

Hard copy of this document, if not marked "CONTROLLED" in red,
is by definition uncontrolled and may be out of date.

Instructions
for

Obtaining Work Authorization Permits

REVISION

Rev No.	DCN No.	Change Summary	DCN Initiator	Document Owner
37	DCN3914	Updated emails.	C. Treacy	J. Melino

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

1. PURPOSE

The purpose of this document is to ensure work activities at the Albany NanoTech Complex (ANC) are:

- Communicated and coordinated with all affected parties (i.e., tenants, departments, etc.).
- Communicated and coordinated with Facilities.
- Performed in accordance with NY CREATES Environmental, Health, and Safety (EHS) policies.

2. SCOPE

2.1 A Work Authorization Permit (**CFM-00004-F1**) must be completed when any of the following situations apply:

- Work activities performed within the facility will directly impact the facility or facility operations.
- Work activities performed outside the facility will directly impact the facility or facility operations.
- Work activities performed within or outside the facility will NOT impact the facility but involve the application, inspection, installation, maintenance, removal, repair or replacement of devices, equipment, goods, materials or services.

Exceptions to this are routine work activities performed by contractors or vendors. This would include work such as waste collection, chemical delivery, and facility equipment preventive maintenance (e.g., elevators, air compressors, chillers, etc.). This also includes work by contractors or vendors taking place in the cleanrooms (fab and subfab) on cleanroom tools and/or related support equipment.

However, contractors and vendors are still obligated to comply with site safety and procedural requirements including but not limited to hazard assessments (PPE assessments), Hot Work Permits, Daily Fire Protection Permits, etc.

2.2 Reference Appendix A – Work Authorization Permit System Flow Chart to determine if the work activity requires a Work Authorization Permit.

2.3 These work instructions apply to all employees, tenant employees, contractors and sub-contractors that are engaged in work activities at the ANC.

- 2.4 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.
- 2.5 If a work activity occurs such that it requires building occupants to be evacuated or displaced during the work or if the work severely impacts the daily processes of those in that area, every effort should be made to schedule the work during off-hours (after 5 pm or before 7 am) or on weekends.

3. DEFINITIONS

- 3.1 **Company:** The company or group performing the work.
- 3.2 **Notifications:** Notifications and communications associated with the work taking place that include or should include all affected areas, tenants, parties and employees. This may include but not be limited to those listed in the “Notifications” section of the permit, or others listed in “Additional Conditions / Concerns” section.
- 3.3 **Personal Protective Equipment (PPE) Assessment:** A document that identifies the PPE required in a task or process by defining the hazards and risks associated. For more information, see **EHS-000010 – Workplace Hazard Assessment and Personal Protective Equipment Selection Form**.
- 3.4 **Requestor:** The person performing and/or directly overseeing the work listed on the permit.
- 3.5 **System Owner Authorization:** 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. For a listing of System Owners see **FEI-00003 – Facilities Resource Responsibility Matrix for Facilities System Owners**.
- 3.6 **Urgent Situation:** A situation requiring immediate action or attention. Includes, but is not limited to, utility outages, work to restore equipment redundancy, and cleanroom “tool down” situations.
- 3.7 **Work Activity:** Activities involving the application, inspection, installation, maintenance, removal, repair or replacement of devices, equipment, goods, materials or services.
- 3.8 **Work Sponsor:** The person or group the work is being performed for – firm and name to be listed on the permit. This person must be a NY CREATES employee or tenant employee.

4. RESPONSIBILITIES

- 4.1 Compliance with this procedure is the responsibility of the party responsible for the Work Activity – either the Requestor or the Work Sponsor.
- 4.2 Work Sponsors and Requestors are responsible for submitting Work Authorization Permits in a timely manner to allow for permit processing, notifications, and coordination with impacted parties. This includes any potential required site-wide notifications.
- 4.3 Work Sponsors are to obtain a FEG Project Number and initials from the assigned FEG Project Manager prior to submitting related Work Authorization Permits for approval.
- 4.4 All approval signature parties shall 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. See Appendix C – Work Authorization Permit Sign Off Matrix for names and contact information.

