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Instructions
for
Obtaining Work Authorization Permits

REVISION

Rev No.	DCN No.	Change Summary	Release Date	DCN Initiator	Document Owner
28	DCN1663	Update Work Authorization Permit Sign Off Matrix - AMAT Representatives	2-8-19	M. Rose	Pat O'Dea

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

1. PURPOSE

1.1 The purpose of this document is to ensure work activities at the Colleges of Nanoscale Science and Engineering (CNSE) at SUNY Polytechnic Institute 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 within the facility that will directly impact the facility or facility operations.
2. Work activities performed outside 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:

1. 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. Hot Work Permit: 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.
2. 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 any work activities carried out indoors or outdoors (alleys, rooftops, near air intakes, etc.) will affect the fire protection systems with hot work, dust generation, smoke generation, etc.
3. Confined Space Entry Permit: 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).
4. CNSE Crane Work Permit: Submit a CNSE Crane Work Permit form (EHS-00040-F1), if the Work Activity involves use of a crane on site.
5. Power-Actuated Fastener Tool Permit: Submit a Power-Actuated Fastener Tool Permit form (EHS-00065-F1), if the Work Activity involves use of these tools on site.
6. Scaffolding Permit: Submit a Scaffolding Permit form (EHS-00074-F1), if any kind of scaffolding will be erected, altered, or dismantled on site.
7. Energized Electrical Work Permit: 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).

8. Floor Tile Removal Approval Form: 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.
9. Design Review Checklist: 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.
10. Dirty Work Permit Application: 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.
11. 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).
12. 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.
13. 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@sunypoly.edu. For planning purposes please allow ten (10) business days for CNSE/SUNY IT to schedule and complete work requests.
14. 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.
15. 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: CFM-00004A External Appendix A: 2014 Construction Permit Request.)
 - 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.

- **Dig-Safely Clearance:** required when excavations shall be performed on site to demonstrate that the area has been cleared to perform the excavation.
- **Odor Notification Signs:** shall be posted in areas affected by odors produced or expected from work being performed. Notices shall be posted in accordance with 'Odor Producing Notification' Procedure (EHS-00073), using the Odor Notification Sign (EHS-00073-T1).

3.3 Hazard Assessment (HA)

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 Hazard Assessment (HA) 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 (e.g. 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 **Urgent Situation:** a situation requiring immediate action or attention. Including but not limited to utility outages, work to restore equipment redundancy, cleanroom 'tool down' situations.
- 3.13 **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

- 5.1 The permit form shall not be modified (e.g., addition of contractor logo, etc.).
- 5.2 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.
- 5.3 Permits may not be submitted the same day as the start of the work. Exceptions to this will be made on a case by case basis for 'urgent situations'.
- 5.4 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. This includes applicable sub-permits (i.e., daily fire protection permits) to prevent impact to facility operations and adherence to safety protocols.

- 5.5 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.
- 5.6 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 prior to submitting the Work Authorization Permits:
- 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.
- 5.7 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 sub-permits or other attachments shall be submitted.
- 5.8 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 prior to the start of work:
- 1) Confined Space Entry
 - 2) Crane Lifts
 - 3) Hot Work
 - 4) Power-Actuated Fastener Tool
 - 5) Scaffolding
- 5.9 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.
- 5.10 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.
- 5.11 Security shall review work permit activities to ensure they are coordinated with the Facility's Events calendar. Work considered to impact or interfere with events may not be approved and will need to be rescheduled.

For Upcoming Events at the CNSE Facility:

[CNSE Events\Upcoming Events](#)

For Upcoming Events at Kiernan Plaza:

[CNSE Events\Kiernan Plaza Upcoming Events](#)

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 or more times their badges will be revoked and they must re-apply for badge access to the site.

