

H 62, 63

Filed August 27, 1971
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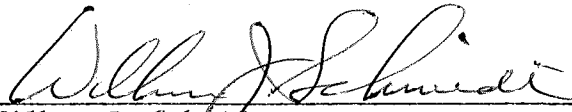
STATE OF WISCONSIN)
) ss
DEPARTMENT OF HEALTH AND SOCIAL SERVICES)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Wilbur J. Schmidt, Secretary of the Department of Health and Social Services and custodian of the official records of said department, do hereby certify that the amendments to rules and regulations, relating to design, construction, installation and inspection of plumbing and the repeal of rules relating to the restricted and tentative approvals of plumbing were duly approved by this department on August 25, 1971.

I further certify that said copy has been compared by me with the original on file in this department and that the same is true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department in the city of Madison, this 27th day of August, 1971.



Wilbur J. Schmidt
Secretary
Department of Health & Social Services

SEAL

ORDER OF THE DEPARTMENT OF HEALTH & SOCIAL SERVICES ADOPTING RULES

Pursuant to authority vested in the Department of Health and Social Services in Section 140.05, Wis. Stats., and in accordance with Chapter 227, Wis. Stats., the following rules are hereby promulgated.

Section H 62.02 (119) of the WISCONSIN ADMINISTRATIVE CODE is created to read:

Section H 62.03(1) of the WISCONSIN ADMINISTRATIVE CODE is amended to read:

Section H 62.04(4)(i)2 of the WISCONSIN ADMINISTRATIVE CODE is amended to read:

Section H 62.05(3)(a) of the WISCONSIN ADMINISTRATIVE CODE is amended to read:

Sections H 62.06 through H 62.10 of the WISCONSIN ADMINISTRATIVE CODE is repealed and recreated to read:

Sections H 62.12, H 62.14 (2) through (7), H 62.22, and H 62.24 of the WISCONSIN ADMINISTRATIVE CODE are repealed:

Section H 62.20(5)(d)2e of the WISCONSIN ADMINISTRATIVE CODE is amended to read:

Sections H 63.01, H 63.03 and H 63.04 of the WISCONSIN ADMINISTRATIVE CODE are repealed:

H 62.02 Plumbing definitions. (119) PROCESS PIPING. Process piping is piping separated from the water distribution and/or drainage system by approved methods or means and used exclusively for refining, manufacturing, industrial or shipping purposes of every character and description.

H 62.03 Fixture unit design basis. (1) INTERMITTENT FLOW FIXTURES.

Table 1

Type of Fixture	Unit Value	Trap Minimum Size Inches	Soil or Waste Minimum Size Inches	Vent Minimum Size Inches
Automatic clothes washers,				
Commercial (individual).....	4	2	2	1 1/2
Commercial (large capacity)*.....				
Residential.....	3	1 1/2	1 1/2	1 1/2
Bathtubs, all types**.....	3	1 1/2	1 1/2	1 1/2
Bed Pan Washer.....	6	2	3	2
Bidet.....	2	1 1/4	1 1/2	1 1/2
Cuspidor, fountain or dental.....	1	1 1/4	1 1/4	1 1/4
#Dishwasher (commercial)***.....				
#Dishwasher (residential).....	4	1 1/2	1 1/2	1 1/2
Drinking fountain.....	1	1 1/4	1 1/4	1 1/4
Drinking fountain (refrigerated).....	1/2	1 1/4	1 1/4	1 1/4
Floor Drain,				
2 inch.....	3	2	2	1 1/2
3 inch or larger****.....	4	3	3	2
Laundry tray.....	3	1 1/2	1 1/2	1 1/2
#Refrigerated cases.....	1	1 1/2	1 1/2	1 1/2
Shower stall, each head.....	4	2	2	1 1/2
Sinks,				
Cup.....	1	1 1/4	1 1/4	1 1/4
Factory wash-up.....	4	1 1/2	1 1/2	1 1/2
Fountain or bar.....	3	1 1/2	1 1/2	1 1/2
Food waste disposers (commercial).....	2 HP or less	1 1/2 or 2	2	1 1/2
Food waste disposers (commercial).....	3 HP or more	3	3	2
Laboratory.....	2	1 1/2	1 1/2	1 1/2
Laboratory, school.....	2	1 1/2	1 1/2	1 1/2
Classroom juvenile.....	2	1 1/4	1 1/2	1 1/2
Pack or plaster.....	4	2	2	1 1/2
Residential (with or without F.W.G.).....	4	1 1/2	1 1/2	1 1/2
Restaurant,				
Scullery, pots & pans.....	4	2	2	1 1/2
Food, rinsing, cleaning or thawing.....	3	1 1/2	1 1/2	1 1/2

Type of Fixture	Unit Value	Trap Minimum Size Inches	Soil or Waste Minimum Size Inches	Vent Minimum Size Inches
Service sink, flushing rim	6	3	3	2
Service sink, wall outlet	4	2	2	1 1/2
Service sink, wall outlet	4	3	3	2
Service sink, floor outlet	4	2	2	1 1/2
Service sink, floor outlet	4	3	3	2
Shampoo sink, barber or beauty parlor	2	1 1/4 or 1 1/2	1 1/2	1 1/2
Surgeons, wash-up	3	1 1/2	1 1/2	1 1/2
Sterilizer,				
Bed pan	4	2	2	1 1/2
Garbage can washers	3	3	3	2
#Instrument or water	1	1 1/4	1 1/4	1 1/4
Urinal,				
Men	4	2	2	1 1/2
Women	6	2 1/2	3	2
#Vegetable display cases	2	1 1/2	1 1/2	1 1/2
Wash basin	1	1 1/4	1 1/2	1 1/4
Water closet, tank type	6	2	3	2
Water closet, flush valve	8	2	3	2

* Based on discharge rate (See Section H 62.03 (2).)

** Includes foot, Sitz and infant baths and regular bathtubs with or without showers.

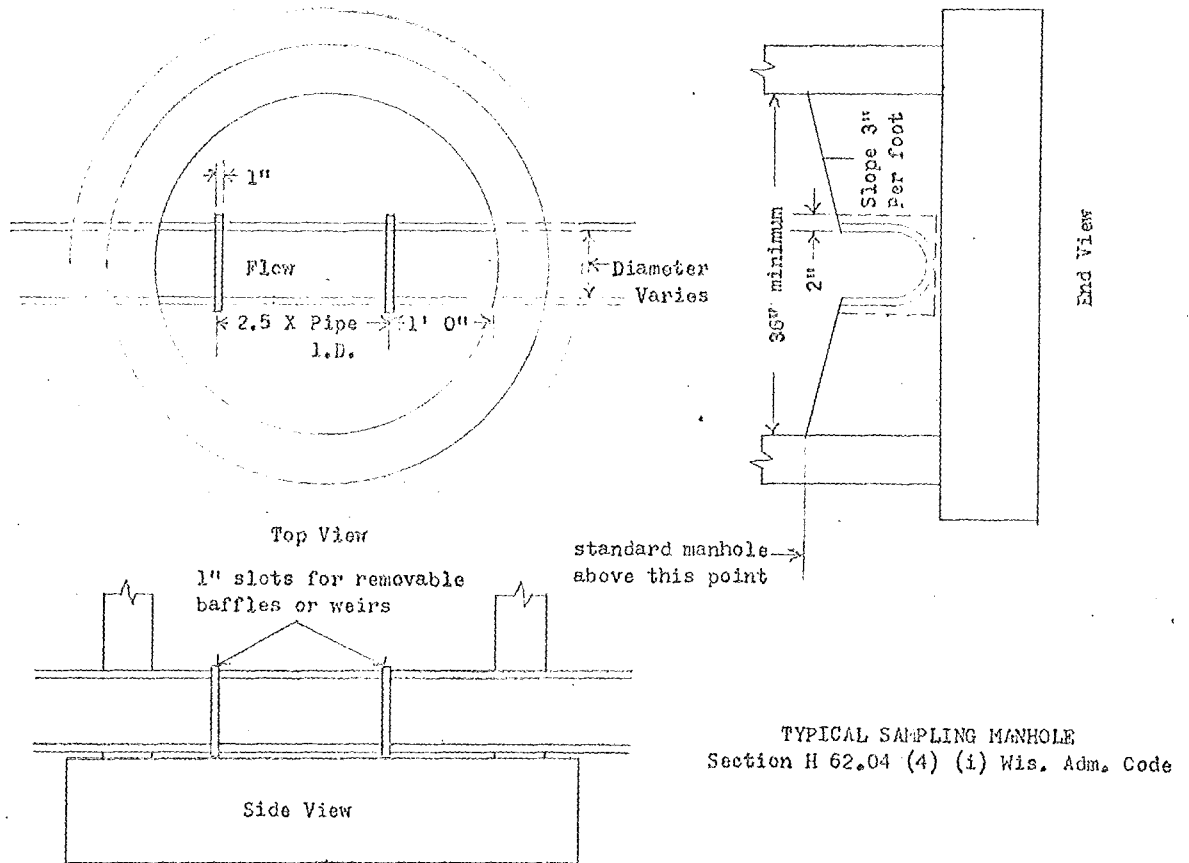
*** Based on discharge rates and number of outlets, 4" trap and waste pipe minimum recommended.

**** Trap and waste pipe sizes to correspond to floor drains.

Requires air-gap discharge.

H 62.04 Building sewers. (4) INSTALLATION. (i) Industrial waste control.

2. Construction. Sampling manholes shall be a minimum of 36 inches in diameter and constructed in a watertight and substantial manner and may be of concrete, precast concrete, cast iron, bituminous fiber, enamel coated 14 gauge steel, or vitrified clay pipe. Construction details shall follow the general criteria as shown in the following sketch:



H 62.05 Building drains. (3) SIZE. (a) Sanitary. The size of building drains and building sub-drains shall be determined by the number of fixture units tributary thereto. The minimum size of a building drain shall be 4 inches. The minimum size of an underground building sub-drain shall be 3 inches. The minimum size of underground waste pipe may be 2 inches in diameter and shall not exceed 4 feet in length. See sections H 62.04 (3)(a) and H 62.08 (7)(a).

SECTION H 62.06

STACKS AND BRANCHES

H 62.06 Stacks and Branches. (1) GENERAL. (a) Soil or waste stacks required.

Every building in which plumbing is installed shall have at least 1 vertical stack which shall run as directly as possible from the building drain through the roof.

1. Commercial and industrial type buildings. The furthestmost soil or waste stack connected to the building drain shall extend undiminished in size from the stack cleanout fitting to the roof terminal. Where a building is served by more than 1 building drain connecting to separate building sewers, a minimum 3 inch stack shall be installed to serve each building drain.

