###### A2.1: OUTDOOR AIR INTAKE AND DAMPERS IN AHU

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Pollution Sources**:  No exhaust outlet w/i 25 ft?  Recorded distance \_\_\_\_\_\_\_\_ |  |  |  |  |
| No cooling tower w/i 25 ft?  Recorded distance \_\_\_\_\_\_\_\_ |  |  |  |  |
| No trash container w/i 25 ft?  Recorded distance \_\_\_\_\_\_ |  |  |  |  |
| No other source within 25 ft.?  Other sources \_\_\_\_\_\_\_\_\_\_ |  |  |  |  |
| **Operating hours:** Open during all occupied hours ?  Operating plan:\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |  |
| **Bird screen:** Mesh < 0.5”? Specified mesh\_\_\_\_\_\_” |  |  |  |  |
| **Other:** |  |  |  |  |
| **Walkthrough Checklist** |  |  |  |  |
| **Odors:** No noticeable odors from outdoors (e.g., roof tar, vehicle exhaust) ? |  |  |  |  |
| **Air intake**: No obstruction , bird droppings, or nests? |  |  |  |  |
| **Pollutant sources**: No sources w/I 25 ft. of intake (e.g., sanitary vents, solvents)? |  |  |  |  |
| **Bird screen:** No obstruction, no nests, clean? |  |  |  |  |
| **Face and bypass dampers:** Good condition, ease of movement? |  |  |  |  |
| **Control sequence**: Matches design specs? |  |  |  |  |

**A2.2: OUTDOOR AIR QUANTITY AT AHU**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

#### \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

#### Note: *For VAV systems, measure outdoor air quantity in both heating and cooling modes and in transition seasons. Measure both morning and afternoon flows.*

#### Option A: Measure outdoor air flow

*This is the preferred if using a flow hood to measure outdoor air flow is feasible.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Measured supply air from AHU**  **A** | **Measured outdoor air entering AHU**  **B** | C = B/A **Percent outdoor air(1)**  **C** | **Peak occupancy for space served by AHU(2)**  **D** | **E = D/B Outdoor air per occupant (3)**  **E** |
| cfm | cfm | % | occupants | cfm |

**Option B: Calculate outdoor air flow:**

Outdoor air (in percent) = {(Cs – Cr)/ (Co – Cr)} x 100

Cs = ppm of carbon dioxide in the supply air

Cr = ppm of carbon dioxide in return air

Co = ppm of carbon dioxide in outside air (at outdoor air intake)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **% Outdoor Air**  **(See Above)**  **A** | **Measured Supply Air Flow** B | Number of Occupants (peak number(2)  **C** | **Supply Air Per Occupant**  **D = B/C**  **D** | **Outdoor air per occupant(3)**  **E = D x (A/100)**  **E** |
| *%* | *cfm* | *occupants* | *cfm* | *cfm* |

(1) Percent outdoor air is a useful parameter to record. It is used when estimating the outdoor air per occupant in a given space served by the AHU: (See Form A1)

*(2) For office space, a default value for peak occupancy may be estimated: = floor area (ft2) divided by 150.*

(3) Should be compared with ASHRAE Standard 62-1989 (minimum of 20 cfm/occupant for office space)

**A2.3: MIXING PLENUM AND DAMPERS IN AHU**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

Address \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Prepared by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **LMH** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Mixed air temperature**:  Setting:\_\_\_\_\_\_. OK? |  |  |  |  |
| **Freeze stat:**  Setting \_\_\_ OK? |  |  |  |  |
| **Pressure** (negative):  Design pressure \_\_\_\_. OK? |  |  |  |  |
| Walkthrough Checklist |  |  |  |  |
| **Mixing plenum**: Clean, no obstructions? |  |  |  |  |
| **Floor drain**: Trapped, charged with water? |  |  |  |  |
| All Dampers Tight ? |  |  |  |  |
| Motor connections secure? |  |  |  |  |
| Motor functions OK? |  |  |  |  |

**A2.4: FILTERS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

Address \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Prepared by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | **Priority** | |
| **Parameter** | **OK** | **Not OK** | Notes | **LMH** |
| **Profile Checklist** |  |  | *Some profile data may be entered prior to walkthrough* |  |
| Rated dustspot efficiency \_\_\_\_\_. OK? |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Odor:** No noticeable odor? |  |  |  |  |
| **Accessibility**: Easily accessible for maintenance? |  |  |  |  |
| **Installation:** Correct with no bypassing air? |  |  |  |  |
| **Pressure drop**: Meets manufacturer’s specs? |  |  |  |  |
| **Moisture/dampness**: Not excessive? |  |  |  |  |
| **Filter loading**: No excessive dirt/dust? |  |  |  |  |

