

O&M Best Practice Checklist

INDOOR AIR QUALITY (IAQ)

A Preventive Maintenance Checklist for Facility Operators

AUDIENCE

Facility maintenance staff, building operators, and chief building engineers responsible for the operation, inspection, verification, and maintenance of building HVAC and ventilation systems. Designers, industrial hygienists, commissioning agents, and owners may also use this checklist as a reference.

MINDSET

Proactive vs. Reactive. Healthy buildings start with healthy systems and stay ready for reactive scenarios when they arise.

WHY

Indoor air quality (IAQ) directly affects occupant health, productivity, cognitive function, attendance, and long-term wellbeing. Poor IAQ has been associated with increased respiratory illness, asthma, allergies, infectious disease transmission, sick-building symptoms, and reduced learning and work performance. Most IAQ problems in operating buildings are not design failures, they are operations and maintenance failures: clogged or bypassed filters, fouled coils, blocked condensate drains, insufficient outdoor air, damaged ductwork, uncalibrated sensors, microbial growth, unmanaged moisture, and cleaning using chemicals. Routine, documented preventive maintenance of the ventilation system is the single most cost-effective tool a facility team has to protect occupants and the asset value of the building.

BACKGROUND & OBJECTIVES

The goals of this IAQ preventive-maintenance checklist are to:

- Provide facility staff with a single, practical schedule of monthly, quarterly, semi-annual, annual, and multi-year IAQ inspection tasks aligned with ANSI/ASHRAE Standard 62.1-2025 Section 8 (Operations & Maintenance) and ANSI/ASHRAE/ACCA Standard 180.
- Maintain ventilation and air-cleaning systems so that the design intent for outdoor air, filtration, exhaust, and pressurization is sustained throughout the life of the building.
- Detect and correct common IAQ failure modes such as moisture intrusion, biological growth, filter bypass, blocked drains, damper failures, sensor drift, before they become occupant complaints, illness, or property damage.
- Reduce occupant exposure to airborne particulate matter (PM2.5 / PM10), VOCs, formaldehyde, mold, dust, allergens, combustion byproducts (CO, NO2), and infectious aerosols.
- Establish the proactive baseline that supports event-driven ASHRAE consensus documents — Standard 241 (Control of Infectious Aerosols) and Guideline 44 (Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events).
- If applicable, align with voluntary rating systems including LEED v5 (Enhanced IAQ Strategies, IAQ Performance, Source Control, Healthy Cleaning).
- Create a documented, auditable record (logs, dates, findings, corrective actions) that supports building-water-quality plans, ASHRAE Standard 188 / Guideline 12, infectious-disease and smoke readiness, and warranty/insurance requirements.
- Promote a 'good is better than perfect' culture: complete the basic checks every cycle, capture observations, and iterate.

MEASURES OF SUCCESS

- ✓ All ventilation tasks in ASHRAE 62.1 Table 8-1 completed at minimum required frequency
- ✓ Designed outdoor airflow rates verified annually and within ±10% of design
- ✓ Filters installed, sealed, and replaced on schedule (or by ΔP)
- ✓ Cooling-coil, drain-pan, and condensate-drain inspections show no biological growth or standing water
- ✓ Humidity maintained during cooling season; dew-point control verified
- ✓ Building pressurization positive vs. outdoors (where designed); zone pressure relationships maintained
- ✓ Documented IAQ Management / Legionella / Combustion-Safety plans current and signed
- ✓ Standard 241 Infection-Risk-Mitigation Mode and Guideline 44 Smoke Readiness Plan documented and verified annually (if applicable)
- ✓ No active occupant complaints related to odor, dust, mold, stuffiness, or temperature/humidity
- ✓ Reduction in unscheduled work orders and HVAC service calls year over year

HOW TO USE THIS CHECKLIST

Each frequency tab (Monthly, Quarterly, Semi-Annual, Annual, Multi-Year) is a stand-alone inspection sheet. For each task, record the date completed, the technician initials, and a status (Pass / Fail / N/A / Deferred). If a task fails or cannot be verified, log a corrective action in the 'Findings / Corrective Action' column and on the 'Additional Observations Log' tab. Attach photos, readings, and TAB reports to the building's O&M manual. Increase frequency for any task that repeatedly fails, that operates in unusual conditions, or that supports critical-care occupancies. Validation tasks marked (V) require calibrated tools or a qualified technician (per ASHRAE 62.1 Note 3).

PRIMARY SOURCES

- ANSI/ASHRAE Standard 62.1-2025 — Ventilation and Acceptable Indoor Air Quality, Section 8 (Operations & Maintenance) and Table 8-1
- ANSI/ASHRAE/ACCA Standard 180-2018 — Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems

- ANSI/ASHRAE Standard 188-2021 — Legionellosis: Risk Management for Building Water Systems (referenced for cooling tower & drift)
- ASHRAE Standard 241-2023 — Control of Infectious Aerosols
- ASHRAE Guideline 12 — Managing the Risk of Legionellosis Associated with Building Water Systems
- U.S. EPA — Building Air Quality: A Guide for Building Owners and Facility Managers; IAQ Tools for Schools
- USGBC LEED v5 — Indoor Environmental Quality credits (Enhanced IAQ Strategies, Indoor Air Quality Performance, Source Control, Cleaning & Maintenance)
- ASHRAE Standard 52.2 — Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size (MERV)
- ASHRAE Guideline 44-2024 — Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events
- NFPA 96
- Local building codes, such as IRC, IFC or IMC
- ASHRAE 154-2022, Ventilation for Commercial Cooking Operations, 54 - , 211
- ANSI/ASSP Z9.5-2022, Laboratory Ventilation
- NADCA ACR, The NADCA Standard for Assessment, Cleaning & Restoration of HVAC Systems--2025 Edition
- SMACNA, IAQ Guidelines for Occupied Buildings
- NIOSH - National Institute for Occupational Safety and Health,
- ASHRAE Handbook 2023 = ASHRAE Handbook-HVAC Applications, Chapter 34 §1.14 Operations & Maintenance

IAQ Preventive Maintenance — Monthly Tasks

Walk-through inspections to be completed every 30 days. These tasks catch the most common and fastest-moving IAQ failures: clogged filters, blocked drains, biological growth on coils, humidity excursions, and occupant complaints. Most can be completed visually using the BAS front-end and a flashlight.