2. Residential type buildings. The furthestmost soil stack connected to the building drain shall extend undiminished in size from the stack cleanout fitting to the roof terminal. Where a building is served by more than 1 building drain connecting to separate building sewers, a minimum 3 inch stack shall be installed to serve each building drain.

(b) Size of soil and waste stacks. All soil and waste stacks shall be sized according to Table 2 except as follows: No soil stack shall be less than 3 inches in diameter from the highest soil fixture connection to the stack cleanout fitting. When a building contains but one stack, its minimum size shall be 3 inches in diameter.

(c) Stack offsets. An offset in a vertical soil or waste pipe with a change of direction of 45 degrees or less from the vertical may be sized as a straight vertical stack.

(d) Stack base connections. A long sweep 1/4 bend, two 1/8 bends, or a wye and 1/8 or 1/6 bend or its equivalent shall be used at the base of all vertical soil and waste stacks.

(e) Soil and waste pipe extensions. Any pipe extending from a soil or waste pipe shall be carried full size required to serve the fixture connections and shall be vented or revented to conform with the provisions of H 62.03 (1) and (3).

(f) Soil and waste pipe protected. No soil or waste pipe shall be installed or permitted outside a building, or concealed in outside walls or in any place where they may be subjected to freezing temperatures unless provision is made to protect them from frost.

(g) Roof terminals. Each soil, waste or vent stack shall be increased to at least 4 inch inside diameter at least 4 inches below the roof and shall extend at least 8 inches to 12 inches above the roof at this point. When the extension is greater than 12 inches or the roof is used for other purposes than weather protection, such extension shall extend not less than 5 feet above the roof. All roof terminals extending more than 12 inches above the roof shall be protected from frost closure.

1. Location. The roof terminal if within 8 feet of any door, roof louver, attic vent, window, scuttle or air shaft shall extend at least 2 feet above same. Vent pipes shall not terminate under the overhang of the building. All roof terminals shall be located a minimum of 20 feet from any air intake unit or device.

(2) HORIZONTAL SOIL AND WASTE PIPE. (a) Size and gradient. All horizontal soil and waste piping should be sized in accordance with Table 2, except that no horizontal waste pipe carrying the discharge of fixtures shall be less than 1 1/4 inches in diameter. The minimum gradient shall be 1/4 inch per foot wherever possible, in no case shall the grade be less than 1/8 inch per foot.

(b) Change in direction. All changes in direction shall be made by the proper use of 45 degree wyes, long sweep 1/4 bends, 1/6, 1/8 or 1/16 bends, or with fittings producing a like radius, except that single or double sanitary tees may be used on a vertical stack. Short 1/4 bends may be used in soil and waste piping where the change in direction of flow is from the horizontal to the vertical and for closet discharge connections.

(c) Increasers and reducers. Where different sizes of pipes, fittings or combinations thereof are to be connected, proper size increasers or reducers shall be used.

(d) Fittings. Fittings in the drainage system shall conform to the type of piping used. Fittings on screwed, threaded or other approved pipe shall be of recessed drainage pattern. All special fittings used in the soil, waste or vent lines shall be submitted to the department for acceptance.

(3) HANGERS AND SUPPORTS. Vertical piping shall be substantially supported at 10 foot intervals or floor levels. Provisions shall be made for expansion and contraction of piping and for structural settlement that may affect the piping. Horizontal piping shall be supported at intervals not to exceed 10 feet. Cast iron soil pipe shall be supported at intervals of not more than 5 feet. Supports secured in or against masonry shall be attached with expansion bolts or other approved methods without the use of wood plugs. All piping shall be rigidly secured and supported so that proper alignment will be retained.

(4) MATERIALS. All main or branch soil and waste pipes within the building which will be installed above ground shall be of cast iron, galvanized steel, galvanized wrought iron, lead, brass, DWV, "M", "L" or "K" type copper, borosilicate glass or other materials which are deemed acceptable to the department for experimental purposes. Materials installed underground shall be of lead, brass, type "L" or "K" copper, borosilicate glass, cast iron, concrete, vitrified clay or other materials approved by the department for experimental purposes. All pipe materials other than cast iron, concrete or vitrified clay pipe, when installed so as to be embedded in or through concrete, shall be adequately protected by thoroughly applying 2 coats of asphaltum paint or tar paper wrapping or other equivalent means of insulation. For borosilicate glass installed underground, trenching shall be continuous for that portion of the piping which will be below the floor slab. The bottom of the trench

shall be constructed so that the pipe will have solid bearing along its entire length. If rock is encountered, the trench shall be undercut 6" and backfilled with sand. All buried glass piping shall be covered with polystyrene casing material. All fittings, connections, and joints shall have equally adequate protection. Backfill to a point 12" over the pipe shall be earth or sand void of rock, concrete slabs, or frozen masses. No galvanized steel or wrought iron soil or waste pipe shall be laid underground. Underground piping shall also conform to H 62.04 (4) (a) as to gradient, H 62.04 (f) and (g), (7) and (8); section H 62.15 and H 62.16 insofar as they are applicable and necessary for proper installation. DWV type copper pipe shall not be installed for horizontal piping serving urinals, water closets, bedpan washers, bedpan sterilizers or like fixtures.

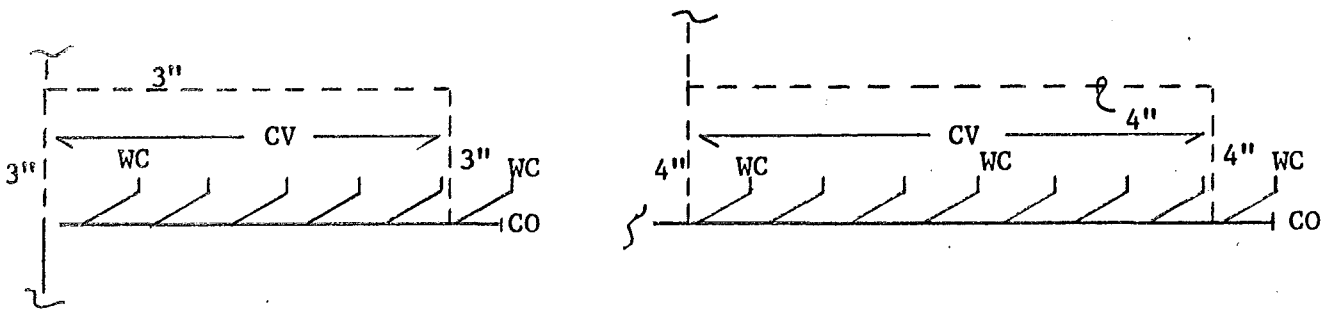
(5) FUTURE CONNECTIONS. All openings in soil or waste pipes provided for future fixture connections shall be properly connected, vented and sealed. See section H 62.03 (1) and (3).

SECTION H 62.07

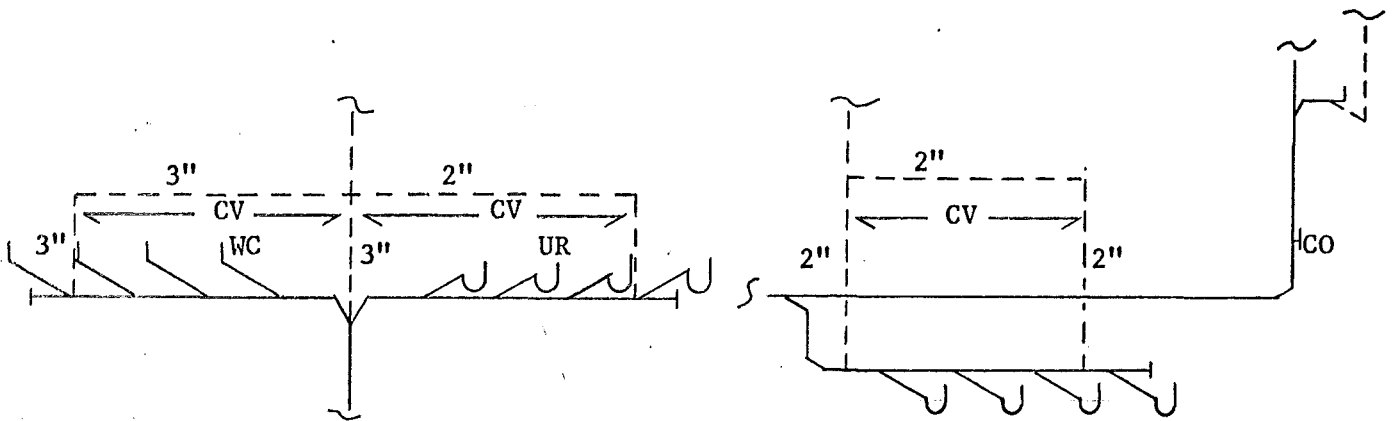
VENTS

H 62.07 Vents. (1) BACK VENTS. A back vent or continuous vent pipe shall be provided to serve each trap except as otherwise specified in this chapter.

(2) CIRCUIT VENTS. A circuit vent may serve a horizontal soil or waste pipe to which 2 and not more than 8 like fixtures are to be connected. See following sketch. For proper fixture connections, see applicable code sections.



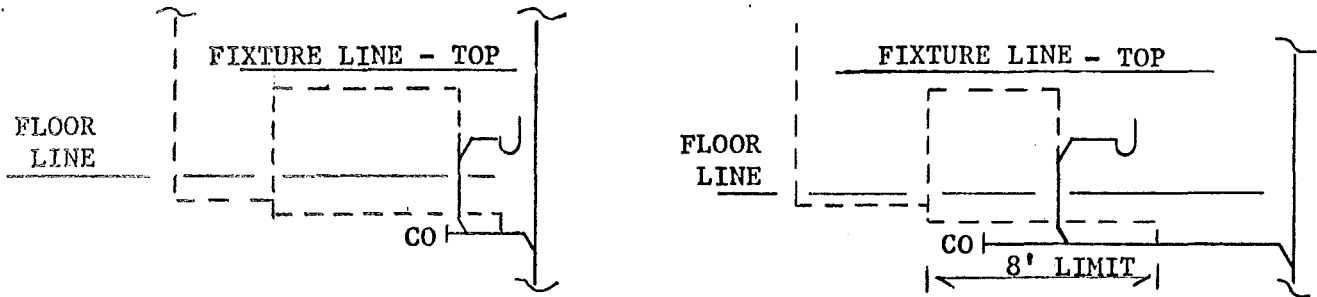
CV = CIRCUIT VENT



(a) Size. The size of the circuit vent shall be determined by the total number of fixture units connected thereto. This subsection shall not apply to floor outlet water closets or bedpan washers or fixtures intended for such uses.

