

## CHAPTER 2

# DEFINITIONS

### SECTION 201 (IFGC) GENERAL

**201.1 Scope.** Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code and standard, have the meanings indicated in this chapter.

**201.2 Interchangeability.** Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

**201.3 Terms defined in other codes.** Where terms are not defined in this code and are defined in the *International Building Code*, *International Fire Code*, *International Mechanical Code* or (~~*International*~~) *Uniform Plumbing Code*, such terms shall have meanings ascribed to them as in those codes.



**201.4 Terms not defined.** Where terms are not defined through the methods authorized by this section, such terms shall have ordinarily accepted meanings such as the context implies.

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**[M] ACCESS (TO).** That which enables a device, *appliance* or *equipment* to be reached by ready *access* or by a means that first requires the removal or movement of a panel, door or similar obstruction (see also “Ready *access*”).

**AIR CONDITIONER, GAS-FIRED.** A gas-burning, automatically operated *appliance* for supplying cooled and/or dehumidified air or chilled liquid.

**[M] AIR CONDITIONING.** The treatment of air so as to control simultaneously the temperature, humidity, cleanness and distribution of the air to meet the requirements of a conditioned space.

**[M] AIR, EXHAUST.** Air being removed from any space or piece of *equipment* or *appliance* and conveyed directly to the atmosphere by means of openings or ducts.

**[M] AIR-HANDLING UNIT.** A blower or fan used for the purpose of distributing supply air to a room, space or area.

**[M] AIR, MAKEUP.** Air that is provided to replace air being exhausted.

**[A] ALTERATION.** A change in a system that involves an extension, addition or change to the arrangement, type or purpose of the original installation.

**ANODELESS RISER.** A transition assembly in which plastic *pipng* is installed and terminated above ground outside of a building.

**[M] APPLIANCE.** Any apparatus or device that utilizes a fuel or raw material to produce light, heat, power, refrigeration or air conditioning.

**APPLIANCE, AUTOMATICALLY CONTROLLED.** Appliances equipped with an automatic burner ignition and safety shutoff device and other automatic devices which accomplish complete turn-on and shutoff of the gas to the main burner or burners, and graduate the gas supply to the burner or burners, but do not affect complete shutoff of the gas.

**APPLIANCE, FAN-ASSISTED COMBUSTION.** An *appliance* equipped with an integral mechanical means to either draw or force products of combustion through the combustion chamber or heat exchanger.

#### APPLIANCE TYPE.

**Low-heat appliance (residential appliance).** Any *appliance* in which the products of combustion at the point of entrance to the flue under normal operating conditions have a temperature of 1,000°F (538°C) or less.

**Medium-heat appliance.** Any *appliance* in which the products of combustion at the point of entrance to the flue under normal operating conditions have a temperature of more than 1,000°F (538°C), but not greater than 2,000°F (1093°C).

**APPLIANCE, UNVENTED.** An *appliance* designed or installed in such a manner that the products of combustion are not conveyed by a vent or chimney directly to the outside atmosphere.

**APPLIANCE, VENTED.** An *appliance* designed and installed in such a manner that all of the products of combustion are conveyed directly from the *appliance* to the outside atmosphere through an *approved* chimney or vent system.

**[A] APPROVED.** Acceptable to the code official or other authority having jurisdiction.

**[A] APPROVED AGENCY.** An established and recognized agency that is *approved* by the code official and regularly engaged in conducting tests or furnishing inspection services.

**ATMOSPHERIC PRESSURE.** The pressure of the weight of air and water vapor on the surface of the earth, approximately 14.7 pounds per square inch (psi) (101 kPa absolute) at sea level.

**AUTOMATIC IGNITION.** Ignition of gas at the burner(s) when the gas controlling device is turned on, including re-ignition if the flames on the burner(s) have been extinguished by means other than by the closing of the gas controlling device.

**BAFFLE.** An object placed in an *appliance* to change the direction of or retard the flow of air, air-gas mixtures or flue gases.

**BAROMETRIC DRAFT REGULATOR.** A balanced damper device attached to a chimney, vent connector, breeching or flue gas manifold to protect combustion appliances by controlling chimney draft. A double-acting barometric draft

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regulator is one whose balancing damper is free to move in either direction to protect combustion appliances from both excessive draft and backdraft.

