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IMC Section 202 Glossary

219 plain-English definitions from IMC Section 202, each with a field-application note on where it actually matters during plan review and inspection. Original paraphrased wording — not a copy of ICC/IMC code text — written and reviewed by Masterbuild's licensed PE.

This glossary is general reference material, not a substitute for the current adopted code or a project-specific determination. For a determination tied to your drawings, equipment schedule, or AHJ, contact Masterbuild Consulting.

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General

Abrasive Materials

Particulate matter — such as alumina, bauxite, iron silicate, sand, or slag — that wears down duct and equipment surfaces at a moderate-to-high rate depending on concentration.

Field note: Systems handling abrasive materials need heavier-gauge duct, wear-resistant fittings, and shorter inspection intervals than a standard air handling system — a common gap when an industrial exhaust design is copied from a general commercial template.

Access (To)

The ability to reach a device, appliance, or equipment either directly (ready access) or by first removing a panel or similar obstruction.

Field note: "Access" is the broader, lower-bar term; "ready access" is stricter and requires no obstruction removal at all — mixing the two up in a plan note is a common source of a rejected equipment location.

Alteration

A change to a mechanical system that extends, adds to, or changes the arrangement, type, or purpose of the original installation.

Field note: Even a straight equipment swap can trigger "alteration" review if the type or arrangement changes (e.g., gas furnace to heat pump) — don't assume a like-for-like replacement is automatically exempt from full review.

Ambulatory Care Facility

A building or portion of a building providing medical, surgical, psychiatric, nursing, or similar care on a less-than-24-hour basis to people incapable of self-preservation because of the services provided, or whose staff has accepted responsibility for already-incapable patients.

Field note: Outpatient surgical centers and similar facilities pull in occupancy-driven mechanical requirements (like specific ventilation and standby power provisions) that a straight medical-office classification would miss — confirm patient-incapacitation criteria before scoping the mechanical design.

Approved

Acceptable to the code official.

Field note: "Approved" is a local, official determination — not a factory listing or a manufacturer's claim — so a product being "approved" elsewhere doesn't guarantee approval on this specific project.

Approved Agency

An established, recognized organization regularly engaged in testing, inspection services, or product evaluation/certification, that the code official has approved.

Field note: A testing lab or agency being nationally recognized elsewhere doesn't automatically make it an "approved agency" for a specific jurisdiction — confirm local acceptance before submitting a certification from an unfamiliar agency.

Bathroom

A room containing a bathtub, shower, spa, or similar bathing fixture.

Field note: A room with only a toilet and lavatory (no bathing fixture) is a "toilet room," not a "bathroom" — the distinction changes which exhaust/ventilation rule table applies.

BTU

British thermal unit — the quantity of heat required to raise the temperature of 1 pound of water by 1°F (1 Btu = 1,055 J).

Field note: Btu/h ratings on equipment nameplates are the basic unit behind every heating/cooling load calc — a mismatch between the calculated Btu/h load and the specified equipment's actual output rating is one of the first things worth spot-checking on a mechanical schedule.

Building

Any structure used or intended for supporting or sheltering any occupancy.

Field note: This broad definition is what lets mechanical code requirements reach beyond conventional structures — sheds, canopies, and similar structures with any occupancy purpose can still be pulled into scope.

Clearance

The minimum air-measured distance between the heat-producing surface of a mechanical appliance, device, or equipment and the surface of combustible material or assembly.

Field note: Clearance is measured through air, not along a surface — a submittal showing an offset combustible surface "around" the required clearance distance instead of directly in front of it is a common misreading of this definition.

Code

The regulations in force, including subsequent amendments and any emergency rules the administrative authority has lawfully adopted.

Field note: "The code" isn't static — confirm which edition and local amendments actually govern a given jurisdiction and permit date before citing a requirement, since adopted editions and local modifications vary by AHJ.

Code Official

The officer or other designated authority charged with administering and enforcing the code, or a duly authorized representative.

Field note: "Code official" can be delegated to a representative (plans examiner, field inspector) — confirm who actually holds signing authority for a given determination before treating an informal opinion as a binding ruling.

Concealed Location

A location that cannot be accessed without damaging permanent parts of the building structure or finish surface. Spaces behind readily removable panels or doors are not concealed.

Field note: This is the mechanical-code counterpart to the electrical code's "concealed" definition — a readily removable access panel keeps equipment out of "concealed location" status, which changes what protection and support rules apply.

Construction Documents

The written, graphic, and pictorial documents prepared or assembled to describe the design, location, and physical characteristics of a project's elements, drawn to an appropriate scale, necessary to obtain a building permit.

Field note: "Appropriate scale" is a judgment call the code official makes — a set that's technically complete but drawn too small or cluttered to review clearly can be rejected on legibility grounds alone.

Control

A manual or automatic device designed to regulate the gas, air, water, or electrical supply to, or the operation of, a mechanical system.

Field note: "Control" is a broad umbrella term covering everything from a simple manual valve to a full building-automation sequence — when a spec references "controls," confirm whether it means the physical device, the sequence of operation, or both.

Design Flood Elevation

The elevation of the design flood, including wave height, referenced to the datum on the community's legally designated flood hazard map. In Zone AO, it is the highest existing grade at the building perimeter plus the map's depth number (or 2 feet if none is specified).

Field note: Mechanical equipment placed below the design flood elevation in a flood zone typically needs to be elevated, flood-vented, or specifically designed for flood damage resistance — a common miss when equipment layout is finalized before the flood study.

Direct Solar System

A solar thermal system in which the gas or liquid in the solar collector loop is not separated from the load it serves.

Field note: Direct solar systems circulate the same fluid through the collector and the load — freeze protection and water quality of that shared fluid become a single coordinated design decision, not two separate ones.

Discrete Product

Noncontinuous, individual, distinct pieces — such as electrical, plumbing, and mechanical products, and duct straps, fittings, registers, and pipe hangers.

Field note: This classification mostly shows up in manufacturing/labeling code sections — not a term field crews use day to day, but relevant when confirming a product's listing or labeling requirements.

Draftstop

A material, device, or construction installed to restrict air movement within concealed spaces in building components such as crawl spaces, floor/ceiling assemblies, and attics.

Field note: Ductwork and piping routed through concealed spaces needs to preserve required draftstopping — a penetration through a draftstop that isn't properly sealed defeats the compartmentalization it was installed to provide.

Drain-Back System

A solar thermal system in which the collector-loop fluid gravity-drains from the collector into a holding tank under prescribed conditions, protecting the system from freeze damage.

Field note: Drain-back systems need a continuous downward slope back to the holding tank with no low points where fluid could pocket and freeze — verify the actual routed piping matches the design slope, not just the schematic.

Dry Cleaning Systems (Types I-V)

Classified by solvent flammability: Type I uses Class I flammable liquid solvents; Type II uses Class II combustible solvents; Type III uses Class III combustible solvents; Types IV and V use Class IV nonflammable liquid solvents.

Field note: The dry cleaning system type — driven entirely by the solvent's flash point classification — determines the ventilation, fire protection, and equipment room requirements; confirm the actual solvent in use, not just the equipment model name.

Dwelling / Dwelling Unit

Dwelling: a building or portion containing not more than two dwelling units. Dwelling Unit: a single unit providing complete, independent living facilities, including permanent provisions for living, sleeping, eating, cooking, and sanitation.

Field note: Occupancy classification as a dwelling unit changes which mechanical code provisions apply (ventilation rates, appliance clearances, exhaust requirements) compared to a commercial or institutional space — confirm the classification before applying residential-scale mechanical rules to a mixed-use project.

Equipment / Equipment, Existing

Equipment: piping, ducts, vents, control devices, and other permanently installed system components (other than appliances) that control environmental conditions in a building. Equipment, Existing: any code-regulated equipment legally installed before the code's effective date, or for which a permit was already issued.

Field note: "Equipment" and "appliance" trigger different installation sections in the IMC — an equipment schedule that labels a listed heating unit as "equipment" instead of "appliance" points the reviewer to the wrong compliance path.

Flame Spread Index

The numerical value assigned to a material tested under ASTM E84 or UL 723, describing how quickly flame spreads across its surface.

Field note: Duct liner, insulation, and plenum-space materials all carry flame spread index limits — confirm the actual product submittal data sheet shows a tested value at or below the code limit, not just a general "low flame spread" marketing claim.

Flammable Liquids (Class I: IA, IB, IC)

Liquids with a flash point below 100°F (38°C) and vapor pressure not exceeding 40 psia at 100°F, classified: IA (flash point below 73°F, boiling below 100°F), IB (flash point below 73°F, boiling at/above 100°F), IC (flash point 73-100°F).

Field note: Flammable liquid class drives storage quantity limits, ventilation, and equipment room classification — confirm the actual product safety data sheet flash point, not an assumed class, before finalizing storage room ventilation design.

Flammable Vapor or Fumes

A mixture of gases in air at concentrations at or above the lower flammability limit and at or below the upper flammability limit.

Field note: This is the concentration band where ignition is actually possible — ventilation design for hazardous storage/use rooms is meant to keep concentrations below this range entirely, not just reduce them.

Flash Point

The minimum temperature, corrected to 14.7 psia, at which a test flame causes a sample's vapors to ignite under specified test conditions, per ASTM D56, D93, or D3278.

Field note: Flash point is the single number that sorts a liquid into combustible or flammable classification (and which subclass) — always pull it from the actual product's safety data sheet, never estimate it from a similar-sounding product.

Floor Area, Net

The actual occupied area, not including unoccupied accessory areas or the thickness of walls.

