Permit-required Confined Spaces in Facilities Owned by NYU Langone

# Lutheran

(locations pending)

# Kimmel

(locations pending)

# Science

(locations pending)