

3.3.6. FIRE IN LAB

(EMER/5A - ALL/FIN B/MULTI)Page 1 of 2 pages

SC1 ACTIONS IN SAFE HAVEN

PCS A1. VERIFYING VENTILATION SHUT DOWN
 Fire Summ: LAB Fire Display
LAB Fire Display
 'Fire Isolation'
 'Common Cabin Air Assemblies'
 LAB1P6, LAB1S6 CCAA State – EIB Off
 'LAB IMV Isolation'
 Status – Isolated
 'LAB MCA'
 State – Standby (not applicable for rack fire in LAB1D6)

A2. If SC2 and SC3 do not find fire, smoke, or burning odor
 Go to {4.403 ECLSS SSR-1: FALSE FIRE ALARM RECOVERY} (SODF: ECLSS: CORRECTIVE: FDS)
 >>
 If Rack SD has annunciated
 sel 'LAB Fire Rack Power' (lower left)
LAB Fire Rack Power
 Rack RPC(s) Position – Open (for rack indicating fire)
 Go to {3.3.7. LAB FIRE SOURCE LOCATION SAMPLING} p. 3-12E (SODF: EMER: 3. FIRE).

If SC2 and SC3 find smoke or burning odor, but cannot locate fire source
 Go to {3.3.7. LAB FIRE SOURCE LOCATION SAMPLING} p. 3-12E (SODF: EMER: 3. FIRE).

WARNING
Next step performs a partial power down of the Lab. Perform it only if shutting down ventilation and isolating the module is ineffective. LTL will be lost, expect C&W messages and possible MDM transitions.

A3. PARTIAL LAB POWERDOWN
 Lab: EPS: DDCU LA1B Distribution: DDCU LA1B:
 Converter
DDCU LA1B CONVERTER
cmd Off (single step cmd, Off – arm not required)
 Verify - output voltage less than 12.8 volts
 Evaluate effect of partial Lab powerdown in fire.

SC1 ACTIONS CONTINUED ON NEXT PAGE

SC2, SC3 ACTIONS IN LAB

B1. Verify observation indication of smoke or fire
 B2. If fire, smoke, or burning odor not present, inform SC1
 Go to {4.403 ECLSS SSR-1: FALSE FIRE ALARM RECOVERY} (SODF: ECLSS: CORRECTIVE: FDS)
 >>
 If cabin fire is present
 Go to step B3.
 If rack fire is present
 Go to step B8.
 If firesource cannot be located, inform SC1
 Go to {3.3.7. LAB FIRE SOURCE LOCATION SAMPLING} p. 3-12E (SODF: EMER: 3. FIRE).

B3. CABIN FIRE

Remove electrical power from fire source locally (light switch, UOP).
 If fire extinguished
 Go to step B4.

WARNING
1. Wear mask during/after extinguisher discharge.
2. Discharge may be propulsive.
3. Bottle and nozzle temp will drop below 0 deg

Use extinguisher as required on firesource.

LAB

B4. EGRESS LAB

If time and circumstances permit,
 Remove all emergency equipment from lab emergency lockers: LAB1LKRF1 (Fwd Endcone), LAB1LKRA1 (Aft Endcone), and all equipment per {6.1. LAB EQUIPMENT SAFING AND RETRIEVAL} p. 6-1E (SODF: EMER: 6. EQUIPMENT SAFING).

Record CSA-CP readings, if time available.

CO _____
 HCI _____
 HCN _____

SC2/SC3 ACTIONS CONTINUED ON NEXT PAGE

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SC1 ACTIONS CONTINUED

WARNING
Next step completely powers down the lab. Perform it only if previous efforts to extinguish the fire have failed. MCC-H GO is strongly recommended, but not required, prior to proceeding.

A4. FULL LAB POWERDOWN

Lab: EPS: DDCU LA2B Distribution: DDCU LA2B:
Converter

DDCU LA2B Converter

cmd Off (single step cmd, Off – arm not required)

Verify - output voltage less than 12.8 volts

Go to {3.6. LAB POST FIRE CLEANUP} p. 3-39E (SODF: EMER: 3. FIRE)

SC1 ACTIONS COMPLETE

SC2/SC3 ACTIONS (CONTINUED)

If orbiter docked to Lab Fwd

Lab Fwd Hatch closed

Lab Fwd Hatch MPEV – CLOSED, uncapped

Lab Fwd Port and Fwd Stbd IMV valves closed

Lab Aft Port and Aft Stbd IMV valves closed

Lab Aft Hatch MPEV – Closed, uncapped

Close LAB Aft Hatch per decal.

B5. Inform SC1, “LAB egress is complete” and report status of whether or not fire is extinguished.

Node 1
PMA1
FGB
SM

B6. Sample air in PMA1, FGB cabin and SM cabin. Record readings in Table 2 of {3.3.7. LAB FIRE SOURCE LOCATION SAMPLING} pg 3-12 (SODF: EMER: 3. FIRE) and relay to **MCC** at next communication opportunity.

B7. If fire has been extinguished, go to {3.6. LAB POST FIRE CLEANUP} p. 3-39E (SODF: EMER: 3. FIRE) >>

RACK FIRE

NOTE

If present, Smoke Indication LED, located on Rack Power Switch at base of rack, may be lit, indicating the rack smoke detector has annunciated.

B8. Rack (Maint.) Power Switch – OFF

B9. Go to {3.3.7. LAB FIRE SOURCE LOCATION SAMPLING} p. 3-12E (SODF: EMER: 3. FIRE).

SC2/SC3 STEPS COMPLETE