Field note: Net floor area (not gross) is typically what drives ventilation rate calculations under IMC Chapter 4 — using gross area instead of net can meaningfully overstate or understate the required outdoor air rate.

Gas Convenience Outlet

A permanently mounted, manually operated device that provides a means for connecting and disconnecting an appliance or an appliance connector to a gas supply piping system.

Field note: A convenience outlet must have its own shutoff and cannot be left uncapped when not connected to an appliance — an open, unused outlet is a common inspection deficiency.

Grade

The finished ground level adjoining a building at all exterior walls.

Field note: Clearance-to-grade dimensions for equipment, vent terminations, and combustion air openings are measured from finished grade, not from the grade at time of rough-in — confirm final landscaping/hardscape plans before locking in equipment elevations.

Grade Plane

A reference plane representing the average finished ground level adjoining a building at all exterior walls, established per the applicable building code where required.

Field note: Grade plane (an averaged reference) and grade (the actual finished ground level at a specific point) are not interchangeable — a site with significant slope needs the grade plane calculation confirmed with the structural/civil documents, not assumed from a single spot elevation.

Gypsum Board / Gypsum Wallboard

Gypsum Board: a panel product with a noncombustible gypsum core and paper surfacing. Gypsum Wallboard: gypsum board used primarily as interior surfacing for building structures.

Field note: Gypsum board thickness and type (Type X, moisture-resistant, etc.) are frequently part of a mechanical room or shaft's fire-rating assembly — confirm the mechanical scope isn't cutting oversized penetrations that compromise the rated assembly's tested configuration.

Hazardous Location

A location where fire or explosion hazards may exist due to flammable gases, vapors, liquids, combustible dusts, or fibers being present, or likely to be present, in quantities sufficient to produce ignitable mixtures.

Field note: Equipment installed in a hazardous location needs an electrical/mechanical classification (not just a general listing) matched to the specific hazard class and division present — treating a hazardous location as a standard mechanical room is a serious life-safety miss.

Heat Exchanger

A device manufactured for transferring heat between two physically separated fluids or between a fluid and a heat-producing element, without direct mixing of the media.

Field note: A cracked or leaking heat exchanger that allows combustion products to mix with circulated air is a life-safety emergency, not a routine repair item — this is a top-priority inspection point on any furnace or boiler service call.

Heating and Cooling System

The equipment, distribution system, and terminal units that provide either collectively or individually the process of heating or cooling a building.

Field note: Treating heating and cooling as one integrated system (not two independently designed scopes) is what catches shared-ductwork or shared-controls conflicts before installation instead of during commissioning.

Insulation

A material used to reduce the transfer of heat, applied to piping, ductwork, or equipment.

Field note: Insulation type, thickness, and vapor-barrier integrity all carry separate code and energy-code requirements — confirm the insulation spec addresses condensation control on cold surfaces, not just thermal performance.

Interlock

A device or control arrangement that requires the state of one component to be verified before allowing another component to operate.

Field note: Fan/damper interlocks, exhaust/makeup-air interlocks, and fire-alarm shutdown interlocks are all safety-critical control logic — confirm interlock wiring is tested and functioning at commissioning, not just shown correctly on the controls diagram.

Labeled

Equipment or materials bearing a label, symbol, or identifying mark of an approved agency that conducts periodic inspection of production, and attests to compliance with applicable standards.

Field note: "Labeled" and "listed" are related but distinct terms with slightly different testing/inspection implications — confirm which one a submittal actually claims before treating them as interchangeable during plan review.

Limit Control

A device responsive to changes in pressure, temperature, or liquid level, used to keep the supervised condition within a predetermined range by shutting down or altering equipment operation.

Field note: A limit control is a safety backstop, not the primary operating control — confirm during startup that the limit actually trips at the correct setpoint, since a limit control that never gets tested in the field is a latent life-safety gap.

Listed

Equipment, materials, or services included in a list published by an organization acceptable to the code official, that maintains periodic inspection of production and whose listing states either suitability for a specified purpose or conformance to specified standards.

Field note: An appliance can only be installed per its listing — field modifications that seem minor but aren't covered by the listing (relocating a control, changing venting configuration) can void the listing and the installation's code compliance with it.

Living Space

Space within a dwelling unit used for living, sleeping, eating, or cooking, but not including bathrooms, toilet rooms, closets, halls, storage or utility spaces, or similar areas.

Field note: Living-space classification changes ventilation rate calculations and appliance location restrictions compared to non-living spaces in the same dwelling unit — confirm which rooms actually count before finalizing a residential ventilation calculation.

Mechanical System

A system specifically addressed and regulated by the mechanical code, including equipment, appliances, fixtures, fittings, and appurtenances (excluding electrical wiring and equipment).

Field note: "Mechanical system" is the umbrella term the code uses to scope its own jurisdiction — useful when arguing whether a specific piece of equipment falls under mechanical, electrical, or plumbing code review during a scope dispute.

Motor

A device that converts electrical energy into rotating mechanical energy to drive equipment such as fans, pumps, and compressors.

Field note: Motor overload and disconnect requirements are governed jointly with electrical code provisions — a mechanical scope that specifies motor horsepower without coordinating the electrical disconnect and overload protection leaves a compliance gap between trades.

Noncombustible Material

A material that, when tested per the applicable standard, does not ignite, burn, support combustion, or release flammable vapors when subjected to fire or heat.

Field note: "Noncombustible" describes the material only, not a full assembly — a noncombustible material used with combustible fasteners, coatings, or backing may not preserve the assembly's overall noncombustible rating.

Occupiable Space

A room or enclosed space designed for human occupancy in which occupants perform work or other activities, including associated accessory areas.

Field note: Ventilation rate calculations under IMC Chapter 4 are driven by occupiable space classification and its associated occupant density — spaces that are only intermittently occupied still typically require ventilation sized for their design occupancy, not their average occupancy.

Pneumatic Piping

Piping used to convey compressed air for control or power purposes.

Field note: Pneumatic control piping is often overlooked during fire/smoke damper coordination since it doesn't carry conditioned air itself — confirm penetrations through rated assemblies for control piping are sealed to the same standard as the ductwork it controls.

Potable Water

Water free from impurities present in amounts sufficient to cause disease or harmful physiological effects, meeting the quality requirements of the applicable public health authority.

Field note: Any mechanical system with a potable water connection (humidifiers, evaporative coolers, boiler makeup water) needs backflow protection appropriate to its cross-connection hazard level — confirm this is coordinated with the plumbing scope, not assumed to be someone else's problem.

Public Space

A space accessible to the general public, as distinguished from spaces restricted to employees, tenants, or authorized personnel.

Field note: Public-space classification can affect accessibility, egress, and ventilation requirements differently than back-of-house or restricted-access mechanical rooms serving the same building — confirm classification before applying restricted-space assumptions to a public-facing area.

Qualified Agency

A person, firm, or corporation approved by the code official to inspect, test, adjust, or install a specific piece of equipment or system, based on demonstrated competence.

Field note: The code official's approval of a qualified agency is project- and scope-specific — a firm qualified for one type of equipment isn't automatically qualified for every mechanical scope on a job.

Ready Access (To)

Access that does not require the removal or movement of any panel, door, or similar obstruction, and does not require the use of a portable ladder or similar equipment.

Field note: "Ready access" is a stricter standard than "access" alone — equipment specified as needing ready access cannot be buried behind a removable panel, even one that's easy to take off.

Registered Design Professional

An individual legally registered or licensed to practice their respective design profession, as defined by the statutory requirements of the jurisdiction where the project is located.

Field note: The registered design professional's stamp is what gives a mechanical submittal legal standing before a code official — confirm the actual jurisdiction's licensing requirements, since a license valid in one state doesn't automatically carry over to a project in another.

Roof-Mounted Equipment

Equipment installed on a roof, typically requiring a curb, structural support, and weatherproofing appropriate to the roof assembly and equipment weight/wind loading.

Field note: Roof-mounted equipment placement affects required setbacks from roof edges, parapets, and skylights, along with structural load coordination — verify the roof structure was actually designed for the equipment's weight before it's set, not after.

Safety Controls

Devices designed to protect against unsafe conditions by shutting down or limiting equipment operation, distinct from operating controls that regulate normal function.

Field note: Safety controls (high-limit switches, flame safeguards, low-water cutoffs) should never be bypassed to work around a nuisance trip — the correct response to a repeated safety trip is diagnosing the underlying cause, not defeating the control.

Sensible Heat

Heat that results in a measurable temperature change, as distinguished from latent heat, which changes a substance's moisture content or state without changing its temperature.

Field note: Load calculations separate sensible and latent heat because equipment is selected and sized against both independently — a system with adequate total capacity can still fail to control humidity if its sensible/latent split doesn't match the space's actual load profile.

Shaft

An enclosed space extending through one or more stories of a building, connecting openings on successive floors, or between a floor and the roof.

Field note: Mechanical penetrations through a rated shaft enclosure need fire/smoke damper protection or an approved through-penetration firestop system — confirm the shaft's fire-resistance rating before finalizing duct or pipe routing through it.

Smoke Detector

A listed device that detects the visible or invisible products of combustion, used within air distribution systems to shut down fan operation and/or actuate smoke dampers upon smoke detection.

Field note: Duct-mounted smoke detectors have specific placement requirements relative to duct size, airflow, and turns — a duct smoke detector installed too close to a fitting or turbulent zone can produce nuisance trips or fail to sample air representatively.

