**ClassOne Solstice 2: TSV Plater/Anodization 200mm System**

**LOCKOUT/TAGOUT PROCEDURE**

**January 17, 2022**

Equipment Name: ClassOne Plater/Anodization

Location (Bldg. & Room): Bldg 801, Lab 06-019

Authorized Employees: Adele Pacquette, Keith Kwietniak

Affected Employees: Adele Pacquette, Keith Kwietniak, Christopher Guarino

Manager: Eugene O’Sullivan

Equipment: ClassOne

Model: SLT-ECD2 SN-SLT-1005

BT Number: MGNE0010325562

Description: CLASSONE SOLSTICE PLATER & ANODIZATION

Reference: Industrial Hygiene and Safety Procedure S101; OSHA 29 CFR 1910.147

**List of Energy Sources:**

* Electrical: 208 VAC breaker
* Water: DI water
* Gases: House compressed air, Clean Nitrogen

**REMOVAL OF EQUIPMENT FROM SERVICE**

1. Record name of authorized person and reason for performing lockout/tagout
2. Notify all affected employees that the tool is going to be locked out/ tagged out.
3. Locate and identify all hazardous energy sources and associated energy isolating devices: 208 VAC electrical power, compressed air, clean nitrogen, 18 DI water.
4. If the equipment is in operation, shut it down by normal operating procedure:
5. Turn OFF POWER button on Neslab Thermoflex 1400 chiller
6. Press POWER OFF button at rear of tool
7. Switch MAIN POWER lever to the OFF position
8. Switch breakers on lab-wall power strip to OFF position
9. Operate the energy-isolating devices and isolate the equipment from all hazardous energy sources:
10. Close 18 DI water supply valve on lab wall
11. Close clean-nitrogen supply valve on lab wall
12. Close compressed-air supply valve on lab wall
13. Lockout/tagout the energy-isolating devices. List your name, contact phone number, and reason for lockout/tagout on all tags.
14. Insert red lock, and affix a DANGER-DO NOT OPERATE tag
15. Tag compressed-air supply valve on lab wall
16. Tag clean-nitrogen supply valve on lab wall
17. Tag 18 DI water supply valve on lab wall
18. Place a warning sign in the vicinity of the three above-mentioned valves
19. All potentially hazardous stored energy shall be relieved, restrained and otherwise rendered safe. Drain the plating bath from the tool before performing service on internal plumbing.
20. Verify the isolation of hazardous energy sources was effective by testing with appropriate operating controls or test equipment.
21. After ensuring that no personnel are exposed, operate the normal operating controls to make certain that the equipment will not start up or cycle: i.e. press the POWER ON button on the back of the tool. Return all controls to the neutral or off position after verification.
22. Ensure the continuity of the lockout/tagout protection during the testing or positioning of equipment, shift or personnel changes, group lockout/tagout, and contractor maintenance.

**RELEASE FROM LOCKOUT/TAGOUT**

1. Notify and clear all affected employees within the work area.
2. Physically check the work area to ensure that all tools are removed, all shields are properly reinstalled, and al interlocks have been restored. Be sure that the process heads and deck are clear.
3. The employee who attached the lockout/tagout devices shall remove them.
4. Operate the energy-isolating devices to restore energy to the equipment:
5. Open compressed-air supply valve on lab wall
6. Open clean-nitrogen supply valve on lab wall
7. Open 18 DI water supply valve on lab wall
8. Document completion of Lockout/Tagout
9. Power up local tool as follows:
10. Switch breakers on lab-wall power strip to ON position
11. Turn MAIN POWER lever on Class One to ON position
12. Press green POWER ON button at rear of Class One
13. Turn ON POWER button for NESLAB Thermoflex 1400 chiller
14. Press START button on NESLAB Thermoflex 1400 chiller