

## Steps to take if an autoclave fails efficacy testing

If efficacy test results indicate that the autoclave failed to sterilize the indicator vial/strip, first check the autoclave record/log to make sure the correct temperature and cycle time were used. If not, adjust settings to the correct time/temperature and retest

If the correct time and temperature were achieved during the efficacy test, and the results were positive (i.e. spores were not killed), you will need to change one or more of the following parameters and then re-test using another indicator vial or strip.

**Density:** Load the bag to 2/3 of the holding capacity or less. Don't compress the waste to fit more in the bag, because steam cannot penetrate completely through densely packed waste bags.

**Loading techniques:** You may wish to try changing how you load the autoclave to allow steam to better move from the top of the chamber to the bottom and penetrate the load:

- Place bags in the back of the autoclave rather than in the front of the autoclave, which is the coldest section.
- Avoid crowding or stacking.
- Check that the bags are not touching the top or sides of the autoclave as you push the tray inside.
- Try using shallower trays (but make sure they will still contain any spills).

**Steam:** Add approximately one half cup of water to your dry waste loads to facilitate steam generation.

**Time:** Increase the cycle time by 15 minutes and insert another indicator to do a retest. If your results are positive again, try adjusting another parameter. The cycle time required may vary with the composition of the load.

\*\*Cycle time may be increased by 15 minute increments until the indicator results are negative, however this indicates that your cycle times will need to be longer for each regular load run.

\*\*Record what parameters you changed for the re-test on the autoclave record/log.

\*\*The changes should become the new parameters for autoclaving waste in your autoclave, so be sure to make whatever changes are necessary to protocols and instructions for autoclave use, and to inform others who use the autoclave.

\*\*If changing parameters is ineffective, call the appropriate autoclave service provider as indicated in the manufacturer's manual or laboratory records. The UW Safety Dept can help find a service provider if you do not have one on record.