NODE: RPC7

ALARM CODE 820-0
RESTORE 820-1

LOCATION: BLDG. 1006

SYSTEM: TPC COOLING COMMON ALARM

ACTION: DETERMINE WHICH SIGNAL IS IN ALARM AND TURN TO ALARM RESPONSE SHEET FROM LIST BELOW

NODE	SIGNAL NAME	DESCRIPTIO	Page:
RPC7	TPCLVV	TPC Level	820-0-1
RPC7	TPCMKUP.CNT	TPC Make up Count.	820-0-2
RPC7	TPCMKUP.ALRM	TPC System water Make up	820-0-3
RPC7	TPCTEMP.SUP	TPC System Temperature	820-0-4
RPC7	TPCFLO	TPC System Flow	820-0-5
RPC7	TPCO2	TPC Oxygen Level	820-0-6
RPC7	TPCpH	TPC pH	820-0-7
RPC7	TPCRESIS	TPC Resistivity	820-0-8
RPC7	LOAIR.ALRM	Low Compressed Air	820-0-9
RPC7	TPCFILTR.HIDP	Filter High Differential	820-0-10
RPC7	TPCPRESS.	TPC System Pressure	820-0-11

NOTE: IF COMMON ALARM IS RECEIVED - CHECK MAKE-UP DISPLAY FOR WATER MAKE-UP

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820.0-1

ALARM RESPONSE SHEET - TRC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPCLVL	TPC Mag Water Level (47.5"- 52.5"=Normal)	(Hi/Lo/LoLo) 65/47.5/35

ACTION:

1. Verify level is outside Hi/Lo limits.
   a) Pumps shut down @ ≤35".

2. If level is <47.5" notify STAR shift leader on ext. 4242 that a low level condition exists and that they should monitor the system for possible automatic shutdown if level reaches 35".

3. Inspect B1006 and pump rooms for leaks.

4. If no leaks check that TPCMKUP.OK light is on.
   If not: Press Make-Up Reset switch for a few seconds to reset TPCMKUP.OK. Check for flow thru deionizer.
   If not: Open bypass valve at solenoid until level = 55", then close bypass valve.
   Note: Make up comes from MCW System, monitor MCW level when adding make up to TPC system.

5. For Hi level check that solenoid bypass is closed.
   If not: close valve.
   If level still rises, close Make-Up valve @ solenoid.

6. Notes 1 & 3.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

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820.0-2

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPCMKUP.CNT	TPC Mag Water Make-up Counts	(HiHi/Hi) 75/50 Gal in 10min

ACTION:

1. Check B1006 Pump Room, Assembly & Exp Hall for leaks.
2. If make-up is >50gallons, notify STAR shift leader on ext. 4242 that the system will shutdown if the make-up reaches 75 gallons in a 10 minute make-up cycle.
3. If HiHi, advise MCR and STAR shift leader @ ext. 4242 Pumps will shut off in 3 min.
4. Advise MCR, isolate leaking device.
5. Notes 1 & 3.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

Return to TPC menu / Top

820.0-3

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
		ON/OFF
TPCMKUP.ALRM	TPC Water Make-up	

ACTION:

1. Verify Make-Up is ON.
2. If make-up is verified follow C-A-OPM 2.19

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Water Group from "Call In" list

Return to TPC menu / Top

820.0-4

ALARM RESPONSE SHEET - STAR

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPCTEMP.SUP	TPC Water Supply Temp. (≈65°f = normal)	(HiHi/Hi/Lo) 84.5/77.5/65°f

ACTION:

1. Verify temp is outside limits.

2. If temp. is >77.5°f, notify STAR shift leader on ext. 4242 that they should monitor temperature and the STAR cooling system for possible automatic shutdown if temp. reaches 84.5°f.

3. Verify that MCW water temp is within limits ≈60°f.
   a) If not, see that response sheet.

4. Verify that MCW water flow is within limits ≈400 GPM.
   a) If not, see that response sheet.

5. For HiTemp alarm TCV indicator should be in Max Cooling Position.
   a) If not, Open bypass around valve
   b) Observe system temp and adjust.
   c) Advise MCR that Pumps will shut down 3mins after system supply reaches 84.5°f.

6. For lo temp alarm TCV indicator should be in the minimum position.

7. Note 3 & 1.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

Return to TPC menu / Top

820.0-5

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPCFLO	TPC Water Flow (250-300 GPM=Normal)	(Lo/LoLo) 250/225 GPM

ACTION:

1. Verify Low flow ≤250 GPM.
2. If flow is <250gpm. notify STAR shift leader on ext. 4242 that a low flow condition exists and that they should monitor the system for possible automatic shutdown if flow reaches 225gpm.
3. Advise MCR (Pumps will stop @ ≤225 GPM).
4. Check B1006 Pump Room, Assy Build and Exp Hall for leaks.
5. Check other system parameters:
   a) Pressure is between 50 and 65 psig
6. Note 3 & 1.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

Return to TPC menu / Top

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPC02	TPC Water 0_2 Level (2.5-7.5ppb=Normal)	(Hi) 10ppb

ACTION:

1. Verify level is above Hi limits.
2. Observe that flow is thru 0_2 scavenger.
3. If Hi Alarm remains - Note 3 the following morning.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

Return to TPC menu / Top

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPCpH	TPC Water pH (6 - 8pH = Normal)	(Hi/Lo) 8.0/6.0 pH

ACTION:

1. Verify pH alarm.
2. Note 1 & 3 the following morning.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

Return to TPC menu / Top

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPCRESIS	TPC Mag Water Resistivity (.75-1.25=Normal)	(Lo) .5/megohm-cm

ACTION:

1. Verify resistivity is below low limits.
2. Observe that flow is thru deionizer.
3. Observe deionizer output resistivity (>5 megohm-cm).
4. Observe that system resistivity rises above .475 megohm.
5. If Lo Alarm remains - Note 3 the following morning.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

Return to TPC menu / Top

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
LOAIR.ALRM	Low Compressed Air	(Lo) <50 psig

ACTION:

1. Verify compressed air pressure with press gauge.

2. If air pressure is <50psig. notify STAR shift leader on ext. 4242 that a low air pressure will affect the operation of all temperature and pressure control valves.

3. Check that manual valves are open.

4. Check compressor in B1006 Support Building.
   a) If compressor is off - notify Site Shift Supervisor at x4174, cell # 872-8988 or C/W desk x4284.

5. Notes 1 & 3.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

Return to TPC menu / Top

820.0-10

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPCFILTR.HIDP	TPC HI DP	(On/Off)

ACTION:

1. Verify High Differental Pressure.
2. Note 3 in the morning.
3. Note 1 & 3.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

Return to TPC menu / Top

820.0-11

ALARM RESPONSE SHEET - TPC

SIGNAL NAME	DESCRIPTION	ALARM LIMITS
TPCPRES.SUP	TPC Supply Pressure (50-65 psig = Normal)	(Lo) 25

ACTION:

1. Verify press is outside limits.

2. If pressure is <25 psig. notify STAR shift leader on ext. 4242 that the cooling system is out of normal parameters and cooling may be effected.

3. Note 3 & 1.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room
3. Call Mech Svcs from "Call In" list

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