5. ASSOCIATED DOCUMENTS

- 5.1 **FEI-00025** – SOP for Facility Modifications Procedure
- 5.2 **FEI-00025-F1** – Design Review Checklist
- 5.3 **FEI-00025-F2** – Final Inspection Checklist
- 5.4 **FEI-00025-F3** – Construction Permit Application
- 5.5 **FEI-00025-F4** – Code Compliance Review Checklist Part 1 and Part 2
- 5.6 **FEI-00025-F5** – Worksheet A Structural Design

6. PROCEDURE

- 6.1 The permit form shall not be modified (e.g., addition of contractor logo, etc.).
- 6.2 A Work Authorization Permit shall be completed and submitted three (3) business days prior to the 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.
- 6.3 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.
- 6.4 A permit for work that is considered necessary, due to an urgent situation, will be processed the same day the permit is submitted in order 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.
- 6.5 In addition to a Work Authorization Permit, the Requestor shall attach all applicable sub-permits and/or a PPE Assessment or equivalent (Hazard Assessment) depending on the type of work being performed. See **Appendix A – Work Authorization Permit System Flow Chart** for details on this process.
- 6.6 A Work Authorization Permit must be submitted for each trade or type of work. (A General Contractor performing a renovation cannot submit one (1) Work Authorization Permit to cover fire protection, electrical and plumbing work. Each trade / contractor requires their own Work Authorization Permit.)

Reference Appendix B – Work Authorization Permit Instructional Form for clarification on how to complete the form as indicated in the following sections.

Each section of the Work Authorization Permit form is listed below in order as they appear on the form – from top to bottom.

6.7 Extending Permits

If the permit being completed is an extension to an existing permit, the box at the top left of the form must be checked.

6.8 FEG Project # and PM Initials

If the permit being completed is related to a facility modification or FEG (Facilities Engineering Group) project, the FEG Project number must be inserted, and the applicable FEG Project Manager (PM) must initial the permit manually (pen and ink) prior to submission.

6.9 Weekend Work

If the work is occurring over a weekend, the “Weekend Work” box must be checked.

6.10 Requestor Information

Lists information for those on site performing the work, NOT those in remote “office” positions.

- Requestor: The person on site performing or directly overseeing the work.
- Cell Phone #: The cell phone number of the Requestor. Not an office number.
- Company: The employer of the Requestor.
- Work Sponsor: The person the work is being performed for. Include the company or firm name. This person MUST be a NY CREATES or tenant employee (e.g., CSR, IBM, TEL, AMAT, etc.).
- Start Date / Time: The anticipated start date and time of the work.
- End Date / Time: The anticipated end date and time of the work. The duration of work on a Work Authorization Permit cannot exceed seven (7) calendar days*. If the duration exceeds seven (7) days, a new permit must be submitted ‘extending’ the original permit.

NOTE: Work Authorization Permits for long duration “Tool Install” activities may be approved for periods up to thirty (30) days, at discretion of the signatories.

- Bldg. / Location: Must include the name or abbreviation of the building (e.g. NFN, NFX, etc.).
- Level / Rms: The floor and/or room number where the work is taking place.

6.11 Work Information

List detailed information about the work.

- **Work Summary:** One complete sentence providing an overview of the work. Not just one or two words. Listing the project name is helpful (for example, "Renovation of the Nano Lab" or "NY CREATES office space expansion"). Work related to tool install must include a Tool HEX ID.
- **Tools / Equip. Affected:** List the tools or related equipment affected by the work. If more space is required, attach a list.
- **Systems Affected:** List utilities or systems impacted by the work.
- **Duration of the work:** List the length of time to complete the work. Work may only take three (3) days over the period of a week.
- **Possible Alarms:** List alarm systems which could be affected, such as TGMS, Fire Alarm, etc.
- **Description of Work:** Do NOT duplicate the Work Summary above. List a description of the work tasks to be completed during this Work Authorization Permit work period (within Start / End dates). (Examples include "Mechanical system demolition", "Installation of He, N2 and O2 piping", "Patching, prep and painting work".)
- **Precautions:** List precautions taken to prevent impact to people, equipment, and systems.

6.12 Notifications

Indicate departments or groups to be contacted and advised of the work. Also, indicate the types of announcements to be made to inform the those who could potentially be impacted by the work.

