HVAC & AIR QUALITY INSPECTION CHECKLIST

(Monthly HVAC & Airflow Checks)

Monthly HVAC & Airflow Checks

For the month of ....., Date .....

TASK	STATUS
Inspect and replace air filters (or clean reusable filters). Dirty filters reduce airflow, increase energy costs, and circulate contaminants. Replace per manufacturer schedule or when visibly loaded.	
Check thermostat settings and calibration in each zone. Verify displayed temperature matches actual room temperature using a calibrated thermometer.	
Walk the facility and check all supply and return vents. Confirm none are blocked by furniture, curtains, storage, or wall decorations.	
Listen for unusual noises from air handlers, blower motors, or compressors (grinding, rattling, squealing). Report for service.	
Inspect condensate drain lines and drain pans for clogs, standing water, or biofilm. Standing water in drain pans is a Legionella and mold risk.	
Check that the system cycles normally — no short-cycling, continuous running, or failure to reach set temperature.	
Verify exhaust fans in bathrooms, kitchens, and laundry areas are operating and venting to the outside (not into attic or ceiling space).	
Inspect visible ductwork for disconnections, damaged insulation, moisture stains, or signs of mold growth.	
Additional Task:	

Instructions:

Perform these checks monthly year-round. In senior living and healthcare facilities, poor airflow directly affects resident health. Condensate drain pans with standing water are a documented Legionella risk — drain and clean pans every month during cooling season. Filter replacement frequency depends on the facility: high-occupancy buildings and facilities with pets may require monthly replacement.

HVAC & AIR QUALITY INSPECTION CHECKLIST

(Monthly Air Quality Walkthrough)

Air Quality Walkthrough

For the month of ....., Date .....

TASK	STATUS
Walk common areas, resident rooms, and corridors. Note any unusual odors (musty, chemical, sewage). Odors indicate ventilation issues, mold, or plumbing problems.	
Check relative humidity levels in occupied spaces. Target: 30–60% (ASHRAE). Humidity above 60% promotes mold growth. Below 30% causes respiratory discomfort.	
Inspect for visible mold on walls, ceilings, around windows, in bathrooms, and near HVAC vents. Document location, size, and photos.	
Check that CO (carbon monoxide) detectors are present, powered, and current in all required locations. Test per manufacturer instructions.	
Verify outdoor air intakes are clean and unobstructed. Check that intakes are not near dumpsters, loading docks, exhaust vents, or standing water.	
Inspect windows and exterior doors for gaps, failed seals, or water intrusion that could introduce uncontrolled outdoor air or moisture.	
Check air freshener or deodorizer use. Chemical air fresheners can trigger respiratory reactions in sensitive residents. Document types in use.	
Review any recent resident or staff complaints about air quality, temperature, stuffiness, or odors. Investigate and resolve root causes.	
Additional Task:	

Instructions:

This walkthrough focuses on what occupants experience, not just what the equipment is doing. In senior living facilities, residents may not report air quality issues themselves. Musty odors, excessive humidity, and visible mold require immediate investigation. Relative humidity above 60% for extended periods creates conditions for mold growth and dust mite proliferation.

HVAC & AIR QUALITY INSPECTION CHECKLIST

(Spring / Pre-Cooling Season)

Spring / Pre-Cooling Season

Date .....

TASK	STATUS
Replace all air filters before cooling season begins.	
Clean condenser coils on outdoor units. Remove dirt, leaves, and debris. Maintain 2+ feet of clearance around all sides.	
Clean evaporator coils on indoor units. Dirty evaporator coils reduce cooling and cause ice buildup.	
Check refrigerant levels. Low refrigerant = a leak. Schedule a licensed technician for leak repair and recharge (EPA Section 608 certification required).	
Inspect and clean the blower assembly: fan blades, motor, and housing.	
Check and tighten all electrical connections. Measure voltage and current on motors.	
Inspect the condensate drain system end-to-end. Flush the drain line with a bleach/water solution to prevent algae and biofilm buildup.	
Test the cooling system: run a full cycle and verify cold air reaches all zones, including resident rooms farthest from the air handler.	
Calibrate thermostats and verify programming for summer schedules and occupancy patterns.	
Lubricate all moving parts (fan motors, bearings, shaft assemblies) per manufacturer specifications.	
Additional Task:	

Instructions:

Complete before cooling season begins (March–April in most U.S. regions). Only EPA Section 608 certified technicians may handle refrigerant. Condensate drain flushing with a diluted bleach solution prevents the algae and biofilm that cause drain clogs and standing water later in the season.

