

**FRCSE LEVEL III KEMEN ENGINE TEST FACILITY STARTUP, SHUTDOWN, AND EMERGENCY PROCEDURES CHECKLIST**

| <b>STEP</b> | <b>GTECS COMPUTER START-UP PROCEDURE</b>   |
|-------------|--|
| 1           | Turn on Electrical and Hydraulic power in test cell.   |
| 2           | Ensure that engine is locked and coupled into thrust bed.  |
| 3           | Ensure that test cell is FOD free.   |
| 4           | Check that test cell doors are closed and sealed.  |
| 5           | Verify air pressure in mechanical room is adjusted per TMS test manual.  |
| 6           | Turn on 400 hertz (2 <sup>nd</sup> floor).   |
| 7           | Turn on (4) monitors in control room (program display, parameter display, operator monitor, program monitor).                      |
| 8           | Log into GTECS (program monitor).  |
| 9           | Select UUT (program monitor).  |
| 10          | Enter engine information from work document (program monitor).   |
| 11          | Turn on console power (center console).  |
| 12          | Rig throttle per TMS test manual.  |
| 13          | Select "Begin Run" to start data acquisition (program monitor).  |
| 14          | Check engine parameters display for proper static pressure and temperature indications per TMS test manual.                        |
| 15          | Turn on fuel pump and open fuel valve by selecting buttons on operator monitor. Verify fuel pressure on engine parameters display. |
| 16          | Perform pre-start leak check of engine and fuel lines.   |
| 17          | On operator monitor, select "Start Engine", then "Confirm Touch" to start engine.  |
| 18          | Follow TMS test manual procedures through complete engine run or reject.   |

| <b>STEP</b> | <b>GTECS COMPUTER SHUTDOWN PROCEDURE</b>   |
|-------------|--|
| 1           | On operator monitor, select "Stop Engine", then "Confirm Touch" to stop engine.  |
| 2           | Verify throttle chop per TMS test manual, depress red "CHOP OFF" button on lower right of throttle if necessary.<br><b>NOTE:</b> (F414 only): Select red "CHOP OFF" button on operator monitor if necessary. |
| 3           | Fuel flow to engine shall be zero. Confirm zero fuel flow on engine parameters display.  |
| 4           | Turn on cell intercom and listen for unusual noise during coast down.  |
| 5           | Monitor EGT for indication post shut down fire (parameter monitor).  |
| 6           | Monitor engine speeds (parameter monitor) and intercom to verify no engine rotation.   |
| 7           | Turn off fuel pump and close fuel valve by selecting buttons on operator monitor.  |
| 8           | Choose "End Run" to terminate the run (program monitor).   |
| 9           | Turn off console power (middle console).   |
| 10          | Turn off (4) monitors in control room.   |

| <b>STEP</b> | <b>GTECS EMERGENCY SHUTDOWN PROCEDURE</b>  |
|-------------|--|
| 1           | Depress red "CHOP OFF" button on lower right of throttle.<br><b>NOTE:</b> (F414 only): Select red "CHOP OFF" button on operator monitor. Verify throttle chop and repeat if necessary.   |
| 2           | Turn off fuel pump and close fuel valve by selecting buttons on operator monitor.  |
| 3           | Depress large red "Emergency Stop" pushbutton on center console.   |
| 4           | <b>IN CASE OF FIRE:</b> Press red "FLOOD" button on center console. Fire pumps will turn on and fire alarm will sound.<br><b>NOTE:</b> If fire pumps do not turn on, press red "SPURT" button on center console and hold until fire is out.<br><b>NOTE:</b> (TF34 only): In case of fire press red "FIRE DISCHARGE SYSTEM" button on center console. |
| 5           | Call Fire Department (911).  |
| 6           | Evacuate building and muster in designated area.   |