Notifications are the responsibility of the Requestor.

6.13 Department / Group Notifications

Notifications shall take place in two (2) phases: the initial notification shall be not less than seven (7) business days in advance of the work, and the second notification shall be not less than two (2) business days (48 hours) in advance of the work.

- Odor-Producing work: Ensure that all occupants of the building and potential adjacent buildings are made aware of the work by posting notifications signs. For full details and an Odor Notification Sign Template refer to **EHS-00073 – Odor Notification Procedure**. If there is a potential for widespread impact, schedule a site-wide communication to potentially impact parties.
- Noise (Sound)-Producing work: Ensure that all occupants of the building and potential adjacent buildings are aware of the work. Prior to the work, schedule a site-wide communication to the occupants of the impacted areas.
- Waste-Generating work: Contact EHS if not general trash or routine waste. For types of waste, refer to **EHS-0009 – Hazardous Waste Management** or contact EHS directly at ehs@ny-creates.org.

6.14 Required Attachments

Work Activity involving any of the tasks described below shall have the following sub-permit and approval forms attached to the WAP form. **NOTE:** The applicable sections of all permits and forms must be completed at the time of submission.

- 6.14.1 Hot Work Permit: Submit **EHS-00029-F1 – Daily Hot Work Permit** if the Work Activity includes the need to perform any welding, cutting, blasting, brazing, or soldering.
- 6.14.2 Confined Space Entry Permit: Submit **EHS-00007-F1 – Confined Space Entry Permit** if the Work Activity involves entry into a permit-required confined space (refer to Section 3.0 of **EHS-00007 – Confined Space Entry Procedure** for clarification).
- 6.14.3 Energized Electrical Safety Permit: Submit **EHS-00054-F1 – Energized Electrical Safety Permit** 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 Procedure** for clarification).

- 6.14.4 PPE Assessment: If any of the above work tasks that require completion of a WAP 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.
- 6.14.5 Scaffolding Permit: Submit **EHS-00074-F1 – Scaffolding Permit** if any kind of scaffolding will be erected, altered, or dismantled on site. One permit needs to be submitted for each week that the scaffold is erect.
- 6.14.6 Crane Work Permit: Submit **EHS-00040-F1 – Crane Work Permit** if the Work Activity involves use of a crane on site.
- 6.14.7 TGMS Modification Sub-Permit: Submit **CFM-00008-F1 – TGMS Modification Sub-Permit** if the work activity involves modification of an existing certified and operational TGMS system, or system component.
- 6.14.8 Design Review Checklist: 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. See **FEI-00025 – SOP for Facility Modifications Requests** for more information.
- 6.14.9 Dirty Work Permit Application: Submit **CFM-01005-F1 – Dirty Work Permit Application** if the Work Activity might involve the need to create any additional particulates in any of the cleanroom environments.
- 6.14.10 Fire Protection System Daily Permit: Submit **CFM-00005-F1 – Fire Protection System Daily Permit** anytime work activities within the facility have the potential to affect the fire alarm system and its components; this includes testing, modification, and maintenance of the fire system. In addition, submit this form 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.
- 6.14.11 IT Network Modification: Submit an IT Help Desk Ticket if the work activity involves modification (moves, adds, changes, and configuration changes) to the existing IT network. In turn, IT will create a Help Desk ticket so the System Owner can make the requested changes. Help Desk tickets can be obtained by emailing helpdesk@ny-creates.org.
- 6.14.12 Non-Routine Hazardous Work Permit: Submit **EHS-00062-F1 – Non-Routine Hazardous Work Permit** to perform a non-routine task, experiment or unplanned maintenance that involves Hazardous Process Materials (HPMs).

