



Building Permits & Inspection Division

General Information: (916) 875-5296
www.building.saccounty.net

Full Service Center 827 7th Street, Room 102 Sacramento, CA 95814 M-F 8:30am - 4:30pm	East Area Service Center 5229 Hazel Avenue, Suite B Fair Oaks, CA 95628 M-Tu. 9:00am - 4:00pm
Bradshaw Center 9700 Goethe Road, Suite A Sacramento, CA 95827 M-F 8:30am - 4:30pm	North Area Service Center 3331 Peacekeeper Wy., Suite 100 McClellan, CA 95652 W-Th. 9:00am - 4:00pm

Plumbing and Mechanical Requirements for Commercial Kitchens

State Fire Marshall Amendments relating to fire and panic safety apply to places of assemblage of 50 or more persons for drinking and dining

Equipment or materials shall be listed

Plumbing systems shall be installed conforming to the current adopted code or manufacturer's instructions, whichever is more stringent

No exposed ABS (plastic piping with a flame-spread rating of 75 or more)

Special provisions when drain piping is installed above food-handling areas

Metered faucets delivering not more than 0.26 gallons per use are required in restaurants

Restaurant kitchen sinks may be made of 16 gauge metal.

Water closets shall be elongated with open front seats

Floor sinks and floor drains shall be suitable flanged to provide a water tight joint in the floor.(slab)

Floor drains shall be installed in commercial kitchens

Floor shall slope to drain. (approx. 4' diameter)

Alterations greater than 50% shall have accessible water closets, urinals and lavs.

In food prep areas, fixture requirements may be dictated by the health codes. (fixture type, location and quality)

Sanitary fixture requirements for customers and employees shall be permitted to be met with a single set of restrooms. Use the greater number or either customers or employees.

Hot water to public use lavs shall be limited to 120°F. Water heater thermostat shall not be considered as complying (when it provides hot water for more than just the lavs.)

Temperature controls for public lavs shall limit the temp to 110° F. The water heater control may comply when only the lavs are supplied.

Water heaters are sized by BTUH and recovery by the health code.

Check for combustion air and venting

Check for water heater clearances (per manufacturer's specs) and seismic anchors.

Gas vents shall terminate not less than 3' above forced air inlets

1" thick insulation for hot water piping up to 2"Ø. and 140°F, use 1.5" insulation for 141-200°F.

Only the 1st 8' hot and cold piping needs insulation for non-recirc systems. Hot water pipe 1" and greater need to be insulated

Backflow devices shall be certified

Check for internal or external backflow devices on carbonators such as soda and beer dispensers and espresso machines.

Water piping shall meet the requirements of NSF 61

Restaurants usually have their own water service and meter due to high water use compared to neighboring retail/office use.

Water Hammer devices required for quick acting valves.

Water sizing shall be per the current adopted CPC. Pex (listed parallel systems) shall be installed in accordance with their listing. CPVC systems shall be sized per the current adopted code.

Temperature and Pressure Relief valves shall terminate outside or to other approved locations.

Verify drainage piping material types.

Pot sinks, dishwashing sinks commercial dishwashing machines shall be directly connected to the drainage system and protected by a floor drain.

Provide cleanouts as required, Cleanout plugs shall have raised square heads or countersunk rectangular slots. Kitchen wall and floor surfaces shall have a cover over the cleanout plug.

Testing by 10' head of water or 5 pound air test.

The AHJ shall review before approval the installation of a commercial food waste grinder to a private sewage disposal system.

Where an airgap is required it shall not be less than 1" above the flood level rim of the receptor.

Provide indirect drainage for refer boxes, coils and walk-ins, ice boxes, ice machines, steam tables, coffee brewers, hot and cold drink dispensers and similar eq.

Indirect waste piping shall not be smaller than 1" and not exceed 15'

Provide separate drains from the ice machine and the ice bin. Keep them separate to the point of disposal. Food prep sinks and other equipment, used for product of human ingestion, with drainage connections shall be indirectly connected. Refer coils and ice makers which may use 3/4" drains, Piping from other eq. shall not be smaller than the drain on the unit or 1/2" minimum.

Where a **sink** in a bar, soda fountain or counter cannot be properly trapped and vented, provide an indirect connection to an approved receptor that is properly trapped and vented. This indirect line shall not exceed 5'

Indirect lines greater than 5' shall be trapped. Indirect lines less than 15' need not be vented. The vent shall remain separate from any other system vent.

No indirect receptor shall be installed in a store room or other portion of the building not in general use.

No piping or equipment discharges under pressure shall directly connect to the drainage system. Except approved fixtures and devices where the drainage system is properly sized ...ie commercial dishwashers.

Carbonated liquid waste piping shall be of corrosive resistive material. Do not use copper piping or cast Iron until proper neutralization or dilution has occurred.

Chemical (corrosive) waste shall discharge in a manner approved by the AHJ.

Traps serving sink that are part of the equipment of bars, need not be vented as long as the drain is indirectly connected to an open floor sink or other approved type of receptor.

One trap serving a three compartment sink shall have the trap centrally located.

No food waste disposal unit shall be installed with any set of restaurant sinks served by a single trap. Use a separate trap.