**A2.5 HEATING COIL IN AHU**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | **Priority** | |
| **Parameter** | **OK** | **Not OK** | Notes | **LMH** |
| **Profile Checklist** |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Supply water temperature setting** \_\_\_\_\_. OK? |  |  |  |  |
| **Temp. setting of discharge thermostat**\_\_\_\_\_. OK? |  |  |  |  |
| Walkthrough checklist |  |  |  |  |
| **Accessibility:** Easily accessible for inspection and maintenance? |  |  |  |  |
| **Coil condition**: Clean, no obstruction or corrosion, no leaks visible? |  |  |  |  |
| **Face and bypass dampers:** Good condition, ease of movement? |  |  |  |  |
| **Bypass damper motors:** Smooth operation? |  |  |  |  |
| **Control sequence**: Matches design specs? |  |  |  |  |
| **Reheat coils**: Clean, no obstruction, no leaks, operational? |  |  |  |  |

**A2.6 COOLING COILS AND CONDENSATE PANS IN AHU**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | **Priority** | |
| **Parameter** | **OK** | **Not OK** | Notes | **LMH** |
| **Profile Checklist** |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Supply water temperature setting:** \_\_\_\_\_\_\_  Design setting below 45°F? |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| Cooling coils |  |  |  |  |
| Easily accessible for inspection & maintenance ? |  |  |  |  |
| Clean, no rust? |  |  |  |  |
| No condensing water droplets in the air stream? |  |  |  |  |
| No condensation drainage problems? |  |  |  |  |
| Condensate drain pans |  |  |  |  |
| No noticeable odor? |  |  |  |  |
| Easily accessible for inspection and maintenance? |  |  |  |  |
| Clean, no residue, clogs, or debris? |  |  |  |  |
| No standing water, overflow, or leakage? |  |  |  |  |
| No visible bacterial or fungal growth (slime)? |  |  |  |  |
| Properly sloped and draining? |  |  |  |  |
| Traps properly installed, filled with liquid? |  |  |  |  |

###### A2.7 MECHANICAL ROOM

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Mixed air**: Mechanical room used as mixing chamber? | yes | no |  |  |
| **EMS / DDC:** |  |  |  |  |
| Operator on site / controlled off-site? | yes | no |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Odors**: No unusual odors? |  |  |  |  |
| **Cleanliness:** No dirt/ dust , buildup on floors and equipment? |  |  |  |  |
| **Storage**: No cleaning supplies, maintenance supplies, trash, etc.? |  |  |  |  |
| **Moisture**: No water leaks, pooling of water, past water damage? |  |  |  |  |
| **Noise**: No excess noise and vibration? |  |  |  |  |
| **Leakage:** No penetrations to adjacent spaces? |  |  |  |  |
| **Controls :** All controls operational? |  |  |  |  |

**A2.8 STEAM HUMIDIFIER**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | **Priority** | |
| **Parameter** | **OK** | **Not OK** | Notes | **LMH** |
| **Profile Checklist** |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Steam or hot water** : From a potable source? |  |  |  |  |
| **Minimum setpoint** \_\_\_\_\_\_\_  Intended setting RH<45%? |  |  |  |  |
| **High limit setpoint** \_\_\_\_\_\_  Intended setting: <70%? |  |  |  |  |
| Walkthrough checklist |  |  |  |  |
| **Installation:** Properly installation |  |  |  |  |
| **Drainage:** Proper drainage, drain line trapped |  |  |  |  |
| **Clean:** Pans clean, no standing water or overflow |  |  |  |  |
| **Deposits**: No mineral deposits |  |  |  |  |
| **Microbial contamination:** |  |  |  |  |
| No visible biological growth |  |  |  |  |
| If duct liner within 12 feet, no dirt or mold growth? |  |  |  |  |

**A2.9 SPRAY HUMIDIFIER OR AIR WASHER**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Spill containment**: System in place? |  |  |  |  |
| **Biocide** treatment schedule:  Last treatment date\_\_\_\_. OK? |  |  |  |  |
| Walkthrough checklist |  |  |  |  |
| **Coverage**: Complete coil coverage? |  |  |  |  |
| **Nozzles:** Working properly? |  |  |  |  |
| **Cleanliness** :Pans clean, no standing water or overflow? |  |  |  |  |
| **Microbial contamination**: No signs of mold or bacteria? |  |  |  |  |
| **Drains:** Properly trapped? |  |  |  |  |