HVAC & AIR QUALITY INSPECTION CHECKLIST

(Fall / Pre-Heating Season)

Fall / Pre-Heating Season

Date .....

TASK	STATUS
Replace all air filters before heating season begins.	
Inspect heat exchangers for cracks or corrosion (gas furnace/boiler systems). A cracked heat exchanger can leak carbon monoxide — this is a life safety issue.	
Test the ignition system and burner assembly. Verify clean ignition and a stable, blue flame. Yellow or flickering flames indicate incomplete combustion.	
Check gas connections and supply lines for leaks using a gas leak detector or soap-bubble test.	
Inspect the flue/exhaust vent for blockages, corrosion, bird nests, or disconnected sections.	
Test the heating system: run a full cycle and verify warm air reaches all zones and resident rooms.	
Inspect and replace belts if cracked, glazed, or worn. Check pulley alignment.	
Clean and inspect the humidification system (if equipped). Mineral buildup and contaminated humidifiers can aerosolize pathogens into the air supply.	
Test CO detectors throughout the facility. Replace batteries and units per manufacturer schedule.	
Verify the emergency shutoff switch for the heating system is accessible, labeled, and functional.	
Additional Task:	

Instructions:

Complete before heating season begins (September–October in most U.S. regions). A cracked heat exchanger is a carbon monoxide emergency. If a crack is found, shut down the system immediately and do not restart until repaired or replaced. CO is odorless and colorless — it cannot be detected without working detectors.

HVAC & AIR QUALITY INSPECTION CHECKLIST

(Annual Professional Service)

Annual Professional Service

Date .....

TASK	STATUS
Schedule a licensed HVAC contractor for a full annual inspection and tune-up of all heating and cooling equipment.	
Perform a combustion efficiency test on all gas-fired equipment. Adjust burners for optimal air-fuel ratio.	
Check refrigerant charge and perform electronic leak detection on all cooling equipment.	
Inspect and test all safety controls: high-limit switches, pressure switches, flame sensors, and rollout switches.	
Measure airflow at supply diffusers in critical areas (resident rooms, dining areas, common spaces) and compare to design specifications.	
Inspect all electrical components: contactors, capacitors, relays, and wiring for signs of wear or arcing.	
Test the economizer operation (if equipped). Verify dampers open and close at the correct outdoor temperatures.	
Inspect ductwork for leaks, damage, or contamination. Seal identified leaks with mastic or metal tape.	
Review refrigerant tracking records (EPA Section 608 requires tracking for systems with 50+ lbs of refrigerant).	
Review energy consumption data year-over-year. Significant increases may indicate declining system efficiency or duct leakage.	
Additional Task:	

Instructions:

Annual service should be performed by a licensed HVAC contractor. For facilities with both heating and cooling, biannual professional service (spring + fall) is recommended. ASHRAE Standard 62.1 sets minimum outdoor air ventilation rates for commercial buildings. ASHRAE Standard 170 applies to healthcare and senior living facility ventilation. Keep the service report on file for state health department surveys, Joint Commission inspections, and insurance.

HVAC & AIR QUALITY INSPECTION CHECKLIST

Documentation and Compliance

Date .....

TASK	STATUS
Maintain a filter replacement log: date, filter type/size, location, and person responsible for each change.	
Record all temperature and humidity readings from seasonal service visits and monthly walkthroughs.	
File annual technician service reports including findings, refrigerant amounts added, and parts replaced.	
Keep EPA Section 608 refrigerant records for any system containing 50+ lbs of refrigerant.	
Document all indoor air quality complaints: date, location, description, investigation findings, and corrective actions.	
Record mold inspection findings. Document remediation actions and follow-up verification for any mold discovered.	
Track CO detector testing dates, battery replacements, and unit replacement schedule.	
Retain all HVAC and air quality records for a minimum of 3 years for regulatory surveys, insurance, and accreditation.	
Additional Task:	

Instructions:

Documentation protects your facility during surveys, insurance claims, and air quality complaints. ASHRAE Standard 62.1 requires documentation of ventilation system inspection and maintenance. In senior living and healthcare settings, air quality records may be reviewed during state licensing surveys, CMS inspections, or Joint Commission visits. Mold findings must be documented with photos, remediation steps, and verification testing.