**BOILER**(~~(, LOW PRESSURE)~~). A self-contained *appliance* for supplying steam or hot water.

~~((Hot water heating boiler. A boiler in which no steam is generated, from which hot water is circulated for heating purposes and then returned to the boiler, and that operates at water pressures not exceeding 160 pounds per square inch gauge (psig) (1100 kPa gauge) and at water temperatures not exceeding 250°F (121°C) at or near the boiler outlet.~~

~~Hot water supply boiler. A boiler, completely filled with water, which furnishes hot water to be used externally to itself, and that operates at water pressures not exceeding 160 psig (1100 kPa gauge) and at water temperatures not exceeding 250°F (121°C) at or near the boiler outlet.~~

~~Steam heating boiler. A boiler in which steam is generated and that operates at a steam pressure not exceeding 15 psig (100 kPa gauge).~~)

**BOILER CODE.** *The Seattle Boiler and Pressure Vessel Code.*

**BONDING JUMPER.** A conductor installed to electrically connect metallic gas *pipng* to the grounding electrode system.

**BRAZING.** A metal-joining process wherein coalescence is produced by the use of a nonferrous filler metal having a melting point above 1,000°F (538°C), but lower than that of the base metal being joined. The filler material is distributed between the closely fitted surfaces of the joint by capillary action.

**BROILER.** A general term including salamanders, barbecues and other appliances cooking primarily by radiated heat, excepting toasters.

**BTU.** Abbreviation for British thermal unit, which is the quantity of heat required to raise the temperature of 1 pound (454 g) of water 1°F (0.56°C) (1 Btu = 1055 J).

**BURNER.** A device for the final conveyance of the gas, or a mixture of gas and air, to the combustion zone.

**Induced-draft.** A burner that depends on draft induced by a fan that is an integral part of the *appliance* and is located downstream from the burner.

**Power.** A burner in which gas, air or both are supplied at pressures exceeding, for gas, the line pressure, and for air, atmospheric pressure, with this added pressure being applied at the burner.

[M] **CHIMNEY.** A primarily vertical structure containing one or more flues, for the purpose of carrying gaseous products of combustion and air from an *appliance* to the outside atmosphere.

**Factory-built chimney.** A *listed* and *labeled* chimney composed of factory-made components, assembled in the field in accordance with manufacturer's instructions and the conditions of the listing.

**Masonry chimney.** A field-constructed chimney composed of solid masonry units, bricks, stones or concrete.

**Metal chimney.** A field-constructed chimney of metal.

[M] **CLEARANCE.** The minimum distance through air measured between the heat-producing surface of the mechanical *appliance*, device or *equipment* and the surface of the *combustible material* or *assembly*.

**CLOTHES DRYER.** An *appliance* used to dry wet laundry by means of heated air. Dryer classifications are as follows:

**Type 1.** Factory-built package, multiple production. Primarily used in family living environment. Usually the smallest unit physically and in function output.

**Type 2.** Factory-built package, multiple production. Used in business with direct intercourse of the function with the public. Not designed for use in individual family living environment.

[A] **CODE.** These regulations, subsequent amendments thereto or any emergency rule or regulation that ~~((the administrative authority having jurisdiction has lawfully))~~ have been adopted.

[A] **CODE OFFICIAL.** The ~~((officer or other designated authority charged with the administration and enforcement of this code,))~~ Director of the Department of Planning and Development or a duly authorized representative.

[M] **COMBUSTIBLE ASSEMBLY.** Wall, floor, ceiling or other assembly constructed of one or more component materials that are not defined as noncombustible.

**COMBUSTIBLE MATERIAL.** Any material not defined as noncombustible.

[M] **COMBUSTION.** In the context of this code, refers to the rapid oxidation of fuel accompanied by the production of heat or heat and light.

**COMBUSTION AIR.** Air necessary for complete combustion of a fuel, including theoretical air and excess air.

[M] **COMBUSTION CHAMBER.** The portion of an *appliance* within which combustion occurs.

**COMBUSTION PRODUCTS.** Constituents resulting from the combustion of a fuel with the oxygen of the air, including inert gases, but excluding excess air.

**CONCEALED LOCATION.** A location that cannot be accessed without damaging permanent parts of the building structure or finish surface. Spaces above, below or behind readily removable panels or doors shall not be considered as concealed.

**CONCEALED PIPING.** *Piping* that is located in a *concealed location* (see "*Concealed location*").

**CONDENSATE.** The liquid that condenses from a gas (including flue gas) caused by a reduction in temperature or increase in pressure.

**CONNECTOR, APPLIANCE (Fuel).** Rigid metallic pipe and fittings, semirigid metallic tubing and fittings or a *listed* and *labeled* device that connects an *appliance* to the gas *pipng* system.

**CONNECTOR, CHIMNEY OR VENT.** The pipe that connects an *appliance* to a chimney or vent.

[A] **CONSTRUCTION DOCUMENTS.** All of the written, graphic and pictorial documents prepared or assembled for

describing the design, location and physical characteristics of the elements of the project necessary for obtaining a mechanical permit.

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

**CONVERSION BURNER.** A unit consisting of a burner and its controls for installation in an *appliance* originally utilizing another fuel.

