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Instructions for

Obtaining Work Authorization Permits

REVISION

Rev No.	DCN No.	Change Summary	Release Date	DCN Initiator	Document Owner
15	DCN0902	Specified "business days" in Section 5.1. Updated contact info in Appendix C WAP Sign- Off Matrix.	3-11-13	Pat O'Dea	Pat O'Dea

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

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1. PURPOSE

- 1.1 The purpose of this document is to ensure work activities at the College of Nanoscale Science and Engineering (CNSE) facility are:
 - 1. Communicated and coordinated with all affected parties (i.e. tenants, departments, etc.);
 - 2. Communicated and coordinated with Facilities;
 - 3. Performed in accordance with EHS policies.

2. SCOPE

- 2.1 Work Authorization Permit (CFM-00004-F1) must be completed any time:
 - 1. Work activities are performed <u>within</u> the facility that will directly impact the facility or facility operations.
 - 2. Work activities performed <u>outside</u> the facility will directly impact the facility or facility operations.
 - 3. Work activities performed within the facility by a contractor, subcontractor or other non-tenant or non-CNSE employee. (Exceptions to this are preventive maintenance or routine work activities performed by contractors. This would include work such as waste collection, chemical delivery and facility equipment preventive maintenance (e.g. elevators, air compressors, chillers, etc.))
- 2.2 These work instructions apply to all CNSE employees, tenant employees, contractors and sub-contractors that are engaged in work activities at the CNSE facility.
- 2.3 These work instructions do not apply to construction activities that shall be performed outside the facility that will not directly impact the facility or facility operations.

3. **DEFINITIONS**

- 3.1 **Work Activity** that requires authorization by using this process is any activity that includes the following:
 - Modifications to HVAC, Plumbing, Electrical, Bulk Gas or Life Safety systems
 - 2. Building or infrastructure reconfiguration

- 3. Any utility shutdown
- 4. Facility type equipment shutdown
- 5. Any utility line entry/break
- 6. Excessive noise, vibration or dust
- 7. Odor Producing Work
- 8. Excavation
- 3.2 **Required Attachments**: The following sub-permit and approval forms shall be attached to the Work Authorization Permit form, if the Work Activity involves any tasks described below:

NOTE: Applicable sections of all permits and forms must be completed at the time of submission.

- 1. <u>Hot Work Permit</u>: Submit a Hot Work Permit form (EHS-00029-F1), if the Work Activity includes the need to perform any welding, cutting, blasting, brazing or soldering.
- Fire Protection System Permit: Submit a Fire Protection System Permit (CFM-00005-F1) anytime work activities within the facility have the potential to affect the fire alarm system and its components including testing, modification and maintenance of the fire system. In addition, when hot work activities will be carried out indoors that will affect the fire alarm system.
- 3. <u>CNSE Crane Work Permit</u>: Submit a CNSE Crane Work Permit form (EHS-00040-F1), if the Work Activity involves use of a crane on site.
- 4. <u>Confined Space Entry Permit</u>: Submit a Confined Space Entry Permit form (EHS-00007-F1), if the Work Activity involves entry into a permit-required confined space (refer to Section 3.0 of EHS-00007 Entry Procedures for Confined Spaces for clarification).
- 5. <u>Energized Electrical Work Permit</u>: Submit an Energized Electrical Work Permit (EHS-00054-F1), if the Work Activity involves the need to perform work on live/energized electrical equipment (refer to Section 9.0 of EHS-000054 Electrical Safety Program for clarification).
- 6. <u>Floor Tile Removal Approval Form</u>: Submit a Floor Tile Removal Approval Form (EHS-00032-F1), if the Work Activity involves the need to remove a floor tile in the NFN or NFSX cleanrooms.
- 7. <u>Design Review Checklist</u>: Submit a Design Review Checklist form (EHS-00038-F1), if the Work Activity involves; the need to alter or modify any exits or means of egress, or any changes or modifications to life safety, HVAC, utility or plumbing devices.