- 6.14.13 Dig-Safely Clearance: Required when excavations shall be performed on site, to demonstrate that the area has been cleared to perform the excavation.
- 6.14.14 Power-Actuated Fastener Tool Permit: Submit **EHS-00065-F1 – Power-Actuated Fastener Tool Permit** if the Work Activity involves use of these tools on site.
- 6.14.15 Non-Hazardous Gas Line Break Sub-Permit: Submit **CFM-00011-F1 – Non-Hazardous Gas Line Break Sub-Permit** when work activities within the facility require breaking any of the “identified” (see **CFM-00011**) non-hazardous gas connections on existing lines.
- 6.14.16 Floor Tile Removal Approval Form: Submit **EHS-00031-F1 – Floor Tile Removal Approval Form** if the Work Activity involves the need to remove cleanroom floor tiles.
- 6.14.17 Other: If necessary, other submissions or back-up documentation that must be attached to the Work Authorization Permit include:
- Approved Building Permits: Required for modifications made to the building or its associated infrastructure (for details, reference: **FEI-00025-F3 – Construction Permit Application**).
 - 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.
- 6.14.18 Additional Conditions / Concerns: Leave blank. To be completed by permit approvers who may provide additional directions, request additional required sub-permits, request additional approvals, etc.
- 6.14.19 System Owner Authorization: System Owner authorization may be required due to a new system is installation, existing system modification, expansion, etc.
- 6.15 All sub-permits or work activities that require additional sign-off and support from affected departments must be scheduled three days prior to the event. The employee who has agreed to support this activity must also sign off on the Work Authorization Permit to confirm their availability. The EHS department does not support work performed on Friday nights or over weekends unless planned in advance.

- 6.16 Two (2) copies of the Work Authorization Permit form shall be submitted along with two (2) copies of all sub-permits and two (2) copies of all attachments.
- 6.17 Work Authorization Permits shall be submitted via the drop box mounted to the wall outside CESTM room CR-1 before 8:00 am Monday through Friday.
- 6.18 Permits will be reviewed at the daily permit meeting held in CESTM, Rm. CR-1 from 8:30 am to 9:00 am, Monday through Friday. Note: Permit meetings will not take place on most Federal holidays.
- 6.19 Work Authorization Permits containing all necessary approval signatures shall be stamped "approved". One (1) approved permit shall be returned to the requestor and one (1) approved permit shall be kept by the Facilities Operations Group (FOG) for record.
- 6.20 Approved permits shall be placed on the bottom shelf of the drop box located outside CESTM room CR-1 for pick up in the future. The requestor is responsible for picking up their copy of the approved permits.
- 6.21 Requestors are required to promptly retrieve Work Permits so they can:
- a) Confirm they have been approved and work can proceed.
 - b) Be made aware of any 'Additional Conditions/Concerns' added to the WAP that may be required as part of the work.
- 6.22 The requestor shall have a copy of the approved permit and sub-permit available for review upon request by NY CREATES representatives (e.g., EHS, FOG, etc.) at the work site location.
- 6.23 The following sub-permit forms must be completed by the requestor and approved by the Emergency Response Team (ERT) staff prior to the start of work:
- 1) Confined Space Entry
 - 2) Crane Lifts
 - 3) Hot Work
 - 4) Power-Actuated Fastener Tool
 - 5) Scaffolding

To obtain this approval, ERT must be contacted by calling Security at 518-437-8600.

- 6.24 A Work Authorization Sign-Off Matrix is provided for reference in Appendix C. This lists the names of those who can sign off for various areas of responsibility.
- 6.25 Work Authorization Permits shall be in effect for a one (1) week period. For work lasting more than one (1) week, Work Authorization Permits must be resubmitted as an extension to an existing permit and re-approved. The Work Authorization Permit 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.
- 6.26 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.

7. RECORDS

Copies of “approved” Work Authorization Permits will be kept by the Facilities Operations Group. Hard copies will be kept for three (3) months in a file cabinet in CESTM room B220. Soft copies will be kept indefinitely at the following file location:

- V:\CNSE Construction\Work Authorization Permits

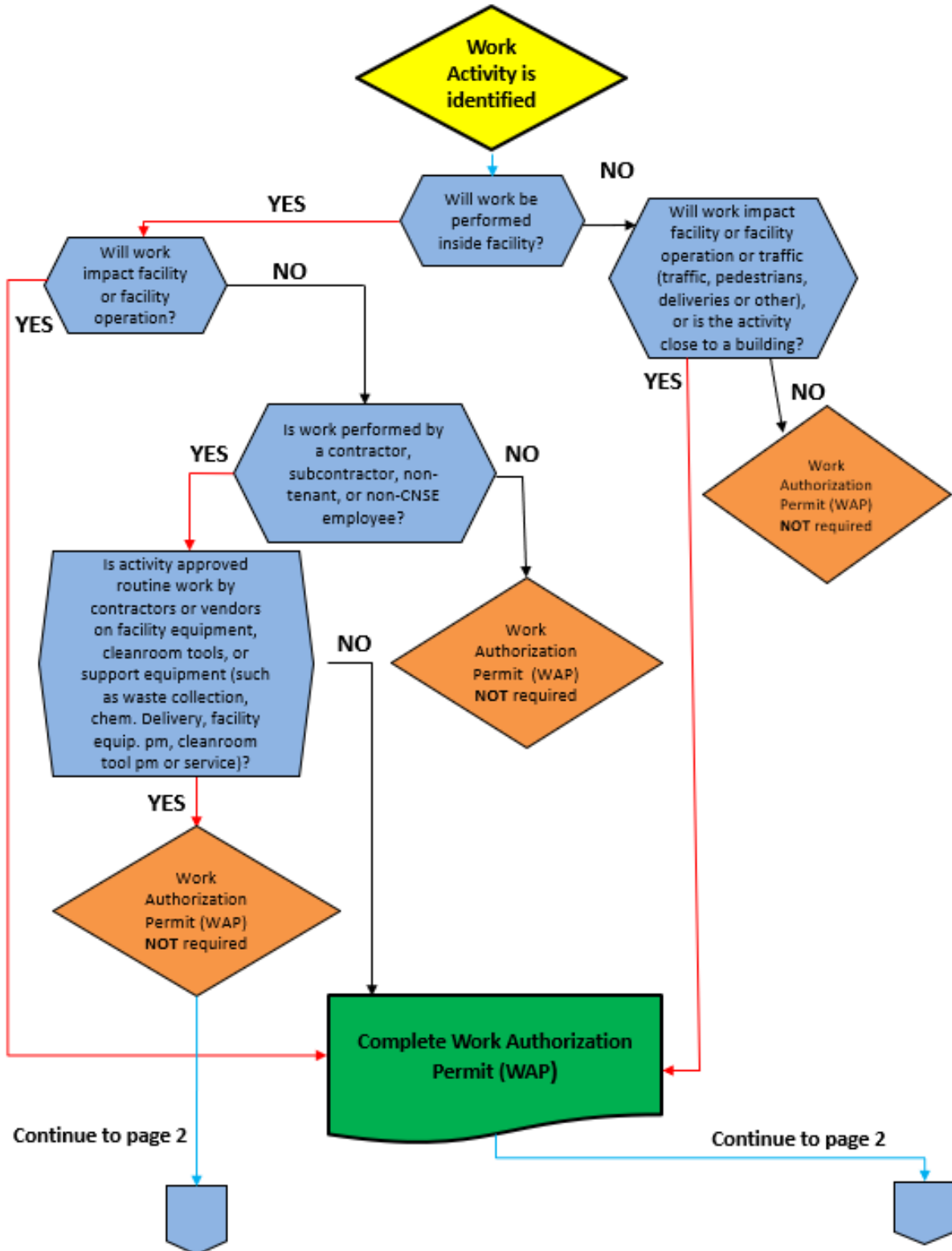
8. VIOLATION

- 8.1 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.
- 8.2 If any employee, tenant employee, contractor or sub-contractor violates this protocol three (3) or more times, their badges will be revoked, and they must re-apply for badge access to the site.