Building / Site:

Inspector:

Period:

#	Topic / Equipment	Inspection / Maintenance Task	Type	Source / Reference	Standard Section / Clause	Status	Date Completed	Performed By (Initials)	Findings / Corrective Action
VENTILATION SYSTEM OPERATION									
1	Ventilation schedule	Verify that the BAS / control system is operating mechanical ventilation during all expected occupied periods per the building schedule and design intent. Confirm no overrides have been left active.	V	ASHRAE 62.1-2025	§8.3 Ventilation System Operation				
2	Outdoor airflow	Spot-check outdoor airflow rate at AHUs equipped with airflow stations. Confirm OA is not below the design minimum during occupied operation. Trend OA% over the past 30 days for anomalies.	V	ASHRAE 62.1-2025	§6.2 / §8.5 Task 11a				
3	Demand-Control Ventilation (DCV)	Spot-check CO2 levels in densely occupied spaces (conference rooms, classrooms, auditoriums). Confirm CO2-DCV strategy is responding to occupancy and not stuck at minimum or maximum.	V	LEED v5 EQ + ASHRAE 62.1	EQ Indoor Air Quality Performance / §5.19				
4	BAS alarms	Review BAS alarm log for filter ΔP, low/high RH, low OA flow, freeze-stat trips, and supply-air-temp deviations. Acknowledge and dispatch as required.	V	ASHRAE 180-2018	AHU controls maintenance				
AIR FILTRATION									
5	Air filter pressure drop	Read filter ΔP gauges or BAS trends at each AHU. Replace any filter exceeding the maximum ΔP listed in the O&M manual or manufacturer's data.	V	ASHRAE 62.1-2025	§5.5 / §8.5 Task 5a				
6	Filter integrity & seal	Visually inspect accessible filters for tears, damage, sagging, dust bypass, or moisture. Verify gasket/seal integrity so airflow cannot bypass the filter.	V	ASHRAE 62.1-2025	§5.5 / §8.5 Task 5a				
7	Filter housing & rack	Inspect filter rack and housing for damage, gaps, or daylight visible at edges. Confirm correct filter thickness, fit, and size for the housing assembly.	V	ASHRAE 180-2018	Filter section				
8	Walk-off mat / entryway system	Inspect entryway walk-off mats (≥ 10 ft / 3 m in primary direction of travel). Vacuum or replace as needed to reduce particulate ingress.	V	LEED v5 EQ	Enhanced IAQ Strategies — Entryway Systems				
OUTDOOR AIR INTAKES & EXHAUST									
9	OA intakes — visual	Visually inspect outdoor air intakes for blockage, debris, ice, snow accumulation, bird/insect/rodent activity, vegetation, and proximity of new exhaust or contaminant sources.	V	ASHRAE 62.1-2025	§5.4 / §8.5 Task 4a				
10	Exhaust openings	Confirm exhaust fans are running during occupied hours (kitchen, bathroom, janitor closet, parking, lab). Verify exhaust openings are not blocked and discharge away from intakes.	V	ASHRAE 62.1-2025	§5.4 / §6.5 / §8.5 Task 18a				
11	Source separation	Walk the perimeter and roof; confirm no new dumpsters, cooling towers, generators, loading docks, or smoking areas have been placed within minimum separation distances of OA intakes.	V	ASHRAE 62.1-2025	§5.4 / §8.5 Task 3a				
MOISTURE, DRAINS & HUMIDITY									
12	Drain pans & condensate drains	Visually inspect accessible drain pans for standing water, biological growth, sediment, or rust. Verify condensate drains freely; clear traps and prime as needed.	V	ASHRAE 62.1-2025	§5.7 / §8.5 Task 6a				
13	Humidifier operation	Verify humidifier feed and drain are operational. Inspect for scale, biological growth, leaks, and dispersion-pattern wetting on duct walls.	V	ASHRAE 62.1-2025	§5.8 / §8.5 Task 7a				
14	Space humidity	Verify space relative humidity is within design limits (typically 30–60% RH). Investigate persistent excursions > 60% RH that can drive microbial growth.	V	ASHRAE 62.1-2025	§5.12 / §8.5 Task 12a				
15	Moisture indicators	Walk occupied spaces and look for ceiling-tile staining, wall discoloration, peeling paint, bubbling flooring, or musty odors — any of which indicate active or historical moisture intrusion.	V	U.S. EPA Building Air Quality	BAQ Guide — Moisture				
AIR-CLEANING DEVICES									
16	UV-C / air cleaners	Verify operation status indicators on UV-C lamps and other air-cleaning devices. Note any lamp-out or fault alarms.	V	ASHRAE 62.1-2025	§5.9 / §8.5 Task 8a (Quarterly minimum)				
OCCUPANT-FACING & SOURCE CONTROL									
17	Smoking / source-control compliance	Verify no-smoking signage at all building entrances and within 25 ft (7.6 m) of OA intakes, operable windows, and entrances. Confirm no combustion sources have been placed indoors.	V	LEED v5 EQ + ASHRAE 62.1	EQ Environmental Tobacco Smoke / §5.4				
18	Cleaning chemicals storage	Verify cleaning chemicals, paints, solvents, pesticides, and other contaminants are NOT stored in mechanical rooms, return-air plenums, or other air-handling spaces.	V	ASHRAE 62.1-2025	§5.10 / §8.5 Task 10a				
19	CO / combustion-safety alarms	Test carbon-monoxide alarms in parking garages, mechanical rooms with combustion equipment, and any space served by combustion appliances. Replace batteries; log test date.	V	LEED v5 + NFPA / IRC	EQ Source Control				
20	Occupant complaint log	Review and respond to all occupant IAQ complaints (odor, dust, stuffiness, headaches, irritation) received in the past 30 days. Document response and disposition.	V	LEED v5 EQ	EQ IAQ Management Plan				
21	Integrated Pest Management (IPM)	Confirm no rodent, bird, or insect activity in mechanical rooms, plenums, or near OA intakes. Verify pest-control service records are current.	V	LEED v5 EQ	EQ Cleaning & Maintenance — IPM				
22	Diffusers & return grilles	Visually inspect supply diffusers, return grilles, and exhaust grilles for dust accumulation, blockage by furniture or stored items, and damaged louvers/dampers.	V	ASHRAE 180-2018	Air distribution				

Type Codes:

V = Verify (visual inspection / BAS data, no calibrated tools) | Vd = Validate (calibrated tools, qualified technician — per ASHRAE 62.1 §8.5 Note 3)

IAQ Preventive Maintenance — Quarterly Tasks

Quarterly tasks add a closer look at filtration performance, air-cleaning device function, damper operation, and BAS sensor accuracy. Several ASHRAE 62.1-2025 Table 8-1 tasks have a minimum frequency of Quarterly.