**COUNTER APPLIANCES.** Appliances such as coffee brewers and coffee urns and any appurtenant water-heating *appliance*, food and dish warmers, hot plates, griddles, waffle bakers and other appliances designed for installation on or in a counter.

**CUBIC FOOT.** The amount of gas that occupies 1 cubic foot (0.02832 m<sup>3</sup>) when at a temperature of 60°F (16°C), saturated with water vapor and under a pressure equivalent to that of 30 inches of mercury (101 kPa).

**DAMPER.** A manually or automatically controlled device to regulate draft or the rate of flow of air or combustion gases.

**DECORATIVE APPLIANCE, VENTED.** A vented *appliance* wherein the primary function lies in the aesthetic effect of the flames.

**DECORATIVE APPLIANCES FOR INSTALLATION IN VENTED FIREPLACES.** A vented *appliance* designed for installation within the fire chamber of a vented *fireplace*, wherein the primary function lies in the aesthetic effect of the flames.

**DEMAND.** The maximum amount of gas input required per unit of time, usually expressed in cubic feet per hour, or Btu/h (1 Btu/h = 0.2931 W).

**[B] DESIGN FLOOD ELEVATION.** The elevation of the “design flood,” including wave height, relative to the datum specified on the community’s legally designated flood hazard map.

**DILUTION AIR.** Air that is introduced into a draft hood and is mixed with the flue gases.

**DIRECT-VENT APPLIANCES.** Appliances that are constructed and installed so that all air for combustion is derived directly from the outside atmosphere and all flue gases are discharged directly to the outside atmosphere.

**DRAFT.** The pressure difference existing between the *appliance* or any component part and the atmosphere, that causes a continuous flow of air and products of combustion through the gas passages of the *appliance* to the atmosphere.

**Mechanical or induced draft.** The pressure difference created by the action of a fan, blower or ejector that is located between the *appliance* and the chimney or vent termination.

**Natural draft.** The pressure difference created by a vent or chimney because of its height, and the temperature difference between the flue gases and the atmosphere.

**DRAFT HOOD.** A nonadjustable device built into an *appliance*, or made as part of the vent connector from an *appliance*, that is designed to (1) provide for ready escape of the

flue gases from the *appliance* in the event of no draft, back-draft or stoppage beyond the draft hood, (2) prevent a back-draft from entering the *appliance*, and (3) neutralize the effect of stack action of the chimney or gas vent upon operation of the *appliance*.

**DRAFT REGULATOR.** A device that functions to maintain a desired draft in the *appliance* by automatically reducing the draft to the desired value.

**DRIP.** The container placed at a low point in a system of *pip-ing* to collect condensate and from which the condensate is removable.

**DRY GAS.** A gas having a moisture and hydrocarbon dew point below any normal temperature to which the gas *pip-ing* is exposed.

**DUCT FURNACE.** A warm-air furnace normally installed in an air distribution duct to supply warm air for heating. This definition shall apply only to a warm-air heating *appliance* that depends for air circulation on a blower not furnished as part of the furnace.

**[M] DUCT SYSTEM.** A continuous passageway for the transmission of air that, in addition to ducts, includes duct fittings, dampers, plenums, fans and accessory air-handling *equipment*.

**[B] DWELLING UNIT.** A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

**EQUIPMENT.** Apparatus and devices other than appliances.

**EXCESS FLOW VALVE (EFV).** A valve designed to activate when the fuel gas passing through it exceeds a prescribed flow rate.

**EXTERIOR MASONRY CHIMNEYS.** Masonry chimneys exposed to the outdoors on one or more sides below the roof line.

**FIREPLACE.** A fire chamber and hearth constructed of *non-combustible material* for use with solid fuels and provided with a chimney.

**Factory-built fireplace.** A *fireplace* composed of *listed* factory-built components assembled in accordance with the terms of listing to form the completed *fireplace*.

**Masonry fireplace.** A hearth and fire chamber of solid masonry units such as bricks, stones, *listed* masonry units or reinforced concrete, provided with a suitable chimney.

**FIRING VALVE.** A valve of the plug and barrel type designed for use with gas, and equipped with a lever handle for manual operation and a dial to indicate the percentage of opening.

**FLAME SAFEGUARD.** A device that will automatically shut off the fuel supply to a main burner or group of burners when the means of ignition of such burners becomes inoperative, and when flame failure occurs on the burner or group of burners.

**FLASHBACK ARRESTOR CHECK VALVE.** A device that will prevent the backflow of one gas into the supply sys-

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tem of another gas and prevent the passage of flame into the gas supply system.

**[B] FLOOD HAZARD AREA.** The greater of the following two areas:

1. The area within a floodplain subject to a 1 percent or greater chance of flooding in any given year.
2. This area designated as a *flood hazard area* on a community's flood hazard map, or otherwise legally designated.