Solar Thermal Collector

A device designed to absorb solar radiation and convert it into thermal energy for use in heating water, air, or other fluids.

Field note: Collector mounting must account for roof structural loading, wind uplift, and roof penetration waterproofing in addition to solar orientation — a collector oriented perfectly for solar gain but improperly flashed is a guaranteed future leak.

Testing Agency

An organization determined by the code official to possess the required equipment, staff qualifications, and experience to conduct tests specified by the applicable code.

Field note: Confirming a testing agency's accreditation and scope of approval before a required field test (rather than after) avoids the scenario of a test result being rejected on procedural grounds even when the underlying result was fine.

Thermostat

An automatic control device responsive to temperature, used to maintain a desired temperature by cycling heating or cooling equipment.

Field note: Thermostat sensor location has an outsized effect on comfort and equipment cycling — a thermostat placed near a supply diffuser, in direct sun, or on an exterior wall will read unrepresentative temperatures and cause the equipment to short-cycle or under-condition the actual occupied space.

Toxic Gas

A gas classified as highly toxic or toxic based on standardized acute toxicity testing.

Field note: Toxic gas piping and storage carry among the strictest code provisions in the mechanical code (continuous monitoring, emergency shutoff, dedicated exhaust) — confirm early in design whether any process gas actually meets this classification, since it reshapes the entire room's mechanical scope.

Unusually Tight Construction

Construction meeting specified air leakage and vapor retarder criteria, indicating a building envelope tight enough that combustion air and makeup air cannot be assumed to infiltrate naturally.

Field note: Buildings meeting this classification cannot rely on incidental envelope leakage to supply combustion air to fuel-fired appliances — dedicated combustion air openings sized per code become mandatory, not optional, in these buildings.

Vapor Barrier (Vapor Retarder)

A material or assembly that adequately retards the transmission of water vapor, typically installed on the warm side of insulated piping, ductwork, or building assemblies.

Field note: A punctured or discontinuous vapor barrier on cold-surface insulation (chilled water piping, refrigerant lines) is a leading cause of condensation and mold growth — confirm vapor barrier continuity at every support, hanger, and fitting, not just along straight runs.

Vapor Recovery System

A system designed to capture and recover vapors released during the storage, transfer, or dispensing of a volatile liquid, preventing their release to the atmosphere.

Field note: Vapor recovery equipment is process-specific — confirm the system's design basis actually matches the volatile liquid in use, since a vapor recovery system sized for one liquid's vapor pressure characteristics won't perform correctly on a different one.

Vehicle Repair Garage

A building or portion of a building used for repair, servicing, or fueling of self-propelled vehicles, including associated storage of flammable/combustible liquids or gases.

Field note: Vehicle repair garages typically require mechanical ventilation sized for vehicle exhaust and any flammable vapor sources, plus specific equipment-location and ignition-source clearances — confirm this classification early, since it drives ventilation rate and equipment room requirements well above a typical parking garage.

Refrigeration & Cooling

Absorption System

A refrigeration system that pressurizes refrigerant by pumping a refrigerant-absorbent solution, then separates the two with heat, condenses and expands the refrigerant to produce cooling, and reabsorbs it to repeat the cycle. Multiple-effect systems reuse heat internally for better efficiency.

Field note: Absorption chillers are heat-driven rather than electric-compressor-driven — confirm the heat source (steam, hot water, direct-fired) is properly sized and piped before treating the unit like a standard electric chiller on a mechanical schedule.

Compressor / Positive Displacement Compressor / Compressor Unit

Compressor: a machine, with or without accessories, for compressing a gas. Positive Displacement: increases pressure by changing the internal volume of the compression chamber. Compressor Unit: a compressor together with its prime mover and accessories.

Field note: "Compressor" and "compressor unit" are sometimes used loosely as synonyms on cut sheets — confirm whether a schedule entry is describing just the compression element or the full driven assembly before matching it to a mechanical/electrical connection point.

Condenser

A heat exchanger designed to liquefy refrigerant vapor by removing heat.

Field note: Condenser airflow or water-flow restriction (dirty coils, blocked clearances) is one of the most common causes of high-head-pressure trips in the field — often mistaken for a refrigerant charge problem.

Condensing Unit

A factory-made assembly of refrigeration components designed to compress and liquefy a specific refrigerant, consisting of one or more power-driven compressors, condensers, liquid receivers (where required), and factory-supplied accessories.

Field note: Refrigerant type is baked into the condensing unit's factory design — field-substituting a different refrigerant into an existing condensing unit (a "drop-in" retrofit) needs to be verified against the manufacturer's actual approved refrigerant list, not assumed compatible.

Direct Evaporative Cooling

A cooling process where water evaporates directly into the air stream, lowering the dry-bulb temperature while raising humidity.

Field note: Direct evaporative cooling works best in low-humidity climates and raises the supply air's moisture content — confirm the space's humidity tolerance (electronics, artifacts, sensitive finishes) before specifying it over a mechanical cooling system.

Direct Refrigeration System

A system in which the evaporator or condenser is in direct contact with the air or substance being cooled or heated, with no secondary coolant loop in between.

Field note: Direct systems put refrigerant piping directly in occupied or storage spaces — check the refrigerant's safety group classification against the space's occupancy and volume before assuming a direct system is acceptable.

Ductless Mini-Split System

A heating and cooling system with one or more indoor evaporator/air-handling units connected to an outdoor condensing unit by refrigerant piping and electrical wiring, capable of conditioning one or more rooms without ductwork.

Field note: Mini-split refrigerant line sets have their own routing, penetration, and concealment rules separate from ductwork — don't apply duct-system submittal checklists to a mini-split scope by default.

Evaporative Cooler / Evaporative Cooling System

Evaporative Cooler: a device that reduces the sensible heat of air by evaporating water into the airstream. Evaporative Cooling System: the equipment and appliances providing environmental cooling by an evaporative cooler, with the conditioned air distributed through ducts or plenums.

Field note: Evaporative cooling water quality and blowdown/drain routing are frequently under-specified — confirm the drain connection and backflow protection are shown on the plumbing plans, not just assumed as part of the mechanical scope.

Evaporator

The part of a refrigeration system where liquid refrigerant is vaporized to produce cooling.

Field note: Evaporator coil placement and condensate drainage go hand in hand — confirm the condensate drain pan, trap, and routing are coordinated with the evaporator's actual mounting orientation before installation.

Ground Source Heat Pump Loop System

Piping buried in horizontal or vertical excavations, or placed in a body of water, that transports heat-transfer liquid to and from a heat pump. Closed-loop systems recirculate the liquid; open-loop systems draw liquid from a well or other source.

Field note: Closed-loop and open-loop geothermal systems have very different water-quality, permitting, and discharge considerations — confirm which configuration is actually specified before assuming well-water availability or discharge permits are in place.

Heat Pump

A refrigeration system able to transfer heat into or out of a space or process, by reversing the refrigeration cycle to provide either heating or cooling.

Field note: A heat pump's rated heating capacity drops as outdoor temperature drops — confirm the equipment's capacity at the actual regional design temperature, not just its nameplate rating at standard test conditions, before sizing supplemental heat.

High-Probability System

A refrigeration system in which a failure of a refrigerant-containing part that is either in contact with, forms part of, or is exposed to an occupied space, would allow refrigerant to enter that space.

Field note: High-probability system classification (versus low-probability) tightens refrigerant quantity limits and ventilation requirements for the space — a system reclassified during a scope change can silently push a room past its allowable refrigerant charge.

Indirect Refrigeration System

A system in which a secondary coolant, cooled or heated by the refrigerant, is circulated to the space or process being cooled or heated, keeping the refrigerant itself out of the occupied space.

Field note: Indirect systems trade refrigerant-in-occupied-space risk for a secondary loop that needs its own fluid, freeze, and leak-monitoring plan — confirm which risk the design is actually managing before assuming "indirect" means no further review is needed.

Receiver

A vessel permanently connected to a refrigeration system by piping, used to store liquid refrigerant.

Field note: A receiver's storage capacity and the system's total refrigerant charge both factor into occupancy classification and ventilation requirements — confirm the actual receiver size specified matches the charge calculation, not just a generic component list.

Refrigerant

A substance used to produce refrigeration by absorbing heat as it expands or evaporates.

Field note: Refrigerant type (not just quantity) drives the safety group classification (toxicity/flammability) that sets the equipment room and ventilation requirements — confirm the actual refrigerant charged into the system matches the design documents before final inspection.

Refrigerant Compressor

A specific machine, with or without accessories, for compressing a given refrigerant vapor.

Field note: Compressor location and ventilation requirements scale with the refrigerant's safety classification, not just the compressor's physical size — a compact compressor handling a higher-hazard refrigerant may need more clearance than a larger unit on a lower-hazard refrigerant.

Refrigerant Piping (Refrigerant Distribution Piping)

Piping used to convey refrigerant from one component of a refrigerating system to another.

Field note: Refrigerant line set sizing and routing directly affect system charge, oil return, and capacity — a line set that's been lengthened or rerouted in the field beyond the manufacturer's published limits needs the charge and capacity recalculated, not assumed unchanged.

Refrigerant Safety Classification

A two-part classification (toxicity Class A or B; flammability Class 1, 2, or 3) assigned to a refrigerant based on standardized toxicity and flammability testing.

Field note: This classification — not the refrigerant's trade name — is what actually drives the applicable equipment room, ventilation, and quantity-limit provisions; always confirm the safety group from the manufacturer's data, not from assumptions based on a similar-sounding refrigerant.

Refrigerated Room

A room or space cooled below the ambient temperature by refrigeration equipment as part of its intended use.