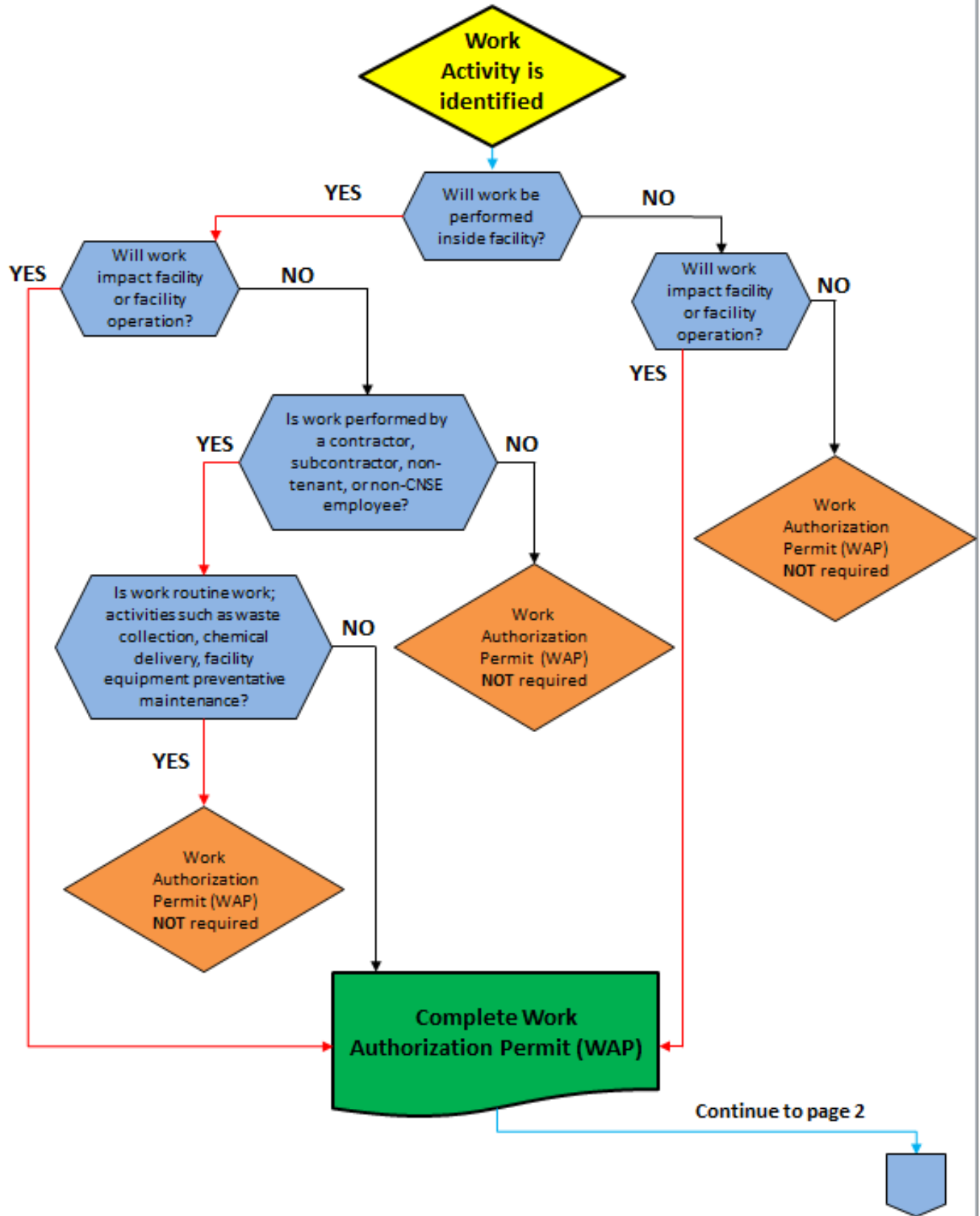
8. APPENDIX

- 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

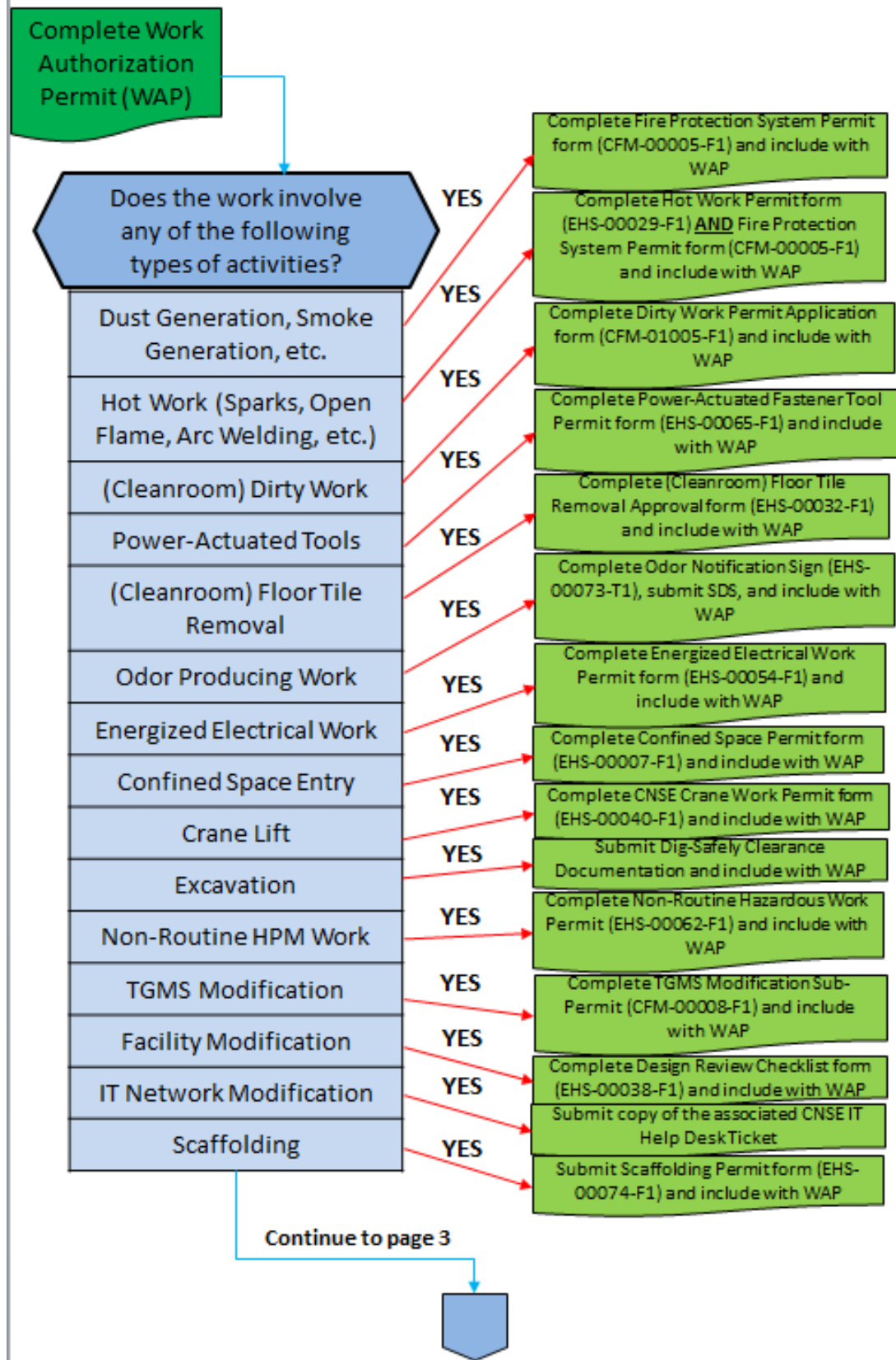
9. ASSOCIATED DOCUMENTS

- 9.1 **CFM-00004A External Appendix A** – 2017 SUNY Poly Construction Permit Request
- 9.2 **CFM-00004A-F1** – SUNY Poly Construction Permit Application