**FLOOR FURNACE.** A completely self-contained furnace suspended from the floor of the space being heated, taking air for combustion from outside such space and with means for observing flames and lighting the *appliance* from such space.

**Fan type.** A floor furnace equipped with a fan which provides the primary means for circulating air.

**Gravity type.** A floor furnace depending primarily upon circulation of air by gravity. This classification shall also include floor furnaces equipped with booster-type fans which do not materially restrict free circulation of air by gravity flow when such fans are not in operation.

**FLUE, APPLIANCE.** The passage(s) within an *appliance* through which combustion products pass from the combustion chamber of the *appliance* to the draft hood inlet opening on an *appliance* equipped with a draft hood or to the *outlet* of the *appliance* on an *appliance* not equipped with a draft hood.

**FLUE COLLAR.** That portion of an *appliance* designed for the attachment of a draft hood, vent connector or venting system.

**FLUE GASES.** Products of combustion plus excess air in *appliance* flues or heat exchangers.

**FLUE LINER (LINING).** A system or material used to form the inside surface of a flue in a chimney or vent, for the purpose of protecting the surrounding structure from the effects of combustion products and for conveying combustion products without leakage to the atmosphere.

**FUEL GAS.** A natural gas, manufactured gas, liquefied petroleum gas or mixtures of these gases.

**[M] FURNACE.** A completely self-contained heating unit that is designed to supply heated air to spaces remote from or adjacent to the *appliance* location.

**FURNACE, CENTRAL.** A self-contained *appliance* for heating air by transfer of heat of combustion through metal to the air, and designed to supply heated air through ducts to spaces remote from or adjacent to the *appliance* location.

**Downflow furnace.** A furnace designed with airflow discharge vertically downward at or near the bottom of the furnace.

**Forced air furnace with cooling unit.** A single-package unit, consisting of a gas-fired forced-air furnace of one of the types listed below combined with an electrically or fuel gas-powered summer air-conditioning system, contained in a common casing.

**Forced-air type.** A central furnace equipped with a fan or blower which provides the primary means for circulation of air.

**Gravity furnace with booster fan.** A furnace equipped with a booster fan that does not materially restrict free circulation of air by gravity flow when the fan is not in operation.

**Gravity type.** A central furnace depending primarily on circulation of air by gravity.

**Horizontal forced-air type.** A furnace with airflow through the *appliance* essentially in a horizontal path.

**Multiple-position furnace.** A furnace designed so that it can be installed with the airflow discharge in the upflow, horizontal or downflow direction.

**Upflow furnace.** A furnace designed with airflow discharge vertically upward at or near the top of the furnace. This classification includes "highboy" furnaces with the blower mounted below the heating element and "lowboy" furnaces with the blower mounted beside the heating element.

**FURNACE, ENCLOSED.** A specific heating, or heating and ventilating, furnace incorporating an integral total enclosure and using only outside air for combustion.

**FURNACE PLENUM.** An air compartment or chamber to which one or more ducts are connected and which forms part of an air distribution system.

**GAS CONVENIENCE OUTLET.** A permanently mounted, manually operated device that provides the means for connecting an *appliance* to, and disconnecting an *appliance* from, the supply *piping*. The device includes an integral, manually operated valve with a nondisplaceable valve member and is designed so that disconnection of an *appliance* only occurs when the manually operated valve is in the closed position.

**GAS PIPING.** An installation of pipe, valves or fittings installed on a premises or in a building and utilized to convey fuel gas.

**[F] GASEOUS HYDROGEN SYSTEM.** See Section 702.1.

**[M] HAZARDOUS LOCATION.** Any location considered to be a fire hazard for flammable vapors, dust, combustible fibers or other highly combustible substances. The location is not necessarily categorized in the building code as a high-hazard group classification.

**HOUSE PIPING.** See "Piping system."

**[F] HYDROGEN CUT-OFF ROOM.** See Section 702.1.

**HYDROGEN GENERATING APPLIANCE.** See Section 702.1.

**IGNITION PILOT.** A pilot that operates during the lighting cycle and discontinues during main burner operation.

**[M] IGNITION SOURCE.** A flame, spark or hot surface capable of igniting flammable vapors or fumes. Such sources include *appliance* burners, burner ignitors and electrical switching devices.

**INCINERATOR.** An *appliance* used to reduce combustible refuse material to ashes and which is manufactured, sold and installed as a complete unit.

**INDUSTRIAL AIR HEATERS, DIRECT-FIRED NON-RECIRCULATING.** A heater in which all the products of

combustion generated by the burners are released into the air stream being heated. The purpose of the heater is to offset building heat loss by heating only outdoor air.