Building / Site:		Inspector:		Period:					
#	Topic / Equipment	Inspection / Maintenance Task	Type	Source / Reference	Standard Section / Clause	Status	Date Completed	Performed By (Initials)	Findings / Corrective Action
AIR FILTRATION — VERIFY									
1	Filter fit, function & performance	Verify air filtration efficiency and PM rating meet or exceed the minimum requirements. Confirm filter thickness, fit, and seal so that airflow cannot bypass the media. Replace any filter exceeding maximum ΔP per the O&M	V	ASHRAE 62.1-2025	\$5.5 / §8.5 Task 5a				
2	Electronic-air-cleaner operation	Verify electronic air-cleaning devices (electrostatic precipitators, ionizers, photocatalytic units) are operating in accordance with the manufacturer's instructions. Check fault and indicator lights.	V	ASHRAE 62.1-2025	\$5.9 / §8.5 Task 8a				
3	UV-C lamp condition	Inspect UV-C lamps for malfunction or end-of-life indication. Determine root cause for any lamp failure. Clean lamps per manufacturer instructions; replace per manufacturer schedule or upon failure.	V	ASHRAE 62.1-2025	\$5.9 / §8.5 Task 8a				
4	Gas-phase / activated-carbon media	Inspect activated-carbon and other gas-phase filtration modules for media life. Replace per manufacturer schedule or per occupant odor / VOC complaint trend.	V	ASHRAE 180-2018 + LEED v5	Gas-phase filtration / EQ Enhanced Strategies				
DAMPERS, ECONOMIZERS & FANS									
5	Outside-air dampers — operation	Stroke OA, return-air, exhaust, and economizer dampers full open / full close via the BAS. Verify smooth travel, full closure (no daylight), tight actuator clamps, and fail-safe direction on power loss.	V	ASHRAE 62.1-2025	\$5.19 / §8.5 Task 14a				
6	Backdraft & isolation dampers	Verify backdraft dampers and combination smoke/fire dampers operate freely and seal under no-flow conditions.	V	ASHRAE 180-2018	Damper assembly maintenance				
7	Fan-assembly inspection	Inspect supply, return, exhaust, and dedicated outdoor air fans for belt wear, sheave alignment, bearing noise, balance, vibration, and cleanliness. Lubricate per OEM.	V	ASHRAE 180-2018	Fan section				
SENSORS & CONTROLS — VERIFY									
8	CO2 sensor reasonableness	Compare BAS-displayed CO2 readings in dense spaces against a calibrated handheld instrument. Investigate drift > ±100 ppm. Confirm sensors not at end of OEM calibration interval.	V	ASHRAE 62.1-2025	\$5.19 / §8.5 Task 11a				
9	Humidity & temperature sensors	Cross-check space and duct humidity and temperature sensors against a calibrated reference. Investigate drift exceeding manufacturer tolerance.	V	ASHRAE 62.1-2025	\$5.8 / §8.5 Task 7a				
10	CO / NO2 sensors	Functionally test CO and NO2 sensors in parking garages and mechanical rooms with combustion equipment. Verify alarms shed power to ignition sources or activate exhaust as designed.	V	LEED v5 EQ + IFC/IMC	EQ Source Control / Local Code				
KITCHEN / EXHAUST / SPECIALTY									
11	Kitchen exhaust grease filters	Inspect and clean grease filters in commercial kitchen exhaust hoods. Inspect duct condition. Coordinate hood cleaning per NFPA 96 schedule.	V	ASHRAE 154 / NFPA 96	Commercial cooking exhaust				
12	Bathroom & janitor exhaust	Verify continuous or scheduled bathroom and janitor closet exhaust fans are operating, achieving design CFM, and discharging to exterior (not into a return plenum).	V	ASHRAE 62.1-2025	\$6.5 / §8.5 Task 18a				
13	Lab / fume-hood exhaust	Confirm lab fume-hood face velocity, sash position alarm function, and lab-room negative pressurization where applicable.	V	ANSI/ASSP Z9.5	Laboratory ventilation				
AHU INTERIOR & DISTRIBUTION									
14	AHU interior cleanliness	Open AHU access doors and visually inspect mixing-box, filter section, coil section, and fan section for dust accumulation, biological growth, microbial staining, and debris. Photograph any concerns.	V	ASHRAE 180-2018	AHU interior				
15	Diffuser & return-grille cleaning	Vacuum/wipe diffusers, return-air grilles, and transfer grilles. Inspect ceiling-cavity (if return plenum) for dust accumulation on top side of tiles.	V	ASHRAE 180-2018 + LEED v5	Air distribution / EQ Cleaning				

Type Codes:

V = Verify (visual inspection / BAS data, no calibrated tools) | Vd = Validate (calibrated tools, qualified technician — per ASHRAE 62.1 §8.5 Note 3)

IAQ Preventive Maintenance — Semi-Annual Tasks

Semi-annual tasks (twice per year, typically aligned with cooling-season start-up and heating-season start-up). Several ASHRAE 62.1-2025 Table 8-1 tasks have a minimum frequency of Semiannually. These checks dig deeper into AHU internals, drains, humidifiers, intakes, and access provisions.

Building / Site:

Inspector:

Period:

#	Topic / Equipment	Inspection / Maintenance Task	Type	Source / Reference	Standard Section / Clause	Status	Date Completed	Performed By (Initials)	Findings / Corrective Action
OUTDOOR AIR INTAKES & EXHAUST OPENINGS — DETAILED									
1	OA intakes — full inspection	Inspect outdoor air intakes, exhaust openings, bird screens, louvers, dampers, and attached components and ducting for: (a) biological growth, (b) corrosion, (c) buildup of dirt and debris, (d) presence of birds/insects/animals, (e) integrity. Clean and repair as needed; determine root cause.	V	ASHRAE 62.1-2025	\$5.4 / \$8.5 Task 4a				
2	Bird screens / insect screens	Remove, clean, and inspect bird and insect screens. Verify minimum 1/2 in mesh on bird screens and that screens have not collapsed or been damaged.	V	ASHRAE 62.1-2025 + ASHRAE 180	\$5.4.5 / Intake hood				
3	Louver drainage	Verify louver drain pans and weep holes are clear; confirm rain/snow does not enter the airstream.	V	ASHRAE 180-2018	Outdoor air intake				
DRAIN PANS, TRAPS & CONDENSATE									
4	Drain pans — full inspection	Inspect drain pans within all air-handling equipment, ductwork, and plenums. Verify: pan is positioned under all water-producing devices; pan slopes toward drain outlet; no biological growth, corrosion, or debris; water drains freely; traps/seals/priming devices are wet and operational; pumps are	V	ASHRAE 62.1-2025	\$5.7 / \$8.5 Task 6a				
5	Drain pan treatment	Apply EPA-registered antimicrobial drain-pan treatment (tablets/strips) per manufacturer schedule. Do NOT use ozone or unapproved chemicals.	V	ASHRAE 180-2018 + LEED v5	Drain pan / EQ Clearing				
6	Condensate drain priming	Confirm draw-through and blow-through trap depths are sized correctly for the AHU static pressure. Re-prime traps that may have evaporated during shoulder season.	V	ASHRAE 62.1-2025	\$5.7.4 / \$7.2.3				
HUMIDIFIERS & DEHUMIDIFIERS									
7	Humidifier — full inspection	Inspect humidifiers and dehumidifiers: verify drain components function as intended; verify water-feed components function; inspect for biological growth, corrosion, or debris on units or associated ducting; verify humidity / dew-point / moisture sensors read within design ranges; verify operation of	V	ASHRAE 62.1-2025	\$5.8 / \$8.5 Task 7a				
8	Dispersion-tube wetting	Inspect dispersion zones for wetting of duct walls, downstream coils, or absorption distance. Adjust setpoint or modulation to eliminate wetting.	V	ASHRAE 180-2018	Humidifier maintenance				
9	Steam humidifier cylinder / canister	For electrode / steam-cylinder type humidifiers, inspect cylinder fouling and replace canister per OEM schedule.	V	ASHRAE 180-2018	Humidifier maintenance				
ACCESS, SPACE & EQUIPMENT INTEGRITY									
10	Access for maintenance	Verify space and access is provided and unobstructed for: balancing/verification/measurement areas; routine maintenance and inspection per §8.2; verification of components per §8.5; sensors, instruments, controls, equipment; access doors and panels (functional, repair as needed.	V	ASHRAE 62.1-2025	\$5.10 / \$5.21 / \$8.5 Task 9a				
11	AHU casing & insulation integrity	Inspect AHU casing, doors, gaskets, and internal liner / insulation in accessible areas for damage, moisture, biological growth, and corrosion. Repair as needed.	V	ASHRAE 62.1-2025 + ASHRAE 180	\$5.1.2 / \$8.5 Task 2a				
12	Coil cleanliness — visual	Inspect cooling and heating coils for fouling, fin damage, biological staining, and air-side bypass. Schedule deep coil cleaning if visual loading exceeds OEM threshold.	V	ASHRAE 180-2018	Coil maintenance				
13	Energy-recovery ventilator (ERV) cores	Inspect ERV / HRV cores, plates, or wheels for fouling, frost damage, gasket condition, and seal-bypass. Clean per OEM. Verify purge sector (wheel) is set correctly.	V	ASHRAE 180-2018	ERV/HRV				
DUCTWORK & PLENUMS									
14	Accessible duct insulation	Inspect piping and ductwork insulation system in accessible areas for integrity and signs of moisture or biological growth and repair as needed.	V	ASHRAE 62.1-2025	\$5.1.2 / \$8.5 Task 2a				
15	Plenum / mechanical-room cleanliness	Inspect floor, ceiling, and mechanical-room plenum systems and ductwork — verify no biological growth, corrosion, insects, or animals; verify chemicals, cleaning products, equipment, or other materials are not stored in air-handling spaces or plenums.	V	ASHRAE 62.1-2025	\$5.10 / \$5.11 / \$8.5 Task 10a				
OCCUPANT-FACING & DOCUMENTATION									
16	IAQ Management Plan refresh	Walk-through review of the IAQ Management Plan, including procedures for new occupant complaints, construction/renovation IAQ controls, smoking policy, and pollutant source control. Update as needed.	V	LEED v5 EQ	EQ Indoor Air Quality Management Plan				
17	Occupant survey (optional)	Distribute or review occupant satisfaction / IAQ comfort survey results (where program is in place). Trend results and address recurring complaints.	V	LEED v5 EQ	EQ Occupant Comfort Survey				

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IAQ Preventive Maintenance — Annual Tasks

Annual inspections — the deepest verification cycle short of full TAB validation. These tasks comprise most of ASHRAE 62.1-2025 Table 8-1 and are the foundation of the building's IAQ Management Plan, the O&M Manual, and any LEED v5 IAQ documentation.

Building / Site:

Inspector:

Period:

