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1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides instructions on the use of the Hotsy 1270SSG pressure washer cleaning system.

1.2 Scope

This procedure involves the cleaning and decontamination of equipment, material, and systems at ETF and LERF, in conjunction with other work packages or procedures.

This procedure can be performed in multiple locations. A work area and/or location specific hazard analysis must be performed prior to starting the activity per TFC-ESHQ-S_SAF-C-02, Job Hazard Analysis.

2.0 INFORMATION

2.1 Terms and Definitions

• EFR – Environmental Field Representative.

2.2 General Information

2.2.1 Chemicals and substances to be removed or cleaned from equipment using the pressure washer shall be evaluated by Safety and Health, EFR, and Waste Technical Services before use for purposes of identifying applicable controls.

2.2.2 Transport only with ignition off and burner fuel valve (located underneath burner with small red handle) closed.

2.2.3 Inlet water must be clean fresh water no hotter than 90°F.

2.2.4 Discharges to ground of steam condensate and substances being removed by the cleaning shall be in accordance with State Waste Discharge Permit ST4511. Discharges to TEDF of steam condensate and substances being removed by the cleaning shall be in accordance with State Waste Discharge Permit ST4502. Contact the EFR to determine if resultant waste stream can be discharged directly to ground per ST4511 Permit, to TEDF per ST4502 permit, or will have to be otherwise managed in accordance with a Waste Planning Checklist (WPC).

2.2.5 WPC is generated by Waste Technical Service and the record is maintained by Waste Technical Services.
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

**WARNING** - When operating, the system produces elevated noise levels that require hearing protection to prevent potential personnel injuries.

**WARNING** - High pressure spray can dislodge debris or particles causing them to become airborne, which could cause injury to personnel.

3.1.1 When operating pressure washer, observe these safety precautions:

- DO NOT use gasoline in the burner fuel tank as it poses a risk of explosion.
- DO NOT use the wand, hose, or water spray on electrical wiring and/or components as it poses a risk of electrical shock.
- DO NOT touch or direct nozzle and discharge stream at any person or yourself.
- DO NOT remove any insulated components that protect the operator from elevated temperatures caused by the hot water generated.
- DO NOT spray flammable liquids.

3.2 Radiation and Contamination Control

3.2.1 When this procedure is worked in radiological areas, an approved radiological work permit (RWP) is required. If radiological conditions or work performed falls outside the scope of the RWP, all work activities must be discontinued until a new or revised RWP has been issued in accordance with TFC-ESHQ-RP_RWP-C-03.

3.3 Environmental Compliance

3.3.1 In the event of a spill/leak/release, notify the SOM/FWS and respond per ETF-ERP-85B-003, Emergency Spill or Release at ETF.
4.0 PREREQUISITES

4.1 Special Tools, Equipment, and Supplies

The following supplies may be needed to perform this procedure:

- Goggles
- Face shield
- Leather gloves
- Knee pads
- Safety boots
- Hearing protection with a minimum noise reduction rating of 25 db
- Burner fuel: Kerosene, #1 grade home heating oil, #1 or #2 diesel fuel
- Gasoline: Unleaded with minimum of 86 octane and (<) 10% ethanol, 15% MTBE, or 5% methanol
- Hotsy 10W/40 pump oil (MSDS/SDS #074520)
- Ripper 1 detergent (MSDS/SDS #033242B).

4.2 Performance Documents

The following documents may be needed to perform this procedure:

- Hotsy 1200 Series Operator’s Manual
- TFC-ESHQ-S_SAF-C-02, Job Hazard Analysis
- TFC-OPS-OPER-C-17, Operating Logbooks
- Waste Planning Checklist.
4.3  Field Preparations

4.3.1 **ENSURE** a work area and/or a location specific hazards analysis has been performed per TFC-ESHQ-S_SAF-C-02.

**NOTE** The WPC (Waste Planning Checklist) should describe how the steam condensate and substances being removed by the cleaning will be managed if other than discharge directly to ground or TEDF.

4.3.2 **REVIEW** the WPC provided by Waste Technical Services.

4.3.3 **ENSURE** hearing protection with a minimum noise reduction rating of 25 db are worn when operating the Hotsy 1270SSG pressure washer cleaning system.

4.3.4 **ENSURE** adjacent work activities have been evaluated for potential impact from spraying operations.

4.3.4.1 **IF** adjacent work activities will be affected, **ERECT** barricades or barriers to restrict access to the work area.
5.0 PROCEDURE

Special Instructions

Low level in water tank will shut down limit switch. Tank must be filled completely to reset switch (float in tank).

NOTE - Figure 1 depicts the location of Hotsy 1270SSG components.