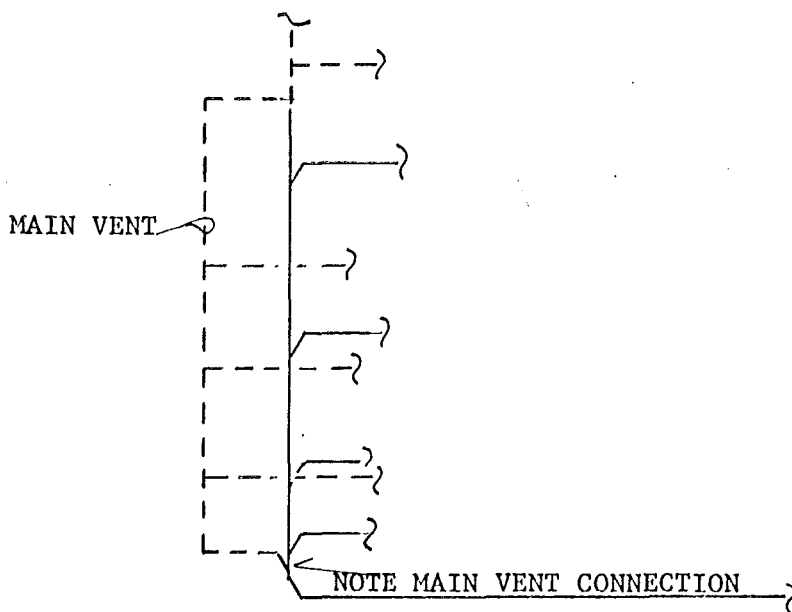
(3) CROWN VENT. In no case shall a vent be connected to the crown of a trap.

(4) LOOP VENT. A single island type or isolated fixture may be served by a loop vent when no other method of venting is possible. See following sketch.

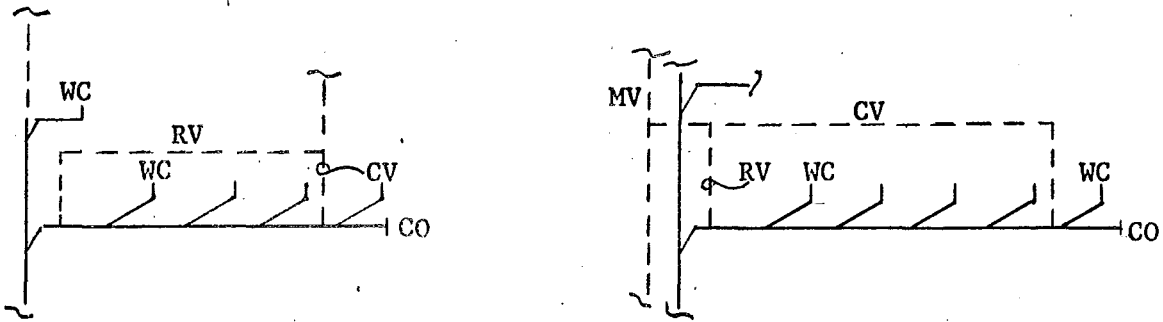


(5) MAIN SOIL OR WASTE VENT. Every building having plumbing fixtures or a plumbing system shall have installed therein at least 1 main soil or waste vent (stack vent) of at least 3 inch inside diameter which shall extend from a soil or waste stack at least 3 inches in diameter to the roof terminal.

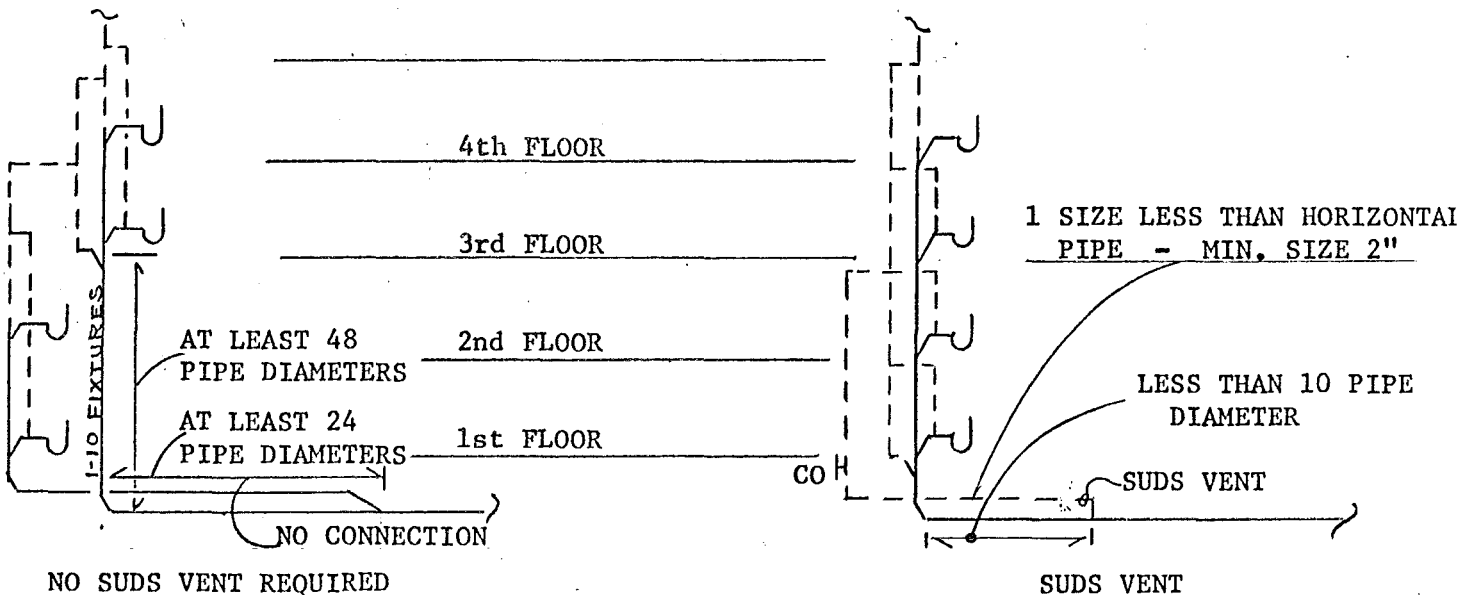
(6) MAIN VENT. All vertical soil or waste pipes 3 inches or larger in diameter serving fixtures on 3 or more floor levels shall be provided with a main vent pipe. The size of the main vent shall be determined by the number of fixture units to be served and shall extend full size from the base connection to the point of terminus. See following sketch. See section H 62.03 (1) and (2).



(7) RELIEF VENTS. Where fixtures discharge above a soil or waste pipe served by a circuit vent, each soil or waste pipe shall be provided with a relief vent in the form of a wet or dry vent, taken off ahead of the first fixture, with a diameter of not less than 1 1/2 inches or one-half the diameter of the horizontal soil or waste pipe to which it is connected or whichever is greater. See following sketch.



(8) SUDS VENTS. Buildings of 3 stories or more having a separate waste stack to serve clothes washers, dishwashers with or without kitchen sinks shall be provided with a suds vent. See following sketch.



(9) UNDERGROUND VENT. Any vent pipe installed underground shall have a minimum inside diameter of 2 inches.

(10) UNIT VENT. Two identical fixtures located on the same floor level discharging through the same approved drainage pattern fitting into a vertical soil or waste pipe may be served by a unit vent pipe as hereafter indicated. (Also referred to as a common vent.)

(11) WET VENT. Fixtures with a unit value of only one or less may be used to wet vent floor outlet fixtures located on the same floor level as the fixture creating the wet vent.

(12) YOKE VENT. All soil and waste pipes served by a main vent in buildings 8 floors or 80 feet or more in height shall be provided with a yoke vent at each 40 foot interval. The size of the yoke vent shall be not less than the size of the smaller pipe to which it connects. The lower end of each such vent shall connect to the soil or waste pipe through a wye below the horizontal branch serving the floor and the upper end shall connect to the main vent pipe through an inverted wye or a tee fitting not less than 3 feet above the floor level. Compute height locations from building drain upward.

(13) VENT RELOCATION. Where fixtures are afterwards installed on a soil or waste pipe above existing vent connections to the main soil or waste vent, the vent piping system shall be rearranged to conform to the provisions of this chapter.

(14) VENT PIPE GRADES AND CONNECTIONS. All vent pipes shall be free from drops or sags and shall be so graded and connected as to drain back to the soil or waste pipe by gravity. Whenever it becomes necessary to trap a horizontal vent pipe, it shall be drained back into a waste pipe by gravity.

(15) VENT CONNECTIONS. All vent pipes shall be run separately through the roof, be connected to other vent pipes or vent stacks a minimum of 4 inches below the roof, or be reconnected to the main vent pipe not less than 38 inches above the highest floor on which fixtures are installed. All changes in direction from vertical

to horizontal on any vent shall be made above the overflow rim of the fixture, but not less than 36 inches above the floor wherever possible. No fitting or fittings for future waste connections shall be placed in any soil or waste pipe above the point of revent connection.

(16) SPECIAL VENTS. (a) Blow-off tanks. Vents serving blow-off tanks or basins shall not be connected to the vent pipe system serving the sanitary drainage system.

(b) High temperature steam vents. Vent pipes serving steam operated sterilizers, cleansing or degreasing equipment, pressing machines or any other apparatus which normally discharges steam into a vent shall be connected to a vent which is separate from the plumbing system.

(c) Chemical piping. Vent piping serving waste piping systems conveying acids, caustics, chemical or other similar wastes shall be connected to piping materials approved for such use and shall not reconnect to the plumbing vent piping system, but shall extend separately to the atmosphere.

(17) ALTERNATE VENTING SYSTEMS. Design of venting arrangements other than set forth in this chapter shall be submitted to the department for approval prior to installation.

(18) MATERIALS. Vent piping materials to be installed above ground shall be of cast iron, galvanized steel, galvanized wrought iron, lead, brass, or DWV, "K", "M" or "L" type copper or borosilicate glass. Materials installed underground shall be of cast iron, type "K" or "L" copper, borosilicate glass, brass, galvanized wrought iron, or lead. All pipe materials other than cast iron pipe, when installed so as to be embedded in or through concrete, or other corrosive materials shall be adequately protected by thoroughly applying 2 coats of asphaltum paint or tar paper wrapping, or other equivalent means of insulation. For borosilicate glass installed

underground, trenching shall be continuous for that portion of the piping which will be below the floor slab. The bottom of the trench shall be constructed so that the pipe will have solid bearing along its entire length. If rock is encountered, the trench shall be undercut 6" and backfilled with sand. All buried glass piping shall be covered with polystyrene casing material. All fittings, connections, and joints shall have equally adequate protection. Backfill to a point 12" over the pipe shall be earth or sand void of rock, concrete slabs, or frozen masses.