Field note: Refrigerated rooms need a documented means of emergency egress and, in some cases, an internal alarm — confirm these life-safety provisions are addressed in the mechanical design, not treated as purely an architectural item.

Refrigeration System

A combination of interconnected refrigerant-containing parts constituting one closed refrigerant circuit in which a refrigerant is circulated to absorb and reject heat.

Field note: Every component added to or removed from a refrigeration circuit changes its total refrigerant charge — recalculate the charge and re-check occupancy/ventilation limits any time the circuit is modified, not just at original design.

Room Air Conditioner

An encased, self-contained assembly designed as a unit for mounting in a window, through a wall, or as a console, providing complete cooling (and often heating) for a single room without ductwork.

Field note: Room air conditioners are typically plug-and-cord listed appliances outside the scope of hardwired mechanical permitting — but structural wall penetrations and electrical circuit loading still need to be confirmed for through-wall installations.

Split-System Air Conditioner

A factory-matched central air conditioning system consisting of an outdoor condensing unit and an indoor evaporator coil or air handler, connected by refrigerant piping.

Field note: "Factory-matched" is the operative word — mixing an outdoor unit and indoor coil from different manufacturers or model lines outside the listed matched pairs can void the equipment's listing and rated efficiency.

Air Systems & Ventilation

Air

Air supplied to mechanical equipment and appliances for combustion, ventilation, cooling, and similar purposes. Standard air is measured at 70°F and 29.92 inches of mercury.

Field note: Equipment capacity ratings (CFM, tonnage) are usually published at standard-air conditions — real-world altitude and temperature can shift actual performance, which matters on submittals for high-elevation or extreme-climate projects.

Air Conditioning

The simultaneous treatment of temperature, humidity, cleanliness, and distribution of air to meet the requirements of a conditioned space.

Field note: "Air conditioning" in code terms means more than just cooling — a system that cools but doesn't address humidity or filtration in a space with a specific requirement (like a health care or lab space) may not actually satisfy the definition.

Air Dispersion System

A diffuser system, often fabric or plastic film, designed to both convey and diffuse air into a room while operating under positive pressure.

Field note: Fabric duct/dispersion systems have their own support-spacing, fire-rating, and cleanability requirements that differ from sheet-metal duct — don't grade a fabric duct submittal against a standard metal duct checklist.

Air Distribution System

Any system of ducts, plenums, and air-handling equipment that circulates air within a space, including systems made up of one or more air-handling units.

Field note: "Air distribution system" is the umbrella term covering the whole assembly — useful shorthand when scoping a mechanical review across duct, plenum, and air-handler submittals together.

Air, Exhaust

Air removed from a space, appliance, or piece of equipment and conveyed directly to the outdoor atmosphere through openings or ducts.

Field note: Exhaust air routed back indoors instead of to the outdoor atmosphere doesn't legally qualify as exhaust — a common finding where a contractor "simplifies" a duct run by tying into a return plenum.

Air, Makeup

Any combination of outdoor air and transfer air intended to replace exhaust air and exfiltration.

Field note: Makeup air isn't optional once exhaust volume gets large (commercial kitchens, industrial exhaust) — an undersized or missing makeup air path is one of the most common causes of a building running under negative pressure and backdrafting combustion appliances.

Air, Outdoor

Ambient air entering a building through a ventilation system, intentional natural-ventilation openings, or infiltration.

Field note: Outdoor air intake location matters as much as its rate — an intake placed too close to an exhaust outlet, loading dock, or plumbing vent recirculates contaminants back into the building, a frequent siting error on tight urban sites.

Air, Transfer

Air moved from one indoor space to another.

Field note: Transfer air paths (grilles, transfer ducts, undercut doors) need to be sized and located correctly or a room intended to be pressure-balanced ends up starved — a common oversight when a corridor is assumed to "just work" as a transfer path without a documented opening.

Air-Conditioning System

A system consisting of heat exchangers, blowers, filters, and supply/exhaust/return ducts, plus any connected apparatus.

Field note: This is the physical hardware definition, distinct from "air conditioning" (the process definition above) — reviewers sometimes cite one when they mean the other, so read code section context carefully.

Air-Handling Unit

A blower or fan used to distribute supply air to a room, space, or area.

Field note: "Air-handling unit" (AHU) is defined narrowly around the blower/fan function here — the broader assembly with coils, filters, and dampers is usually what's meant colloquially, so confirm which sense a spec section is using.

Balanced Ventilation System

A ventilation system that simultaneously supplies outdoor air and exhausts air, where the mechanical supply and exhaust airflow rates are each within 10 percent of their average.

Field note: A system marketed as "balanced" that shows supply and exhaust rates more than 10% apart on the actual airflow schedule doesn't meet the definition — check the numbers, not the label.

Breathing Zone

The region of an occupied space between 3 and 72 inches above the floor and more than 2 feet from walls or fixed air-conditioning equipment.

Field note: Ventilation effectiveness and air-quality compliance are measured in this specific zone, not just anywhere in the room — a sensor or diffuser located outside this envelope may not accurately represent occupant conditions.

Conditioned Space

An area enclosed within the building thermal envelope that is directly or indirectly heated or cooled. Indirectly conditioned spaces communicate through openings with conditioned spaces, are separated from them only by uninsulated assemblies, or contain uninsulated ducts, piping, or other heating/cooling sources.

Field note: Attics and crawlspaces containing uninsulated ductwork can end up classified as "indirectly conditioned" even without a supply register — this affects insulation and vapor-barrier requirements that a strictly ventilated-attic assumption would miss.

Duct / Duct System

Duct: a tube or conduit used to convey air (self-contained system air passages are not considered ducts). Duct System: the continuous air passageway that includes ducts plus duct fittings, dampers, plenums, fans, and accessory air-handling equipment.

Field note: "Duct" and "plenum" are not interchangeable on a submittal — a return-air ceiling cavity labeled as a duct instead of a plenum can misapply material and rating requirements meant for the other classification.

Duct Furnace

A warm-air furnace normally installed in an air distribution duct to supply heated air, relying on a blower not furnished as part of the furnace itself for air circulation.

Field note: Because the duct furnace depends on an external blower, confirm the air-handling unit's airflow and static pressure actually match the furnace manufacturer's requirements — a mismatch here is a common commissioning failure.

Energy Recovery Ventilation System

A system using air-to-air heat exchangers to recover energy from, or reject energy to, exhaust air, in order to precondition (preheat, precool, humidify, or dehumidify) incoming outdoor ventilation air.

Field note: ERV/HRV units transfer energy between two airstreams that must stay physically separated — a cross-contamination leak between the exhaust and supply sides is a common commissioning finding worth verifying during startup, not just trusting the manufacturer's rated leakage class.

Environmental Air

Air conveyed to or from occupied areas through ducts that are not part of the heating or air-conditioning system — such as human-usage ventilation, domestic kitchen range exhaust, bathroom exhaust, clothes dryer exhaust, and parking garage exhaust.

Field note: Environmental air ducts often have different fire/smoke damper and material requirements than conditioned-air ducts — don't assume the same duct construction standard applies just because both run through the same ceiling space.

Exfiltration

Uncontrolled outward air leakage from conditioned spaces through unintentional openings, caused by wind, stack effect, or imbalances between supply and exhaust airflow.

Field note: Chronic exfiltration usually points to a supply/exhaust airflow imbalance somewhere in the design — before chasing envelope air-sealing as the fix, verify the mechanical system's own supply-vs-exhaust balance first.

Exhaust System

An assembly of connected ducts, plenums, fittings, registers, grilles, and hoods through which air is conducted from a space and discharged to the outdoors.

Field note: General exhaust systems and grease exhaust (commercial kitchen) systems have very different construction and fire-protection rules — confirm which category an exhaust run falls into before applying a generic exhaust duct spec.

Flexible Air Connector

A conduit for transferring air between a duct or plenum and an air terminal unit or inlet/outlet, limited in permitted use, length, and location.

Field note: Flexible connectors have strict length limits (typically a few feet) and cannot be used to route air long distances — a flex run that's been stretched to reach a diffuser is a common field deficiency that reduces airflow and fails inspection.

Humidifier

A device or assembly used to add moisture to air.

Field note: Humidifiers add a maintenance and microbial-growth risk to a duct system if not properly drained and serviced — confirm the drain and scale-management provisions are part of the installation scope, not an afterthought.

Infiltration

Air leakage into a building through unintentional openings, driven by wind, stack effect, or mechanical system pressure imbalances.

Field note: Persistent infiltration complaints in a specific zone often trace back to that zone's exhaust exceeding its supply — check the mechanical air balance before assuming the building envelope itself is the problem.

Makeup Air

Air provided to replace air being exhausted from a space, ensuring balanced pressure between supply and exhaust.

Field note: Commercial kitchen exhaust hoods with no dedicated makeup air source commonly depressurize the building and pull conditioned air (or worse, combustion gases) back through vents and doors — verify makeup air is actually commissioned to balance the hood's exhaust rate, not just present on paper.

Mechanical Exhaust System

A power-driven device (such as a fan or blower) with associated ducts and equipment used to remove air from a portion of a building.

Field note: A mechanical exhaust system's rated capacity needs field verification against actual measured airflow at startup — a fan that's correctly specified but poorly ducted often delivers far less than its rated exhaust rate.

Negative Pressure

A condition where the air pressure within a space is lower than the pressure of the surrounding area, typically because exhaust airflow exceeds supply airflow.