**A2.10 CONTROLS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Profile items may be completed prior to walkthrough* |  |
| **Thermostat** |  |  |  |  |
| Setpoints: Summer: \_\_\_\_. Winter \_\_\_. Calibrated? |  |  |  |  |
| Not in direct sun or near supply vent? |  |  |  |  |
| **Humidistat** : Setpoint: \_\_\_\_\_\_  Calibrated? |  |  |  |  |
| **Dehumidistat:** Setpoint: \_\_\_\_  Calibrated? |  |  |  |  |
| Walkthrough checklist |  |  |  |  |
| **Time clocks** |  |  |  |  |
| Read correct time? |  |  |  |  |
| Settings match schedule(set back/set up, night/weekend? |  |  |  |  |
| Switches: Summer/winter in correct position? |  |  |  |  |
| Pneumatic Controls |  |  |  |  |
| Line pressure for occupied and unoccupied setting OK? |  |  |  |  |
| Line pressure at thermostat and damper actuator OK? |  |  |  |  |
| Control system changed per manufacturer’s instruction? |  |  |  |  |
| Line dryer preventing moisture buildup? |  |  |  |  |
| **Freeze-stat:** Tripping mechanism operating at proper temperature? |  |  |  |  |

**A2.11 AIR DUCTS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| **Walkthrough checklist** |  |  |  |  |
| **Condition**. |  |  |  |  |
| No damage, dents, leaks? |  |  |  |  |
| Mounting secure? |  |  |  |  |
| Connections sealed. |  |  |  |  |
| **Access:** Easy access for maintenance? |  |  |  |  |
| **Clean:.** |  |  |  |  |
| No excess dirt or erosion? |  |  |  |  |
| No debris? |  |  |  |  |
| No water condensation. No , dampness, mold, biological growth? |  |  |  |  |
| **Fire damper:** Open and accessible for maintenance |  |  |  |  |
| **Access doors**: Closed? |  |  |  |  |
| **Grilles**: Clean and unobstructed. |  |  |  |  |
| **Return air path**: Clean and unobstructed? |  |  |  |  |

**A2.12 AIR PLENUMS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Profile items may be completed prior to walkthrough* |  |
| **Layout**: Adequate for air distribution? |  |  |  |  |
| **Balance:** Capable for balancing? |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Accessibility:** Easily accessible for maintenance |  |  |  |  |
| **Odors**: No unusual odors in plenum or space? |  |  |  |  |
| **Clean:** No debris, excess dirt, excess dampness, signs of biological growth? |  |  |  |  |
| **Leaks:** No leaks from other systems (look for stained ceiling tiles? |  |  |  |  |
| **Fireproofing and insulation**: Secure, clean, no erosion. Does not contaminate space? |  |  |  |  |
| **Fire dampers**: Open? |  |  |  |  |
| **Ceiling tiles**: All tiles in place. No stains? |  |  |  |  |
| **Openings**: No unintentional openings? |  |  |  |  |

**A2.13 DIFFUSERS, GRILLES, AND REGISTERS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Profile items may be completed prior to walkthrough* |  |
| **Allocation:** Every room has supply air (or transfer path/grilles) plus return (or exhaust) air? |  |  |  |  |
| Walkthrough checklist |  |  |  |  |
| **Supply diffusers**: |  |  |  |  |
| No excess dirt or dust? |  |  |  |  |
| Open, noticeable flow of air? |  |  |  |  |
| **Return or exhaust**. |  |  |  |  |
| Not close to supply diffuser? |  |  |  |  |
| No excess dirt on registers? |  |  |  |  |
| **Noise**: Minimal diffuser and register noise? |  |  |  |  |

**A2.14 FAN AND FAN CHAMBERS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Profile items may be completed prior to walkthrough* |  |
| **Fan Controls.** Design sequence \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Chamber:** |  |  |  |  |
| Clean, no trash or storage? |  |  |  |  |
| Drain traps wet or sealed? |  |  |  |  |
| No air leaks; door seals tight? |  |  |  |  |
| No standing water? |  |  |  |  |
| No corrosion? |  |  |  |  |
| **Fan:** |  |  |  |  |
| No excess vibration, no unusual noise? |  |  |  |  |
| Fan blades clean, not damaged? |  |  |  |  |
| Belts with proper tension, no excess wear, guards installed? |  |  |  |  |
| **Controls**: |  |  |  |  |
| Operational and calibrated? |  |  |  |  |
| Sequence consistent with design ? |  |  |  |  |