SECTION H 62.08

FIXTURE DRAIN CONNECTIONS

H 62.08 Fixture drain connections. (1) GENERAL. (a) Installation. All plumbing fixtures shall be installed in a manner to afford easy access for cleaning. Enclosures under or around fixtures shall be provided with a circulation of air. Where possible, all piping from fixtures shall be installed within partitions or walls. Access panels shall be provided wherever faucets, valves or traps are concealed. Backgrounds or fixture carrier supports shall be provided for off the floor type fixtures and for other special conditions.

(b) Drain connections. Each fixture shall be provided with a water sealed trap installed as near to the fixture as possible. In no case shall the horizontal distance between the trap outlet opening and vent exceed 24 times the inside diameter of the soil or waste pipe serving an above ground fixture. The total grade of the soil or waste pipe shall not exceed the inside diameter of the pipe. Horizontal waste arms should be avoided wherever possible.

(c) Vertical distance. The vertical distance of any waste connection between the top of the fixture strainer or opening to the center line of the horizontal waste pipe shall be as close as possible but shall not exceed 15 inches, except floor drains shall not exceed 24 inches. Floor outlet water closets may have a distance of 36 inches between the water level of the fixture and the center line of the horizontal soil pipe serving same.

(d) Horizontal distance. The horizontal distance of any waste connection for a fixture served by a separate trap shall not exceed 12 inches measured from the vertical center line of the trap inlet to the center line of the fixture waste outlet.

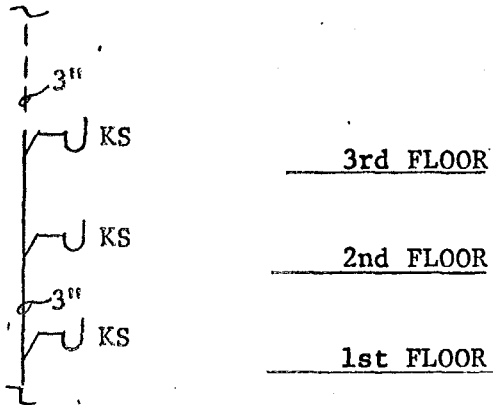
(e) Stacking fittings. Fixtures shall not be connected to soil or waste pipes through stacking of fittings unless each fixture trap is served by an individual back vent.

(2) BACK VENTS, NOT REQUIRED. (a) Unit vent. Floor outlet fixtures such as water closets, bedpan washers, bedpan sterilizers, service sinks and like use fixtures, not to exceed 2, located on the same floor level which discharge within point of vent limitations into a vertically installed combination vented double wye and 1/8 bend or sanitary tee-cross with no other fixtures discharging into the same pipe above them need not be individually back vented.

(b) Other fixtures. Two identical fixtures located on the same floor level discharging through the same approved drainage pattern fitting may be connected to a vertical waste pipe except that double tapped tees and sanitary crosses shall not be used in any food waste disposer connection.

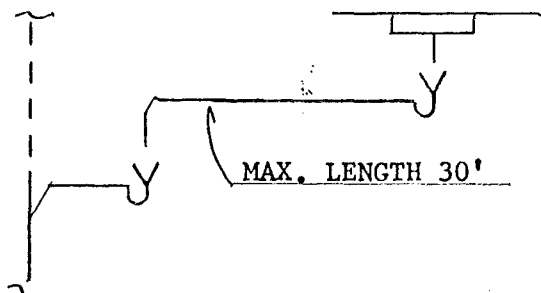
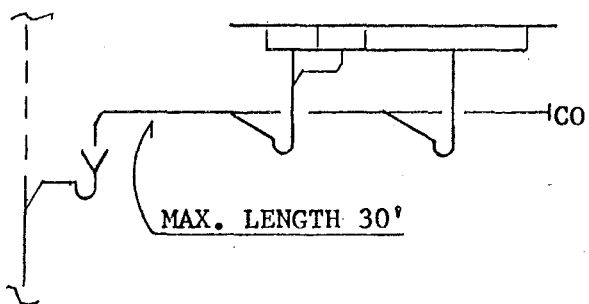
(c) Basement and sub-basement fixtures. Floor outlet water closets, shower receptors, floor drains, service sinks, elevator catch basins or swimming pool sump drains, not to exceed 2 or combination of any 2, connected to an underground building drain or subdrain need not be back vented when the developed distance of the horizontal soil or waste pipe does not exceed 48 times the inside diameter of the pipe. Where a vertical soil or waste pipe 3 inches or larger in diameter is involved, the branch connection shall be located 8 feet or more in the direction of flow from the base of such pipe. One fixture shall be the maximum permitted on any unvented horizontal branch. The minimum size branch shall be 3 inch inside diameter.

(d) Kitchen sinks. Residential kitchen sink fixtures with or without food waste disposal units, not to exceed 3 in number, located directly above one another on individual floors, may connect to a 3 inch diameter vertical waste pipe and need not be individually back vented. Back to back installations are prohibited under this section unless each combination is individually vented. See following sketch.



(e) Other waste connections. Where separate trapped waste connections from a vented line to each compartment are not installed to serve two-compartment sinks, directional type continuous waste fittings shall be installed. Directional fittings used with a single trap to receive the combined discharge from both sink compartments shall meet all requirements pertaining to venting on the waste discharge side of the trap.

(3) BAR WASTES. Bar and soda fountain sinks shall have individual traps and shall connect into a waste pipe which may discharge into an open fixture or receptor through an air-break or air-gap. The total length of the horizontal waste pipe shall not exceed 30 feet. Piping materials may be cast iron, type "L" or "K" copper, galvanized steel, galvanized wrought iron, borosilicate glass or other materials approved by the department. See following sketch.



(4) CLOTHES WASHERS. (a) Residential. Automatic clothes washers shall discharge indirectly into the drainage system through an air-break type connection. Where a standpipe is used for the point of discharge, the length of the standpipe shall be not less than 20 inches measured from the top of the trap inlet to the top of the standpipe. The top of the pipe shall terminate 2 inches below the flood level of the washer drum.

(b) Commercial. Large tumble action or drum type clothes washing equipment should discharge into a floor type receptor through an air-break or by other approved methods having a drain adequate in size to rapidly dispose of the waste water. The size of the drain shall be determined by the manufacturers discharge flow rate and section H 62.03 (2). Interceptor drains shall have a wire basket or other device, removable for cleaning, that will prevent passage into the drainage system of solids 1/2 inch or larger in size, string, rags, buttons or other materials detrimental to the sewerage system. Laundries having wastes containing oils, sand or other solids shall in addition to the above requirements provide an acceptable means of interception for this material.

(5) DISHWASHERS. Dishwashers shall be installed in compliance with sections H 62.03 (1), (2) and (3).

(6) DRINKING FOUNTAINS. Refrigerated water coolers may connect to the sanitary piping system.

(7) FLOOR DRAINS AND BACKWATER VALVES. (a) Underground. All floor drains connecting directly to an underground building drain or building subdrain shall be of cast iron with a water seal of not less than 2 inches and shall have a waterway of not less than 3 inches inside diameter. The unit shall be so constructed, installed and located with the drain inlet in view at all times and so as to provide easy access for cleaning purposes. When such drains are subject to backflow, they shall be equipped with an approved backwater valve.

(b) Above ground locations. Floor drains located above ground may have a 2 inch minimum water seal and inside diameter waterway. The maximum length of an unvented horizontal waste pipe shall be no greater than 24 times its inside diameter.

(8) FOOD WASTE DISPOSERS. (a) Household disposers. The minimum size trap, waste pipe and vent to serve a single food waste disposer shall be 1 1/2 inches inside diameter.

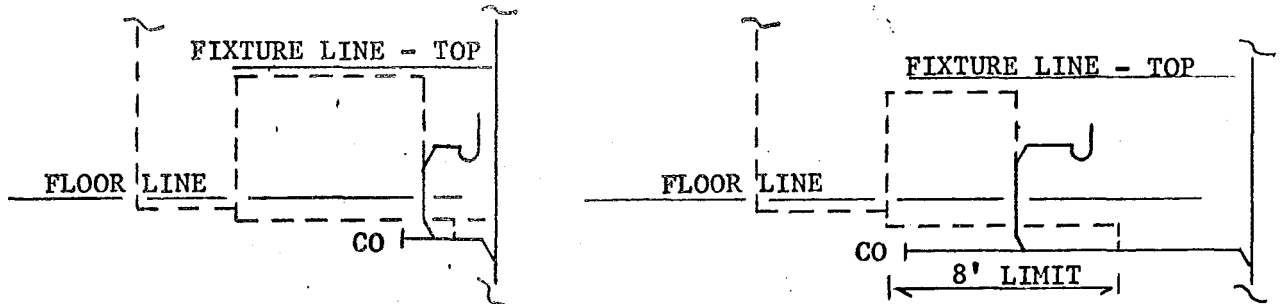
(b) Commercial disposers. Installations shall comply with the requirements of section H 62.03 (1). For 3 HP or greater capacity or special type units, the manufacturer shall specify the maximum discharge rate of the unit. The size of available waste or building drain and water supply shall be adequate to serve the unit.

(c) Fittings. Tapped tees and sanitary crosses shall not be used in any new food waste disposer connection to the waste piping system. Connection of horizontal waste piping serving waste disposer units to vertical piping less than 4 inches in diameter shall be made by the use of a sanitary tee.

(d) Prohibited disposer use. No glass, metal, crockery, stone, gravel, concrete, shellfish shells, plastic, fibrous or other indigestible material shall be introduced into a food waste disposer and be discharged to the drainage system. Eggshells, if in quantities such as might be derived from egg drying and dehydrating plants, may create a serious drainage stoppage and should, therefore, be ground only with sufficient quantities of vegetable materials to cause movement through the drain.

Note: Prior to the installation of food waste disposers in any multiple dwelling, consideration should be directed to the waste piping system for the building, the proposed location and method of connecting the disposers, whether single or two compartment sinks are to be used, the model of the disposer to be installed, as well as any dishwashing machines contemplated and the cold water pipe size and available hydrostatic water pressure.

