



Procedure 03-8083-P06

Cleaning Vacuum Chambers



Purpose:

To establish a method for cleaning the Prototype Vacuum Vessel Segment for the National Compact Stellarator Experiment.

Scope:

The interior and exterior shall be cleaned to remove all foreign particulate and inspected by a Quality Assurance Inspector.

References:

- National Compact Stellarator Experiment (NCSX) Specification NCSX-CSPEC-121-01-01.

Equipment:

Pressure Steam Washer
Walter Stainless Cleaner
Filtered water
Argon
Vinyl gloves
A-Tork wipes
Lint-free wipes
Alcohol
Methyl Hydrate
Enviroterra Cleaner
Distilled water

Procedure:

1. Wear vinyl gloves at all times to prevent oil from skin from reaching the surface of Vessel walls as well as protecting hands against exposure to cleaning chemicals.
2. Pressure steam clean Vessel with hot, high pressure filtered water, long enough that the entire Vessel becomes hot to the touch.
3. Wipe down Vessel with Walter Stainless Cleaner and let stand for long enough to allow the soap to be effective (approximately 10 minutes).
4. Pressure steam clean Vessel with hot, high pressure filtered water, to remove all Cleaner residue.
5. Blow Vessel completely dry using compressed argon.
6. Wipe down interior and exterior, examining for any remaining stains. The following cleaners can be used to remove stains on the Vessel depending upon the severity:
 - Distilled water
 - Methyl hydrate
 - Enviroterra
 - Walter Stainless Cleaner
7. Wipe the entire Vessel using lint-free wipes and methyl hydrate.
8. Wipe the inside of the Vessel clean using A-Tork wipes and methyl hydrate.
9. Continue cleaning the inside of the Vessel using lint-free wipes and alcohol until there are no traces of residue shown on wipe.