

Mechanical Systems - Engineering
Group Procedure CA-MSE-001
Original Issue Date: 04/10/02
Revision 00

1.0 Purpose

- 1.1 To use a computer controlled cutter to cut radioactive vacuum chambers.

2.0 Responsibilities

- 2.1 Health Physics Technician: To set up a contaminated control area with a buffer zone around the vacuum chamber.
- 2.2 Terminal Operator: To operate the cutter from a computer terminal. Must have knowledge of windows and "Compumotor's Motion Planner Software.
- 2.3 Mechanical Technician: To set up and break down the cutting tool.

3.0 Prerequisites

- 3.1 Radiological Worker and Contamination! Airborne.

4.0 Precautions

- 4.1 Safety Equipment: Ear protection, Safety Glasses, Dosimeter, coveralls, Gloves, Duct tape and booties.

5.0 Procedure

- 5.1 Set up contamination area around cutting area.
- 5.2 Install new cutting blade
- 5.3 Fill "microdrop" water tank.
- 5.4 Turn on computer.
- 5.5 Zero cutter.
- 5.6 Bolt cutter to vacuum chamber flange.
- 5.7 Install plastic film around primary containment joint with duct tape.
- 5.8 Attach HEPA wet/dry vacuum.
- 5.9 Attach pneumatic air to "microdrop"
- 5.10 Locate cutter
- 5.11 Turn on HEPA vacuum.
- 5.12 Verify that strobe light on terminal rack is off.
- 5.13 Turn on cutter
- 5.14 Download tool path to start cutting process.
- 5.15 If strobe light goes on during cutting process, hit crash button on rack.
- 5.16 Periodically check the following:
 - a. Containment pressure to verify the HEPA vacuum is functioning properly (i.e. no blockage or clogged filter).
 - b. The water level of the micro drop system.
 - c. The cutter wheel condition.

Note: If any of the above conditions are not nominal hit the crash button.
- 5.17 After cut is complete, health physics technician must verify that contamination did not spread from the primary containment.
- 5.18 Decon Procedure per health physics technician.

6.0 Documentation

6.1 Applicable standing or specific RWP.

7.0 References

7.1 None

8.0 Attachments

8.1 None