#	Topic / Equipment	Inspection / Maintenance Task	Type	Source / Reference	Standard Section / Clause	Status	Date Completed	Performed By (Initials)	Findings / Corrective Action
REGIONAL & PROGRAMMATIC									
1	Nonattainment-area status	Verify that the building is located in an area not designated as a nonattainment area for criteria pollutants (40 CFR 50). If newly designated nonattainment, prepare and implement a plan to comply with §6.1.4.	V	ASHRAE 62.1-2025	§4.1 / §6.1.4 / §8.5 Task 1a				
2	Building alteration / change-of-use review	Document any alterations, changes in occupancy, density, or use over the past year. If any are inconsistent with system design assumptions, re-evaluate ventilation system design, operation, and maintenance and update the O&M manual.	V	ASHRAE 62.1-2025	§8.1.2				
3	Separation distances	Verify that no modifications to the HVAC system or facility have been made that impact separation distances between OA intakes and exhausts/contaminant sources. Document deficiencies and corrective actions.	V	ASHRAE 62.1-2025	§5.4.1 / §8.5 Task 3a				
AIR BALANCE & VENTILATION RATES									
4	Annual air-balance verification	Review design documents and most recent TAB report. Determine if reported airflow rates meet design intent. When OA airflow is displayed: verify outdoor airflow meets design; in spaces requiring exhaust per Table 6-2, verify exhaust > supply. Verify dynamic-reset and OA per Task 14a.	V	ASHRAE 62.1-2025	§5.10.3 / §7.2.2 / §8.5 Task 11a				
5	CO2 sensor calibration date & DCV setup	Verify CO2 sensor calibration date is within manufacturer interval; if not, calibrate. Determine space type and design occupancy and verify maximum CO2 limit is correctly set. Verify ventilation reduction or occupancy-standby behavior in unoccupied spaces.	V	ASHRAE 62.1-2025	§5.19 / §8.5 Task 11a				
6	Humidity-limit compliance	Verify cooling systems maintain indoor conditions below the humidity limits referenced in §5.12. Take corrective actions for excursions.	V	ASHRAE 62.1-2025	§5.12 / §8.5 Task 12a				
7	Building pressurization & directional airflow	Verify directional airflow and building pressurization. Verify zones are pressurized positive or negative per design and that flow moves toward exhaust. Verify operation of any pressure indication / measurement sensors.	V	ASHRAE 62.1-2025	§5.14 / §5.18 / §6.5.1.4 / §8.5 Task 13a				
LEGIONELLA & WATER-AEROSOL CONTROL									
8	Legionella plan	Verify Legionella risk-management plan is implemented and maintained per ASHRAE Standard 188 / Guideline 12. Confirm cooling tower drift eliminator, biocide program, and inspection records are current.	V	ASHRAE 62.1-2025 + Std 188	§5.22 / §8.5 Task 15a				
NATURAL & EXHAUST VENTILATION									
9	Natural ventilation	Verify occupant-operated natural-ventilation openings are functional and accessible. Verify automated controls operate during occupied periods and openings cannot close except during unoccupied periods or when mechanical ventilation is active. Verify mechanical-ventilation backup operates when	V	ASHRAE 62.1-2025	§6.4.3 / §8.5 Task 17a				
10	Exhaust-system verification	For Prescriptive path (§6.5.1): review TAB report and verify exhaust airflow rates per Tables 6-2 and 6-3. For Performance path (§6.5.2): verify exhaust monitoring/control is detecting and maintaining concentrations below limits, and design airflow rates are maintained by airflow sensors.	V	ASHRAE 62.1-2025	§6.5 / §8.5 Task 18a				
AHU INTERIOR — DEEP CLEAN									
11	Cooling-coil deep clean	Perform full cooling-coil cleaning (chemical or steam) per OEM and IAQ guidance. Inspect for fin damage, corrosion, and biological loading. Photograph before/after.	V	ASHRAE 180-2018 + LEED v5	Coil cleaning / EQ Cleaning				
12	Heating-coil inspection	Inspect heating coil (hot water, steam, or electric) for cleanliness, leaks, corrosion, and proper drainage of condensate from steam coils. Clean as needed.	V	ASHRAE 180-2018	Heating coil				
13	AHU full interior cleaning	Open all AHU access doors. Clean mixing-box, filter section, fan section, and downstream-of-coil surfaces. Wipe down internal liner. Document any insulation damage requiring repair.	V	ASHRAE 180-2018 + LEED v5	AHU cleaning / EQ Cleaning				
14	ERV/HRV core service	Service ERV/HRV cores: replace gaskets and seals, deep-clean plates or wheel, verify purge angle (wheel), verify defrost strategy, and confirm bypass damper function.	V	ASHRAE 180-2018	ERV/HRV service				
15	Duct cleaning assessment	Inspect supply and return ductwork (with camera or borescope where accessible) for dust loading, biological growth, debris, and rodent activity. Engage a NADCA-certified contractor if cleaning is warranted.	V	NADCA ACR / ASHRAE 180	Duct cleaning				
HUMIDIFIERS & DEHUMIDIFIERS — ANNUAL									
16	Humidifier media replacement	Replace humidifier media (evaporative pads, electrode cylinders, ultrasonic transducers) per OEM schedule. Inspect dispersion nozzles and steam-line trap function.	V	ASHRAE 180-2018	Humidifier service				
17	Desiccant dehumidifier	Inspect desiccant rotor, regeneration heater, purge sector, and seals. Verify performance per OEM data.	V	ASHRAE 62.1-2025 + 180	§5.8				
CONTROLS & SENSORS									
18	Sensor calibration audit	Audit calibration records for all IAQ-relevant sensors: CO2, OA flow stations, RH, dewpoint, T, static pressure, CO, NO2, occupancy. Re-calibrate per OEM.	V	ASHRAE 62.1-2025	§5.19 / Task 11a				
19	Demand-control ventilation logic	Audit BAS sequences for DCV: minimum OA per zone, maximum CO2 setpoint, occupancy-standby behavior, and dynamic-reset-to-design logic.	V	ASHRAE 62.1-2025	§5.19 / §6.2.5				
20	Standard 241 Infection-Risk-Mitigation Mode (if applicable)	If the building has implemented Standard 241 (control of infectious aerosols), verify the Infection-Risk-Mitigation Mode (IRMM) controls are operational, the equivalent clean airflow is being delivered, and the BMP equipment is in compliance.	V	ASHRAE 241-2023	§ Building Readiness / IRMM				
21	Guideline 44 Smoke Readiness (if applicable)	If the building is in a wildfire-impacted region and has implemented Guideline 44, verify the Smoke Readiness Plan is current and the building is ready to switch to Smoke-Ready Mode: outdoor-air dampers can be closed and economizer / DCV overridden via the BAS while maintaining positive building pressure; MERV 13 (or highest practical) filtration is in place with seals intact; supplemental OA-intake filters and portable air cleaners (PACs) are stocked; envelope sealing is intact; PM2.5 monitors are functional and a non-event baseline is captured; smoke detectors have been cleaned/tested pre-season; and staff are trained on plan activation, supplemental filter installation, and return-to-normal procedures.	V	ASHRAE Guideline 44	§6.1 / §6.2 / Checklist 1				
SOURCE CONTROL & DOCUMENTATION									