5.1 Pressure Washer Setup

5.1.1 IF water is needed in 200-gallon water supply tank, PERFORM the following:

5.1.1.1 REMOVE top lid of water tank OR CONNECT garden hose from hose reel to applicable water source.

5.1.1.2 IF using garden hose to fill tank, OPEN water supply valve to begin filling tank.

5.1.1.3 IF filling tank from top, ADD clean water to tank with hose using no chemicals.

5.1.2 WHEN filled to desired level, SHUT OFF water supply.

5.1.3 IF tank was filled from top, REPLACE tank lid.

5.1.4 IF tank was filled using garden hose from hose reel, ENSURE garden hose is reeled back completely into hose reel.
5.1 Pressure Washer Setup (Cont.)

5.1.5 IF pressure washer has not been used for an extended time,

OR

IF performing initial startup, PERFORM the following:

5.1.5.1 CONNECT water supply to garden hose connection located on the right side of the pump.

5.1.5.2 ALIGN water supply valve to pump from garden hose connecting fully CCW.

5.1.5.3 TURN ON water supply AND PURGE system and hoses until water runs clear.

5.1.5.4 SHUT OFF water supply AND REMOVE hose.

NOTE - Water supply valve should not be aligned from garden hose connection when fully CW.

5.1.6 ENSURE water supply valve is aligned (located on right side of pump) towards the pump from 200-gallon tank.
5.1 Pressure Washer Setup (Cont.)

5.1.7 CONNECT desired pressure wand to high pressure hose reel.

5.1.8 ENSURE black burner fuel tank (labeled diesel) has adequate fuel in it.

5.1.9 ENSURE the gasoline tank has adequate fuel.

5.1.10 CHECK pump and engine oil levels (each has one dipstick).

5.1.11 IF using detergent (low pressure, recommended by vendor), ENSURE detergent valve on siphon is turned CW (closed to the “-” side).

5.2 Pressure Washer Operation

WARNING
When operating, the system produces elevated noise levels that require hearing protection to prevent potential personnel injuries.

5.2.1 WHEN operating, DON hearing protection within fifteen feet of Hotsy equipment.

5.2.2 HOLD gun firmly without squeezing trigger.

NOTE - Choke may not be needed on warm engine.

5.2.3 IF engine is cold, PULL choke lever out to the FULL CHOKE position.

NOTE - The engine throttle control (RPM) is factory set.

5.2.4 DO NOT CHANGE throttle position.

NOTE - Engine cranking should be limited to 15 seconds.

5.2.5 TURN key on engine CW AND HOLD until engine starts.

5.2.6 WHEN engine starts, MOVE choke lever until engine runs smoothly.

5.2.6.1 IF choke was pulled, MOVE choke to NO CHOKE position.
5.2 Pressure Washer Operation (Cont.)

5.2.7 WHILE pointing in safe direction, HOLD the wand firmly AND SQUEEZE the trigger.

5.2.8 ALLOW air to purge from the system.

5.2.9 WHEN air has purged from system, STOP squeezing trigger.

5.2.10 IF hot water is desired, ADJUST the thermostat to proper temperature.

5.2.11 TURN the burner switch ON.

NOTE - When the trigger is released or the temperature setting is reached, the burner will automatically shut off.

5.2.12 DO NOT RUN pump dry or leave spray gun closed for longer than one to two minutes.

5.2.13 DON the appropriate PPE as directed by SOM.

NOTE - The burner will fire immediately following the trigger squeeze and could release a puff of smoke.

5.2.14 WHILE pointing in a safe direction, SQUEEZE the trigger.

5.2.15 PERFORM pressure washing as directed by SOM.

5.2.16 ENSURE SOM directions are recorded in the ETF Control Room Logbook.

WARNING
High pressure spray can dislodge debris or particles causing them to become airborne, which could cause injury to personnel.
5.3 Pressure Washer Shutdown

5.3.1 IF detergents were used, CLOSE detergent tank outlet valve AND CONTINUE to draw clear water through the system.

5.3.2 IF the burner was used, TURN OFF burner switch AND ALLOW pump to run cold water through coil.

5.3.3 TURN temperature control to OFF.

5.3.4 TURN key on engine CCW to OFF.

5.3.5 SQUEEZE trigger to relieve system pressure.

5.3.6 IF directed by SOM, TURN tank drain to the left (drain to ground) to drain 200-gallon water tank.

5.3.6.1 ENSURE SOM directions are recorded in the ETF Control Room Logbook.

5.3.7 IF using the WPC, FOLLOW directions provided in WPC to drain contents of water tank.

5.4 Long-Term Layup/Winterization

5.4.1 IF Long-Term Layup/Winterization is needed, REQUEST Maintenance drain system lines and detergent tanks.

5.4.1.1 PERFORM winterization per approved work package.

5.5 Records

The performance of this procedure generates no records.
Figure 1 – Component Location