(9) FREE STANDING FIXTURES. Single free standing fixtures such as island sinks, laboratory sinks, etc., may be served by a loop vent and waste pipe type connection. The maximum developed length of the drip section of the loop vent shall not exceed 8 feet. See following sketch.

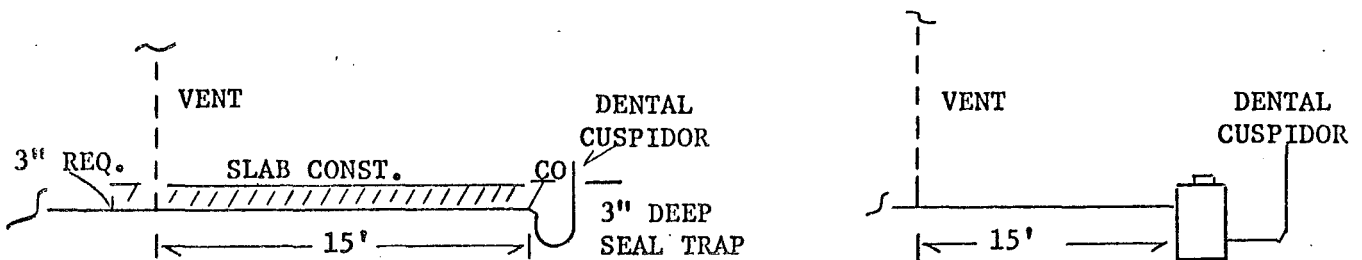


(10) SPECIAL FIXTURES, EQUIPMENT, DEVICES. (a) Special fixtures. Baptisteries, aquaria, ornamental ponds and fountain basins, industrial wastes and other specialties requiring waste connections or disposition shall be approved by the department prior to installation.

(b) Bottling establishments. Bottling plants shall discharge process wastes into an interceptor which will provide for the separation of solids prior to the liquid wastes entering the drainage system.

(c) Clear water wastes. Clear water wastes shall discharge to the storm water building drain system through an air-gap.

(d) Dental cuspidors. Dental cuspidors when connected to a waste pipe must be effectively trapped and vented as shown in sketch. The length of the horizontal waste pipe between the vent pipe and trap shall not exceed 15 feet. The total fall of the horizontal waste pipe between trap and vent shall not exceed the inside diameter of said waste pipe. See following sketch.



(e) Drips or drainage outlets. Appliances, devices, apparatus or appurtenances not regularly classed as plumbing fixtures and not included elsewhere in this code, but which have drips or drainage outlets shall be drained by indirect waste pipes discharging into an open receptacle through either an approved air-gap or air-break method.

(f) Food preparation equipment. Indirect waste pipe connections shall be provided for steam kettles, steam tables, potato peelers, coffee urns, egg boilers and other types of equipment. The indirect waste shall discharge through an air-gap or air-break, whichever is applicable, into a trapped and vented receptor.

(g) Garbage can washers. The drain outlet receiving the wash from garbage cans shall be at least 3 inches in diameter and shall be provided with a removable basket strainer to prevent discharge of large particles into the building drainage system.

(h) Hydraulic machinery. Hydraulic motors, hydraulic elevators or other machinery discharging large quantities of wastes shall be detained in a catch basin or receiving tank of sufficient size and so connected as to prevent the discharge of the wastes under pressure.

(i) Refrigerated equipment. The waste piping from refrigerators, refrigerated cases, coils or coolers, ice cube machines, vending machines or any equipment, receptacle or room in which provisions are stored shall not connect directly with any drain, soil or waste pipes. These drains shall be trapped as required to preclude their use as a local vent pipe. The length of the special waste pipe shall not exceed 20 feet. Special waste pipes shall be not less than 1 inch in diameter.

(j) Slaughter houses. Slaughtering rooms, meat processing and dressing room drains shall be equipped with approved separators or interceptors which will prevent the discharge into the drainage system of feathers, entrails, blood, manure and other materials likely to clog the drainage system. See section H 62 (grease separators).

(k) Swimming pools. Pipes carrying waste water from swimming or wading pools, including pool drainage, backwash from filters and water from floor drains which serve decks around pools shall be installed as an indirect waste. Where the recirculation pump is used to discharge waste pool water to the drainage system, the pump discharge shall be installed as an indirect waste to the building drain or sewer. The regulations for sewer connections as established in Chapter H 71 of the Wis. Adm. Code shall apply to private pools.

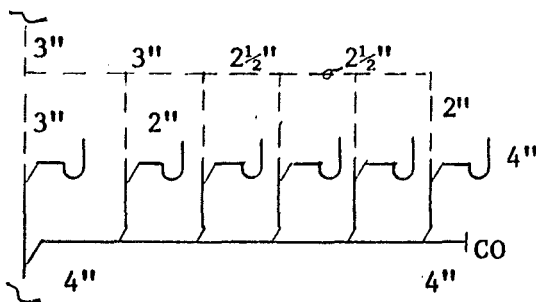
(l) Self-service laundries. Automatic clothes washing equipment in laundrettes, laundromats or other like public laundry establishments shall have the wastes discharge to a building sewer through a manifold with standpipes served by properly sized and vented water sealed traps. The traps may be individually vented or circuit vented. Acceptable methods of installation are indicated in sketches. The following number of washers shall be the maximum to be connected to each size trap:

Table 6

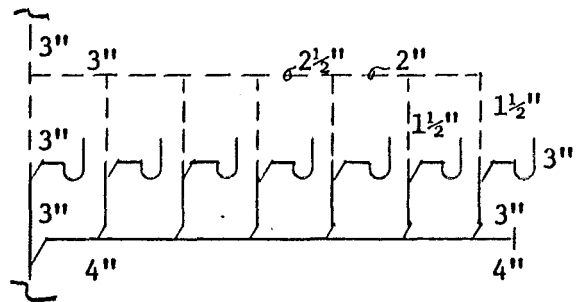
TRAP SIZE (Minimum)	NO. OF WASHERS (Maximum)
2 inch trap-----	2 machines
3 inch trap-----	3 machines
4 inch trap-----	4 machines

Installation of gutters, troughs, local wastes, indirect manifold waste or other such connections are prohibited installations for the above type equipment.

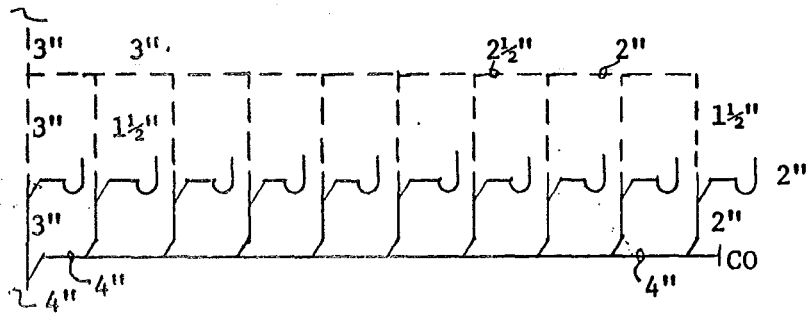
See following sketches.



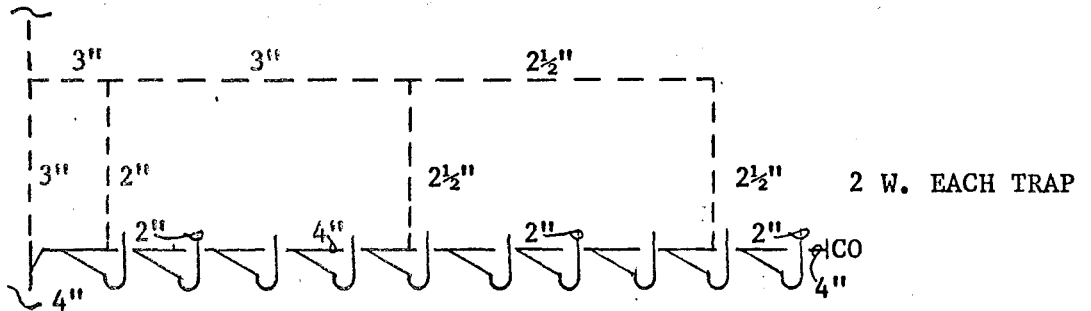
4" TRAP SERVING 4 WASHERS



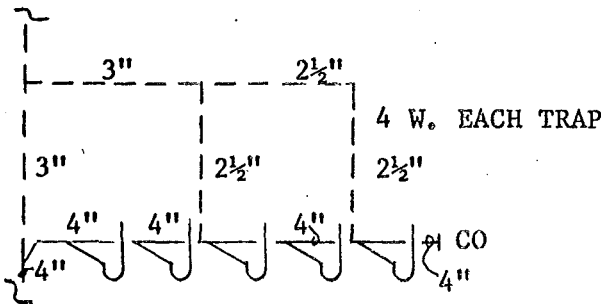
3" TRAP SERVING 3 WASHERS



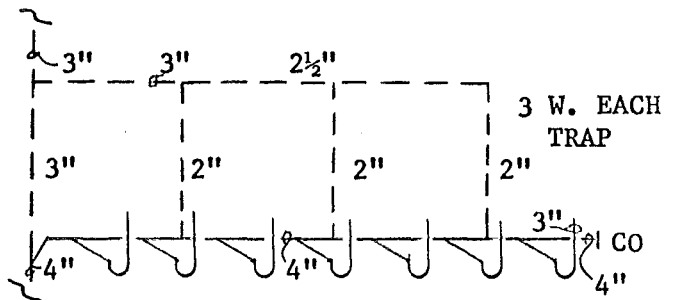
2" TRAP SERVING 20 WASHERS 20 TOTAL - 2 EACH TRAP



2" TRAP SERVING 2 WASHERS



4" TRAP SERVING 4 WASHERS



3" TRAP SERVING 3 WASHERS

(m) Vacuum cleaners (central units). Plumbing connected central vacuum power cleaning units shall be provided with an acceptable air-gap connection in the water intake pipe. The unit shall be connected to the waste piping system through an air-gap or air-break type connection.

(11) URINALS. (a) Women. Urinals for women may be installed as an auxiliary or supplementary fixture. This type fixture is not to be used as a substitute for water closets. In all cases the minimum number of water closets required shall be provided.

1. Enclosure. The urinal shall be enclosed with a standard size water closet compartment and door to insure privacy in use. An instruction card explaining how to use the fixture shall be posted in each such compartment.

2. Installation. The fixture shall be installed in accord with all applicable code requirements set forth for water closets. A floor drain shall be installed immediately adjacent to the fixture. The fixture shall be equipped with an automatic flush tank, automatically controlled flush valve or a satisfactory foot operated flushing device. Every water supply to a urinal (s) shall be protected by an approved type vacuum breaker or other acceptable method.

