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Policy for

DNSE 200mm Cleanroom Access and Process Equipment Operation

REVISION

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6	DCN3534	Changing CNSE to DNSE, minor updates	May 2024	Brian Taylor	Brian Taylor

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1. PURPOSE AND SCOPE

Work in cleanroom and laboratory spaces requires controls to minimize the potential for personal injury, equipment damage, and violations of Non-Disclosure Agreements (NDA). The following statements govern restricted and unrestricted access to labs or cleanrooms operated within the Department of Nanoscale Science and Engineering (DNSE) at Albany NanoTech Complex's CESTM environments for visitors, vendors, tenants, external users, interns (high school and undergraduate), DNSE users (undergraduate students, graduate students, post-doctoral, staff, and faculty), and users of other colleges and universities (graduate students, post-doctoral, staff, and faculty).

2. USER DEFINITIONS AND REQUIREMENTS

- 2.1 Requirements for Visitors / Vendors / First Year Undergraduate Students / High School Interns and students less than 18 years of age
 - Requires escort at all times.
 - Access Level: Escort-Required or General Access (Badge issued by Access Control through Security per CNSE Badge Issuance Procedure, ANT-00001; provides no magnetic strip card, swipe card, or key access to labs or offices.)
- 2.2 Requirements for New CNSE Undergraduate Interns, Research Assistants
 - Requires escort until they receive formal training in lab procedures, cleanroom and safety protocols, and are recommended by their advisor for unsupervised work.
 - Access Level: Escort-Required or General Access (Badge issued by Access Control through Security per DNSE Badge Issuance Procedure, ANT-00001.) General access can be granted after formal training.
- 2.2.1 <u>Unrestricted Access Requirements for CNSE Undergraduate Interns, Undergraduate Students (2nd year and beyond), Research Assistants, Tenants, External Users, Graduate Students, Post-Doctoral, and Staff and Faculty of Other Colleges and Universities</u>
 - Requirements can be referenced in EHS-00027 Policy for Environmental, Health and Safety (EHS) Training Requirements.

2.3	Use of Labs, Process Equipment, and Personal Protective Equipment (PPE)		
2.3.1	No food or drinks are allowed in any lab.		
2.3.2	Working alone is not permitted except in special circumstances where frequent contact arrangements have been made.		
2.3.3	Procedures for DNSE and NY CREATES can be found at http://www.sunycnse.com/ by selecting the "Intranet" link, or at http://intranet.sunycnse.com/ , and must be followed to insure safe operations. This website includes procedures for tool installation, deinstallations and more. Specific information for particular fume hoods, gas cabinets, and other equipment should be referenced where appropriate.		
2.3.4	PPE appropriate to the lab environment must be worn, and absolutely no skirts, shorts, or open toe shoes can be worn in environments where exposure to hazardous chemicals can occur.		
2.3.5	Do not operate equipment unless you are properly trained or supervised in its use by the principal operator, equipment support specialist, or scientist responsible for that specific equipment, as listed on ResourceScheduler (DNSE 200mm Cleanroom Access and Process Equipment scheduling software).		
2.3.6	Process tools which require gases, or solid or liquid chemicals will only use those approved by the Principal Investigator, Cleanroom Innovation Lab Manager, and EHS Department. Changes to approved procedures/processes requires review and approval. A certified list will be posted with the tool.		
2.3.7	Process tools modified or upgraded will require all authorized users to be retrained by the equipment's primary user, equipment support specialist, or responsible scientist. Formal training can occur as a group session or as a "read and signed acknowledgement" document for non-critical information.		
2.3.8	Red tagged equipment is "Not in Service" due to repair or maintenance.		
2.3.9	Authorized equipment and laboratory users are listed on the ResourceScheduler website. The CILM maintains and updates this list when user permissions are granted or equipment changes are made.		
2.3.10	Users must reserve equipment and make a notation in the ResourceScheduler website. In an equipment emergency, follow posted emergency procedures for the equipment and inform the principal operator, equipment support specialist, or scientist in charge of that equipment immediately.		

- 2.3.11 All laboratory doors must be closed and secured.
- 2.3.12 DO NOT let any unauthorized person enter labs or offices. Unauthorized people already inside labs / offices should be politely asked to leave. If you are unsure about an unfamiliar person, politely ask them to identify themselves first to determine whether or not they are authorized to be in that lab/office.
- 2.3.13 Before borrowing any equipment, obtain permission from the primary user. If prior permission had been granted and the primary user is not available, please leave a note with your name, date, time, telephone number, as well as the specific equipment borrowed. Then email the Equipment Support Group with that information.

3. COMPUTER PRIVILEGES

- 3.1 Access to computers and peripheral equipment (printers, scanners, etc.) is a privilege and not a right.
- 3.2 Computers connected to analytical or process equipment are not for general use (e.g. for checking your email).
- 3.3 Download or installation of software onto any analytical or process equipment computer without the prior approval of the Scientific Computing Specialist and the CILM is prohibited.

4. EQUIPMENT MAINTENANCE AND REPAIR

- 4.1 Report equipment problems to the principal operator, equipment support specialist, or scientist in charge of that equipment immediately.
- 4.2 Common use tools that incur maintenance or repair costs will be charged on a prorated basis against all departments using the tool over a calendar year preceding the failure. Service contracts will be used as often as possible to minimize life cycle expenses.
- 4.3 Common use tools damaged due to operator misuse will be charged to that group.

5. FUME HOODS AND WET BENCHES GENERAL SAFETY GUIDANCE

- Unless specifically designated for use as Solvent Only, Acid Only or HF (hydrofluoric) Only, the fume hood may be used with any appropriate chemical or apparatus required for the performance of project investigations and equipment maintenance. See EHS-00053 Local Exhaust Requirement Procedure for details on the proper operation of a fume hood.
- 5.2 Solid Waste must be segregated into the appropriate step can, liquid waste bottled, and tagged as appropriate and limited to a single 1-gallon or smaller container of a type of waste. Full liquid containers must immediately leave the accumulation area and be placed in the designated waste bin in the satellite area.
- 5.3 Full waste containers must be removed and placed in the designated segregated accumulation areas. See **EHS-00009 Hazardous Waste Management Procedure** for details on the correct disposal of hazardous waste.
- Waste must be bagged or bottled, and tagged as appropriate and limited to 1-gallon quantities of bags or bottles.
- 5.5 Waste must be removed daily and placed in the designated segregated accumulation areas.
- Hot plates are not to be operated near waste accumulation, or with the fume hood sash up.
- 5.7 Hot plate operation overnight will require monitoring and engineering controls and written approval from the CILM.
- 5.8 All chemistry must be on the approved EHS list.

6. NEW PROCESS DEVELOPMENT

New processes, new equipment, and existing equipment modification requires a review and written approval from the CILM, Principal Investigator and EHS. This will include a review of facility, floor space (equipment and parts storage), chemicals and storage requirements, and life cycle.

7. RESPONSIBILITIES FOR COMPLIANCE WITH THIS DOCUMENT

- 7.1 Laboratory and process equipment users shall review this document initially and annually during the first week of July. They must sign their name and record the date in the document registry maintained by the CILM.
- 7.2 The CILM is responsible for an annual audit of this document, review and approval of changes, and enforcing compliance.