DRYTEK QUAD ETCHER CERTIFICATION CHECKLIST

How can a user hurt themselves? How can a user hurt the tool?

A qualified user should be able to:
- Identify personal safety hazards associated with the tool and what precautions are taken to prevent an accident from occurring.
- Identify hazards to the tool and what precautions are taken to prevent an accident from occurring.
- Operate the tool safely and proficiently.
- Recover from simple errors.
- Demonstrate knowledge of the processes performed with the tool.

DRYTEK QUAD ETCHER

- **Personal Safety Hazards**
  - RF Radiation - This equipment can produce dangerous levels of radiation when improperly operated. Do not exceed maximum rated operating specifications. Do not remove or alter the position of shielding installed in any part of the Drytek.
  - Hazardous Gases – The Drytek Quad is operated with various gases: oxygen O₂, Argon Ar, Helium He; some of which are hazardous: Freon 14 CF₄, Freon 23 CHF₃, Sulfur Hexafluoride SF₆, Methane CH₄. Users should have read MSDS for all gases. Do not attempt to defeat protective interlock systems. Evacuate the area immediately if the presence of these gases is suspected and notify SMFL staff member.
  - Mechanical Hazards – Drive assemblies have sufficient power to cause injury. Keep hands, fingers, clothing and tools clear of moving parts. Do not attempt to defeat any of the interlocks.

- **Hazards to the Tool**
  - Do not edit any recipes that begin with the letters “FAC.” These are reserved for the factory class.
  - Wafer size - This tool is only intended for 6” wafers and 6” carriers. Do not use square carriers.
  - Contamination – Do not process wafers with gold or copper on them.

- **Operating Tool**
  - A qualified user should be able to:
    - Start-up and shut-down system
    - Edit a recipe
    - Identify which gases are plumbed to each chamber
    - Load and unload wafers
    - Load and run a recipe
  - Reservations – If not present at stated start time, tool is reserved for 15 minutes and is then considered open for general use.

- **Simple Errors**
  - Failure to turn on vent nitrogen in service chase.
  - Failure to turn on pumps in the chase

- **Processes**
  - Certified users should be familiar with:
    - Typical power, pressure, gas flows and time to etch common materials.