**A2.15 EXHAUST FANS IN SPECIAL USE AREAS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| Exhaust is installed |  |  |  |  |
| Meets code? |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Fans**: Working during occupied hours? |  |  |  |  |
| **Registers:** Open, clear? |  |  |  |  |
| **Makeup air path:** Adequate make-up air, clear path? |  |  |  |  |
| **Room Pressure**: Negative relative to building? |  |  |  |  |
| **Noise:** No excessive noise? |  |  |  |  |
| **Grilles:** Clean, unobstructed? |  |  |  |  |
| **Controls:** Operational? |  |  |  |  |
| **Doors:** Closed? |  |  |  |  |

**A2.16 TERMINAL BOXES (VAV / CAV)**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| VAV |  |  |  |  |
| Min. stops\_\_\_\_\_\_\_. OK? |  |  |  |  |
| Min. flow \_\_\_\_\_\_\_ OK? |  |  |  |  |
| Min. outside air \_\_\_\_\_\_. OK? |  |  |  |  |
| Supply set pt. summer \_\_\_ OK? |  |  |  |  |
| Supply set pt. winter\_\_\_ OK? |  |  |  |  |
| Walkthrough checklist |  |  |  |  |
| **Exterior**: Overall exterior condition OK? |  |  |  |  |
| **Ducts**: Visible ductwork condition and insulation OK? |  |  |  |  |
| **Noise**: No air or fan noise or vibration? |  |  |  |  |
| **Accessibility:** All parts accessible for maintenance |  |  |  |  |
| **Filter:** condition and installation OK? |  |  |  |  |
| **Dampers**: Operational? |  |  |  |  |
| **Control setpoints**: Match design setpoints? |  |  |  |  |
| **Reheat coils**: Clean, operational, no obstruction? |  |  |  |  |

**A2.17 FAN COIL UNIT / UNIT VENTILATOR/ INDUCTION UNITS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| **Walkthrough checklist** |  |  |  |  |
| **Condition:** No rust, no corrosion? |  |  |  |  |
| **Ducts:** Visible ductwork condition and insulation OK? |  |  |  |  |
| **Noise**: No unusual noise or vibration? |  |  |  |  |
| **Duct vibration isolation**: Installed, good condition? |  |  |  |  |
| **Accessibility**. All parts accessible for maintenance? |  |  |  |  |
| **Filter**: Clean. Pressure drop within manufacturer’s specs? |  |  |  |  |
| **Controls:** Match design settings? |  |  |  |  |
| **Dampers** : Operational, no obstructions. |  |  |  |  |
| **Pipes:**  No leaks? |  |  |  |  |
| Wall/floor cavity sealed? |  |  |  |  |
| **Drain pan**.  Clean, no residue, no biol.  growth (e.g. slime)? |  |  |  |  |
| Sloped, no standing water,  no leaks? |  |  |  |  |
| No overflow, trapped drain? |  |  |  |  |

**A2.18 HEAT PUMP**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| **Walkthrough Checklist** |  |  |  |  |
| **Exterior condition**: No corrosion, air leakage? |  |  |  |  |
| **Ducts:** Visible ductwork condition OK? |  |  |  |  |
| **Noise:** No unusual noise or vibration? |  |  |  |  |
| **Duct vibration isolation:** Installed and condition OK? |  |  |  |  |
| **Accessibility:** All parts accessible for maintenance? |  |  |  |  |
| **Filter:** Condition OK? Installed properly? |  |  |  |  |
| **Controls**: Calibrated? |  |  |  |  |
| Pipe insulation: Condition OK |  |  |  |  |
| **Coil and drain pan:** Evaporator coil and drain pan clean. Pan drains OK. |  |  |  |  |
| **Refrigerant:** No bubbling in refrigerant sight glass |  |  |  |  |
| **Refrigerant line**: Proper outlet and inlet temperatures? |  |  |  |  |
| **Discharge air streams**: No unusual odors |  |  |  |  |
| **Leakage:** No uncontained leakage from system |  |  |  |  |

