

**CONTROL AIR
MAINTENANCE**

Effective date: 04/81
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Policy: Ensure that control air systems used to operate and monitor the facility environment are installed, operated, inspected, and maintained according to prevailing standards.

Prevailing Codes and Standards:

TJC EC 02.05.01 (9)

PM Cross Reference:

Task 11 Craft 1 all except Power Plants by Power Plant pm system

Locations:

I. Hospital Power Plant

- A. Two duplex compressors on normal power with one single compressor and tank on emergency power supply emergency backup control air to the hospital ground through 10th floors (except G wing) and Hospital Power Plant. The system is backed up by an interconnection through a common manifold in the basement of K Wing.
- B. One Atlas Copco screw compressor located first floor room S-G-11 supplies control air to hospital ground floor through 10th floor, K Wing, Laundry, A, B, C, D and E Buildings through a common manifold in the basement of K Wing.

II. Hospital Pent House (12th floor) - Control air furnished by 11K Atlas Copco System interconnected through common manifold in the basement of K Wing.

III. Hospital K-Wing (11th floor) - One duplex unit located in the penthouse mechanical room furnish emergency backup control air to K-Wing. System is interconnected through the common manifold in the basement of K-Wing. One Atlas Copco screw compressor located on 11K supplies control air to K Wing, Laundry, Hospital, and OPD. System interconnected through common manifold in the basement of K Wing.

IV. Hospital Outpatient Department (Ground floor) -One compressor and tank located in the ground floor mechanical room of the OPD building furnish emergency backup control air to the Outpatient Building.

V. Allied Health (Ground floor) - One duplex compressor located in the ground floor mechanical room (C1) furnish control air to Allied Health Ground through penthouse floors.

VI. **Medical School Power Plant (D-Bldg.)**

- A. Two single compressors and tanks located in the basement of D building furnish emergency backup control air to A, B, C, D and E buildings. The system is interconnected through the common manifold in the basement of K-Wing.
- B. One Atlas Copco screw compressor located 1st floor, D Building of Power Plant supplies control air to A, B, C, D, and E Buildings. System is interconnected through common manifold in the basement of K Wing.

Procedure:

VII. **Inspections**

- A. Daily/weekly
 - 1. Power Plant control air compressors will be checked as required by established Power Plant Policy.
 - 2. Control air compressors will be checked on a weekly basis with inspections to include: a) Check pump and motor operation. b) Blow down receiver tank. c) Check and/or drain moisture traps. d) Check operating pressures. e) Verify switch positions. f) Verify that the lead compressor alternates. g) Document inspection in shop maintenance log.
- B. Preventive Maintenance will be performed on all equipment as scheduled by the PM system. Inspections are to include:
 - 1. Electrical inspection
 - 2. Check lubrication levels.
 - 3. Clean equipment.
 - 4. Replace missing hardware.
 - 5. Replacement of lubricants and filters.
 - 6. Belt and sheave inspections. Backup systems.
 - 7. Performance checks.
 - 8. Verify alternator and unloader operation. Backup systems.
 - 9. Check and clean moisture removal systems
 - 10. Document inspection in historical files.

VIII. **Emergency Procedures**

- A. Loss of control air -the major symptom is the presence of heat in all floors common to the control air supply. The major cause will be compressor failure (not running) or major leak (running but can't keep up)
 - 1. Identify the compressor system common to the area affected.
 - 2. If affected compressor is in one of the power plants:
 - a) Notify power plant operator and jointly inspect to determine if alternate source is required.

- b) Restore compressor operation if possible.
 - c) Establish alternate source (see item B below) if needed.
 - d) Attempt to locate leak if leak is indicated. Leaks will usually be the result of recent demolition or construction.
 - e) Notify the Controls Shop Superintendent of the actions taken.
- B. Establish alternate source if normal source cannot be repaired. Go to the K-Wing basement. Locate the Control Air emergency manifold in the basement of K-Wing, behind the elevator pit.
1. Open a valve from a known good control air supply. Note: This supply may not be from the Laundry.
 2. Open the valve that supplies the failed system.
 3. Monitor the air compressor gauges and the temperature in the area that had failed. Document the failure in the maintenance log.