

UCSF AUTOCLAVE QUALITY CONTROL PROGRAM

pub# BSU2

Policy

To comply with the California Medical Waste Act (Health and Safety Code Division 20, Chapter 6, Article 9), medical waste generators must either:

- ◆ Treat the waste to sterilize all biohazardous materials prior to disposal as regular waste. **OR**
- ◆ Dispose of the waste as medical/infectious by incineration through a commercial vendor.

Steam sterilization, commonly used by UCSF researchers, is an acceptable method of medical waste treatment. The California Medical Waste Act specifies that proper sterilization conditions are achieved when the autoclave environment maintains 121-123 degrees Centigrade (250-254 degrees Fahrenheit) for at least 30 minutes. Autoclave records (or charts) indicating date, time, and temperature must be used during autoclaving and must be maintained on file for three years.

Note: Sterilization time may vary with the quantity and density of items in the autoclave vessel.

Quality control (QC)

To confirm adequate sterilization conditions, the biological indicator *Bacillus stearothermophilus* spores must be placed at the center of a normal waste load and processed under standard operating conditions at least **monthly**. Sealed spore test vials are available commercially.

A quality control program shall be in place that meets the following objectives:

- ◆ Monthly testing by the laboratory using *B. stearothermophilus* spores.
- ◆ Documentation of **date, operator, cycle information, and test results** filed and maintained in the Biological Safety Logbook for three years.
- ◆ Records must be available for inspection by the Office of Environmental Health and Safety (EH&S) and/or the San Francisco Department of Public Health. These records include but are not limited to monthly testing, maintenance and repair, and Notice of Violations.



- ◆ Confirmatory tests performed by (EH&S) annually.

Autoclave QC log instructions

1. Read supplier's instructions. Place glass ampule of *B. stearothermophilus* spores in the center of a normal waste load.
2. Process the load under normal operating procedures.
3. Incubate *B. stearothermophilus* at 56-60 degrees Centigrade for 24-48 hours.
4. If media is yellow and turbid, the sterilization process has failed. Discontinue use of autoclave until it is repaired and passes re-testing.
5. If no color change has occurred within 72 hours and media is purple, sterilization process is adequate.
6. Log and retain test results in Biological Safety Logbook for three years.