

Cleaning of Primary Engineering Control

The primary engineering control or PEC (hood) is to be cleaned daily. The most common PECs used are laminar airflow workbenches (LAFWs), compounding aseptic isolators (CAIs), biological safety cabinets (BSCs), and compounding aseptic containment isolators (CACIs). Only trained compounding personnel can clean inside the PEC. The daily cleaning of the PEC is best performed when all compounding has been completed for the day. This is so the PEC can be left to rest in a clean state over night. If the PEC is turned off over night then the PEC must be cleaned again the next day once the PEC has been turned back on. Everything in the PEC must be cleaned daily. This includes any trays holding supplies. Repeater pumps and automated compounding devices must be moved during each daily cleaning of the PEC.

The PEC must be cleaned then disinfected daily. The PEC is first cleaned with a germicidal detergent. If this must be diluted, then sterile water is to be used. Lint free towels or wipes are to be used to wipe the surface of the PEC. After cleaning, sterile 70% isopropyl alcohol (or another suitable disinfectant) is to be used to disinfect the PEC using lint free towels or wipes. Some agents are a one step cleaner/disinfectant. Sterile water may also need to be used before sterile 70% isopropyl alcohol if there has been a spill that requires it. Also cleaning should be done with unidirectional strokes.

The order to clean the PEC is as follows:

- Top
- Back
- Sides
- Pole and hangers
- Front inside cover (if using a CAI, CACI, or BSC)
- Gauntlets and gloves if re-usable gloves are used (if using a CACI or CAI)
- Items on deck
- Deck

For a CAI or CACI, this order is repeated in the ante-chamber after the main chamber has been cleaned.

Daily cleaning of the PEC should occur when compounding is not occurring. An isolator tool can be used to reach surfaces in CAI or CACI. Whatever hand hygiene and garbing are required to compound is also required for cleaning. The tray underneath the deck should be cleaned at least monthly.

It is recommended that a sporicidal agent be used weekly or monthly. When it is used it replaces the cleaning agent. The cleaning and/or disinfectant agent should not be sprayed into the HEPA filter. The grate of the HEPA filter should be wiped with a lint free towel or wipe which has been sprayed with the cleaning and/or disinfectant agent. Cleaning shall be documented.

The PEC shall also be disinfected with sterile 70% isopropyl alcohol between compounding activities and every 30 minutes while compounding. It shall also be disinfected with sterile 70% isopropyl alcohol after spills or surface contamination when compounding. Sterile water may be used first if needed. If the PEC is not used, it is not required to be cleaned.