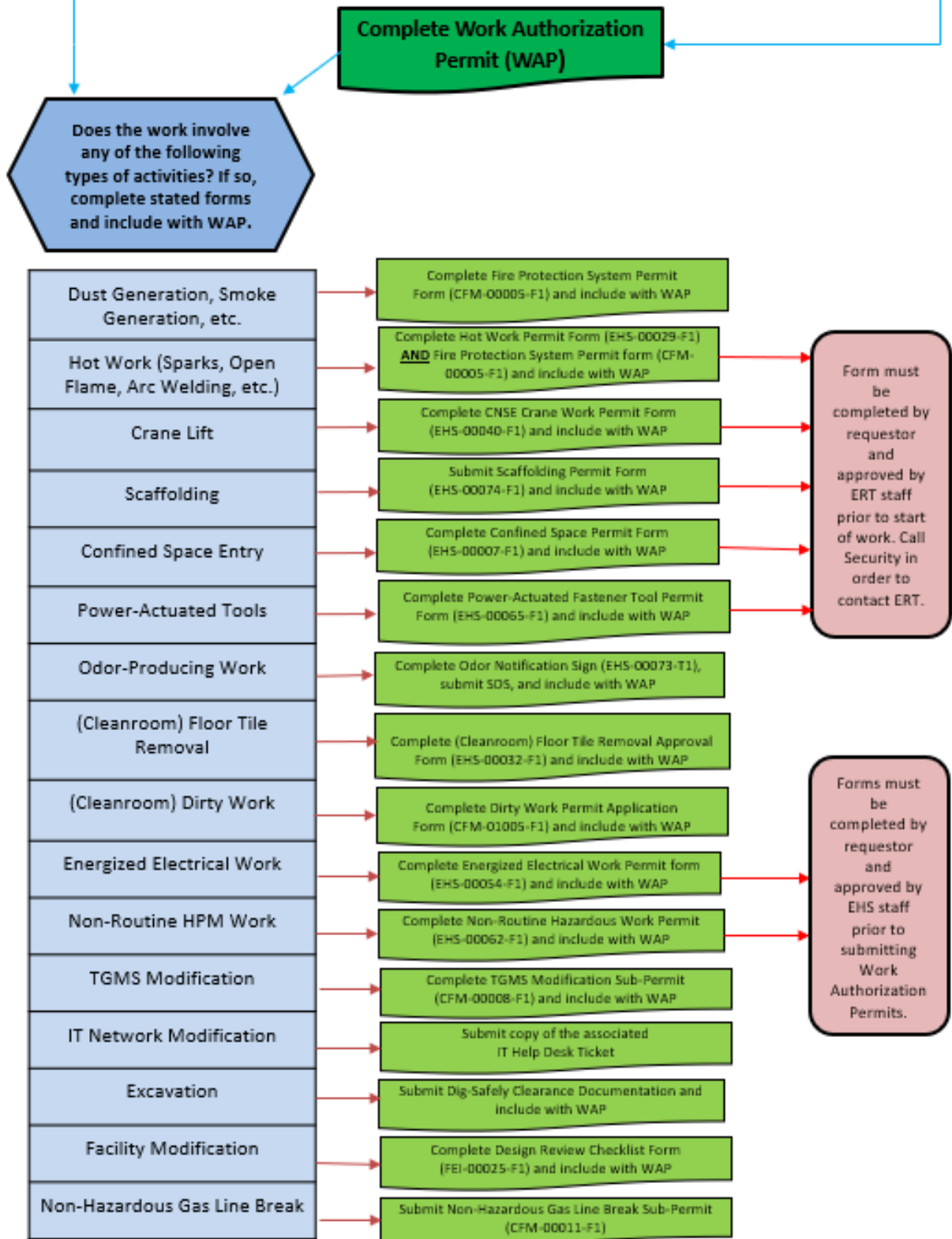
9. APPENDIX

- 9.1 Appendix A – Work Authorization Permit System Flow Chart
- 9.2 Appendix B – Work Authorization Permit Instructional Form
- 9.3 Appendix C – Work Authorization Permit Sign-Off Matrix