(b) Men's urinals. 1. Stall type urinals shall be set into the floor and the floor shall be graded toward the fixture. A single urinal shall be flushed by an automatic flush tank, an automatically controlled flush valve or a satisfactory foot operated flushing device. A battery of not more than 4 urinals shall be flushed by an automatic flush tank or an automatically controlled flush valve provided the flush pipe is sized and graded as to insure sufficient pressure and volume for adequate flushing at each urinal. Every water supply to a urinal (s) shall be protected by an approved type vacuum breaker or other acceptable method. Batteries of urinals shall be spaced not less than 30 inches center to center. The center line of a single urinal shall be at least 16 inches from the nearest side wall or partition. When the space between stall type urinals or a urinal and a side wall is less than 12 inches, such space shall be filled in flush with the front and top of the urinal with non-absorbent material.

2. Wall type. a. Wall hanging men's urinals of a type approved by the department may be installed in buildings other than service stations, schools, institutions or places of assembly where children under 12 years old are accommodated.

b. A single urinal shall be flushed by an automatic flush tank, an automatically controlled flush valve or a satisfactory foot operated flushing device. A battery of not more than 4 wall hanging washout urinals shall be flushed by an automatic flush tank or an automatically controlled flush valve provided the flush pipe is sized and

graded as to insure sufficient pressure and volume for adequate flushing at each urinal. Every water supply to a urinal (s) shall be protected by an approved type vacuum breaker or other acceptable method.

c. Batteries of wall hanging urinals shall be spaced not less than 30 inches center to center. The center line of a single urinal shall be at least 16 inches from the nearest side wall or partition.

d. The floor space to a point at least one foot in front of the urinal lip and the wall at least 4 feet above the floor and at least one foot on each side of the urinal shall be ceramic tile or other nonabsorbent material.

e. Wall hanging urinals shall be supported by a carrier fitting.

f. Combinations of stall type and wall hanging urinals may be installed.

g. A floor drain located not more than 12 inches from the wall supporting wall hanging urinals, or a stall urinal shall be provided for each group of 4 or less urinals and each toilet room containing a single wall hanging urinal.

h. Fixture unit values, trap, waste and vent sizes shall be the same as men's stall urinals.

1. Excepting for buildings referred to in section H 62.08 (11) (b) 2., any building in which juveniles may be present containing a toilet room having only one water closet and one urinal, the urinal shall be the stall type. If said building contains a toilet room having more than one urinal, at least one urinal shall be installed in accord with section H 62.08 (13) (c).

(12) WATER CLOSETS. (a) Floor outlet. One floor outlet water closet may connect to a 3 inch horizontal or vertical soil pipe through a 4 X 3 inch bend. Not more than 2 water closets shall be connected to a 3 inch vertical soil pipe. Offset or 3 X 4 inch closet collar connections are prohibited.

(b) Back to back floor outlet. Two water closets located back to back shall be connected to a vertical 3 inch pipe with a 3 inch tee-wye cross. Two floor outlet water closets located back to back may connect to a vertical 4 inch stack through a

4 X 3 inch sanitary cross or through a 4 inch sanitary cross fitting. When fixtures discharge into the same soil pipe above the water closets, all fixtures shall be properly vented. Back to back floor outlet water closets connecting to a horizontal soil pipe shall be connected by the proper use of 45° wyes, double wyes, tee-wye combinations or with fittings producing a like radius and may be circuit vented or individually back vented. See section H 62.08 (1) (c) for vertical limitations.

(c) Side by side floor outlet. Floor outlet water closets installed side by side or in batteries shall connect to the horizontal soil pipe through a horizontally installed wye, tee-wye or wye and 1/8 bend. The fixtures may be individually back vented or circuit vented. Where circuit vents are used, the size shall be: 3 inch for a battery of 2 to 6 fixtures and 4 inch for a battery of 7 or 8 fixtures.

(d) Wall outlet floor mounted water closets. Wall outlet floor mounted type water closet fixtures may be connected to a vertical or horizontal soil pipe through an approved type carrier fitting or 4 inch closet collar. When the soil piping is 3 inches in diameter, the pipe connection shall be increased to 4 inch inside diameter between the fixture and soil pipe fitting connections.

(e) Back to back wall outlet. Wall outlet, floor mounted type water closets connected to the same vertical soil pipe shall be installed with a fitting so designed as to prevent cross-flow of wastes or air pressures to the opposite fixture, or through an approved type carrier fitting. Where fixtures discharge into the same vertical pipe on floors above, all fixtures shall be properly vented. Wall outlet, floor mounted water closets may discharge into a horizontal soil pipe through an approved type carrier fitting. The water closets may be individually back vented, served by a 3 inch diameter common vent or a 2 inch diameter common vent increased to 3 inches in diameter a minimum vertical distance of 18 inches above the center line of the fixture opening, with no horizontal offset in the vent pipe below a point 38 inches above the floor line.

(f) Side by side wall outlet. Wall outlet, floor mounted water closet fixtures installed side by side or in batteries shall connect to the horizontal or vertical soil pipe through an approved carrier type fitting, a wye, tee-wye or wye and 1/8 bend connection. The fixtures shall be individually dry vented.

(g) Off the floor water closets. 1. Batteries of side by side off the floor type fixtures shall connect to a horizontal or vertical soil pipe through department approved horizontal or vertical carrier type fittings and shall be individually dry vented.

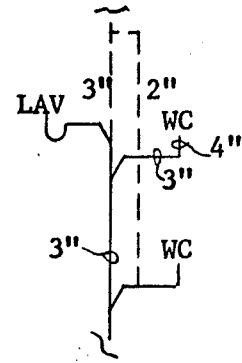
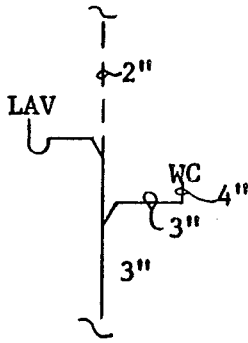
2. Off the floor type water closets installed back to back shall connect to horizontal soil pipe through a department approved type carrier fitting. The water closets may be individually back vented, served by a 3 inch diameter common vent or a 2 inch diameter common vent increased to 3 inches in diameter a minimum vertical distance of 18 inches above the center line of the fixture opening with no horizontal offset in the vent pipe below a point 38 inches above the floor line.

(h) Stack offsets. Off the floor type water closets shall be connected to a stack offset through an approved back to back carrier type fitting. The installation shall be served by a unit vent of 3 inch or larger diameter, or may be individually back vented in accord with section H 62.03 (1), table 1. Also see section H 62.06 (1) (c).

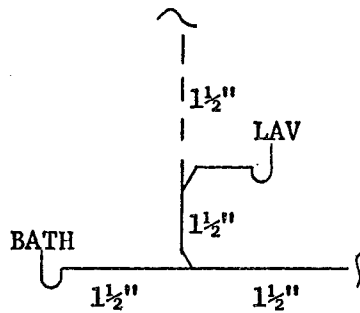
(i) Multi-story stacks. Back to back off the floor water closets shall connect to a vertical soil stack through a department approved back to back carrier type fitting. The water closets may be individually back vented, served by a 3 inch diameter common vent or a 2 inch diameter common vent increased to 3 inches in diameter a minimum vertical distance of 18 inches above the center line of the fixture opening with no horizontal offset in the vent pipe below a point 38 inches above the floor line.

(13) BATHROOM GROUPS. (a) Bathroom group (single). A single group of bathroom fixtures may be installed without individual fixture vents in a one story building or on the top floor of a building provided that:

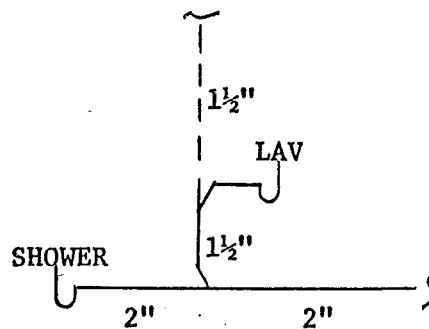
1. The water closet is independently connected to a stack 3 inches or larger with no more than 1 D.F.U. connection above. See following sketch.



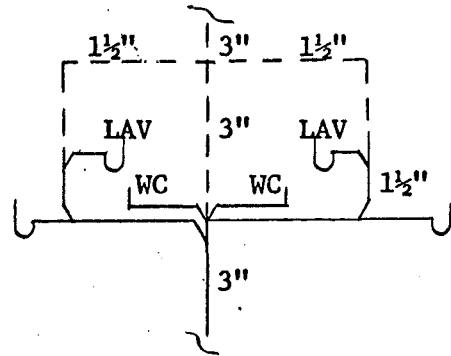
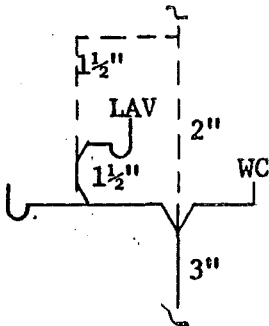
2. The drain from a back vented lavatory serves as a wet vent for a bathtub or shower stall. See following sketch.



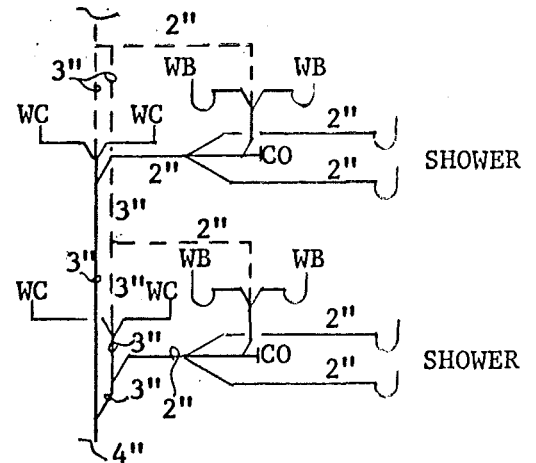
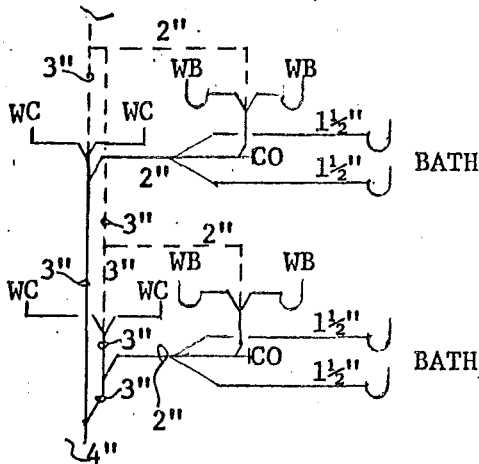
3. Not more than 1 D.F.U. is drained into the 1 1/2 inch vertical vent or not more than 5 D.F.U. drain into the horizontal wet vented pipe. See following sketch.