22	IAQ assessment / measurement	Conduct an annual IAQ assessment. At minimum measure CO2, PM2.5, TVOC, formaldehyde, RH, and T at representative locations. Compare results to LEED v5 thresholds and ASHRAE / WHO guidelines.	V	LEED v5 EQ + ASHRAE 62.1 IAQP	EQ Indoor Air Quality Performance / §6.3				
23	Combustion-safety check	Inspect all combustion appliances (boilers, furnaces, water heaters, fireplaces, generators) — flue/vent integrity, draft, spillage, CO output. Document corrective actions.	V	LEED v5 + NFPA 54 / 211	EQ Source Control				
24	Garage & loading dock CO/NO2 management	Verify garage exhaust systems are interlocked with CO/NO2 sensors and operate to maintain concentrations below the limits in §6.5 / §8.5 Task 18a.	V	ASHRAE 62.1-2025	§6.5 / Task 18a				
25	O&M Manual update	Review and update the written or electronic O&M manual: O&M procedures, ventilation operating schedules, design drawings, manufacturer maintenance schedules, inspection/maintenance frequencies from Table 8-1 and Std 180.	V	ASHRAE 62.1-2025	§8.2				
26	Staff training & competency	Provide annual IAQ-focused training for all O&M staff: ventilation fundamentals, filter handling, mold awareness, sensor calibration basics, occupant-complaint response.	V	LEED v5 EQ	EQ Cleaning & Maintenance				
27	Construction / renovation IAQ controls	Review controls used during any construction, renovation, or major repair work in the past year (SMACNA IAQ Guidelines for Occupied Buildings; flush out if any). Confirm protections were documented.	V	LEED v5 + SMACNA	EQ Construction IAQ Management				
28	Cleaning chemical / Green Cleaning policy	Confirm Green-Cleaning policy is in effect; cleaning products and procedures comply with low-VOC criteria; SDS file is current; pesticide / IPM record is current.	V	LEED v5 EQ	EQ Cleaning & Maintenance / IPM				

Type Codes:

V = Verify (visual inspection / BAS data, no calibrated tools) | Vd = Validate (calibrated tools, qualified technician — per ASHRAE 62.1 §8.5 Note 3)

IAQ Preventive Maintenance — Multi-Year (2–3 Years) & As-Required

Multi-year tasks include the validation activities that require calibrated instruments and qualified technicians (per ASHRAE 62.1 §8.5 Note 3), and the deeper IAQP / dynamic-reset reviews. Schedule these into a 3-year rolling plan in the O&M manual.

Building / Site:

Inspector:

Period:

#	Topic / Equipment	Inspection / Maintenance Task	Type	Source / Reference	Standard Section / Clause	Status	Date Completed	Performed By (Initials)	Findings / Corrective Action
EVERY 2 YEARS									
1	Variable-load / dynamic-reset controls	Inspect and test damper assemblies (seals, linkages, full-range travel, actuator-clamp tightness, fail-safe direction). Inspect fan assemblies (belt tension, sheave alignment, bearings, balance, cleanliness, electrical, VFDs). For ventilation zones with airflow sensors, verify zone-level controls reset to changing conditions; verify zone air ventilation rates during fan turndown; verify DCV zones respond to occupancy; verify occupancy controls shut off zone ventilation when unoccupied or in standby.	V	ASHRAE 62.1-2025	§5.19 / §6.2.5–6.2.6 / §8.5 Task 14a				
2	IAQP system change review	For systems designed per the Indoor Air Quality Procedure (IAQP, §6.3), verify whether changes to occupancy, space utilization, new procedures (printers, computers, cleaning chemicals), new components (new furniture), or refurbishments (carpet, paint, tile, windows) have been made that could increase the design compounds in Table 6-5. If yes, trigger Task 16b validation.	V	ASHRAE 62.1-2025	§6.3 / §8.5 Task 16a				
EVERY 3 YEARS									
3	Humidity-sensor validation	Validate (calibrated tools, qualified technician) that humidity, dew point, and other moisture-measurement sensors are calibrated and function as intended.	Vd	ASHRAE 62.1-2025	§5.8 / §8.5 Task 7b				
4	TAB air-balance validation	Measure outdoor airflows of all units and adjust as necessary. Spot-check space-level airflows at minimum 20% of all zones at outlets and inlets. Rebalance as necessary to comply with design intent and the standard. Rebalance exhaust airflows to maintain pressurization. Validate CO2 sensor	Vd	ASHRAE 62.1-2025	§5.10.3 / §5.19 / §6.2.5–6.2.6 / §7.2.2 / §8.5 Task 11b				
AS REQUIRED (event-driven)									
5	IAQP design-compound (DC) and PM2.5 validation	For systems designed per the IAQP, validate that concentrations of design compounds (DCs) and PM2.5 remain less than the design limits per §6.3.1. Perform objective evaluation per §7.3.1; if any limit is exceeded, perform root-cause analysis (flow rates, cleaner repair/replacement). Conduct subjective occupant evaluation per §7.3.2 and address concerns.	Vd	ASHRAE 62.1-2025	§6.3.1 / §6.3.3.2 / §7.3 / §8.5 Task 16b				
6	Post-renovation flush-out	After major renovation or new construction, perform a building flush-out using 100% outdoor air per LEED v5 or conduct post-construction IAQ testing prior to occupancy.	V	LEED v5 EQ	EQ Construction IAQ Management — Flush-out				
7	Event-driven IAQ assessment	Initiate special IAQ investigation in response to: occupant complaint clusters, water intrusion / flooding, fire / smoke event, sewer-gas event, microbial contamination event, infectious-disease outbreak. During wildfire or prescribed-burn smoke events, implement the building's Smoke Readiness Plan per ASHRAE Guideline 44 (place building in Smoke-Ready Mode and return to normal operation when smoke clears).	V	U.S. EPA / NIOSH / ASHRAE 241 / Guideline 44	Incident response				

Type Codes:

V = Verify (visual inspection / BAS data, no calibrated tools) | Vd = Validate (calibrated tools, qualified technician — per ASHRAE 62.1 §8.5 Note 3)

IAQ Preventive Maintenance - Commercial Kitchen Ventilation

Operations & maintenance tasks for commercial kitchen ventilation (CKV) systems. CKV is a complex system covering exhaust hoods, grease ducts, exhaust fans, makeup/replacement air, fire suppression, and pollution control. Improper O&M creates fire, IAQ, and energy risks. Frequencies and procedures below are drawn from the 2023 ASHRAE Handbook-HVAC Applications, Chapter 34 §1.14. Refer to NFPA 96 for additional operation and maintenance requirements related to fire and life safety.