- 8. <u>Dirty Work Permit Application</u>: Submit a Dirty Work Permit Application form (CFM-01005-F1), if the Work Activity involves the need to potentially create any additional particulates in any of the cleanroom environments.
- 9. Non-Routine Hazardous Work Permit: Submit a Non-Routine Hazardous Work Permit form (EHS-00062-F1), to perform a non-routine task, experiment or unplanned maintenance that involves Hazardous Production Materials (HPMs).
- TGMS Modification Sub-Permit: Submit a TGMS Modification Sub-Permit (CFM-00008-F1), if the work activity involves modification of an existing certified and operational TGMS system or system component.
- 11. IT Network Modification: Submit a copy of CNSE IT Help Desk Ticket if the work activity involves modification (moves, adds, changes and configuration changes) to the existing IT network. In turn, CNSE IT will create a SUNY Helpdesk ticket so the 'system owner' (SUNY IT) can make the requested changes. CNSE Helpdesk tickets can be obtained at cnsehelp@albany.edu. For planning purposes please allow ten (10) business days for CNSE/SUNY IT to schedule and complete work requests.
- 12. Non-Hazardous Gas Line Break Sub-Permit: Submit a Non-Hazardous Gas Line Break Sub-Permit (CFM-00011-F1) anytime work activities within the facility require breaking any of the "identified" (see CFM-00011) non-hazardous gas connections on existing lines.
- 13. Other: If necessary, other submissions or back-up documentation that must be attached to the Work Authorization Permit include:
 - Approved S.U.N.Y. Building Permits: required for modifications made to the building or its associated infrastructure (for details reference: http://www.albany.edu/ehs/code getpermit.html.)
 - Approved 'Red-Lined' Piping and Instrumentation Drawings (P&IDs): required for utility changes or tool modifications.
 - Work Plans: required to explain activities that are not normally performed on site.
 - <u>Dig-Safely Clearance</u>: required when excavations shall be performed on site to demonstrate that the area has been cleared to perform the excavation.
 - Odor Producing Notices: shall be posted in areas that will be affected by odors expected to be produced by work being performed. Such notices should include the expected odor and the duration for the work being performed.

3.3 Job Safety / Hazard Analysis (JSA or JHA)

If any of the above work tasks, that require completion of a Work Authorization Permit, require additional Personal Protective Equipment (PPE) beyond the use of a hard hat, safety glasses, and/or leather gloves, a Job Hazard Analysis (JHA) and PPE Selection Form (EHS-00010-F1) must be completed and attached to the Work Authorization Permit.

- 3.4 **Permit 'Requestor'**: is the person performing the work listed on the permit. Phone number listed on the permit must be a cell phone number or number where 'Requestor' can be reached, not an office number.
- 3.5 **Permit 'Company'**: is the company or group performing the work. This should list the subcontractor and contractor, if necessary (i.e. ABC Contractors, Inc. for XYZ Construction Management, Inc.)
- 3.6 **Permit 'Work Sponsor'**: is the person the work is being performed for firm and name to be listed on the permit. **This person must be a CNSE employee or tenant employee.**
- 3.7 **Bldg./Location:** List the building name, where work will be performed.
- 3.8 **Level/Rms.**: List the level and all room numbers where work will be performed.
- 3.9 **Permit 'System Owner Authorization'**: 'System Owner Authorization' is required by signature of the system owner whenever a new system is installed in an existing facility or an existing system is expanded or modified.
- 3.10 **Notifications:** The Permit Requestor and/or Work Sponsor shall be responsible to make notifications to coordinate and communicate the work with the affected parties. This may include but not be limited to, those listed on the 'Notifications' section of the permit or others listed in 'Additional Conditions / Concerns'.
- 3.11 **Roof Top Work:** Requires workers to check-in at the Security Desk in NFE (NanoFab East) prior to accessing a roof. Security will record the worker's cell phone numbers to facilitate notification to evacuate in the event of an emergency.

3.12 ERT (Emergency Response Team) Work Schedule:

Day 1:

Sunday, Monday, Tuesday and every other Wednesday – 7:00am –7:30pm.

Day 2:

Thursday, Friday, Saturday and every other Wednesday –7:00am-7:30pm.

Night 1:

Sunday, Monday, Tuesday and every other Saturday – 7:00pm -7:30am.

Night 2:

Wednesday, Thursday, Friday, and every other Saturday - 7:00pm -7:30am.