**INDUSTRIAL AIR HEATERS, DIRECT-FIRED RECIRCULATING.** A heater in which all the products of combustion generated by the burners are released into the air stream being heated. The purpose of the heater is to offset building heat loss by heating outdoor air, and, if applicable, indoor air.

**INFRARED RADIANT HEATER.** A heater that directs a substantial amount of its energy output in the form of infrared radiant energy into the area to be heated. Such heaters are of either the vented or unvented type.

**JOINT, FLANGED.** A joint made by bolting together a pair of flanged ends.

**JOINT, FLARED.** A metal-to-metal compression joint in which a conical spread is made on the end of a tube that is compressed by a flare nut against a mating flare.

**JOINT, MECHANICAL.** A general form of gas-tight joints obtained by the joining of metal parts through a positive-holding mechanical construction, such as press joint, flanged joint, threaded joint, flared joint or compression joint.

**JOINT, PLASTIC ADHESIVE.** A joint made in thermoset plastic *pipng* by the use of an adhesive substance which forms a continuous bond between the mating surfaces without dissolving either one of them.

**JOINT, PLASTIC HEAT FUSION.** A joint made in thermoplastic *pipng* by heating the parts sufficiently to permit fusion of the materials when the parts are pressed together.

**JOINT, WELDED.** A gas-tight joint obtained by the joining of metal parts in molten state.

**[A] LABELED.** Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the *equipment*, material or product meets identified standards or has been tested and found suitable for a specified purpose.

**LEAK CHECK.** An operation performed on a gas *pipng* system to verify that the system does not leak.

**LIMIT CONTROL.** A device responsive to changes in pressure, temperature or level for turning on, shutting off or throttling the gas supply to an *appliance*.

**LIQUEFIED PETROLEUM GAS or LPG (LP-GAS).** Liquefied petroleum gas composed predominately of propane, propylene, butanes or butylenes, or mixtures thereof that is gaseous under normal atmospheric conditions, but is capable of being liquefied under moderate pressure at normal temperatures.

**[A] LISTED.** Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of *listed equipment* or materials or periodic evaluation of ser-

vices and whose listing states either that the *equipment*, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

**LIVING SPACE.** Space within a *dwelling unit* utilized for living, sleeping, eating, cooking, bathing, washing and sanitation purposes.

**LOG LIGHTER.** A manually operated solid fuel ignition *appliance* for installation in a vented solid fuel-burning *fireplace*.

**LUBRICATED PLUG-TYPE VALVE.** A valve of the plug and barrel type provided with means for maintaining a lubricant between the bearing surfaces.

**MAIN BURNER.** A device or group of devices essentially forming an integral unit for the final conveyance of gas or a mixture of gas and air to the combustion zone, and on which combustion takes place to accomplish the function for which the *appliance* is designed.

**METER.** The instrument installed to measure the volume of gas delivered through it.

**MODULATING.** Modulating or throttling is the action of a control from its maximum to minimum position in either predetermined steps or increments of movement as caused by its actuating medium.

**[M] NONCOMBUSTIBLE MATERIALS.** Materials that, when tested in accordance with ASTM E 136, have at least three of four specimens tested meeting all of the following criteria:

1. The recorded temperature of the surface and interior thermocouples shall not at any time during the test rise more than 54°F (30°C) above the furnace temperature at the beginning of the test.
2. There shall not be flaming from the specimen after the first 30 seconds.
3. If the weight loss of the specimen during testing exceeds 50 percent, the recorded temperature of the surface and interior thermocouples shall not at any time during the test rise above the furnace air temperature at the beginning of the test, and there shall not be flaming of the specimen.

**[A] OCCUPANCY.** The purpose for which a building, or portion thereof, is utilized or occupied.

**OFFSET (VENT).** A combination of *approved* bends that makes two changes in direction bringing one section of the vent out of line but into a line parallel with the other section.

**ORIFICE.** The opening in a cap, spud or other device whereby the flow of gas is limited and through which the gas is discharged to the burner.

**OUTLET.** The point at which a gas-fired *appliance* connects to the gas *pipng* system.

**OXYGEN DEPLETION SAFETY SHUTOFF SYSTEM (ODS).** A system designed to act to shut off the gas supply to the main and pilot burners if the oxygen in the surrounding atmosphere is reduced below a predetermined level.

**PERSON.** Any individual, receiver, administrator, executor, assignee, trustee in bankruptcy, trust, estate, firm, partner-

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ship, joint venture, club, company, joint stock company, business trust, municipal corporation, political subdivision of the State of Washington, corporation, limited liability company, association, society or any group of individuals acting as a unit, whether mutual, cooperative, fraternal, nonprofit or otherwise, and the United States or any instrumentality thereof.