Building / Site:

Inspector:

Period:

#	Topic / Equipment	Inspection / Maintenance Task	Type	Source / Reference	Standard Section / Clause	Status	Date Completed	Performed By (Initials)	Findings / Corrective Action
DAILY / EACH SHIFT									
1	Cooking surfaces	Clean solid cooking surfaces between each cycle if possible, or at least once daily. baked-on product insulates and retards heat transfer.	V	ASHRAE Handbook 2023	Ch. 34 §1.14 - Cooking Equipment				
2	Frying medium	Filter frying medium daily; change on the schedule recommended by the supplier.	V	ASHRAE Handbook 2023	Ch. 34 §1.14 - Cooking Equipment				
3	Hood grease filters	Clean hood grease filters at least daily. High-efficiency grease extractors may require cleaning during each shift.	V	ASHRAE Handbook 2023	Ch. 34 §1.14 - Exhaust Systems				
MONTHLY									
4	Solid-fuel appliances	Monthly duct cleaning with weekly inspections; verify spark arrestors and required spacing from fryers.	Vd	ASHRAE Handbook 2023	Ch. 34 §1.14 - Cooking Equipment				
QUARTERLY									
SEMI-ANNUAL (every 6 months)									
5	AHU / coils / fan seasonal cleaning	Clean replacement-air AHU, coils, and fan in spring and fall (seasonal change). More frequent cleaning may be required in contaminated environments. Check that the replacement air system is operating. Check that dampers are set correctly, filters and exchangers are clean, the belts are tight, the fan is turning in the correct direction, and supply and return ductwork and registers are open, with supply air discharging in the correct direction and pattern. If drafts persist, the system may need to be rebalanced. If noise persists in a balanced system, system changes may be required.	Vd	ASHRAE Handbook 2023	Ch. 34 §1.14 - Supply, Replacement & Return Air				
ANNUAL									
6	Capture-and-containment verification	Capture-and-containment verification check of kitchen exhaust hoods.	Vd	ASHRAE Handbook 2023	Ch. 34 §1.14 - Recommissioning				
7	Control-system performance verification	Performance verification check of all control systems related to the CKV system.	Vd	ASHRAE Handbook 2023	Ch. 34 §1.14 - Recommissioning				
EVERY 2 YEARS									
8	Outside-air verification	Verify proper outside-air quantities to the kitchen.	Vd	ASHRAE Handbook 2023	Ch. 34 §1.14 - Recommissioning				
EVERY 5 YEARS (MINIMUM) / MULTI-YEAR									
9	CKV system recommissioning	Recommission and rebalance the CKV system at minimum every 5 years.	Vd	ASHRAE Handbook 2023	Ch. 34 §1.14 - Recommissioning				
AS-REQUIRED / EVENT-DRIVEN									
10	Recommission after change	Recommission and rebalance any time CKV-related HVAC equipment is changed (replacing exhaust or makeup fans, relocating supply/return grilles), or cooking equipment is replaced with equipment of a different function (e.g., fryer to broiler).	Vd	ASHRAE Handbook 2023	Ch. 34 §1.14 - Recommissioning				
11	Recommission after performance issue	Recommission and rebalance whenever performance issues arise - smoke or heat loss from hoods, abnormal space temperatures, high-velocity drafts at pass-through windows, condensation, or negative building pressure.	Vd	ASHRAE Handbook 2023	Ch. 34 §1.14 - Recommissioning				
12	Professional cleaning contractor	Use trained, qualified, certified persons (acceptable to the AHJ) for exhaust-system cleaning. Verify adequate liability insurance. Reference PWNA / IKECA member directories and best practices.	V	ASHRAE Handbook 2023	Ch. 34 §1.14 - Supply, Replacement & Return Air				

Type Codes:

V = Verify (visual inspection / BAS data, no calibrated tools) | Vd = Validate (calibrated tools, qualified technician)

Source & Standards Crosswalk

This crosswalk maps the requirements of ASHRAE Standard 62.1-2025 §8 Table 8-1, ANSI/ASHRAE/ACCA Standard 180, and LEED v5 Indoor Environmental Quality credits to the tabs in this workbook so a reviewer can confirm coverage.

Standard / Rating System	Section / Credit	Title / Topic	Frequency	Where in this Workbook
ASHRAE STANDARD 62.1-2025 — §8 OPERATIONS & MAINTENANCE				
ASHRAE 62.1-2025	§8.1.1	Application of O&M requirements to in-service buildings	—	Cover & Guide
ASHRAE 62.1-2025	§8.1.2	Reevaluate when building is altered or use changes; update O&M manual	Event-driven	Annual
ASHRAE 62.1-2025	§8.2	Develop and maintain written/electronic O&M Manual	Ongoing	Annual
ASHRAE 62.1-2025	§8.3	Operate ventilation systems consistent with O&M manual; ventilate spaces during occupancy	Ongoing	Monthly
ASHRAE 62.1-2025	§8.4	Maintain ventilation system components per O&M manual	Ongoing	All freq tabs
ASHRAE 62.1-2025	§8.5 Task 1a	Verify nonattainment-area status (4.1 / 6.1.4)	Annually	Annual
ASHRAE 62.1-2025	§8.5 Task 2a	Inspect piping/ductwork insulation in accessible areas (5.1.2)	Annually	Annual / Semi-Annual
ASHRAE 62.1-2025	§8.5 Task 3a	Verify no modifications affecting separation distances (5.4.1)	Annually	Annual / Monthly
ASHRAE 62.1-2025	§8.5 Task 4a	Inspect OA intakes & exhaust openings, screens, louvers, dampers (5.4.3–5.4.5)	Semi-annually	Semi-Annual / Monthly
ASHRAE 62.1-2025	§8.5 Task 5a	Verify air filtration fit, function, and performance (5.5 / 5.9)	Quarterly or scheduled	Quarterly / Monthly
ASHRAE 62.1-2025	§8.5 Task 6a	Inspect drain pans, seals, traps, drains within AHE (5.7)	Semi-annually	Semi-Annual / Monthly
ASHRAE 62.1-2025	§8.5 Task 7a	Inspect humidifiers and dehumidifiers (5.8)	Semi-annually	Semi-Annual / Monthly
ASHRAE 62.1-2025	§8.5 Task 7b	Validate humidity / dew-point sensor calibration (5.8)	Every 3 years	Multi-Year
ASHRAE 62.1-2025	§8.5 Task 8a	Verify operation of electrical air-cleaners and UV devices (5.9)	Quarterly	Quarterly / Monthly
ASHRAE 62.1-2025	§8.5 Task 9a	Verify space and access for maintenance and inspection (5.10.1 / 5.21)	Semi-annually	Semi-Annual
ASHRAE 62.1-2025	§8.5 Task 10a	Inspect floor/ceiling/mech-room plenums and ductwork; no chemicals stored (5.10.2 / 5.11)	Annually	Annual / Semi-Annual
ASHRAE 62.1-2025	§8.5 Task 11a	Air-balance verification; CO2 sensor cal date; DCV setup	Annually	Annual
ASHRAE 62.1-2025	§8.5 Task 11b	TAB air-balance validation; sensor calibration	Every 3 years	Multi-Year
ASHRAE 62.1-2025	§8.5 Task 12a	Verify cooling systems maintain humidity below limits (5.12)	Annually	Annual / Monthly
ASHRAE 62.1-2025	§8.5 Task 13a	Verify directional airflow and building pressurization (5.14 / 5.18)	Annually	Annual
ASHRAE 62.1-2025	§8.5 Task 14a	Verify variable-load / dynamic-reset controls (5.19 / 6.2.5–6.2.6)	Every 2 years	Multi-Year / Quarterly
ASHRAE 62.1-2025	§8.5 Task 15a	Verify Legionella plan implemented (5.22)	Annually	Annual
ASHRAE 62.1-2025	§8.5 Task 16a	IAQP — verify changes to occupancy / use / components (6.3)	Every 2 years	Multi-Year
ASHRAE 62.1-2025	§8.5 Task 16b	IAQP — validate DC and PM2.5 below design limits (6.3 / 7.3)	As required	Multi-Year
ASHRAE 62.1-2025	§8.5 Task 17a	Verify natural-ventilation controls and accessibility (6.4.3)	Annually	Annual
ASHRAE 62.1-2025	§8.5 Task 18a	Verify exhaust ventilation per Tables 6-2 / 6-3 (6.5)	Annually	Annual / Quarterly
ANSI/ASHRAE/ACCA STANDARD 180-2018				
ASHRAE 180-2018	Filters	Filter inspection, ΔP, replacement, seal integrity	Monthly to Quarterly	Monthly / Quarterly
ASHRAE 180-2018	Coils	Cooling and heating coil inspection, cleaning, biological growth	Quarterly to Annually	Semi-Annual / Annual
ASHRAE 180-2018	Drain pans / condensate	Pan slope, biological growth, trap depth, drainage	Monthly to Semi-Annually	Monthly / Semi-Annual
ASHRAE 180-2018	Humidifiers / Dehumidifiers	Operation, scale, water quality, dispersion	Monthly to Annually	All freq tabs
ASHRAE 180-2018	Dampers	Stroke, seal, linkage, fail-safe direction	Quarterly to Bi-annual	Quarterly / Multi-Year
ASHRAE 180-2018	Fans	Belt, sheave, bearings, balance, cleanliness	Quarterly to Annually	Quarterly / Annual