Field note: A negatively pressurized building can backdraft naturally-vented combustion appliances, pulling flue gases back into the occupied space — this is one of the most serious and under-diagnosed field hazards on buildings with strong exhaust systems and weak makeup air.

Outdoor Air

Air taken from the outdoors, not previously circulated within a building.

Field note: Outdoor air intake location relative to exhaust outlets, plumbing vents, and other contamination sources is code-regulated by minimum separation distances — a well-sized outdoor air system located too close to an exhaust outlet still fails ventilation intent.

Outdoor Opening

An opening in a building's exterior envelope through which outdoor air can enter or be discharged, including louvers, grilles, and combustion air openings.

Field note: Every outdoor opening's free area (not just its rough dimension) must be confirmed against the manufacturer's louver-blade or grille factor — a louver's nominal size overstates its actual free area, often by 40-50%.

Plenum

An enclosed portion of the building structure, other than an occupiable space, designed to allow air movement and thereby serve as part of an air distribution system.

Field note: Materials, wiring, and cable installed within a plenum must be plenum-rated (low smoke/flame spread) — this is a frequent coordination gap between mechanical and low-voltage/data trades sharing the same ceiling cavity.

Positive Pressure

A condition where the air pressure within a space is higher than the pressure of the surrounding area, typically because supply airflow exceeds exhaust airflow.

Field note: Positive pressure is often intentionally designed into cleanrooms, operating rooms, and similar spaces to keep contaminants out — verify the pressure relationship direction matches the space's actual function before treating a pressure imbalance as a defect.

Return Air

Air removed from a conditioned space and returned to a heating, cooling, or ventilating system for reconditioning or exhaust.

Field note: Return air pulled from a contaminated or hazardous space (a garage, a space with fuel-fired equipment) needs a separate ducted return, never a shared plenum return — a shared plenum return in these conditions is a common and serious code violation.

Single Duct System

An air distribution system using one duct system to convey either heated or cooled air, but not both simultaneously, to the spaces served.

Field note: Single duct systems are simpler to install and commission than dual-duct systems, but they can't independently condition zones with conflicting simultaneous heating/cooling demand — confirm the zoning strategy actually matches this system's single-airstream limitation.

Supply Air

Air delivered to a conditioned space through ductwork or a distribution system, either from an outdoor air intake or recirculated from a return air system.

Field note: Supply air quantity and diffuser throw pattern both need to match the room's actual layout — a correctly calculated supply airflow delivered through a poorly located diffuser can still leave dead zones or drafts.

Transfer Air

Air moved from one interior space to another, typically through a transfer grille, duct, or undercut door, rather than being supplied directly from the air handling system.

Field note: Transfer air paths need to be verified for actual open, unobstructed area — a transfer grille painted shut or a door undercut later carpeted over silently defeats the ventilation and pressure-relationship design that depended on it.

Underfloor Air Distribution System

A ventilation and space-conditioning approach that uses the open cavity beneath a raised access floor as a supply air plenum, delivering air through floor-mounted diffusers.

Field note: Underfloor plenums have their own airtightness, fire-rating, and cable-management coordination requirements distinct from an overhead ducted system — confirm floor-panel sealing and electrical/data cable routing don't compromise the plenum's static pressure or fire performance.

Variable Air Volume (VAV) System

An air distribution system that varies the volume of supply air delivered to a space while maintaining a relatively constant supply air temperature, typically using terminal boxes with modulating dampers.

Field note: VAV systems need minimum airflow setpoints maintained at each box to preserve ventilation rates even when the cooling/heating load is low — a VAV box that modulates all the way to zero can silently starve a zone's required outdoor air.

Ventilation

The process of supplying and removing air, by natural or mechanical means, to or from a space.

Field note: Ventilation requirements are calculated separately for occupant-based (people) and area-based (floor area) components under IMC Chapter 4 — confirm both components are included in a calculation, since using only one systematically undersizes the required outdoor air rate.

Ventilation Air

That portion of supply air consisting of outdoor air plus any recirculated air that has been treated to maintain acceptable indoor air quality.

Field note: Ventilation air is a subset of total supply air, not the entire supply airflow — confirm a submittal's stated "ventilation rate" is actually outdoor air, not the full supply CFM, before using it to verify code compliance.

Zone

A space or group of spaces within a building with sufficiently similar heating and cooling requirements that a single controlling device can adequately control the conditions in that space or group of spaces.

Field note: A zone's thermostat controls the whole zone, so grouping rooms with genuinely different load profiles (a sunny perimeter office with an interior conference room) into one zone is a common design shortcut that produces persistent comfort complaints.

Appliances & Combustion

Appliance

A device or apparatus, manufactured and designed to use energy, for which the code provides specific requirements.

Field note: "Appliance" is the umbrella term the IMC uses for furnaces, water heaters, boilers, and similar equipment — knowing this helps when tracing which code sections apply to a given piece of equipment.

Appliance Type, High-Heat / Medium-Heat / Low-Heat

Classified by the flue-gas temperature at the flue entrance under normal operation: high-heat is above 2,000°F, medium-heat is 1,000-2,000°F, and low-heat (residential-type) is 1,000°F or below.

Field note: Chimney and clearance requirements scale directly with this classification — a medium- or high-heat appliance connected to a chimney rated only for low-heat residential service is a serious, code-flagged mismatch.

Appliance, Existing

Any appliance regulated by the code that was legally installed before the code's effective date, or for which an installation permit has already been issued.

Field note: Legacy-installed status doesn't exempt an appliance from safety corrections when it's touched during a renovation — "existing" protects the original installation, not future work around it.

Appliance, Vented

An appliance designed and installed so that all products of combustion are conveyed directly from the appliance to the outdoor atmosphere through an approved chimney or vent system.

Field note: A vented appliance connected to an undersized, mismatched, or shared vent that can't actually carry its full combustion products no longer meets this definition in practice, even though it's a "vented" model — verify the vent system, not just the appliance listing.

Brazed Joint / Brazing

A gastight joint made by joining metal parts with a nonferrous filler metal that melts above 1,000°F but below the base metal's melting point, drawn into the joint by capillary action between closely fitted surfaces.

Field note: Brazed joints require closer-fitted surfaces than soldered ones and a higher-temperature filler — a joint description on a submittal that says "brazed" but specifies a filler melting below 1,000°F is actually describing a soldered joint, which has different code allowances.

Closed Combustion Solid-Fuel-Burning Appliance

A heat-producing appliance whose combustion chamber has no openings other than the flue collar, fuel charging door, and adjustable combustion-air-control openings.

Field note: An open-front wood stove or fireplace insert doesn't meet this definition even if it burns the same fuel — closed-combustion status changes air-supply, clearance, and listing requirements significantly.

Clothes Dryer

An appliance used to dry wet laundry by means of heat.

Field note: Dryer exhaust duct length, material, and termination rules are among the most frequently violated items in residential mechanical work — lint accumulation from an oversized, undersized, or improperly terminated run is a genuine fire-risk finding, not a formality.

Combustible Assembly

A wall, floor, ceiling, or other assembly built from one or more component materials that don't qualify as noncombustible.

Field note: An assembly counts as combustible if any single component material fails the noncombustible test — a mostly-noncombustible wall assembly with one combustible layer (like a vapor barrier or finish) is still a combustible assembly for clearance purposes.

Combustible Liquid (Class II / IIIA / IIIB)

A liquid with a closed-cup flash point at or above 100°F. Class II: 100-140°F. Class IIIA: 140-200°F. Class IIIB: 200°F and above. Compressed gases and cryogenic fluids are excluded from this category.

Field note: Storage, piping, and appliance-connection rules scale with flash point class — a fuel-oil submittal that doesn't state which class applies is missing the single data point that determines several downstream requirements.

Combustible Material

Any material not defined as noncombustible.

Field note: This is a default-to-combustible definition — a material has to affirmatively pass a noncombustibility test (ASTM E136) to escape the combustible-material clearance rules, not the other way around.

Combustion

The rapid oxidation of fuel accompanied by the production of heat, or heat and light.

Field note: This baseline definition underlies every combustion-air, venting, and clearance requirement in the code — worth anchoring a field discussion here when a crew is confused about why a rule exists.

Combustion Air

Air necessary for complete combustion of a fuel, including theoretical air (the exact amount needed) and excess air (extra air to ensure complete combustion and prevent dangerous byproducts).

Field note: A confined mechanical room with a sealed combustion appliance still needs a documented combustion-air path unless the appliance is specifically direct-vent/sealed-combustion rated — one of the most common life-safety gaps in tight equipment closets.

Combustion Chamber

The portion of an appliance within which combustion occurs.

Field note: Combustion chamber liner damage or corrosion is one of the highest-consequence field findings on an older furnace or boiler — cracks here can let combustion products bypass the intended flue path entirely.

Combustion Products

The constituents resulting from burning a fuel with the oxygen in air, including inert gases, but excluding excess air.

Field note: Distinguishing combustion products from flue gases (which include the excess air) matters when interpreting temperature and volume figures on appliance and venting spec sheets.

Conversion Burner

A burner designed to supply gaseous fuel to an appliance originally designed to use a different fuel.

Field note: Converting an appliance's fuel type via a conversion burner needs the same full review as a new installation — combustion air, venting, and clearance requirements all shift with the fuel change, even though the appliance shell stays the same.

Electric Heating Appliance

An appliance that produces heat energy by applying electric power to resistance elements, refrigerant compressors, or dissimilar-material junctions.

Field note: Because electric heating appliances have no combustion products, several combustion-air and venting requirements that apply to fuel-fired appliances simply don't apply — but electrical load, disconnect, and clearance-to-combustible requirements still do.

