

## Clean Room After Hours Use

The standard operating hours of the Nanofabrication Facility Clean Room are Monday-Friday, 9am-5pm, excluding holidays. Users are encouraged to work within these hours whenever possible.

After-hours privileges will be granted on an individual basis. A user may only be given after-hours access if they are a certified user of the equipment they wish to operate. The tool owner of the equipment in question will determine if the user can access the equipment after-hours. An additional training session may be required prior to granting this extra level of access. After a user has been granted after-hours access on a specific tool, if they have not used it for more than one month, they must check with the tool owner before using it again after hours.

Users working after hours are highly encouraged to work with another user present in the Clean Room. The buddy system is the safest way to operate in the laboratory and should be used whenever possible. Please plan your experiments accordingly.

All users must sign in on the after-hours log sheet outside the Clean Room entrance. The user has two options to help ensure their safety while working after-hours in the Clean Room: the first option allows the user to work

as long as another authorized user is present anywhere in the Clean Room facility. The second option requires the after-hours user to phone in to SFU Security (dial 778-782-3100) to establish the user's presence in the Clean Room. This second option requires an initial call announcing the user's entry into the Clean Room, mandatory check-in calls to SFU Security every hour, and a final call to establish the user's time of departure from the Clean Room; departing users can use the phone at the entrance to the Clean Room, located near the after-hours log sheets, for this final call to SFU Security.

Failure to make the required check-in calls will result in emergency response by SFU Security, which may include their need to quickly enter the Clean Room. Costs incurred for cleanup of the Clean Room facility following a failure to make the required check-in calls will be assessed against the offending user and his/her company or supervisor. The user also *must* sign out when leaving the Clean Room; failure to sign out will serve as cause to revoke a user's after-hours access.

The required steps to be taken by a lone after-hours user are as follows:

1. Initial call to SFU Security (778-782-3100) upon arrival: provide estimated working time, and establish the exact time for hourly check-in calls to commence.

2. Users must sign in on the after-hours access log at the gowning room entrance.
3. Hourly check-in calls to 778-782-3100 must be made. Users should use the stop watches on lanyards within the gowning room to establish a time prior to 1 hour as a reminder to call Security.
4. A final call must be placed to Security as the user exits the Clean Room, announcing the end of the work session.
5. User must sign out on the after-hours usage log upon exiting the Clean Room.

After-hours access can be revoked for reason without warning. Some examples of reasons to revoke after-hours access include, but are not limited to: acting in an unsafe manner in the Clean Room, improper operation of equipment, using equipment that the user is not certified on, failure to adhere to the buddy system or Security check-in calls, or not following proper cleanliness procedures. After-hours access is a privilege and must not be abused.

Access to the following equipment and processes is prohibited<sup>†</sup> after-hours:

- Tystar tube furnace
- NEXX plasma-enhanced chemical vapour deposition
- Chlorine-based reactive ion etcher (RIE 1)

‡ Prohibited access: Absolutely no user may access this equipment or processes while working after hours.

Following equipment and processes have restricted\* access during after-hours:

- Use of hydrofluoric acid
- Use of any other acids (e.g., Nanostrip, Aqua Regia, Piranha)
- Heating of any organic solvents

\* Restricted access: Only certified users may access this equipment while accompanied by another user who is also certified on the aforementioned equipment and processes. Absolutely no user may access this equipment or processes if working alone, or if accompanied by a user who is not certified to use this equipment or processes.

Following equipment and processes are allowed for certified users after-hours:

- All characterization tools (including probe station)
- Plasma cleaners
- Spin-rinse-dryer
- Spin coating
- Robotic lithography tool
- Photoresist developing

- Optical lithography
- Direct write laser lithography
- Electron beam lithography
- Soft lithography
- Hot plates in spin-coater room
- Ovens
- Fluorine-based reactive ion etcher (RIE 2)
- All physical vapour deposition systems (PVD 1, 2, and 3)
- Rapid thermal processor