

Vacuum Group Procedure VA-008.18.1.8
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Revision 01

****IMPORTANT****

PRIOR TO THE PERFORMANCE OF ANY WORK WITHIN THE SCOPE OF THIS PROCEDURE, IT IS THE RESPONSIBILITY OF THE SUPERVISOR TO ENSURE THAT ***WORK PLANNING*** HAS BEEN REVIEWED FOR THE PROTECTION OF WORKERS, EQUIPMENT, AND THE ENVIRONMENT.

1. **PURPOSE:**
 - 1.1 TO PROVIDE AN EFFECTIVE PROCEDURE FOR AGS VACUUM TECHNICIANS TO STEAM CLEAN VACUUM COMPONENTS.

2. **RESPONSIBILITIES:**
 - 2.1 THE AGS VACUUM SUPERVISOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF THIS PROCEDURE.

3. **DISCUSSION:**
 - 3.1 THIS PROCEDURE IS WRITTEN SO THAT TRAINED AGS VACUUM TECHNICIANS WILL BE ABLE TO SUCCESSFULLY & EFFICIENTLY STEAM CLEAN VACUUM COMPONENTS SAFELY, AND TO DISPOSE OF THE RESIDUAL WATER IN AN ECOLOGICALLY CONSCIENTIOUS MANNER. THE OPERATIONAL PROCEDURE SECTION IS DIVIDED INTO TWO CATAGORIES: 6.0 - CLEANING AND 6.1 - WATER TESTING.

4. **PRECAUTIONS:**
 - 4.1 THE TECHNICIAN SHALL BE AWARE OF RADIATION LEVELS IN THE AREA.
 - 4.2 THE STEAM CLEANING MACHINE WILL BE PLACED ON LEVEL GROUND.
 - 4.3 ENSURE THAT THE STEAM CLEANING HOSE IS NOT TWISTED OR KINKED. THIS COULD POSSIBLY CAUSE DAMAGE TO THE WIRE BRAID.
 - 4.4 CHECK THE HOSE COUPLINGS & FITTINGS FOR TIGHTNESS. CHECK THE HOSE FOR CUTS, ABRASIONS, OR OTHER DAMAGE. THE OPERATING PRESSURE MAY CAUSE SUCH DEVICES TO LOOSEN OR BREAK, PERMITTING HOT WATER OR STEAM TO SCALD THE TECHNICIAN.

5. **PREREQUISITES:**
 - 5.1 THE TECHNICIAN WILL HAVE BEEN TRAINED IN THIS PROCEDURE.
 - 5.2 AN APPROVED FACE SHIELD IS REQUIRED FOR THIS PROCEDURE.
 - 5.3 HEAVY GLOVES (LEATHER) ARE REQUIRED FOR THIS PROCEDURE.
 - 5.4 ANKLE LENGTH PANTS ARE REQUIRED FOR THIS PROCEDURE.
 - 5.5 ALONG SLEEVED SHIRT IS REQUIRED FOR THIS PROCEDURE.
 - 5.6 ACTIVATION WORKER TRAINING (BNL OH&S GUIDE 3.5.0).
 - 5.7 A PLASTIC BUCKET FOR WATER
 - 5.8 PAPER FILTER OR FINE MESH SCREENING

6. **OPERATIONAL PROCEDURE: CLEANING**
 - 6.0.1 INSIDE THE STEAM CLEANING TANK, MOVE DOLLY TO EDGE OF DOOR, REMOVE THE TRAVELER FROM THE ITEM TO BE CLEANED, AND INSTALL THE CHAMBER ON DOLLY AS SHOWN IN FIG. 1.

- 6.0.2 MOVE CHAMBER & DOLLY AT LEAST 1 FOOT INTO STEAM CLEANING TANK. VERIFY THAT THE FLANGE ON THE OPPOSITE END OF THE TANK IS CLOSED & THE DRAIN VALVE IS CLOSED.
- 6.0.3 HOLDING THE GUN FIRMLY, SPRAY THE PIECE TO BE CLEANED THROUGH THE OPEN DOOR.
- 6.0.4 MOVE THE CHAMBER ON THE DOLLY TO THE CLOSED END OF THE TANK. CLOSE THE FLANGE DOOR & BOLT SECURELY, WITH A RUBBER "O" RING IN THE FLANGE GROOVE.
- 6.0.5 REMOVE THE ELBOW FROM THE OPPOSITE END FLANGE DOOR. SPRAY THE OTHER END OF THE CHAMBER THROUGH THAT PORT.
- 6.0.6 REPLACE THE ELBOW & OPEN THE FLANGE DOOR. RINSE THE CHAMBER THROUGH THE OPEN FLANGE DOOR (WHEN OPENING FLANGE DOOR KEEP A DRIP PAN UNDERNEATH TO CATCH ANY RESIDUAL WATER).
- 6.0.7 ALLOW THE CHAMBER TO AIR DRY FOR 5 MINUTES.
- 6.0.8 REMOVE THE CHAMBER FROM THE STEAM CLEANING VESSEL & TIP ONE END INTO THE COLLECTION BUCKET TO DRAIN EXCESS WATER FROM THE BELLOWS CONVOLUTIONS.
- 6.0.9 RE-ATTACH TRAVELER TO THE CHAMBER, COVER THE END FLANGES WITH ALUMINUM FOIL, & STORE THE CHAMBER IN A DESIGNATED STORAGE AREA.
- 6.1 OPERATIONAL PROCEDURE: WATER TESTING
 - 6.1.1 OPEN DRAIN VALVE AT THE END OF THE CLEANING VESSEL & EMPTY THE WATER INTO BUCKET, TAKING CARE NOT TO SPILL ANY WATER ON THE GROUND.
 - 6.1.2 ATTACH A TAG TO THE BUCKET IDENTIFYING THE ITEM THAT WAS CLEANED, TAKE A SAMPLE, AND FOLLOW PROCEDURE #8.18.1.65
 - 6.1.3 STORE BUCKET IN A DESIGNATED STORAGE AREA, TAKING CARE NOT TO SPILL ANY WATER ON THE GROUND.
 - 6.1.4 IF THE SAMPLE RESULTS COME BACK CLEAN, EMPTY THE BUCKET THROUGH A PAPER FILTER OR FINE MESH SCREEN (TO CAPTURE METAL CHIPS) INTO ANOTHER BUCKET OR CAN & DISPOSE THE WATER INTO THE LAB SANITARY WASTE SYSTEM (WASHROOM OF BLDG.975).
 - 6.1.5 CHECK METAL CHIPS FOR ACTIVATION & DISPOSE OF PROPERLY.
 - 6.1.6 IF THE SAMPLE RESULTS SHOW ACTIVATION, DISPOSE OF PER THE INSTRUCTIONS OF THE S & EP GROUP.

7. ACCEPTANCE CRITERIA:

- 7.1 ITEM IS CLEANED & TRAVELER FILLED OUT & RE-ATTACHED.
- 7.2 WATER SAMPLES SENT TO S & EP FOR EVALUATION.
- 7.3 WATER SAMPLE RESULTS RECEIVED FROM S & EP.
- 7.4 WATER DISPOSED OF IN AN ECOLOGICALLY SAFE MANNER.

8. FINAL CONDITIONS:

- 8.1 WORK AREA HAS BEEN CLEANED AND ALL EQUIPMENT AND/OR TOOLS HAVE BEEN PUT AWAY.
- 8.2 DOSIMETER READINGS HAVE BEEN LOGGED IN THE DOSIMETER LOG BOOK

CHAMBER STEAM CLEAN PROCEDURE
FIGURE (1)