4. RESPONSIBILITIES

- 4.1 Compliance with this procedure is the responsibility of the tenant or CNSE employee responsible for the Work Activity.
- 4.2 All approval signature parties should be available to sign the Work Authorization Permits daily. In the event that such parties are unavailable they must designate a back-up signature party to sign such permits in their absence.

5. PROCEDURE

- A Work Authorization Permit shall be completed and submitted three (3) business days prior to scheduled start of the work. This is to allow sufficient time to determine potential impacts of work activities and coordinate them with the appropriate parties. Permits may not be submitted one (1) business day prior to the start of work.
- 5.2 The permit form shall not be modified (e.g. addition of contractor logo, etc.).
- A permit for work that is considered necessary, due to an urgent situation, will be processed the same day the permit is submitted to expedite the work. Expediting permits, in this manner, will be done at the discretion of the permit signatories and shall not diminish the requestor's responsibility to schedule and coordinate work activities.
- In addition to a Work Authorization Permit, the requestor shall attach all applicable sub-permits and/or a JHA (Job Safety / Hazard Analysis) depending on the type of work being performed. See Appendix A Work Authorization Permit System Flow Chart.

- The requestor shall submit the permit for review at the daily permit meeting and obtain the necessary signatures. 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.
- 5.5.1 The following sub-permit forms must be completed by requestor and approved by EHS (Environmental Health & Safety) staff <u>prior to submitting the Work Authorization Permits:</u>
 - 1) Non-Routine Hazardous Work
 - 2) Energized Electrical Work
 - 3) Design Review Checklist
- 5.5.2 All sub-permits or work activities that require additional sign-off and support from CNSE departments must be scheduled with the affected CNSE person three days prior to the event. The CNSE person who has agreed to support this activity must also sign-off on the Work Authorization Permit to confirm their availability. The CNSE EHS department does not support work performed on Friday nights or over weekends.

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.

- Two (2) copies of the Work Authorization 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. In addition, two (2) copies of all subpermits or other attachments shall be submitted.
- Approved permits shall be returned to the requestor after approval. 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.
- 5.7.1 Requestors are required to promptly retrieve Work Permits so they a) can confirm they have been approved and work can proceed and b) be made aware of any 'additional conditions or concerns' that may be required as part of the work.
- 5.7.2 The requestor shall have a copy of the approved permit and sub-permit available for review upon request by CNSE representatives (e.g. EHS, FOG, etc.) at the work site location.

- 5.7.3 The following sub-permit forms must be completed by the requestor and approved by ERT (Emergency Response Team) staff <u>prior to the start of work:</u>
 - 1) Hot Work
 - 2) Confined Space Entry
 - 3) Crane Lifts
- 5.8 A 'Work Authorization Permit Instructional Form' is provided for reference and example in Appendix B.
- 5.8.1 A 'Work Authorization Sign-Off Matrix' is provided for reference and example in Appendix C. This lists the names of those who can sign off for various areas of responsibility.
- Work Authorization Permits (WAPs) shall be in effect for a one (1) week period. For work lasting more than one (1) week, WAPs must be resubmitted as an extension to an existing permit and re-approved. The WAP form shall be modified to accurately reflect the ongoing work (change in scope, dates, etc.), the checkbox in the upper left-hand corner of the form checked ("Check to Extend an Existing Permit") and the form submitted for approval.
- 5.10 Security shall review work permit activities to ensure they are coordinated with the Facility Events calendar. Work considered to impact or interfere with events may not be approved and will need to be rescheduled.

The Events calendar is available at:

http://cnse.albany.edu/Calendar/index.cfm?InstanceID=574&ViewType=EventList

6. RECORDS

6.1 Completed Work Authorization Permits shall be kept on file (electronically) by the Facilities Department for at least three years.