**A2.19 BOILER**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Combustion air:** Dedicated supply from outside available? |  |  |  |  |
| **Chemical treatment:**  Last treated \_\_\_\_\_\_. OK? |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Boiler room:** |  |  |  |  |
| Clean, no combustibles? |  |  |  |  |
| Odors: No unusual odors? |  |  |  |  |
| Noise: No noise or vibration? |  |  |  |  |
| **Flue**: No corrosion, leaks, breeching tight? |  |  |  |  |
| **Fuel system**: Tight, no leaks? |  |  |  |  |
| **Purge cycle**: Working? |  |  |  |  |
| **Door gaskets**: Tight? |  |  |  |  |
| **Combustion air**. At least 1 square inch free area per 2000 BTU input? |  |  |  |  |

**A2.20 CHILLER**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Refrigerant temp**: (<45°F for moisture removal ?) |  |  |  |  |
| **Chemical treatment:** Last treated \_\_\_\_\_\_. OK? |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Leaks**: No refrigerant leaks? |  |  |  |  |
| **Condensation:** No condensation problems? |  |  |  |  |
| **Purge cycle**: Normal? |  |  |  |  |
| **Disposal:** Proper disposal of waste oil and refrigerant. |  |  |  |  |
| **Storage**: Proper storage of spare refrigerant? |  |  |  |  |

**A2.21 CONDENSING EQUIPMENT (COOLING TOWER)**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Some profile data may be entered prior to walkthrough* |  |
| **Chemical treatment**: Last treatment date: \_\_\_\_\_. OK? |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Sump**: Clean, no slime or algae? |  |  |  |  |
| **Baffles**: Clean, no slime or algae? |  |  |  |  |
| **Water:** Condition normal. No signs of slime or algae? |  |  |  |  |
| **Mist eliminators:** Clean, no carryover? |  |  |  |  |
| **Leakage:** No water leakage or overflow? |  |  |  |  |
| **Nearby receptors:** Mist not migrating to inappropriate receptors? |  |  |  |  |
| **Noise**: No unusual noise or vibration? |  |  |  |  |
| **Dirt separator**: Working? |  |  |  |  |
| **Biocide treatment:** Working and effective? |  |  |  |  |

**A2.22 EMERGENCY GENERATORS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| **Walkthrough checklist** |  |  |  |  |
| **Machine room**: No odors? |  |  |  |  |
| **Room pressure**: Negative? |  |  |  |  |
| **Exhaust**: Exhaust stack in good condition? |  |  |  |  |
|  |  |  |  |  |

**A2.23 ELEVATOR, STAIRWELLS**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| **Walkthrough checklist** |  |  |  |  |
| **Elevator Systems** |  |  |  |  |
| Shaft is clean (floor, walls, and ceiling); adequately ventilated? |  |  |  |  |
| Elevator is clean, ventilated? |  |  |  |  |
| Stairwells |  |  |  |  |
| No unusual odors? |  |  |  |  |
| Doors close and latch properly? |  |  |  |  |
| No openings allowing uncontrolled air flow? |  |  |  |  |
| Clean, dry, no signs of smoking? |  |  |  |  |

**A2.24 AIR COMPRESSOR AND PNEUMATIC SYSTEM**

Building \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Location\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Prepared by\_\_\_\_\_\_\_\_\_ \_\_\_\_Date\_\_\_\_\_\_

Equipment \_\_\_\_\_\_\_\_\_\_\_\_ Manufacturer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Other ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_File # \_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Condition** | | Priority | |
| Parameter | **OK** | **Not OK** | Notes | **L**  **M**  **H** |
| Profile Checklist |  |  | *Profile items may be completed prior to walkthrough* |  |
| **Pressure**:  Operating range \_\_\_\_\_\_. OK? |  |  | **Notes** |  |
| **Relief valve**:  Setting \_\_\_\_\_\_\_. OK? |  |  |  |  |
| **Cycling**: For compressors with alternating cycles . Timing between cycles \_\_\_\_\_. OK? |  |  |  |  |
| **Walkthrough checklist** |  |  |  |  |
| **Odor**: No odor from compressed air? |  |  |  |  |
| **Contamination:** No evidence of oil contaminating system ? |  |  |  |  |
| **System sizing:** Appropriate? |  |  |  |  |
| **Pneumatic lines:** Good condition? |  |  |  |  |
| **Leakage:** No observable system air leakage? |  |  |  |  |
| **Dessicator and filters**: Good condition? |  |  |  |  |
| **Function**: Effective compression? |  |  |  |  |
| **Belt:** Tight fit, no excess wear? |  |  |  |  |