Floor Drain inlets shall be so located that it is at all times in full view.

Floor drains and similar traps subject to infrequent use shall be protected by a trap seal primer.

Where it is determined by the AHJ that waste pretreatment is required, an approved grease interceptor shall be installed. No food waste or dishwashers shall connect to grease interceptors. The current adopted code allows dishwashers to be connected to gravity grease interceptors.

Hydromechanical grease interceptors shall be provided an approved, readily accessible flow control

Gravity grease interceptors shall not be installed in a part of the building where food is handled

Each business establishment shall have an interceptor that serves only that establishment unless otherwise approved by the AHJ

Quick-Disconnect Device is a hand operated device that provides a means of connecting an appliance to a gas supply and is equipped with an auto shutoff

Rough gas piping shall be inspected before any piping is covered. Final piping inspection is after all portions are covered.

CSST tubing shall be tested, listed and sized in compliance with their installation instructions.

Where gas piping is to be concealed, unions, tubing fittings, right and left couplings, bushings, swing joints and compression joints made by combinations of fittings shall not be used.

Sediment traps shall be installed as close as practical to the inlet of the gas utilizing equipment. Ranges shall not be required to be so equipped.

When the volume of the gas piping system is greater than 10 cu.ft, the test duration is increased from 10 minutes to 30 minutes.

Type I hood suppression testing by the Fire District requires gas pressure from the purveyor (PGE). This may be needed prior to your final inspection.

Definition of Directly Conditioned Space; A system capable of exceeding 10 Btu/sq.ft. Heating or 5 Btu/sq.ft cooling. Evaporative cooling is not considered mechanical cooling

All spaces shall be continuously ventilated during occupied hours, except storerooms

Air filters installed in HVAC systems shall be listed as class I or II

[SFM] Air Filters shall comply with all the requirements of Part 12 Title 24 Chapter 12-71, SFM Standard 12-71-1 (smoke and flame spread).

Ventilation air supply requirements for occupancies regulated by the California Energy Commission are found in the California Energy Code

Replacement/Make up air shall be adequate to prevent negative pressures in the commercial cooking area from exceeding 0.02" w.c. (Return air is no longer prohibited from kitchens, but care should be taken to prevent negative pressures in the commercial cooking area from exceeding 0.02" w.c.)

Compensating hoods shall extract at least 20% of the required exhaust airflow from the kitchen area

Concealed space is stud spaces down to 1 3/4" thick and attics up to 8' high.

Limited combustible material is limited to a potential heat value of less than 3500 Btu/lb., and either A)... or B) materials not exceeding flame spread in excess of 25...

Hoods for grease removal are type I, heat steam and odors are type II

Cooking equipment listed per UL 197 1.7 or 1.8 (UL710B) and producing grease less than 5 mg per second may be exempted from hoods.

Exposed hoods and grease ducts clearance 18" from combustible, 3" from limited combustible, and 0" from non-combustible.

Clearance from exposed hood or duct may be reduced by metal spaced out 1" from combustible material or lath, plaster and tile over limited combustible material.

Field applied and Factory built grease duct enclosures allowed per manuf. instructions and code limitations.

Type I material thickness is increased to 18 gauge galvanized or 20 gauge stainless with the perimeter joints welded.

Listed hood assemblies shall be installed as per their listing.

Solid-fuel hood assemblies shall be completely separate from other cooking equipment and hoods.

Grease ducts shall be sized between 500 - 2500 fpm.

Grease ducts shall be welded to the hood or bolted.

Grease ducts shall be internally lapped and externally welded, not butt welded. Lapped to allow grease to drain back to the hood. Flange welds are approved by NFPA 96.

Grease duct shafts are required for multi-story buildings and when fire rated ceiling/roof assemblies are penetrated in single story applications. Exceptions are allowed for field applied and factory built grease duct enclosures.

Clearance from grease ducts to enclosures shall be 6" minimum.

When enclosures are provided, seal the bottom and ventilate the enclosure to the exterior.

Duct cleanouts required at each floor and 12' horizontal intervals when not accessible from the entry or discharge.

Roof top terminations are 40" above the roof, 3' above intakes less than 10' away and 10' from walls and property lines.

Wall terminations (for non-combustible walls) shall be 10' away from openings beside it and 10' above grade. Wall fan shall be hinged to permit duct cleaning.

All deep fat fryers shall be installed with at least 16" space between the fryer and flames from adj. eq. This may be reduced "with an 8" high complying baffle.

Test and performance data shall be provided upon completion of the system.

The hood exhaust fan shall continue to operate after the extinguishing system is activated unless shutdown is required as a component of the extinguishing system.

Make-up air requirements for the operation of the kitchen ventilation shall be considered in determining the adequacy of a space to provide combustion air requirements.

Each of the appliances served shall be interlocked to the mechanical air supply system to prevent main burner operation where the mechanical air supply system is not in operation.

Listed Food Service Equipment shall be installed at least 6" from combustible material or as per the instructions. Equipment listed "for use only in noncombustible locations" shall not be installed elsewhere.

Gives minimum clearances for unlisted food service appliances.