7. VIOLATION

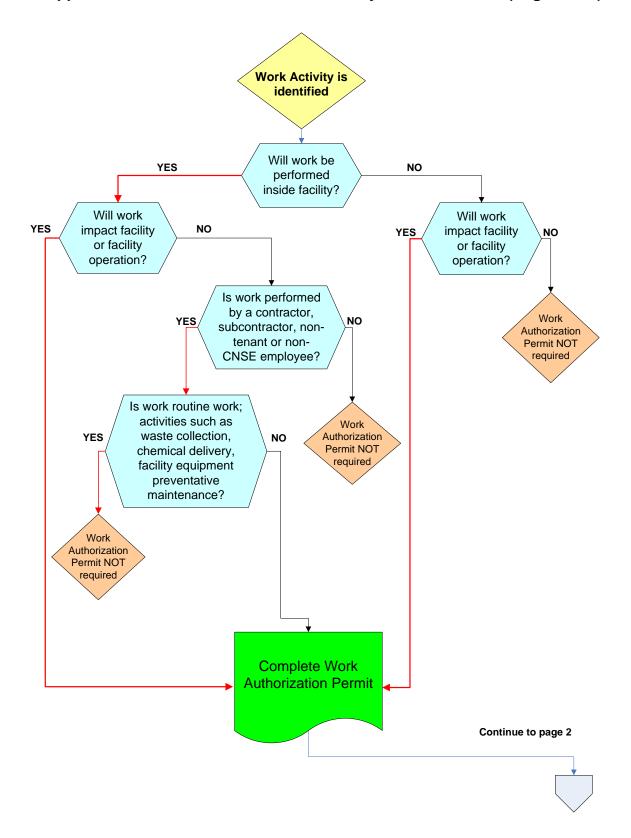
7.1 If any employee, tenant employee, contractor or sub-contractor chooses to disregard or violate any of the instructions provided in this procedure such parties must submit in writing the reason for violating this protocol and have such reasoning approved by all signature parties.

7.2 If any employee, tenant employee, contractor or sub-contractor violates this protocol three of more times their badges will be revoked and they must reapply for badge access to the site.

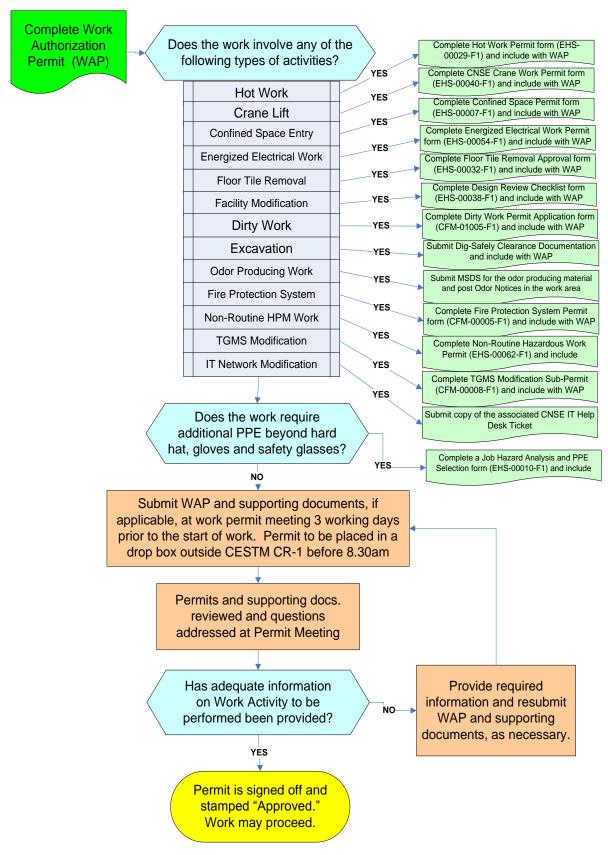
8. APPENDIX

- 8.1 **Appendix A** Work Authorization Permit System Flow Chart
- 8.2 **Appendix B** Work Authorization Permit Sample
- 8.3 **Appendix C** Work Authorization Permit Sign-Off Matrix

Appendix A – Work Authorization Permit System Flow Chart (Page 1 of 2)



Page 2 of 2 - Work Authorization Permit System Flow Chart



Appendix B – Work Authorization Permit Sample (See CFM-00004-F1 for Actual Blank Work Authorization Permit)