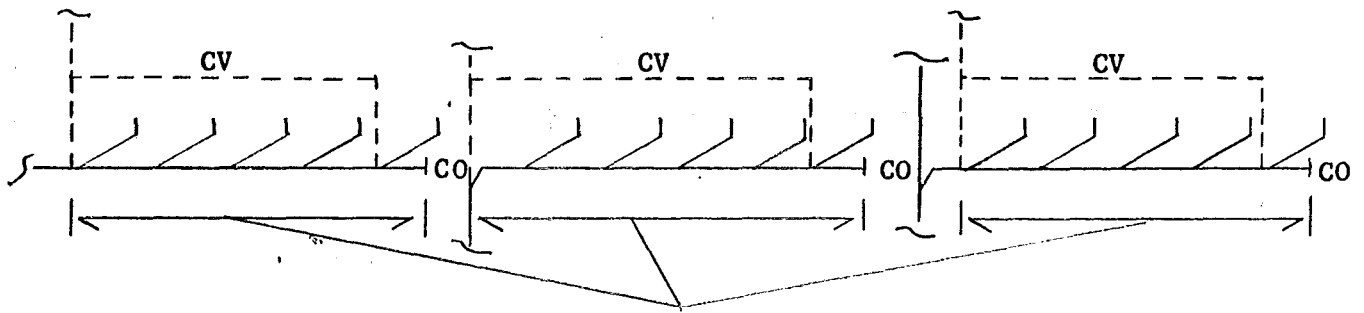
4. The horizontal wet vented pipe shall connect to the stack at or below the same level as the water closet drain when installed on the top floor. See following sketch.



(b) Double bathroom groups. Back to back bathroom groups consisting of 2 lavatories and 2 bathtubs or shower stalls may be installed on the same horizontal pipe when served by a 2 inch diameter unit vent provided the water closets (2) connect independently to a 3 inch or larger diameter stack which extends full size without fixture connections above. See following sketches.



(c) Other fixtures. A horizontal soil or waste pipe to which 2 and not more than 8 like fixtures are connected may be vented by a circuit vent. The horizontal soil or waste pipe shall be carried full diameter to the last fixture connection and terminate with a cleanout. See following sketch.



NO CONNECTIONS IN THIS AREA EXCEPT LIKE FIXTURES SERVED BY CIRCUIT VENT.

(d) Prohibited fixture connections. There shall be no fixture connection other than the circuit vented fixtures connected to the circuit vented horizontal soil or waste pipe.

(e) Juvenile fixtures. Water closets and other fixtures for the use of juveniles shall be of a size and shall be installed at a height suitable for juveniles use. Drain connections shall be provided at height required to serve the fixtures.

(14) UNLISTED FIXTURES, EQUIPMENT, DEVICES AND APPLIANCES. For items not included in this section, refer to other applicable sections of this chapter or contact the department for information and proposed installation review.

(15) INDIRECT WASTE PIPING AND SPECIAL WASTES. SPECIAL EQUIPMENT, INDIRECT WASTE PIPING. (a) Piping by plumber. The indirect waste piping serving any refrigerator, refrigerator case, icebox, ice compartment, vending machine, rinse sinks, steam tables, steam kettles, potato peelers, egg boilers, coffee urns, appliances, devices or appurtenances in which food or provisions are stored or processed, baptismal founts, clothes washers and extractors, dishwashers, dental cuspidors, garbage can washers, appliances, devices or appurtenances such as stills, sterilizers, bar and soda fountains, boiler blow-off basin outlet drains and similar equipment having public health concern shall be installed by licensed plumbers.

(b) Piping by equipment installers. Indirect waste piping serving air-conditioning, cooling coils, air-handling condensate waste, expansion tank overflow and

equipment serving steam, power, heating, such as flash tanks, boiler to blow-off basins, machinery wastes, process piping and similar waste piping may be installed by the equipment installer.

SECTION H 62.09

FIXTURES

H 62.09 Fixtures. (1) CONSTRUCTION AND DESIGN. All fixtures, appliances, equipment, devices and appurtenances shall be of such design, materials and construction as to comply with applicable standards to insure durability, proper service, sanitation, and so as not to entail undue efforts in keeping them clean and in proper operating condition. All fixtures shall connect directly to the sanitary plumbing system except as otherwise indicated. Blowout type fixtures of any type may only be installed upon approval of the department.

(2) FIXTURE OUTLETS. Outlet passageway shall be free from impairments and of sufficient size to insure proper discharge of the fixture contents under normal conditions. Outlet connections which are directly connected to the plumbing system shall be such that a permanent air and watertight joint can be readily made between the fixture and drainage system.

(3) MATERIALS. Fixtures shall be made of earthenware, vitreous chinaware, enameled steel or ironware, stainless steel or other approved materials. Wooden trays or sinks with or without metallic lining shall be allowed only in commercial laundries and dye houses where such fixtures are in daily use.

(4) BATHTUBS. Bathtubs shall be designed in conformity to applicable standards and shall have waste outlets and overflows at least 1 1/2 inches in diameter. The waste outlet shall be equipped with a suitable stopper or closing device. Bathtubs set in any alcove shall have the side with the longest dimension accessible for entry to the tub.

(5) DRINKING FOUNTAINS AND DEVICES. Drinking fountains, coolers and like devices shall not be installed in toilet rooms. All drinking fountains, coolers and like devices shall be separate from other fixtures and be made of earthenware,

vitreous chinaware, enameled steel or ironware, stainless steel, anodized aluminum, or other approved material. The bowl shall be so designed and proportioned as to be free from corners so that it may be readily cleaned and so as to prevent unnecessary splashing at the point where the jet stream falls into the bowl. The nozzle shall be of nonoxidizing impervious material and shall have no fouling space or enclosures making cleaning difficult or inducing insanitary conditions. The jet shall be inclined and the orifice shall be higher than the rim of the waste water receiving bowl. The water supply shall be provided with an adjustable valve fitted with a loose key or an automatic self-closing valve permitting regulation of the rate of flow of water. The water supply issuing from the nozzle shall be of sufficient volume and height so that persons using the fountain need not come in direct contact with the nozzle or orifice. To accomplish this the fountain supply should be equipped with an efficient automatic pressure and volume regulating valve.

(6) LAUNDRY TRAYS, SINKS. Laundry trays and each sink compartment shall be provided with a waste outlet of at least 1 1/2 inch diameter.

(7) LAVATORIES (WASH BASIN). Each fixture shall have a waste outlet of at least 1 1/4 inch diameter. Each multiple type fixture with 18 inches of useable length of a straight-line or circular type shall be considered equivalent to one lavatory (wash basin) for the purpose of determining the water supply and drainage pipe sizes. Each 18 inch interval and each individual lavatory fixture shall be provided with potable water for hand washing.

(8) SHOWERS. (a) Compartments. Shower compartments shall have at least 900 square inches of floor area, curb at least 3 inches in height and shall be at least 30 inch in minimum dimension at any given side or angular shape or as the diameter of a circle except when a bathtub is used as the shower compartment. The wall area above built-in tub showers and in shower compartments shall be constructed of smooth, noncorrodible, nonabsorbent, waterproof materials to a height of at least

6 feet above the floor level. The walls shall form a watertight joint with each other and with either the tub, receptor or shower floor. Preformed and prefabricated units shall comply with this subsection.

(b) Waste outlet. Waste outlets serving single showers, other than those in bathtubs, shall be at least 2 inches in diameter. When gang showers are to be served, the minimum drain outlet shall be 3 inches in diameter. Strainer perforations or slots shall be no smaller than 1/4 inch. Where gang showers are installed, the waste outlet should be so located and the floor so pitched that waste water from one shower head does not flow over the floor area serving another shower head.

(c) Safing. All shower stalls, shower rooms, floor setting service sinks or receptors, sunken bathtubs or other like fixtures shall be provided with 4 pound sheet lead asphaltum coated, compotite, copper, saraloy or other approved safing material beneath the entire fixture or room and upward along the sides to a minimum of 6 inches above the curb or maximum water level of the fixture. The corners shall be safed to a height of 6 feet and at least 3 inches in each direction from the corners. The safing shall be properly drained. Unitized receptors, manufactured floor setting service sinks, shower receptors, bathtubs and installations directly over an unexcavated portion of a building are exempt from safing requirements.

(d) Shower drains and floor drains. Shower drains and floor drains shall be considered a fixture and shall be provided with an approved strainer.

(9) URINALS. (a) General. Urinals shall be made of material impervious to moisture and which will not corrode under the action of urine, be of such design, materials and construction that they may be properly flushed and kept in a sanitary condition. If cast iron is used in the construction of urinals, it must be enameled on the inside and coated with durable paint or be enameled on the outside. No sheet iron urinals will be permitted. Only individual urinals shall be used in public

buildings and places of employment. Such individual urinals shall be of vitreous china or stainless steel and shall be equipped with an automatic flushing device.

(10) WATER CLOSETS. (a) General. All water closets shall be designed to meet specifications standards for land use fixtures. They shall hold a sufficient quantity of water and be of such shape and form that no fecal matter will collect on the surface of the bowl. All water closet bowls shall be equipped with adequate flushing rims so as to flush and scour the bowl properly when discharged. Water closets in public buildings shall be of the elongated or extended lip design and shall be equipped with similar design open front seats less cover. For institutions, see applicable sections.

(b) Side inlet water closet bowls. New water closet installations shall not be equipped with side inlet openings.

(c) Fixture flushing. Each water closet shall be individually equipped with an acceptable flush tank and fittings or with an approved flushometer valve. All flush tanks, flushometer or automatic flushing device shall be readily accessible for maintenance and repair. Ballcocks shall be of the anti-siphon type.

(d) Prohibited water closet fixtures. It shall be unlawful to install and/or maintain pan, plunger, offset washout, washout, long hopper, frostproof and/or other water closets having invisible seals or unventilated spaces or walls not thoroughly cleansed at each flushing.

(11) OVERFLOWS. (a) Design. In any fixture which is provided with an overflow, the waste outlet shall be designed and installed so that the standing water in the fixture cannot rise in the overflow when the stopper is closed, nor shall any water remain in the overflow when the fixture is empty.