**PILOT.** A small flame that is utilized to ignite the gas at the main burner or burners.

**PIPING.** Where used in this code, “*pipng*” refers to either pipe or tubing, or both.

**Pipe.** A rigid conduit of iron, steel, copper, brass or plastic.

**Tubing.** Semirigid conduit of copper, aluminum, plastic or steel.

**PIPING SYSTEM.** All fuel *pipng*, valves and fittings from the outlet of the *point of delivery* to the outlets of the *appliance* shutoff valves.

**PLASTIC, THERMOPLASTIC.** A plastic that is capable of being repeatedly softened by increase of temperature and hardened by decrease of temperature.

**POINT OF DELIVERY.** For natural gas systems, the *point of delivery* is the outlet of the service meter assembly or the outlet of the service regulator or service shutoff valve where a meter is not provided. Where a valve is provided at the outlet of the service meter assembly, such valve shall be considered to be downstream of the *point of delivery*. For undiluted liquefied petroleum gas systems, the point of delivery shall be considered to be the outlet of the service pressure regulator, exclusive of line gas regulators, in the system.

**PORTABLE FUEL CELL APPLIANCE.** A fuel cell generator of electricity, which is not fixed in place. A portable fuel cell *appliance* utilizes a cord and plug connection to a grid-isolated load and has an integral fuel supply.

**PRESSURE DROP.** The loss in pressure due to friction or obstruction in pipes, valves, fittings, regulators and burners.

**PRESSURE TEST.** An operation performed to verify the gas-tight integrity of gas *pipng* following its installation or modification.

**PURGE.** To free a gas conduit of air or gas, or a mixture of gas and air.

**QUICK-DISCONNECT DEVICE.** A hand-operated device that provides a means for connecting and disconnecting an *appliance* or an *appliance* connector to a gas supply and that is equipped with an automatic means to shut off the gas supply when the device is disconnected.

**[M] READY ACCESS (TO).** That which enables a device, *appliance* or *equipment* to be directly reached, without requiring the removal or movement of any panel, door or similar obstruction (see “*Access*”).

**[A] REGISTERED DESIGN PROFESSIONAL.** An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed.

**REGULATOR.** A device for controlling and maintaining a uniform supply pressure, either pounds-to-inches water col-

umn (MP regulator) or inches-to-inches water column (*appliance* regulator).

**REGULATOR, GAS APPLIANCE.** A pressure regulator for controlling pressure to the manifold of the *appliance*. Types of *appliance* regulators are as follows:

### Adjustable.

1. Spring type, limited adjustment. A regulator in which the regulating force acting upon the diaphragm is derived principally from a spring, the loading of which is adjustable over a range of not more than 15 percent of the outlet pressure at the midpoint of the adjustment range.
2. Spring type, standard adjustment. A regulator in which the regulating force acting upon the diaphragm is derived principally from a spring, the loading of which is adjustable. The adjustment means shall be concealed.

**Multistage.** A regulator for use with a single gas whose adjustment means is capable of being positioned manually or automatically to two or more predetermined outlet pressure settings. Each of these settings shall be adjustable or nonadjustable. The regulator may modulate outlet pressures automatically between its maximum and minimum predetermined outlet pressure settings.

### Nonadjustable.

1. Spring type, nonadjustable. A regulator in which the regulating force acting upon the diaphragm is derived principally from a spring, the loading of which is not field adjustable.
2. Weight type. A regulator in which the regulating force acting upon the diaphragm is derived from a weight or combination of weights.

**REGULATOR, LINE GAS PRESSURE.** A device placed in a gas line between the service pressure regulator and the *appliance* for controlling, maintaining or reducing the pressure in that portion of the *pipng* system downstream of the device.

**REGULATOR, MEDIUM-PRESSURE (MP Regulator).** A line pressure regulator that reduces gas pressure from the range of greater than 0.5 psig (3.4 kPa) and less than or equal to 5 psig (34.5 kPa) to a lower pressure.

**REGULATOR, PRESSURE.** A device placed in a gas line for reducing, controlling and maintaining the pressure in that portion of the *pipng* system downstream of the device.

**REGULATOR, SERVICE PRESSURE.** For natural gas systems, a device installed by the serving gas supplier to reduce and limit the service line pressure to delivery pressure. For undiluted liquefied petroleum gas systems, the regulator located upstream from all line gas pressure regulators, where installed, and downstream from any first stage or a high pressure regulator in the system.

**RELIEF OPENING.** The opening provided in a draft hood to permit the ready escape to the atmosphere of the flue products from the draft hood in the event of no draft, back draft or stoppage beyond the draft hood, and to permit air into the draft hood in the event of a strong chimney updraft.

**RELIEF VALVE (DEVICE).** A safety valve designed to forestall the development of a dangerous condition by relieving either pressure, temperature or vacuum in the hot water supply system.

**RELIEF VALVE, PRESSURE.** An automatic valve that opens and closes a relief vent, depending on whether the pressure is above or below a predetermined value.

