

PROCESS EQUIPMENT FAILURE RESPONSE

ERROR	RESPONSE	ERROR	RESPONSE
MFS#1 communication failure	CONT	MFS#2 communication failure	CONT
MFS#1 in manual mode	CONT	MFS#2 in manual mode	CONT
MFS#1 temp/presr interlock	CONT	MFS#2 temp/presr interlock	CONT
MFS#1 ambient temp too high	CONT	MFS#2 ambient temp too high	CONT
MFS#1 activation error	CONT	MFS#2 activation error	CONT
MFS#1 leak error	CONT	MFS#2 leak error	CONT
MFS#1 fault	CONT	MFS#2 fault	CONT
TCU communication failure	CONT	BOATL communication failure	CONT
TCU in manual mode	CONT	BOATL in manual mode	CONT
TCU fault	CONT	BOATL fault	CONT

If powerfail duration is less than 3 sec, then CONT; else CONT.

TOLERANCE/FAULT RESPONSE

SIGNAL	LO-TOL	HI-TOL	DELAY	DURATION	GOTO(if out-of-tolerance)
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All default tolerance/fault items

IDLE CONDITION

STEP: IDLE COMMENT IDLE STATE
 TEMPL = 600.0 DEGC
 TEMPC = 600.0 DEGC
 TEMPS = 600.0 DEGC
 N2 = 1000. SCCM
 BOATSPD = 4.0 IPM
 BOATIN = ON

PROCESS RUN SEQUENCE

STEP: STRT COMMENT: RUN: 1ST STEP TIME: 00.00.05
 TEMPL = 600.0 DEGC
 TEMPC = 600.0 DEGC
 TEMPS = 600.0 DEGC
 N2 = 1000. SCCM
 BOATSPD = 4.0 IPM
 BOATOUT = ON
STEP: 0005 COMMENT: BOAT OUT TIME: 00.11.00
 TEMPL = 550.0 DEGC
 TEMPC = 550.0 DEGC
 TEMPS = 550.0 DEGC
 BOATSPD = N/C IPM
 N2 = 5000. SCCM
 BOATOUT = ON
 If EVENT = ON then goto 0006
STEP: 0006 COMMENT: LOAD WAFERS TIME: 00.15.00
 TEMPL = N/C DEGC
 TEMPC = N/C DEGC
 TEMPS = N/C DEGC
 BOATSPD = N/C IPM
 N2 = 3000. SCCM
 BOATOUT = ON
 If EVENT = ON then goto 0007
 SONIC = ON
STEP: 0007 COMMENT: BOAT IN TIME: 00.11.00
 TEMPL = N/C DEGC
 TEMPC = N/C DEGC
 TEMPS = N/C DEGC
 BOATSPD = N/C IPM
 TCUID = 18
 N2 = 5000. SCCM
 BOATIN = ON
 If EVENT = ON then goto BTIN
STEP: BTIN COMMENT: STABLIZE TIME: 00.10.00
 TEMPL = 600.0 DEGC

TEMPC = 600.0 DEGC
TEMPS = 600.0 DEGC
BOATSPD = N/C IPM
TCUID = 18
N2 = 3000. SCCM
BOATIN = ON
RMPRATE = 7.0 D/M
STEP: 0015 COMMENT: RAMP UP TIME: 00.55.00
TEMPL = 950.0 DEGC
TEMPC = 950.0 DEGC
TEMPS = 950.0 DEGC
BOATSPD = N/C IPM
N2 = N/C SCCM
BOATIN = ON
If EVENT = ON then goto 0020
RMPRATE = 7.0 D/M
O2 = 15. SCCM
STEP: 0020 COMMENT: ANNEAL TIME: 00.15.00
TEMPL = N/C DEGC
TEMPC = N/C DEGC
TEMPS = N/C DEGC
N2 = N/C SCCM
O2 = N/C SCCM
STEP: 0022 COMMENT: RAMP DOWN TIME: 00.40.00
TEMPL = 700.0 DEGC
TEMPC = 700.0 DEGC
TEMPS = 700.0 DEGC
N2 = N/C SCCM
RMPRATE = 7.0 D/M
If EVENT = ON then goto BTOT
STEP: BTOT COMMENT: HOLD TIME: 00.00.00
TEMPL = 600.0 DEGC
TEMPC = 600.0 DEGC
TEMPS = 600.0 DEGC
N2 = 1000. SCCM
RMPRATE = 7.0 D/M
If EVENT = ON then goto 0026
STEP: 0026 COMMENT: BOATOUT TIME: 00.11.00
TEMPL = 550.0 DEGC
TEMPC = 550.0 DEGC
TEMPS = 550.0 DEGC
N2 = 4000. SCCM
BOATOUT = ON
BOATSPD = 4.0 IPM
If EVENT = ON then goto 0031
STEP: 0031 COMMENT: UNLOAD WAFERS TIME: 00.15.00
TEMPL = N/C DEGC

 TEMPC = N/C DEGC
 TEMPS = N/C DEGC
 N2 = 4000. SCCM
 SONIC = ON
 If EVENT = ON then goto 0035
 BOATOUT = ON
 BOATSPD = N/C IPM
STEP: 0035 COMMENT: BOATIN TIME: 00.11.00
 TEMPL = N/C DEGC
 TEMPC = N/C DEGC
 TEMPS = N/C DEGC
 N2 = 4000. SCCM
 BOATSPD = 4.0 IPM
 BOATIN = ON
STEP: 0040 COMMENT: PROCESS ENDS TIME: 00.05.00
 TEMPL = 600.0 DEGC
 TEMPC = 600.0 DEGC
 TEMPS = 600.0 DEGC
 N2 = 3000. SCCM
 BOATSPD = 4.0 IPM
 BOATIN = ON

SPECIAL HOLD STEP

STEP: SHLD COMMENT: SPECIAL HOLD
 TEMPL = N/C DEGC
 TEMPC = N/C DEGC
 TEMPS = N/C DEGC
 N2 = 3000. SCCM
 BOATIN = ON
 SONIC = ON
 BOATSPD = 4.0 IPM

ABORT SEQUENCE

STEP: ABRT COMMENT: ABRT: 1ST STEP TIME 00.15.00
 SONIC = ON
 TEMPL = 600.0 DEGC
 TEMPC = 600.0 DEGC
 TEMPS = 600.0 DEGC
 BOATIN = ON
 BOATSPD = 4.0 IPM
 If EVENT = ON then goto ABR1
 N2 = 4000. SCCM
STEP: ABR1 COMMENT: ABORT 1 TIME: 00.00.05
 TEMPL = 600.0 DEGC
 TEMPC = 600.0 DEGC

TEMPS = 600.0 DEGC

N2 = 5000. SCCM

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