03.113 Fuel Cell Injector Clog
(03. HSS/VA Procedure)

OBJECTIVE:

To periodically clear out solidified carbon that may build up in the injector lines for the carbon fuel cells.

EQUIPMENT:

PPE safety glasses
Orange caution cone

1. CHECKING THE CIRCUIT BREAKER

    1.1 Go to the circuit breaker located above the L1 workstation and check the status of the lights.
        1.1.1 Identify which, if any, lights are out. If a light is out, this means the circuit has been broken and will have to be reset upon completion of the repair.

2. SAFE FUEL CELLS (IF ACTIVATED)

    2.1 Remove floor panel 1C and temp stow. Place orange caution cone to the side of opening.

    2.2 Don PPE safety glasses.

Figure 1: Fuel Cell Control Panel

2.4 Check fuel cell 1 and 2 green operate lights are illuminated (see Figure 2).

Figure 2: Fuel Cell Operate Light

NOTE
Fuel cell power switch has three positions: Down = Operate Mode Neutral (Center) = Power Removed Up = Standby Mode

2.5 Lift switch guards for fuel cell 1 and 2 power and flip power to Standby Mode.

2.6 Check fuel cell 1 and 2 yellow standby lights are illuminated and green operate lights are off (see Figure 3).

Figure 3: Fuel Cell Standby Light

3. ARM INJECTOR SWITCHES

Figure 6: Injector Panel

3.1 Move Arming Switch to “ON” for both fuel cells 1 and 2 (see Figure 6).

Figure 7: Injector Active Light

3.2 Confirm yellow active light illuminates for both fuel cells 1 and 2 (see Figure 7).

3.3 Turn Arming Dial from position 1 to 2 for both fuel cells 1 and 2 (see Figure 6).

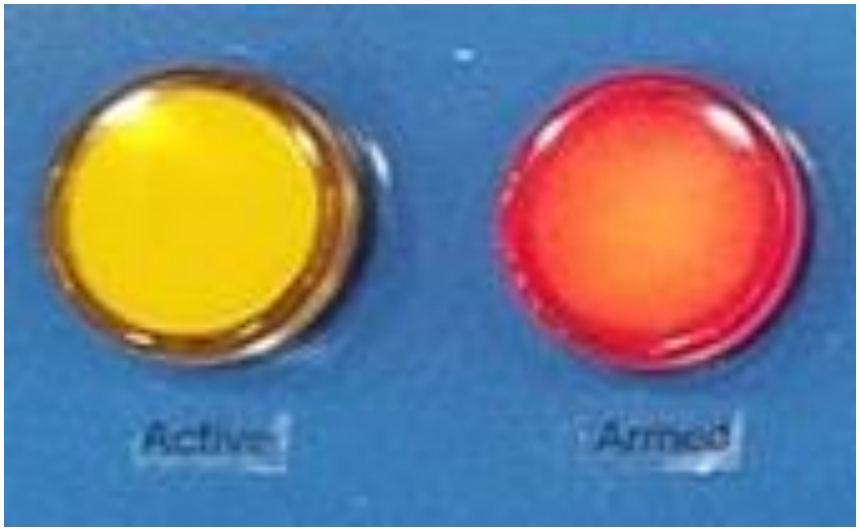

Figure 8: Injector Armed Light

3.4 Confirm red armed light illuminates and blinks for both fuel cells 1 and 2 and the yellow active lights are off for both fuel cells 1 and 2 (see Figure 8).

L1C Subf 4. <u>PURGE INJECTOR LINES</u>

4.1 Flip Injector Activation switch for fuel cell 1 from “STANDBY” to “ENGAGE” and hold for 3 seconds (see Figure 6).

4.2 Confirm audible hiss of injector line as it is cleaned.

4.3 Release switch to return it to “STANDBY”.

4.4 Flip Injector Activation switch for fuel cell 2 from ‘STANDBY’ to ‘ENGAGE’ and hold for 3 seconds (see Figure 6).

4.5 Confirm audible hiss of injector line as it is cleaned.

4.6 Release switch to return it to ‘STANDBY’.

L1C Subf 5. <u>REACTIVATE FUEL CELLS</u>

5.1 Turn Arming Dial from position 2 to 1 for both fuel cells 1 and 2 (see Figure 6).

5.2 Confirm red armed light is off for both fuel cells 1 and 2 and the yellow active light illuminates for both fuel cells 1 and 2 (see Figure 8).

5.3 Move Arming Switch to “OFF” for both fuel cells 1 and 2.

5.4 Confirm yellow active light for both fuel cells 1 and 2 is off.

5.5 On the circuit breaker panel, press the button for the appropriate hardware for the fuel cell.

5.6 Circuit breaker light should illuminate.

5.7 Flip power switch for fuel cells 1 and 2 power to Operate Mode.

5.8 Check fuel cell 1 and 2 green operate lights are illuminated.

5.9 Flip switch guard to closed for fuel cells 1 and 2.

5.10 Doff PPE safety glasses.

5.11 Retrieve and reinstall floor panel 1C.

5.12 Stow all equipment including orange cone.