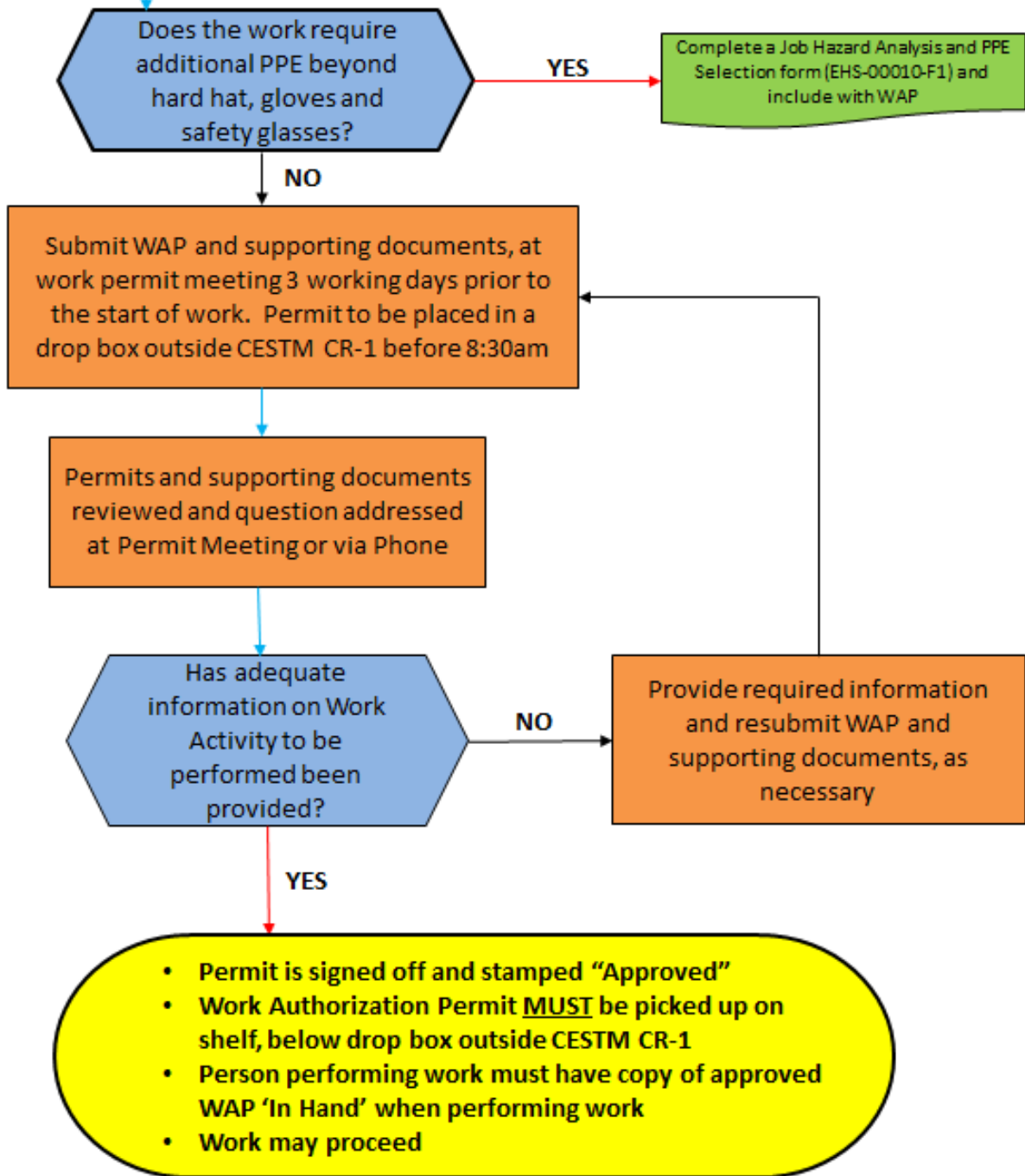
Appendix A – Work Authorization Permit System Flow Chart (Page 1 of 3)