Excess Air

Air supplied beyond the theoretical amount needed for complete combustion, provided to prevent formation of dangerous combustion byproducts.

Field note: Combustion tuning that runs with too little excess air risks incomplete combustion and CO production; too much wastes efficiency — a combustion analysis at startup, not just a visual flame check, is the reliable way to confirm this is set correctly.

Flame Safeguard

A device that automatically shuts off fuel supply to a burner or group of burners when the ignition means fails or flame failure occurs.

Field note: Flame safeguard controls are life-safety devices on fuel-fired equipment — verify they're tested and functioning during commissioning, not just present on the equipment cut sheet.

Floor Furnace

A completely self-contained furnace suspended from the floor of the space it heats, drawing combustion air from outside that space, with provisions for observing flames and lighting from the space.

Field note: Floor furnaces have specific floor-opening and clearance-to-combustible rules distinct from other furnace types — verify the register/grille location doesn't create a trip hazard or block required clearances before finalizing floor plan coordination.

Fuel Gas

Natural gas, manufactured gas, liquefied petroleum gas, or a mixture of these.

Field note: Fuel gas type (natural gas vs. LP) changes orifice sizing, regulator settings, and piping sizing — an appliance shipped set up for the wrong gas type is one of the most common startup failures on a new installation.

Fuel Oil

Kerosene or any hydrocarbon oil with a flash point not less than 100°F (38°C).

Field note: Fuel oil storage and piping carry different code requirements than fuel gas — a mechanical scope that assumes gas-fired equipment when the actual fuel is oil will miss the tank, piping, and spill-containment requirements entirely.

Furnace / Furnace Room

Furnace: a completely self-contained heating unit designed to supply heated air to spaces remote from or adjacent to its location. Furnace Room: a room primarily used to house fuel-burning, space-heating, and water-heating appliances (other than boilers).

Field note: Furnace room combustion air, clearance, and fire-rating requirements scale with the total fuel input of everything installed in the room — a furnace room sized for one appliance that later gets a second appliance added often no longer meets combustion air requirements.

Gas Pressure Regulator

A device that reduces, controls, and maintains the pressure of gas downstream of the device at a value lower than the supply pressure.

Field note: A regulator's vent (where required) must terminate outdoors and stay clear of building openings — a blocked or missing regulator vent is a serious field deficiency, not a cosmetic one.

Gas Utilization Equipment

Equipment or an appliance that uses gas as a fuel or raw material to produce light, heat, power, refrigeration, or air conditioning.

Field note: This broad classification captures process equipment as well as space-conditioning appliances — confirm which specific listing and installation standard applies to the actual equipment, since "gas utilization equipment" alone doesn't point to a single code section.

Ignition Source

A flame, spark, or hot surface capable of igniting flammable vapors or fumes.

Field note: Equipment with a potential ignition source (pilot light, relay contact, motor) needs specific clearance from any area where flammable vapors could accumulate — this drives much of the equipment room location logic in hazardous-use occupancies.

Liquefied Petroleum Gas (LP-Gas)

Any material composed predominantly of propane, propylene, butane, or butylenes (or mixtures of these), that exists in the gaseous state under normal atmospheric conditions but is stored and transported as a liquid under pressure.

Field note: LP-gas is heavier than air and settles in low areas when it leaks — this single fact drives most of the appliance location, venting, and equipment room requirements that differ between LP-gas and natural gas installations.

Medium-Heat Appliance

A fuel-burning appliance capable of maintaining refractory-chamber temperatures higher than 2,000°F (1,093°C) but not exceeding 2,500°F (1,371°C), measured at the point of entry into the flue.

Field note: Medium-heat appliances need chimney/vent materials rated for their specific temperature class — a chimney sized correctly for a low-heat appliance is not automatically adequate if the appliance is later upgraded or replaced with a medium-heat unit.

Purge

To clear a piping system, combustion chamber, or vent of air, gas, or combustion products before startup or after shutdown, typically by displacing them with an inert gas or fresh air.

Field note: Pre-ignition purge cycles on modern burners are a programmed safety step, not an optional delay — a purge cycle that's been bypassed or shortened in the field to speed up startup is a documented cause of ignition-related incidents.

Radiant Heater

A heater designed to transfer heat primarily by radiation to objects and occupants in a space, rather than by heating the air directly.

Field note: Radiant heaters have clearance-to-combustible requirements measured from the radiating surface, not the appliance cabinet — confirm the actual radiating element location before locating combustible materials nearby.

Sealed Combustion System

A combustion system in which all combustion air is piped directly from outdoors and all flue gases are discharged directly outdoors, sealed from the appliance's surrounding space.

Field note: Sealed combustion appliances aren't affected by indoor depressurization the way naturally-aspirated appliances are — this makes them a common corrective solution when a building's exhaust-heavy air balance is causing backdrafting on other equipment.

Unit Heater

A self-contained, fuel-burning or electric heating appliance with an integral fan, designed for suspended or floor mounting, that heats a space directly without ductwork.

Field note: Unit heaters are typically installed high in warehouse or shop spaces — confirm mounting height and airflow throw pattern actually reach the occupied working level, since a unit heater mounted too high can leave the floor-level work zone under-heated despite adequate rated capacity.

Boilers, Piping & Pressure Vessels

Automatic Boiler

Any class of boiler equipped with the controls and limit devices specified in the code's boiler chapter.

Field note: "Automatic" here is a controls classification, not a marketing term — a boiler missing one of the required limit devices (low-water cutoff, pressure relief, etc.) doesn't qualify regardless of what the spec sheet calls it.

Boiler

A closed heating appliance supplying hot water or steam for space heating, processing, or power. Low-pressure boilers operate at or below 15 psi steam / 160 psi water; high-pressure boilers exceed those pressures.

Field note: The low-pressure/high-pressure split changes which certification, relief-valve, and attendance requirements apply — always confirm actual operating pressure before evaluating a boiler room submittal against the wrong tier.

Boiler Room

A room primarily used for the installation of a boiler.

Field note: "Primarily" matters — a room storing a boiler alongside unrelated general storage may not meet the boiler-room classification and its associated clearance/ventilation rules, a common gap on retrofit mechanical rooms.

Design Working Pressure

The maximum allowable working pressure for which a specific part of a system is designed.

Field note: Every component in a piping run — pipe, fittings, valves — must carry a design working pressure rating at or above the system's actual operating pressure; the weakest-rated component sets the ceiling for the whole run.

Drip

A container placed at a low point in a piping system to collect condensate, positioned so the collected condensate can be removed.

Field note: A drip leg without an accessible removal point becomes a maintenance dead end — confirm the drip's location allows service access before the piping is enclosed.

Food-Grade Fluid

Potable water or a fluid containing additives listed under 21 CFR Parts 174-186 (FDA Food and Drugs regulations).

Field note: Any heat-transfer fluid in a system with potential contact with a food-service process needs to be confirmed as food-grade — a non-food-grade fluid substitution in that scope is a health code violation, not just a mechanical one.

Fuel-Oil Piping System

A closed piping system connecting a combustible liquid supply source to a fuel-oil-burning appliance.

Field note: Fuel-oil piping needs leak detection, secondary containment, or specific material provisions depending on whether it's above- or below-grade — confirm which condition applies before specifying standard black-iron piping throughout.

Fusible Plug

A device arranged to relieve pressure by operation of a fusible member at a predetermined temperature.

Field note: Fusible plugs are a temperature-triggered, one-time-use safety device — unlike a pressure relief valve, a tripped fusible plug must be replaced, not reset, before the vessel returns to service.

Gas Piping

An installation of pipe, valves, or fittings used to convey fuel gas, but not including the piping within an appliance.

Field note: Gas piping sizing depends on total connected load, pipe length, and allowable pressure drop — confirm the sizing calculation accounts for every appliance actually connected, including any added after initial design.

Header

A pipe or manifold to which two or more branch pipes are connected, typically distributing flow from a single source to multiple circuits or collecting flow from multiple circuits into one.

Field note: Header sizing controls flow balance across every branch it feeds — an undersized header is a common root cause of uneven hydronic or piping performance across a multi-zone system, even when each individual branch is correctly sized.

Hot Water Boiler

A closed vessel in which water is heated for uses other than potable water heating, by the combustion of fuel or by electric heating elements.

Field note: Hot water (hydronic) boilers and potable water heaters are governed by different code paths even when the equipment looks similar — confirm the actual intended use before applying the wrong installation standard.

Hydronic Piping

Piping used to convey liquid used for heat transfer in heating or cooling systems.

Field note: Hydronic piping material and pressure/temperature ratings must match the actual system design conditions, including any glycol additive's effect on flow and heat transfer — verify against the actual specified fluid, not just water.

Indirect Waste Pipe

A waste pipe (such as a condensate line) that does not connect directly to the sanitary drainage system, instead discharging through an air gap into a trapped fixture, receptor, or equivalent.

Field note: Condensate lines routed as indirect waste need a verified air gap or approved receptor — a direct tie-in to the sanitary line bypasses the cross-connection protection this classification exists to provide.

Mechanical Joint

A joint between pipe and fittings that is not welded, soldered, brazed, or solvent-cemented; assembled by compression, threading, grooving, or a similar mechanical means.

Field note: Where welded or soldered joints are required for a piping application (grease duct systems, certain fuel piping), a mechanical joint may not be an approved substitute — confirm the material and joint standard together, not the material alone.

