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**Procedure
for**
Equipment Decommissioning and Removal

REVISION

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10	DCN3950	Email updates	September 2024	M. Kochan	K. Rydberg

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1. PURPOSE

The purpose of this procedure is to ensure all equipment and support systems are decommissioned and removed in a manner consistent with applicable codes, regulations, and sound engineering practices to provide the least risk to employees, the facility, operations, or maintenance activities on the Albany Nanotech Complex.

2. SCOPE

This process applies to any equipment or support system being decommissioned or removed if any of the following criteria are met:

The equipment has a HEXID, and/or equipment associated with it has one, and the machinery or support system is used directly or indirectly used in the testing, research, and development of products or in the operation of the facility.

The equipment or machinery has/is/was, contacted, contained, or contains any of the following:

- Hazardous Production Materials (HPM)
- Electrically Hardwired
- Ionizing or Non-ionizing Radiation
- Mechanical Guarding
- Thermal Hazards
- Robotics or Automation
- Safety Interlocks
- Nanomaterials
- TGMS equipment
- Chambers

By necessity, this document is limited in scope. The Equipment Engineer (EE), or Facilities Engineer shall apply professional judgment and knowledge above that which is included in this specification, and shall comply with the equipment specific decontamination procedures set forth in **EHS-00037 – Policy for Equipment Decontamination**.

Exceptions: Equipment replacement in kind, not involving HPMs are exempt from this procedure.

3. DEFINITIONS

DCN – Design change notification; an upgrade or modification to a current revision of a tool's P&ID installation design package.

HEXID – A letter and number sequence that identifies a tool's Owner/ Tenant, Building Location, Process Tool Type, and Sequence Number.

P&ID – Piping and instrumentation diagram; a diagram which shows the piping of the process flow together with the installed equipment and instrumentation.

4. RESPONSIBILITIES

The NY CREATES, Tenant, Contract or Sub-Contract EE/Tool Owner (TO) is responsible for:

- Obtaining, completing, and complying with the **EHS-00030-F1 Equipment Decommissioning and Removal Sign-off Checklist** requirements.
- Scheduling the necessary sign-offs.
- Obtaining the signatures from appropriate parties.
- Posting a copy of the Equipment Decommissioning and Removal Sign-off Checklist document on the equipment. The copy shall remain with the equipment through final destination.
- Complying with the **CFM-00004 Obtaining Work Authorization Permits** procedure.
- Assessing the effect of decommissioning on neighboring equipment.
- Determining when the equipment HPMS, TGMS, and Fire Alarm System monitoring points can be safely disabled and removed, and obtaining approval from EHS, TGMS System owner / operator and Fire Alarm owner / operator for idling or bypass of TGMS and Fire Alarm System points until they are removed.
- Performing the Equipment Decontamination and Equipment Decontamination Post Certification (**EHS-00037, EHS-00037-F1**).
- If the equipment is an RF Asset, complying with the SUNY RF policy Obsolescence Leading to Surplus or Scrap, and completing the RF Property Status Change Request Form - F110.
- Scanning a copy of **EHS-00030-F1** to EHS for green book closeout.

- Having a formal DCN to the P&ID generated, if decommissioning involves equipment labeled with a HEXID or associated equipment and a change to piping, duct work, or hard wired to electrical system is to occur.

Tool EE is required to meet with Site EHS and FEG, Tenant, and Installation Coordinator or TO to conduct the necessary sign-offs.

EHS is responsible for providing signatures and reviews, in a timely manner, and resolving or escalating all issues on a punch list with which a Site, Tenant, Contract or Sub-Contracted employee/EE/TO or Engineer does not comply with.

5. ASSOCIATED DOCUMENTS

CFM-00004 – Instructions for Obtaining Work Authorization Permits

EHS-00008 – Lockout / Tagout (LOTO) Program

EHS-00008-F1 – Lockout / Tagout Procedure

EHS-00009 – Hazardous Waste Management

EHS-00010 – Personal Protective Equipment

EHS-00010-F1 – Workplace Hazard Assessment and PPE Selection Form

EHS-00015 – NYCREATES Respiratory Protection Program

EHS-00030-F1 – Equipment Decommissioning and Removal Sign-off Checklist

EHS-00037 – Policy for Equipment Decontamination

EHS-00037-F1 – EHS Equipment Decontamination Certification Form

EHS-00062 – Non-Routine Hazardous Work (NRHW) Permit Procedure

SEMI S12-0298 Standard – “Guidelines for Equipment Decontamination”

SEMI S16-0600 Standard – “EHS Guidelines for Semiconductor Manufacturing Equipment Disposal”

Permits, Sub-permits, and additional relevant safety procedures

Form F110 - SUNY Research Foundation (RF) Obsolescence Leading to Surplus or Scrap Policy and RF Property Status Change Request Form

6. SAFETY

Proper Personal Protective Equipment (PPE) must be worn at all times when decontaminating equipment. **EHS-00010 Personal Protective Equipment** may be utilized to determine the appropriate PPE.

Safety Data Sheets (SDS) are available for all chemicals used on site through the internet at <http://cnse.comply1.com/>. SDS shall be reviewed before conducting decontamination determine the hazards and needed precautions for chemicals involved.

All hazardous waste materials generated from decontamination activity must be properly handled, bagged, sealed, and labeled in accordance with **EHS-00009 Hazardous Waste Management**. These wastes include but are not limited to decontamination wipes, residues removed from equipment, parts which cannot be cleaned, and used PPE.

Decontamination work may require the use of a respirator. Any employee who wears a respirator must comply with the **EHS-00015 Respiratory Protection Program** or their company's program.

All hazardous energy source(s) must be locked out and tagged out, so the equipment is isolated from the hazardous energy source(s) (e.g., electrical, chemicals, pneumatic, pressurized pipes). The **EHS-00008 Lockout / Tagout Procedure** or an equivalent procedure must be followed for the work.

Any questions regarding decommissioning procedures, use of PPE, chemical hazards, or waste disposal should be sent to ehs@ny-creates.org.

7. TRAINING

Site, Tenant, Contract or Sub-Contracted employees can perform decommissioning of tools so long as they have completed and are up to date on proper training such as:

- Cleanroom Training
- Hazardous Waste Handling
- Respirator Training (if using a respirator)
- Lockout / Tagout Authorized
- Task-specific training