(b) Connection of overflows. The overflow from any fixture shall discharge into the drainage system on the inlet or fixture side of the trap provided that the overflow from a flush tank serving a water closet or urinal shall discharge into the fixture served.

(12) WATER HEATERS AND HOT WATER STORAGE TANKS. (a) General. All water heaters either for domestic or industrial use shall be of an approved type and shall connect to the water distribution system in an approved manner. All heaters except electric heaters shall be provided with a flue of rust resistant material connected to a chimney or gas vent stack. All water heaters shall be permanently marked with the rated input of the heater in B.T.U. or watts. Such marking shall be in an accessible position on the outside of the heater for inspection purposes.

(b) Safety devices. All safety devices, except mixing valves, shall meet the current requirements of one or more of the following: American Gas Association, Underwriters Laboratories, Inc., American Society of Mechanical Engineers or National Board of Boiler and Pressure Vessel Inspectors. Test and certification by a laboratory in accordance with one of the above applicable standards shall also be considered acceptable. All water safety devices shall be of the temperature and pressure type installed in accordance with this code.

(c) Tank construction. Storage tanks for direct fired storage type water heaters shall be constructed to withstand a minimum of 300 psi test pressure without leakage or permanent distortion and shall bear the manufacturers' marking showing test and working pressure, except that in lieu thereof, pressure markings appearing on AGA or UL listed water heater units will be considered acceptable.

(3) TRAP INSTALLATIONS. (a) Setting of traps. All traps shall be so located as to be accessible, rigidly supported and set true with respect to their water level and so located as to protect their seals, and where necessary, shall be protected from freezing and evaporation.

(b) Traps where prohibited. No fixture shall be double trapped and there shall be no traps at the base of soil or waste stacks.

(c) Bath traps. Drum traps not less than 4 inches in diameter and having a seal of not less than 2 inches may be used under all bathtubs wherever practicable. The horizontal distance between the vertical center line of the drum trap inlet to the center line of the fixture waste outlet shall not exceed 12 inches.

(d) Deep seal traps. Deep seal resealing traps of the centrifugal, self-scouring type may be used when it is impractical to provide a proper back vent. So far as practical a free circulation of air shall be provided. Traps of this type shall not be permitted in new construction or reconstruction.

(4) PROHIBITED TRAPS. Bell, pot, and bottle traps, 3/4 "S", full "S" type traps, traps fabricated from fittings, crown vented traps and traps constructed of masonry are not permitted.

(5) CLEANOUTS. (a) Size. Cleanouts shall be the same size as the pipes to be serviced.

(b) Building drain. A cleanout with brass screw cover or other type approved by the department shall be provided at a point where the building drain leaves the building. This cleanout shall be extended from the building drain with a cast iron soil pipe to the surface of the finished floor or grade and wherever practical shall be not less than 2 inches above the finished floor or grade. An additional cleanout located at a point 28 to 30 inches above the floor shall be provided in all soil and waste stacks.

(c) Toilet and washrooms. Cleanouts shall be provided in connection with batteries of water closets, urinals, wash basins, sinks and showers, at such points

that all parts of the branch waste and soil pipes may be reached conveniently for cleaning or removal of stoppages.

(d) Sink wastes. Waste pipes from sinks or other similar fixtures discharging greasy wastes shall have sufficient accessible cleanouts spread over their entire length.

(6) TRAP CLEANOUTS. All fixture traps shall be so designed and installed that stoppages may be removed. All small fixture traps shall be provided with cleanouts of the screw plug or removable dip type. Where the "U" or dip is removable the coupling nut on the discharge side shall be within the dip of the trap. Traps for urinals rising from the floor and traps serving shower baths and floor drains, when inaccessible, shall be so installed as to make the removable inlet serve as a cleanout.

(7) CONSTRUCTION. The bodies of cleanout ferrules shall be made of cast iron or brass and shall extend not less than 1/4 inch above the hub receiving it. When solid brass screw caps for cleanouts are used, they shall be at least 3/16 inch in thickness and provided with standard pipe threads and one inch square or hexagonal solid head at least 3/4 inch high or adequate inverted countersunk sockets. The ferrules when constructed of brass shall be at least 3/16 inch in thickness and when constructed of iron the same weight per foot as for cast iron soil pipe. The screw thread shall have at least 5 threads of iron pipe size. The tops of cleanout plugs shall be tool faced to a flawless smooth surface so as to insure a tight joint. A brass plug of standard pipe size shall be used where cast iron threaded drainage fittings serve as cleanout openings.

H 62.20 Private domestic sewage treatment and disposal systems. (5) SOIL ABSORPTION SYSTEM. (d) Installation. 2. Deep system. e. A seepage pit shall have a minimum inside diameter of 5 feet and shall consist of a chamber walled up with material such as a perforated precast concrete ring, concrete block, brick or other material approved by the department which allows effluent to percolate into the surrounding soil. Seepage pits shall be located 10 feet or more apart. The pit bottom shall be left open to the soil. Crushed rock or similar aggregate 1 to 2 1/2 inches in size shall be placed into a 6-inch minimum annular space separating the outside wall of the chamber and sidewall excavation. Depth of the annular space shall be measured from the inlet pipe to the bottom of the walled-up chamber. Each seepage pit shall be provided with a 24-inch manhole extending within 6 inches of the ground surface and a 4-inch fresh air inlet which shall meet the requirements of sections H 62.20 (4)(a) and H. 62.20 (5)(d). Excavation and scarifying shall be in accord with H 62.20 (5)(d). The effective area of a seepage pit shall be the vertical wall area of the walled-up chamber for the depth below the inlet for all strata for which the percolation rates are lower than 30 minutes per inch. Six inches of annular opening outside the vertical wall area may be included for determination of effective area. The following table may be used for determining the effective sidewall area of circular seepage pits:

Effective Absorption Area Seepage Pit *

Inside diameter of walled up chamber in feet *	Depth Below Inlet					
	3	4	5	6	7	8
7	75	101	126	151	176	201
8	85	113	142	170	198	226
9	94	126	157	188	220	251
10	104	138	173	208	242	277
12	123	163	204	245	286	327

* The 6 inch annular opening credit is included.

The rules contained herein shall take effect on October 1, 1971 as provided in Section 227.026(1), Wis. Stats., subject to the provisions of Section 14.06, Wis. Stats.



Wilbur J. Schmidt
Secretary
Department of Health & Social Services

Dated August 27, 1971

SEAL

NOTE:

The above standards are on file in the offices of Health and Social Services, Secretary of State, and Revisor of Statutes, and may also be obtained for personal use as follows:

- 1) Approval requirements for gas water heaters, volume I, Seventeenth Edition, 1965
Approval requirements for gas water heaters, volume II, effective January 1, 1963
Approval requirements for gas water heaters, volume III, third edition, 1965
Listing requirements for relief valves and automatic gas shutoff devices for hot water supply systems, effective January 1, 1965 and addenda effective January 1, 1966.

The above standards available from American Gas Association, Inc. 605 Third Avenue, New York, New York, 10016.

- 2) Standards for safety, household electric storage-tank water heaters, UL 174, third edition, May 1, 1970, and revision pages dated June 16, 1971, January 18, 1971

The above standards are available from Underwriters' Laboratories, Inc.

207 E. Ohio Street, Chicago, Ill. 60611
333 Pfingsten Road, Northbrook, Ill. 60062
1655 Scott Blvd, Santa Clara, Calif. 95050
1285 Walt Whitman Road, Melville, L.I., N.Y.
11746

- 3) ASME Boiler and Pressure Vessel Codes
Heating Boilers, section IV, 1971, available from American Society of Mechanical Engineers, 29 W 39th Street, New York, N.Y. 10018

- 4) Relieving capacities of safety valves and relief valves, January 1, 1970.

The above standards are available from The National Board of Boiler and Pressure Vessel Inspectors, 1155 N. High Street, Columbus, Ohio 43201.

Attached by Det.

STATE OF WISCONSIN

STATUTORY REVISION BUREAU

STATE CAPITOL

MADISON 53702

September 22, 1971

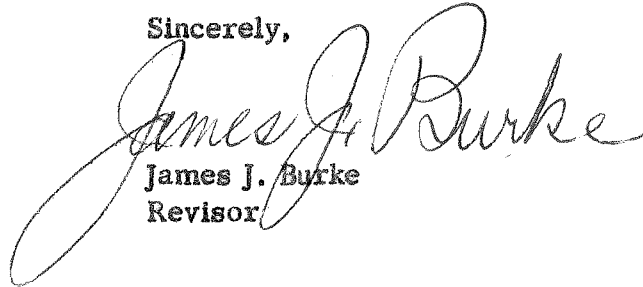
George H. Handy, M.D.
State Health Officer
Division of Health
434 WS SOB
Madison, Wisconsin

Dear Dr. Handy:

I have received a copy of a letter from the Attorney General dated September 22, 1971, consenting to the incorporation by reference in s. H. 62.09 (12) (b) of standards adopted by the American Gas Assn., Underwriters Laboratories, Inc., Am. Soc. of Mechanical Engineers or Nat. Bd. of Boiler and Pressure Vessel Inspectors.

My consent to this incorporation is also required and I hereby concur in the consent of the Attorney General.

Sincerely,



James J. Burke
Revisor

JJB:jhk

cc: Atty. Gen. Robert W. Warren

THE STATE OF WISCONSIN
DEPARTMENT OF JUSTICE
MADISON 53702

September 22, 1971

C
O
P
Y

George H. Handy, M.D.
State Health Officer
Division of Health
P. O. Box 309
Madison, Wisconsin 53701

Dear Dr. Handy:

Section 227.025, Stats., permits an agency, with the consent of the Revisor of Statutes and the Attorney General, to incorporate standards in its rules by reference to specific issue or issues of books or pamphlets in which such standards are set forth.

Accordingly, this letter shall constitute notification that I consent to the incorporation by reference of the standards set forth in sec. H62.09 (12)(b) relating to the revision of the Wisconsin Administrative Code, which reads as follows:

"All safety devices, except mixing valves, shall meet the current requirements of one or more of the following: American Gas Association, Underwriters Laboratories, Inc., American Society of Mechanical Engineers or National Board of Boiler and Pressure Vessel Inspectors. Test and certification by a laboratory in accordance with one of the above applicable standards shall also be considered acceptable. All water safety devices shall be of the temperature and pressure type installed in accordance with this code."

Sincerely yours,

Robert W. Warren
Attorney General

RWW/ked

cc: James Burke
Revisor of States
State Capitol
Madison, Wisconsin