Modular Boiler

A boiler composed of two or more separately fired sections, factory-assembled and shipped as a unit, with a single control acting as the operating control for the group.

Field note: A modular boiler's staged sections let a facility match output to actual demand more efficiently than one large boiler — but each section's own venting and combustion air needs to be individually verified, not assumed proportional to the group total.

Piping System

Pipe, tubing, fittings, valves, and other components assembled to convey a fluid, gas, or vapor.

Field note: A piping system's design working pressure is set by its weakest-rated component — confirm every fitting and valve in the run, not just the pipe material, before certifying a system's pressure rating.

Pressure Vessel

A closed container designed to hold gases or liquids at a pressure substantially different from ambient pressure.

Field note: Pressure vessels above certain size/pressure thresholds require third-party inspection and stamping (ASME) — confirm whether a given tank or receiver actually falls under this jurisdiction before assuming it's exempt as "just a tank."

Pressure-Relief Device

A device designed to open automatically and relieve excess pressure, protecting a vessel or system from overpressure conditions, and reseal (or, for fusible-type devices, be replaced) once normal conditions are restored.

Field note: A relief device's discharge must be piped to a safe location per code (not blocked, capped, or reduced in size) — a relief valve with an obstructed discharge provides zero actual protection despite being physically present and correctly rated.

Process Fluids

Any liquid or gas used in a research, commercial, or industrial process, distinct from water or fluids used solely for space heating or cooling.

Field note: Process fluid piping frequently falls under different material compatibility, labeling, and containment requirements than standard HVAC piping — confirm the fluid's actual chemistry against the piping material's compatibility rating before assuming standard hydronic pipe is acceptable.

Relief Valve, Pressure

A pressure-actuated valve held closed by a spring or other means, designed to relieve excess pressure automatically and reseal once normal pressure is restored.

Field note: A pressure relief valve must be set to open at or below the vessel's maximum allowable working pressure and must never be field-adjusted upward to stop nuisance discharge — a relief valve that's been throttled or capped defeats its entire safety function.

Riser

A vertical pipe or run of piping that conveys fluid, gas, or vapor upward from one level of a building to another.

Field note: Riser expansion and support requirements grow with building height — confirm anchor points and expansion joints/loops are actually detailed for a riser serving more than a couple of floors, not just extrapolated from a single-story branch detail.

Sediment Trap

A device installed in fuel gas piping ahead of an appliance's gas controls, designed to trap dirt, scale, and other foreign material carried in the gas stream before it reaches the appliance.

Field note: A missing sediment trap is one of the most common gas-appliance installation deficiencies caught on inspection — it's a small, inexpensive fitting that's easy to omit but not optional at most listed appliance connections.

Solvent Cementing

A joining method for certain plastic piping materials using a solvent cement that chemically fuses the pipe and fitting surfaces together.

Field note: Solvent-cemented joints require the correct primer/cement combination matched to the specific pipe material (PVC, CPVC, ABS are not interchangeable) and a manufacturer-specified cure time before pressure testing — rushing either step is a common cause of joint failure.

Standby Boiler

A boiler not normally in service, maintained ready for use to supplement or replace another boiler.

Field note: A standby boiler still needs to be exercised and tested on a regular schedule — a boiler left dormant for extended periods can fail to start reliably exactly when it's needed most, during a primary boiler outage.

Steam

Water in its vaporous phase, converted from liquid water by the addition of heat.

Field note: Steam systems require condensate return provisions and dedicated safety/pressure-relief design distinct from hydronic hot-water systems — never assume hydronic piping practices transfer directly to a steam scope.

Steam Boiler

A closed vessel in which steam is generated by the combustion of fuel or by electric heating elements, for use external to itself.

Field note: Low-pressure and high-pressure steam boiler classifications carry substantially different safety-device, piping, and inspection requirements — confirm which classification applies before assuming standard hot-water boiler practices carry over.

Tank

A vessel used for the storage of liquids, distinguished from a pressure vessel by not being designed to hold contents at a pressure substantially above ambient.

Field note: The line between "tank" and "pressure vessel" classification depends on actual design pressure, not appearance — a storage tank that's mistakenly pressurized beyond its design intent needs to be re-evaluated under pressure vessel requirements, not treated as a simple tank issue.

Temperature Relief Valve

A temperature-actuated valve designed to open automatically at a predetermined temperature to protect a vessel or system from excessive temperature.

Field note: Combined temperature-and-pressure relief valves are common on water heaters and boilers — verify both the temperature AND pressure ratings are correctly matched to the vessel, since a valve rated correctly for one but not the other still leaves a gap in protection.

Waste Heat Boiler

A boiler that derives its heat energy from the recovered exhaust gases or waste heat of another process, rather than from dedicated fuel combustion.

Field note: Waste heat boiler output is tied to the availability and consistency of the source process — confirm the actual process operating schedule and heat availability before relying on it as a primary (rather than supplemental) heat source.

Water Heater

An appliance designed primarily to supply hot water for domestic or commercial purposes, distinct from a boiler used for space heating.

Field note: Water heater and boiler code paths diverge even for similar-looking equipment — confirm the actual intended use (potable hot water vs. space heating) before applying installation, venting, and relief-valve provisions from the wrong category.

Venting & Chimneys

Ceiling Radiation Damper

A listed device in a ceiling membrane of a fire-resistance-rated floor/ceiling or roof/ceiling assembly that automatically limits radiative heat transfer through an air inlet/outlet opening. Classified as static (shuts down in a fire) or dynamic (keeps operating during a fire, tested for closure under elevated-temperature airflow).

Field note: Confirm whether a project's air distribution design assumes the system keeps running during a fire event (dynamic) or shuts down (static) — specifying a static-rated damper into a dynamic smoke-control design is a life-safety mismatch, not just a paperwork issue.

Chimney (Factory-Built / Masonry / Metal)

A primarily vertical structure containing one or more flues that carries gaseous combustion products and air from a fuel-burning appliance to the outdoor atmosphere. Factory-built chimneys are listed/labeled assemblies of factory-made components installed per the listing; masonry chimneys are field-built from solid masonry, brick, stone, or concrete; metal chimneys are field-constructed of metal.

Field note: Each chimney type has its own clearance, listing, and inspection expectations — a factory-built chimney installed with field-fabricated modifications outside its listing conditions is functionally an unlisted assembly, regardless of the labeled components used.

Chimney Connector

A pipe that connects a fuel-burning appliance to a chimney.

Field note: Chimney connector material, clearance-to-combustibles, and slope requirements are frequently distinct from the chimney's own requirements — reviewing the chimney listing alone without checking the connector run is an incomplete review.

Combination Fire/Smoke Damper

A listed device in ducts and air transfer openings that closes automatically on heat detection and resists the passage of flame and smoke, operated automatically, controlled by a smoke detection system, and where required, positionable from a fire command center.

Field note: A combination damper does two jobs at once (fire and smoke) — confirm a submittal isn't substituting a standalone fire damper or smoke damper alone where the design actually requires the combination-rated device.

Condensate

The liquid that condenses from a gas (including flue gas) because of a temperature reduction.

Field note: High-efficiency condensing appliances produce acidic condensate that needs a proper drain and, often, a neutralizer — routing this condensate into a standard uninsulated or uncoated drain line is a common corrosion-related callback.

Damper / Volume Damper

Damper: a manually or automatically controlled device that regulates draft or the flow rate of air or combustion gases.

Volume Damper: a device installed to restrict, retard, or direct airflow in a duct, or combustion products in a heat-producing appliance and its vent connector or chimney.

Field note: "Damper" alone can mean a fire/smoke damper, balancing damper, or barometric draft damper depending on context — confirm which specific damper function a spec note is describing before assuming it's a life-safety device.

Direct-Vent Appliances

Appliances built and installed so all combustion air comes from outdoors and all flue gases discharge outdoors, with no air exchange with the indoor space.

Field note: A direct-vent appliance's sealed combustion system means indoor air quality and depressurization concerns that apply to naturally-vented appliances don't apply the same way — but the concentric or two-pipe vent termination clearances still need to be checked against doors, windows, and grade.

Draft / Induced Draft / Natural Draft

Draft: the pressure difference between an appliance and the atmosphere that drives combustion products through the vent to the outdoors. Induced Draft: that pressure difference created by a fan or blower between the appliance and the vent termination. Natural Draft: the pressure difference created by the vent's height and the temperature difference between flue gases and outdoor air, with no mechanical assist.

Field note: Confirming whether an appliance relies on natural or induced draft changes the venting material, slope, and termination requirements — mixing the two draft types on the same vent run is a common and serious field error.

Fire Damper

A listed device installed in ducts and air transfer openings that closes automatically on heat detection, restricting flame passage. Classified static (shuts down on fire) or dynamic (rated to close under active airflow).

Field note: A dynamic fire damper is tested and rated for closure while air is actively flowing; a static one is not — confirm which classification the schedule requires before substituting one for the other.

Fireplace / Factory-Built Fireplace / Masonry Fireplace / Fireplace Stove

Fireplace: an assembly with a hearth and noncombustible fire chamber, provided with a chimney, for solid fuels.

Factory-Built: a listed and labeled fireplace/chimney system of factory-made components. Masonry: field-constructed of solid masonry, brick, stone, or concrete. Fireplace Stove: a free-standing, chimney-connected solid-fuel heater operable with the fire chamber doors open or closed.

Field note: A factory-built fireplace must be installed strictly per its listing and manufacturer instructions — field modifications that would be routine on a masonry fireplace (clearance changes, hearth extensions) can void the listing on a factory-built unit.