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

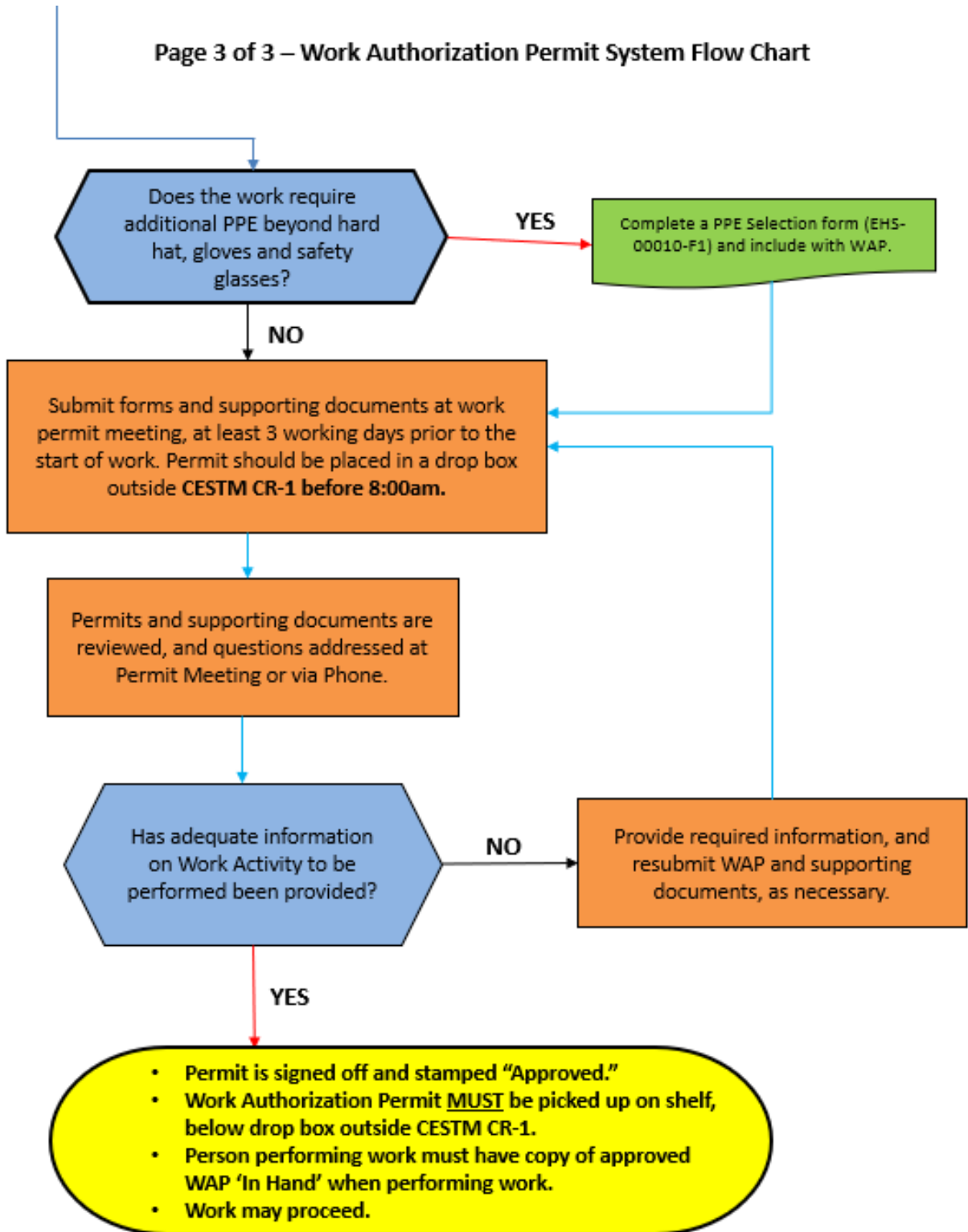


Page 2 of 3 – Work Authorization Permit (WAP) System Flow Chart



Continue to page 3

Page 3 of 3 – Work Authorization Permit System Flow Chart



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

	WORK AUTHORIZATION PERMIT	Form Number/Rev # CFM-00004-F1 R29
<input type="checkbox"/> Extend an Existing Permit FEG Project #: _____ FEG PM Initials: _____ <input type="checkbox"/> Identify Weekend Work		
Requestor Information		
Requestor: <u>Person on site 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: _____
(1 week maximum)		
Work Sponsor (Name & Co.): <u>Who work is being performed for, firm and name. MUST be NY CREATES or TENANT employee.</u>	Bldg. / Location: <u>Bldg. Name</u>	Level / Rms: <u>Level & ALL Rm #s or Areas</u>
NY CREATES Contact Information		
Emergency Phone # and ERT Sub-permit Approval (618) 437-3800 Facilities: Joel Mellino 618-688-9170 (Cell) Security & Fire Systems: Erin Commerford 618-221-4346 (Cell) 618-437-3817 (Office) 618-868-7082 (Office)		
Work Information		
Work Summary:	<u>One sentence description of work to be performed with enough detail to understand what is being done. Reference project name or tool hex ID, if applicable.</u>	
Tools/Equip. Affected:	<u>Cleanroom tools and/or equipment affected by the work.</u>	
Systems Affected:	<u>System affected by the work.</u>	
Duration of Work:	<u>Anticipated duration of the work (e.g., 4 hours).</u>	
Possible Alarms:	<u>Alarms that will be or could be affected.</u>	
Description of Work:	<u>Description of what the work will entail.</u>	
Precautions:	<u>Precautions taken to prevent impact to people, equipment, facilities, and systems.</u>	
Notifications: (Provide representative initials.)	<input type="checkbox"/> Security <input type="checkbox"/> EHS/ERT <input type="checkbox"/> HVAC <input type="checkbox"/> WWT/UPW/BG <input type="checkbox"/> Electrical <input type="checkbox"/> Air Liquide <input type="checkbox"/> Shipping / Receiving <input type="checkbox"/> Odor Producing Notice <input type="checkbox"/> Noise Producing Notice <input type="checkbox"/> Waste Generation <input type="checkbox"/> Evacuation	