COLLEGE OF NANOSCALE SCIENCE & ENGINEERING UNITERITY AT ALBERT Size-throughout Start State		WORK AUTHORIZATION PERM			PERMIT	Form Number/Rev # CFM-00004-F1 R14 X1			
Check to Extend an Ext				□ Ch	Check to Identify Weekend Work				
Requestor: Person pe									
Work Sponsor (Name & Co.): Who work is being performed for – firm & name. MUST BE CNSE or TENANT employee CNSE Contact Information Bldg. / Location: Bldg. Name Level / Rms: #'s or Areas									
Emergency Phone #	437-881	7 (Office) Security 8		968-7082 (Office		u, M, Tu, W - 862-8818 / 729-8604			
(618) 437-8800 Facilitie Work Information	6: Pat O'Dea 281-74	ar (Cell) Fire syste	ems: Rob Willey	926-2201 (Cell)	ER12: W	, Th, F, Sa - 928-7241 / 928-7358			
Work Summary: One sentence description of work to be performed.									
Tools/Equip. Affected:	Cleanroom tool	s and/or equipment aff	ected by the w	ork.					
Systems Affected:	System affected	d by the work.							
Duration of Work:	Anticipated dura	ation of the work (e.g.	4 hours)						
Possible Alarms:	Alarms that will be or could be affected.								
Description of Work: Description of What the work will entail.									
Precautions:	Precautions taken to prevent alarms or system modification.								
Notifications:	Security		HS/ERT FOG WWT/UPW AIr L		ir Liquide B	ulk Gas			
	Odor Producing I			loof Top Work					
Required Attachments:	☐ Hot Work"	☐ Confined Space Entry* ☐ TGMS Modification	☐ Energized E		Job Hazard Analysis Dirty Work	Floor Tile Removal			
 Requires ERT Approval Prior to Start of Work 	☐ IT Network Modif					ower-Actuated Fastener Tool			
	□ Non-Hazardous (☐ Other				
Additional Conditions / Concerns									
System Owner Authorization	Name:		Initials:	Name:		Initials:			
Job Start Sign-On						Rejected:			
SUNY Facility Representati	ve: Pa	at O'Dea / Tom Moseman	/ John Woodbe	ck	Date:				
SUNY Cleanroom Q.C. Rep	resentative: Ja	ck DeRusso / Dalsy Colo	n / Dawn Leto		Date:				
SUNY Fire Systems Repres	entative: Ro	Rob Willey / George Pauley / Robert Murray			Date:				
SUNY Safety Representative	Sue Traudt / Jerry Quint / Jennifer Trodden			Date:					
CSR Cleanroom Represent	ob Young / Jim Smith / Jeff Dittmar			Date:					
SUNY Cleanroom Represer	ntative(s): Ra	Ray Michael / Justin Metzger / Tim Stoner			Date:				
	4 □ G450C: Se	ee Work Authorization Pe	rmit Sign Off Ma	trfx	Date:				
OTHER:	Se	ee Work Authorization Pe	rmit Sign Off Ma	trtx	Date:				

Appendix C – Work Authorization Permit Sign Off Matrix

Work Authorization Permit Sign Off Matrix

Revised Mar-13

Area of Responsibility	Primary	Contact #	Secondary	Contact #	Tertiary	Contact #
SUNY Facility Representative	Pat O'Dea	281-7487	Tom Moseman	320-4620	John Woodbeck	858-6874
SUNY Cleanroom Q.C. Representative	Jack DeRusso	488-2477	Daisy Colon	391-5780	Dawn Leto	860-5716
SUNY Fire Systems Representative	Rob Willey	925-2201	George Pauley	956-7082	Robert Murray	956-7082
SUNY Safety Representative	Jon Hellman	390-6602	Jerry Quint	320-2403	Jennifer Trodden	225-8307
CSR Cleanroom Representative	Bob Young	813-6785	Jim Smith	817-9788	Jeff Dittmar	364-2376
SUNY Cleanroom Representative(s)	Ray Michael	320-7964	Justin Metzger	320-5965	Tim Stoner	469-0585
A-L (Air Liquide) Representative	Pat Reddix	605-5570	John DeRusso	860-0426	John Lehde	605-4709
ISMT (SEMATECH) Representative	Bob Sherman	649-1109	James Beasley	649-1217	Steve Shaw	925-9454
TEL (Tokyo Electron) Representative	Don Bromley	391-9125	Don Kinsey	435-5445	n/a	n/a
LAM Representative	Steve Ellinger	233-0645	Mike O'Brien	265-8495	Shawn Tatro	859-6215
G450C Representative	Darren Brookhart	364-4345	Pete Moschak	441-8284	Chris Borst	281-6466

Note: Individual 'system owner' signature may be required as well. See 'System Owner Matrix' for this information.