Page 2 of 3 – Work Authorization Permit (WAP) System Flow Chart



Page 3 of 3 – Work Authorization Permit System Flow Chart



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

 <p>COLLEGES OF NANOSCALE SCIENCE + ENGINEERING SUNY POLYTECHNIC INSTITUTE</p>	WORK AUTHORIZATION PERMIT	Form Number/Rev # CFM-00004-F1 R18
<input type="checkbox"/> Check to Extend an Existing Permit		<input type="checkbox"/> Check to Identify Weekend Work
Requestor Information		
Requestor: <u>Person performing the work</u>	Cell Phone #: <u>Requestor's cell #</u>	Start Date: _____ Time: _____
Company: <u>Company/group performing work (i.e. subcontractors, not contractors)</u>	End Date: _____	Time: _____ <small>(1 week maximum)</small>
Work Sponsor <small>(Name & Co.):</small> <u>Who work is being performed for - firm & name. MUST BE CNSE or TENANT employee</u>	Bldg./ Location: <u>Bldg. Name</u>	Level & ALL Rm. #s or Areas: _____
CNSE Contact Information		
Emergency Phone # (513) 437-3900	437-3317 (Office) Facilities: Pat O'Dea 231-7437 (Cell)	Security & Fire Systems: Rob Willey 826-2201 (Cell)
866-7032 (Office)	ERT1: Su, M, Tu, W - 868-1237 / 728-8604	ERT2: W, Th, F, Sa - 410-3836 / 868-0606
Work Information		
Work Summary:	One sentence description of work to be performed.	
Tools/Equip. Affected:	Cleanroom tools and/or equipment affected by the work.	
Systems Affected:	System affected by the work.	
Duration of Work:	Anticipated duration 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 impact to people, equipment, facilities & systems.	
Notifications:	<input type="checkbox"/> Security <input type="checkbox"/> EHS/ERT <input type="checkbox"/> FOG <input type="checkbox"/> WWTU/PW <input type="checkbox"/> Air Liquide <input type="checkbox"/> Bulk Gas <input type="checkbox"/> Odor Producing Notice <input type="checkbox"/> Evacuation <input type="checkbox"/> Ship / Rec. <input type="checkbox"/> Roof Top Work	
Required Attachments:	<input type="checkbox"/> Hot Work* <input type="checkbox"/> Confined Space Entry* <input type="checkbox"/> Energized Elect. Work <input type="checkbox"/> Job Hazard Analysis <input type="checkbox"/> Scaffolding* <input type="checkbox"/> Crane Lifts* <input type="checkbox"/> TGMS Modification <input type="checkbox"/> Design Review Checklist <input type="checkbox"/> Dirty Work <input type="checkbox"/> Fire Protection <small>* Requires ERT Approval Prior to Start of Work</small> <input type="checkbox"/> IT Network Modification <input type="checkbox"/> Non-Routine Hazardous Work <input type="checkbox"/> Dig Safety NY Clearance <input type="checkbox"/> Power-Actuated Fastener Tool* <input type="checkbox"/> Non-Hazardous Gas Line Break <input type="checkbox"/> (Cleanroom) Floor Tile Removal <input type="checkbox"/> Other _____	
Do Not Write Below This Line – FOR SUNY USE ONLY – Do Not Write Below This Line		
Additional Conditions / Concerns	Additional directions, required sub-permits, approvals, etc.	
System Owner Authorization	Name: _____ Initials: _____	Name: _____ Initials: _____
Job Start Sign-On Rejected:		
SUNY Facility Representative:	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
SUNY Cleanroom Q.C. Representative:	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
SUNY Fire Systems Representative:	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
SUNY Safety Representative:	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
CSR Cleanroom Representative:	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
SUNY Cleanroom Representative(s):	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
Other: <u>See Work . Sign Off Matrix</u>	Date: _____	Other: <u>See Work Authorization Permit Sign Off Matrix</u> Date: _____
Other: <u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____	Other: <u>See Work Authorization Permit Sign Off Matrix</u> Date: _____
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Work Authorization Permit Sign Off Matrix

Revised Oct 2018

Area of Responsibility	Primary	Contact #	Secondary	Contact #	Tertiary	Contact #
SUNY Facility Representative	Pat O'Dea	518-281-7487	Tom Moseman	518-320-4620	Mike Waite	518-605-5693
SUNY Cleanroom Q.C. Representative	Ramon Bonafacio	518-605-1814	Robin Paone	518-545-0978	Joe Merrigan	518-858-9875
SUNY Fire Systems Representative	Joe Kosakowski	518-491-5445	Al Craver	518-330-3630	Tom Vadney	518-466-4957
SUNY Safety Representative	Dan Greenlee	518-545-6376	Jon Hellman	518-390-6602	Darren Brookhart	518- 364-4345
CSR Cleanroom Representative	Bob Young	518-813-6785	Jeff Dittmar	518-364-2376	Nick Granuzzo	845-380-0651
SUNY Cleanroom Representative(s)	Ray Michael	518-320-7964	Justin Metzger	518-320-5965	Tim Stoner	518-469-0585
A-L (Air Liquide) Representative	James Mise	518-605-1967	John DeRusso	518-860-0426	Jeff King	518-605-4806
TEL (Tokyo Electron) Representative	Don Bromley	518-391-9125	Don Kinsey	518-435-5445	n/a	n/a
LAM Representative	Steve Ellinger	518-233-0645	Mike O'Brien	518-414-2159	Elvin Orantes	518-859-6215
PEMC Representative	Pete Reilly	518-703-3562	Andrew Peters	518-925-8979	Steve Shaw	518-925-9454
AIM Photonics Representative	Pete Reilly	518-703-3562	Andrew Peters	518-925-8979	Steve Shaw	518-925-9454
SUNY IT Representative	Andrew Bellinger	315-727-8382	n/a	n/a	n/a	n/a
AMAT Representative	Randall McCory	518-369-0494	Dixton Delancy	518-897-6506	Zachary Hill	518-795-8887

NOTE: Individual 'system owner' signature may be required as well. See 'System Owner Matrix' for this information (FEI-00003).