**RELIEF VALVE, TEMPERATURE.**

**Manual reset type.** A valve that automatically opens a relief vent at a predetermined temperature and that must be manually returned to the closed position.

**Reseating or self-closing type.** An automatic valve that opens and closes a relief vent, depending on whether the temperature is above or below a predetermined value.

**RELIEF VALVE, VACUUM.** A valve that automatically opens and closes a vent for relieving a vacuum within the hot water supply system, depending on whether the vacuum is above or below a predetermined value.

**RISER, GAS.** A vertical pipe supplying fuel gas.

**ROOM HEATER, UNVENTED.** See “Unvented room heater.”

**ROOM HEATER, VENTED.** A free-standing heating unit used for direct heating of the space in and adjacent to that in which the unit is located (see also “Vented room heater”).

**SAFETY SHUTOFF DEVICE.** See “Flame safeguard.”

**[B] SHAFT.** An enclosed space extending through one or more stories of a building, connecting vertical openings in successive floors, or floors and the roof.

**[B] SLEEPING UNIT.** A room or space in which people sleep, which can also include permanent provisions for living, eating and either sanitation or kitchen facilities, but not both. Such rooms and spaces that are also part of a *dwelling unit* are not sleeping units.

**SPECIFIC GRAVITY.** As applied to gas, specific gravity is the ratio of the weight of a given volume to that of the same volume of air, both measured under the same condition.

**STATIONARY FUEL CELL POWER PLANT.** A self-contained package or factory-matched packages which constitute an automatically operated assembly of integrated systems for generating electrical energy and recoverable thermal energy that is permanently connected and fixed in place.

**THERMOSTAT.**

**Electric switch type.** A device that senses changes in temperature and controls electrically, by means of separate components, the flow of gas to the burner(s) to maintain selected temperatures.

**Integral gas valve type.** An automatic device, actuated by temperature changes, designed to control the gas supply to the burner(s) in order to maintain temperatures between predetermined limits, and in which the thermal actuating element is an integral part of the device.

1. Graduating thermostat. A thermostat in which the motion of the valve is approximately in direct propor-

tion to the effective motion of the thermal element induced by temperature change.

2. Snap-acting thermostat. A thermostat in which the thermostatic valve travels instantly from the closed to the open position, and vice versa.

**[P] THIRD-PARTY CERTIFICATION AGENCY.** An approved agency operating a product or material certification system that incorporates initial product testing, assessment and surveillance of a manufacturer’s quality control system.

**[P] THIRD-PARTY CERTIFIED.** Certification obtained by the manufacturer indicating that the function and performance characteristics of a product or material have been determined by testing and ongoing surveillance by an approved third-party certification agency. Assertion of certification is in the form of identification in accordance with the requirements of the third-party certification agency.

**[P] THIRD-PARTY TESTED.** Procedure by which an approved testing laboratory provides documentation that a product, material or system conforms to specified requirements.

**TRANSITION FITTINGS, PLASTIC TO STEEL.** An adapter for joining plastic pipe to steel pipe. The purpose of this fitting is to provide a permanent, pressure-tight connection between two materials which cannot be joined directly one to another.

**UNIT HEATER.**

**High-static pressure type.** A self-contained, automatically controlled, vented *appliance* having integral means for circulation of air against 0.2 inch (15 mm H<sub>2</sub>O) or greater static pressure. Such *appliance* is equipped with provisions for attaching an outlet air duct and, where the *appliance* is for indoor installation remote from the space to be heated, is also equipped with provisions for attaching an inlet air duct.

**Low-static pressure type.** A self-contained, automatically controlled, vented *appliance*, intended for installation in the space to be heated without the use of ducts, having integral means for circulation of air. Such units are allowed to be equipped with louvers or face extensions made in accordance with the manufacturer’s specifications.

**UNLISTED BOILER.** A boiler not *listed* by a nationally recognized testing agency.

**UNSAFE.** Constituting a fire or health hazard or otherwise dangerous to human life, or constituting a hazard to safety, health or public welfare.

**UNVENTED ROOM HEATER.** An unvented heating *appliance* designed for stationary installation and utilized to provide comfort heating. Such appliances provide radiant heat or convection heat by gravity or fan circulation directly from the heater and do not utilize ducts.

**VALVE.** A device used in *pipng* to control the gas supply to any section of a system of *pipng* or to an *appliance*.

**Appliance shutoff.** A valve located in the *pipng* system, used to isolate individual appliances for purposes such as service or replacement.

## DEFINITIONS

**Automatic.** An automatic or semiautomatic device consisting essentially of a valve and operator that control the gas supply to the burner(s) during operation of an *appliance*. The operator shall be actuated by application of gas pressure on a flexible diaphragm, by electrical means, by mechanical means, or by other *approved* means.