Required Attachments:	<input type="checkbox"/> Hot Work* <input type="checkbox"/> Fire Protection <input type="checkbox"/> Energized Elect. Work** <input type="checkbox"/> PPE Assessment <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"/> Confined Space Entry* <input type="checkbox"/> IT Network Modification <input type="checkbox"/> Non-Routine Hazardous Work** <input type="checkbox"/> Dig Safely 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 NY CREATES USE ONLY – Do Not Write Below This Line		
Additional Conditions / Concerns	<u>Additional directions, required sub-permits, approvals, etc.</u>	
System Owner Authorization	Name: _____ Initials: _____	Name: _____ Initials: _____
Job Start Sign-On		
Facility Representative:	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
Fire Systems Representative:	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
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"/>
NY CREATES Cleanroom Representative(s):	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
Other: _____	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>
Other: _____	<u>See Work Authorization Permit Sign Off Matrix</u>	Date: _____ <input type="checkbox"/>

Appendix C – Work Authorization Permit Sign Off Matrix

Revised 4/23/24

Area of Responsibility	Primary	Contact #	Secondary	Contact #	Tertiary	Contact #
NY CREATES Facility Representative	Joel Melino	518-588-9170	Pat O'Dea	518-281-7487	Gary Funck	518-588-7026
NY CREATES Fire Systems Representative	Erin Commerford	518-221-4345	Joe Kosakowski	518-491-5445	Jim Blanchard	518-925-2763
NY CREATES Safety Representative	Glenn Matteson	518-225-9241	Priscilla LaFountain	518-728-3241	Darren Brookhart	518-364-4345
CSR Cleanroom Representative	Bob Young	518-813-6785	Jeff Dittmar	518-364-2376	Nick Granuzzo	845-380-0651
NY CREATES Cleanroom Representative	Justin Metzger	518-320-5965	Dustin Murphy	518-795-7326	Ray Michael	518-320-7946
A-L (Air Liquide) Representative	John DeRusso	518-860-0426	Kirsten Johnson	518-414-9601	Lucas Mitchum	838-250-7838
TEL (Tokyo Electron) Representative	Don Kinsey	518-435-5445	Jimmi Godlewski	518-424-2625	Mike Harding	n/a
LAM Representative	Stefano Gazzelli	407-758-0187	Steve Ellinger	802-233-0645	n/a	n/a
NY CREATES EE / AIM Photonics Representative	Steve Shaw	518-925-9454	Andrew Peters	518-925-8979	n/a	n/a
NY CREATES IT Representative	Ralph Gartner	518-852-2398	n/a	n/a	n/a	n/a
AMAT Representative	Emily Abplanalp	512-962-5112	Chris Nickerson	518-223-3296	Lee Wishart	518-742-6921

NOTE: Individual 'system owner' signature may be required as well.
 See **FEI-00003 – Facilities Resource Responsibility Matrix for Facilities System Owners** for system owners.