Main Magnet Power Supply Auto Run-up sequence

- 1 Read the status of the Main Magnet power supply. If ON, then do nothing *[output a message "MMPS already on"]*
- 2 Get input from the user: a, Fullscale current value to use (amps)? Check that value entered is valid: 18,500 - 20,000 A
 - b, Final current value? Check that value entered is valid: 17,500 - 18,500 A
- Provide a check list for user:
 a, Are Cooling Towers RUNNING?
 b, Are the Al-ALCW heat-exchangers valves set appropriately?
 c, Is the XT page TWV watchdog running and the transfer status OK?
 d, Is the TWV integral time (when RF is OFF) set to 10 Seconds?
 e, Are the Trimcoils ON?
- 4 Set "CONSOLE KNOB" to "Ignore" and turn ON TW: MG 171 Digi

[Note: It is required that the Main Magnet power supply Trim Coil #54 feedback is OFF (TW: MG 171 Digi= ON) for the duration of this run-up sequence]

- 5 Check the MMPS interlocks status to see if it can be turned on. [*if not, output a message "Interlocks not Ok"*]
- 6 Request input: "Confirm that MMPS is to be turned on": If "No" goto 12 If "Yes" proceed.
- 7 Set the "CURRENT Setpoint" to the full-scale value (from 2a)
- 8 Turn ON the power supply and check that after 60 seconds "CURRENT Measured" is >1,000 A. *[if not, output a message to this effect]*
- 9 Pause for 15 minutes.
- 10 Set the "CURRENT Setpoint" to the final current setting value (from 2b)
- 11 Pause for 15 minutes.
- 12 Set "CONSOLE KNOB" to "Use" and turn OFF TW: MG 171 Digi. [output a message : "MM run-up sequence complete"]

Note: If program sequence is aborted for any reason (eg. Interlock not Ok) then output a message "MMag run-up failed" but the steps in 12 must be completed (minus "completed" message).