ASHRAE 180-2018	AHU casing / interior	Interior cleanliness, gaskets, seals, insulation	Quarterly to Annually	Quarterly / Annual
ASHRAE 180-2018	Ductwork & plenums	Cleanliness, leakage, insulation, biological growth	Semi-Annually to Annually	Semi-Annual / Annual
ASHRAE 180-2018	ERV / HRV	Core fouling, gasket condition, seal bypass, defrost	Semi-Annually to Annually	Semi-Annual / Annual
ASHRAE 180-2018	Sensors	Functional verification of CO2, RH, T, OA flow	Quarterly to Annually	Quarterly / Annual
ASHRAE 180-2018	Exhaust systems	Kitchen, bathroom, lab, garage exhaust	Monthly to Quarterly	Monthly / Quarterly
USGBC LEED v5 — INDOOR ENVIRONMENTAL QUALITY (EQ)				
LEED v5 EQ	Minimum IAQ Performance (Prereq)	Comply with ASHRAE 62.1-2022/2025 design and O&M minimums	Ongoing	All freq tabs
LEED v5 EQ	Environmental Tobacco Smoke Control (Prereq)	Prohibit smoking inside; signage; 25 ft from openings	Ongoing / Monthly	Monthly
LEED v5 EQ	Enhanced IAQ Strategies — Entryway Systems	Walk-off mats ≥ 10 ft at primary entrances	Monthly	Monthly
LEED v5 EQ	Enhanced IAQ Strategies — Filtration	MERV 13 (or higher) filters; verify fit and function	Quarterly	Quarterly / Monthly
LEED v5 EQ	Enhanced IAQ Strategies — Source-Capture Exhaust	Exhaust at chemical / printing / janitorial spaces	Quarterly to Annually	Quarterly / Annual
LEED v5 EQ	Indoor Air Quality Performance	Annual measurements: CO2, PM2.5, TVOC, formaldehyde, RH, T	Annually	Annual
LEED v5 EQ	Source Control — Combustion Safety	Inspect flues/vents/draft on all combustion appliances	Annually	Annual
LEED v5 EQ	Source Control — CO Monitoring	CO sensors in garages, mechanical rooms with combustion	Quarterly	Monthly / Quarterly
LEED v5 EQ	IAQ Management Plan	Written plan: complaint response, source control, O&M procedures	Annually + ongoing	Cover / Semi-Annual / Annual
LEED v5 EQ	Construction IAQ Management	SMACNA IAQ Guidelines during construction; flush-out or testing	Event-driven	Multi-Year
LEED v5 EQ	Cleaning & Maintenance — Green Cleaning	Low-VOC cleaning products; SDS file; training	Annually + ongoing	Annual / Monthly
LEED v5 EQ	Cleaning & Maintenance — Integrated Pest Mgmt	IPM plan; non-toxic-first hierarchy; service records	Monthly + Annually	Monthly / Annual
LEED v5 EQ	Occupant Comfort Survey	Distribute occupant satisfaction / IAQ survey, address findings	Semi-Annually to Annually	Semi-Annual
ASHRAE STANDARD 188 / GUIDELINE 12 / STANDARD 241 / GUIDELINE 44				
ASHRAE 188-2021	§5–7	Building Water System Risk Management — Legionella	Ongoing / Annual	Annual
ASHRAE Guideline 12	—	Managing the Risk of Legionellosis	Ongoing / Annual	Annual
ASHRAE 241-2023	Building Readiness / IRMM	Infectious-Aerosol Risk-Mitigation Mode	Annual + event-driven	Annual
ASHRAE Guideline 44	§6	Smoke Readiness Plan — wildfire & prescribed-burn smoke events	Annual + event-driven	Annual / As-Required
ASHRAE Handbook-HVAC Applications - 2023	Chapter 34 §1.14	Operations & maintenance tasks for commercial kitchen ventilation (CKV) systems	Annual + event-driven	Separate Tab