Go To: 989-2 989-4 989-6 989-8 989-F

NODE: RPC3

ALARM CODE 989-0
RESTORE 989-1

LOCATION: BLDG. 912/EEBA

SYSTEM: TOWER No. 3 COOLING COMMON ALARM

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

NODE	SIGNAL NAME	DESCRIPTION	PAGE NO.
RPC3	TWRFLO	TOWER Water Flow	989.0-1
RPC3	TWRTEMP.HI	TOWER Water Supply Temp.	989.0-2
RPC3	TWRTEMP.LO	TOWER Water Supply Temp.	989.0-3
RPC3	TWRLVL.LO	TOWER Water Level	989.0-4
RPC3	TWRCOND.HI	TOWER Water Conductivity	989.0-5
RPC3	TWRMK Lo TEMP.ALARM	TOWER Make up Outdr. Piping	989.0-6
RPC3	TWRBASIN. LoTEMP.ALARM	TOWER Basin Water - Lo Temp	989.0-7
RPC3	LoAIR.ALRM	TOWER Instrument Air Supply	989.0-8
RPC3	PRESS.SUP	TOWER Water Supply Pressure	989.0-9
RPC3	XPUMP8. LOSUCT.ALRM XPUMP9. LOSUCT.ALRM	Pump Inlet Pressure	989.0-10

NOTE: IF ALARM IS INTERMITTENT, CHECK MKUP DISPLAY & TREND FOR WATER LOSS

989.0-1

ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Hi/Lo/LoLo) 1250/750/500 GPM
TWRFLO	TOWER Water Flow	

ACTION:

1. Verify low flow ≤ 750 GPM
2. Advise MCR (Pumps will stop @ ≤ 500 GPM)
3. Check Tower #3 & #2 BLDG. & Main Trench for major leak
4. Check other system parameters:
   a) Level is at Mark outside tower
   b) Pressure is between 200 and 235 psig
   c) If actual parameters are, less than or outside limits, advise MCR & CAS and turn off pump (P8 or P9)
5. If freezing weather Note 3 immediately
7. Note 3 & 1

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Hi/Lo/)
		100/50 F
TWRTEMP.HI	TOWER Water Supply Temp.	

ACTION:

1. Verify temp is outside limits

2. Check that Water is returning to top of tower
   a) If not, manually reposition tower bypass valve
   b) Note 3 & 1 the following workday

3. Check that fan & is on
   a) If not, place fan selector SW in AUTO
   b) If not, place fan selector in manual/lo speed and observe Temp
   c) If not, place fan selectoe in manual/Hi speed and observe temp

4. Note 3 & 1

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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989.0-3

ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Hi/Lo/)
		100/50 F
TWRTEMP.LO	TOWER Water Supply Temp.	

ACTION:

1. Verify temp is outside limits

2. Check that Water is returning to tower basin
   a) If not, manually reposition tower bypass valve
   b) Note 3 & 1 the following workday

3. Check that fan & is off
   a) If not, place fan selector SW in AUTO
   b) If not, place fan selector in off

4. Note 3 & 1

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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989.0-4

ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Lo/LoLo) 5.5/3 inches
TWRLVL.LO	TOWER Water Level	

ACTION:

1. Verify level is below Lo limits

2. Advise MCR & CAS that if level falls to # 3", the operating pump will be turned off in 10 seconds

3. Check that tower Fill Valve is Open
   a) If not, place in Open and observe level
   b) For Lo Level, fill light (11,2) should be "ON"

4. For LoAlarm, if light (11,2) remains off, open C.W. bypass until level is above mark inside tower

5. Close C.W. bypass valve

6. Inspect area for leaks

7. Notes 1 & 3

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Hi) ≥ 0.3 milisiemens
TWRCOND.HI	TOWER WATER CONDUCTIVITY	

ACTION:

1. Verify resistivity is outside limits

2. Observe light (9,2) is on
   a) Check that manual valve at solenoid valve is open

3. If Hi Alarm remains - Note 3 the following morning.

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Lo) ≤ 40 F
TOWER.LoTEMP. ALRM	Make up Piping - Outdoor	

ACTION:

1. Verify that Lo temp condition exists

2. Check that power to heat tracing is on
   a) If not, turn on circuit
   b) If on, raise thermostat to energize heat trace (TS-1)

3. Notes 1 and 3

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Hi/Lo/LoLo)
TWRBASIN.LoTEMP. ALRM	Tower basin water temp.	≤ 40 F

ACTION:

1. Verify Lo temperature

2. If temp < 40, check that power to basin heater is on
   a) If not, turn on and observe
   b) If on, heater has malfunctioned, advise MCR, turn off pump, close make-up valve and open basin drain

3. Notes 1 and 3

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Hi/Lo/LoLo)
		≤ 50 psig
LoAIR.ALRM	TOWER Instrument Air Supply	

ACTION:

1. Verify Low press
2. Call Plant Engineering Site Shift Supervisor at x4174, cell – 872-8988 or C/W desk x4284 during off hours.
3. Note 1 & 3 the following workday

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Hi/Lo/LoLo)
PRESS.SUP	TOWER Water Supply Pressure	240/200 psig

ACTION:

1. Verify pressure, discharge & suction
2. Check for large leaks in Bldg. 912 if Press. is low
3. Check that 912 operators have not placed additional equipment on line
   a) If so, request they be valved off untill pressure is within limits. Motor overcurrent may occur
4. If hi press, check:
   a) for closed valves at pressure control valve
   b) Request 912 operators to place additional equipment on line
5. Note 3

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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989.0-10

ALARM RESPONSE SHEET - COOLING TOWER No. 3

SIGNAL NAME	DESCRIPTION	ALARM LIMITS (Hi/Lo/LoLo) ≥ 10 ins. Hg
XPUMP8.LOSUCT.ALRM	PUMP INLET	
XPUMP9.LOSUCT.ALRM	PRESSURE	

ACTION:

1. Verify Lo suction pressure
2. If pump is cavitating, Note 3
   a) If not, Note 3 the next morning

NOTE:

1. Record Actions Taken
2. MCR = Main Control Room (x4662)
3. Call Mech Svcs from "Call In" list
4. Support 1 = Collider/Accelerator Support (2024)

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