Flue / Flue Connection / Flue Gases / Flue Liner

Flue: the passageway within a chimney or vent through which combustion products pass. Flue Connection: the passage (breeching) conducting combustion products from an appliance to the vent or chimney. Flue Gases: products of combustion plus excess air. Flue Liner: the material forming a flue's inside surface, protecting the surrounding structure and conveying combustion products without leakage.

Field note: A missing or deteriorated flue liner is one of the most common findings in existing-chimney inspections — confirm liner condition and continuity for any renovation project reusing an existing masonry chimney.

Mechanical Draft System

A venting system using a fan or blower to induce draft, classified forced draft (fan on the inlet side, positive pressure) or induced draft (fan on the outlet side, negative pressure through the appliance).

Field note: Forced-draft and induced-draft venting have different pressure profiles along the vent run, which changes joint-sealing requirements — confirm which type is actually installed before assuming standard atmospheric venting joint practices apply.

Offset

A vent or chimney configuration that changes direction, deviating from a straight vertical run.

Field note: Every offset in a vent run adds equivalent resistance that must be accounted for in the vent's overall sizing calculation — a vent that was sized assuming a straight run will underperform if offsets get added during installation without re-checking the sizing.

Plume

The visible or invisible column of flue gases discharged from a vent or chimney termination into the outdoor atmosphere.

Field note: Plume behavior (visible condensation, odor, staining) at a vent termination is a useful field diagnostic — a plume that hugs the building facade instead of rising away from it often signals a termination location or vent sizing problem, not just weather.

Smoke Damper

A listed device installed in ducts and air transfer openings, designed to resist the passage of air and smoke, that operates automatically and is controlled by a smoke detection system.

Field note: A smoke damper's actuation is tied to the building's smoke detection and fire alarm system, not a standalone thermal element like a fire damper — confirm the controls contractor's wiring interface is actually tested with the damper during commissioning, not just the damper's mechanical operation alone.

Spillage

The escape of combustion products from an appliance's draft hood, barometric draft regulator, or vent connector into the room rather than up the vent or chimney.

Field note: Spillage at a draft hood during startup (often visible with a smoke match or mirror test) signals a venting or combustion air problem that needs correction before the appliance is returned to service, not a condition to monitor and hope resolves itself.

Vent

A pipe or other conduit composed of factory-made components, listed and labeled for use in venting an appliance, conducting flue gases to the outdoor atmosphere.

Field note: "Vent" (factory-made, listed venting) and "chimney" (typically field-built masonry or factory-built chimney system) are governed by different construction and clearance standards — confirm which classification actually applies to the installation in front of you before applying either standard.

Vent Connector

The pipe or duct that connects a fuel-fired appliance to a vent or chimney.

Field note: Vent connector slope, length, and support requirements are separate from the vent/chimney's own requirements — a correctly sized chimney can still fail to draft properly if the connector between the appliance and the chimney is undersized, oversized, or improperly sloped.

Vent Damper Device, Automatic

A listed device installed in the venting system of an individual, automatically-operated, fuel-fired appliance, designed to automatically open the venting system when the appliance is in operation and close it when the appliance is off.

Field note: Automatic vent dampers save standby heat loss but must be interlocked with the appliance's burner controls — a vent damper that fails closed while the burner fires is a carbon monoxide hazard, which is why these devices require listing and correct wiring, never a generic add-on damper.

Vent Gases

Products of combustion from fuel-fired appliances, plus excess air and dilution air, present in the venting system above the draft hood or draft regulator.

Field note: Vent gas temperature and moisture content determine whether a venting material needs to be Category I (non-condensing) or Category II-IV (condensing-capable) rated — confirm the appliance's actual vent category before specifying vent material, since a mismatch here causes premature vent failure from condensate corrosion.

Vent, Type L

A listed and labeled factory-made vent, or a special material or type of vent, tested and identified for use with oil-burning appliances that are listed for use with this type of venting.

Field note: A Type L vent cannot be substituted for a Type B gas vent, or vice versa — confirm the actual appliance's listed vent category and use the matching vent type, since mismatching them is a code violation and a safety hazard, not a minor substitution.

Commercial Kitchen & Exhaust

Commercial Cooking Appliances

Appliances used in a commercial food service establishment for heating or cooking food, where the establishment prepares food for sale or at a scale not representative of domestic household cooking.

Field note: A church kitchen, break room, or small catering operation can cross into "commercial cooking" territory depending on volume and frequency, even without a for-profit sale — don't assume a non-restaurant kitchen is automatically exempt from Type I hood requirements.

Commercial Cooking Recirculating System

A self-contained system consisting of the exhaust hood, cooking equipment, filters, and fire suppression system, designed to capture cooking vapors and residues and recirculate cleaned air back to the space instead of exhausting it outdoors.

Field note: Recirculating (ventless) systems have their own listing, appliance-compatibility, and maintenance schedule requirements distinct from a conventional exhausted hood — verify the specific listed system matches the exact appliances it's paired with, since these are tested as matched assemblies.

Commercial Kitchen Hoods, Backshelf / Eyebrow / Pass-Over

Backshelf (low-proximity/sidewall): a low front lip set back from the appliances, always closed to the rear. Eyebrow: mounted directly to an appliance face above its opening(s), such as an oven or dishwasher. Pass-Over: a free-standing backshelf-style hood built low enough to pass food over the top.

Field note: Each hood style has its own effective capture geometry — swapping hood styles at value engineering without re-checking exhaust rate and appliance duty class can quietly undersize capture capacity even if the CFM number stays the same.

Commercial Kitchen Hoods, Single/Double Island Canopy / Wall Canopy

Single Island: placed over one appliance line, open on all sides, overhanging front/rear/sides — more susceptible to cross drafts and needs more exhaust airflow than a wall-mounted hood of the same size. Double Island: placed over back-to-back appliance lines, open on all sides. Wall Canopy: mounted against a wall above an appliance line, using the wall to help draw makeup air across the front of the equipment.

Field note: Island hoods (open on all sides) need meaningfully higher exhaust CFM than an equivalent wall canopy to achieve the same capture-and-containment performance — a common undersizing error when an island layout is designed using wall-canopy CFM rules of thumb.

Compensating Hoods

Hoods with an integral (built-in) makeup air supply, delivered via short-circuit flow from inside the hood, an air-curtain at the bottom front face, front-face discharge, or from the rear/side of the hood or cooking equipment — in any combination.

Field note: A compensating hood's built-in makeup air can mask an inadequate room-level makeup air supply on paper — confirm the room's overall makeup air balance is still adequate even when the hood supplies some of its own air internally.

Extra-Heavy-Duty Cooking Appliance

Appliances using open-flame combustion of solid fuel at any time — such as wood or charcoal-fired equipment.

Field note: This duty-load classification drives the required hood type, exhaust airflow rate, and fire-suppression coverage — confirm any solid-fuel equipment is scheduled and hooded at the extra-heavy-duty level, not the standard heavy-duty level.

Grease Duct

A duct serving a Type I hood, or cooking appliances with integral downdraft exhaust, that conveys grease-laden air from the hood or appliance directly to the outdoors.

Field note: Grease duct construction (welded seams, clearances, access panels, fire-rated enclosure where required) is one of the most heavily inspected mechanical scopes on a commercial kitchen project — confirm the duct fabricator's shop drawings match the listed hood's actual exhaust requirements before fabrication.

Grease Duct System

A grease duct, including all fittings, transitions, access panels, and appurtenances, extending from a hood's collar to the exhaust fan or termination point.

Field note: Every joint, fitting, and access panel in the grease duct system falls under the same welded/liquid-tight and clearance requirements as the duct itself — confirm shop drawings show the complete system, not just straight duct runs.

Grease Removal Device, Listed

A device listed for reducing grease carryover, typically installed in the duct or plenum ahead of the exhaust fan.

Field note: A listed grease removal device can, in some code paths, reduce required grease duct enclosure clearances — but only when installed and maintained exactly per its listing; confirm this before relying on it to relax a clearance elsewhere in the design.

Grease Reservoir

A device or system designed to collect grease at a hood, grease removal device, or exhaust duct termination.

Field note: Grease reservoirs need a routine cleaning schedule — an overflowing or neglected reservoir is a fire-load and cross-contamination problem that shows up quickly in health and fire inspections.

Hood, Type I

A kitchen hood for collecting and removing grease-laden vapors and smoke, required over appliances that produce grease-laden vapors from griddling, frying, broiling, or similar processes.

Field note: Type I hood coverage and capture velocity are engineered to the specific appliances beneath it — swapping a hood-covered appliance lineup after the hood is designed and installed is one of the most common commercial kitchen compliance failures.

Hood, Type II

A hood for collecting and removing steam, vapor, heat, or odors, not required to meet grease-hood construction standards, used over appliances that don't produce grease-laden vapors (dishwashers, steamers, ovens without grease-producing cooking).

Field note: A Type II hood cannot be substituted for a Type I hood over grease-producing equipment just because it's physically present — confirm the actual cooking process under a hood before relying on its listing.

Kitchen, Commercial

A room or space intended for the preparation of food, containing one or more pieces of commercial cooking equipment.

Field note: Once a space is classified as a commercial kitchen, the full Type I/Type II hood, fire suppression, and makeup air package applies regardless of the operation's size — confirm the classification early, since it drives the entire mechanical scope, not just the hood.

Need this checked against your project?

For a determination tied to your drawings, equipment schedule, or AHJ, contact Masterbuild Consulting at osmany.portal@masterbuildconsulting.com or masterbuildconsulting.com.