**Automatic gas shutoff.** A valve used in conjunction with an automatic gas shutoff device to shut off the gas supply to a water-heating system. It shall be constructed integrally with the gas shutoff device or shall be a separate assembly.

**Individual main burner.** A valve that controls the gas supply to an individual main burner.

**Main burner control.** A valve that controls the gas supply to the main burner manifold.

**Manual main gas-control.** A manually operated valve in the gas line for the purpose of completely turning on or shutting off the gas supply to the *appliance*, except to pilot or pilots that are provided with independent shutoff.

**Manual reset.** An automatic shutoff valve installed in the gas supply *pipng* and set to shut off when unsafe conditions occur. The device remains closed until manually reopened.

**Service shutoff.** A valve, installed by the serving gas supplier between the service meter or source of supply and the customer *pipng* system, to shut off the entire *pipng* system.

**VENT.** A pipe or other conduit composed of factory-made components, containing a passageway for conveying combustion products and air to the atmosphere, *listed* and *labeled* for use with a specific type or class of *appliance*.

**Special gas vent.** A vent *listed* and *labeled* for use with *listed* Category II, III and IV appliances.

**Type B vent.** A vent *listed* and *labeled* for use with appliances with draft hoods and other Category I appliances that are *listed* for use with Type B vents.

**Type BW vent.** A vent *listed* and *labeled* for use with wall furnaces.

**Type L vent.** A vent *listed* and *labeled* for use with appliances that are *listed* for use with Type L or Type B vents.

**VENT CONNECTOR.** See "Connector."

**VENT GASES.** Products of combustion from appliances plus excess air plus dilution air in the vent connector, gas vent or chimney above the draft hood or draft regulator.

### VENT PIPING.

**Breather.** *Pipng* run from a pressure-regulating device to the outdoors, designed to provide a reference to atmospheric pressure. If the device incorporates an integral pressure relief mechanism, a breather vent can also serve as a relief vent.

**Relief.** *Pipng* run from a pressure-regulating or pressure-limiting device to the outdoors, designed to provide for the

safe venting of gas in the event of excessive pressure in the gas *pipng* system.

**VENTED APPLIANCE CATEGORIES.** Appliances that are categorized for the purpose of vent selection are classified into the following four categories:

**Category I.** An *appliance* that operates with a nonpositive vent static pressure and with a vent gas temperature that avoids excessive condensate production in the vent.

**Category II.** An *appliance* that operates with a nonpositive vent static pressure and with a vent gas temperature that is capable of causing excessive condensate production in the vent.

**Category III.** An *appliance* that operates with a positive vent static pressure and with a vent gas temperature that avoids excessive condensate production in the vent.

**Category IV.** An *appliance* that operates with a positive vent static pressure and with a vent gas temperature that is capable of causing excessive condensate production in the vent.

**VENTED ROOM HEATER.** A vented self-contained, free-standing, nonrecessed *appliance* for furnishing warm air to the space in which it is installed, directly from the heater without duct connections.

**VENTED WALL FURNACE.** A self-contained vented *appliance* complete with grilles or equivalent, designed for incorporation in or permanent attachment to the structure of a building, mobile home or travel trailer, and furnishing heated air circulated by gravity or by a fan directly into the space to be heated through openings in the casing. This definition shall exclude floor furnaces, unit heaters and central furnaces as herein defined.

**VENTING SYSTEM.** A continuous open passageway from the flue collar or draft hood of an *appliance* to the outside atmosphere for the purpose of removing flue or vent gases. A venting system is usually composed of a vent or a chimney and vent connector, if used, assembled to form the open passageway.

**Forced-draft venting system.** A portion of a venting system using a fan or other mechanical means to cause the removal of flue or vent gases under positive static vent pressure.

**Induced draft venting system.** A portion of a venting system using a fan or other mechanical means to cause the removal of flue or vent gases under nonpositive static vent pressure.

**Mechanical draft venting system.** A venting system designed to remove flue or vent gases by mechanical means, that consists of an induced draft portion under nonpositive static pressure or a forced draft portion under positive static pressure.

**Natural draft venting system.** A venting system designed to remove flue or vent gases under nonpositive static vent pressure entirely by natural draft.



**WALL HEATER, UNVENTED-TYPE.** A room heater of the type designed for insertion in or attachment to a wall or partition. Such heater does not incorporate concealed venting arrangements in its construction and discharges all products of combustion through the front into the room being heated.

**WATER HEATER.** Any heating *appliance or equipment*, not exceeding a pressure of 160 psi (1103 kPa), a volume of 120 gallons (454 L) and a heat input of 200,000 Btu/h (58.6 kW), that heats potable water and supplies such water to the potable hot water distribution system.

