



Ordinance 2007-106 Exhibit A



Amendments to the:
2006 International Plumbing Code

Chapter 1 Administration. DELETE chapter 1 in its entirety.

ADD new section 301.4.1 to read:

301.4.1 Individual metering in new multi-family residential units. The water supply to all new multi-family residential buildings shall be individually metered for each dwelling unit. The metering may be private or utility installed.

Section 305.6.1 Sewer depth. INSERT [number] as “12” in both locations.

Section 312.1 Required tests. REVISE section by DELETING the last three sentences of the first paragraph.

Section 312.5 Water supply system test. REVISE section by DELETING the phrase fragment “, for piping systems other than plastic,” from the first sentence.

ADD new section 416.6 to read:

416.6 Automatic faucets. Lavatories installed in all buildings other than R3 occupancies or International Residential Code structures shall be provided with automatic faucets dispensing a maximum of 0.25 gallon per metering cycle.

ADD new section 419.1.1 to read:

419.1.1 Waterless urinals. All urinals installed in new construction shall be of the waterless type. When a flushing urinal is replaced, every effort shall be made to replace it with a waterless unit.

ADD new section 424.9 to read:

424.9 Automatic faucets. New or replacement faucets serving lavatories in all buildings other than R3 occupancies or International Residential Code structures shall be provided with automatic faucets in accordance with 416.6.

Section 504.6 Requirements for discharge piping. REVISE section by DELETING item number 2.

ADD new section 504.6.1 to read:

Section 504.6.1 Replacement water heaters. Replacement water heaters shall comply with the following when it is not feasible to run the Temperature and Pressure relief valve line to the exterior of the residence:

1. A drain pan shall be installed under the water heater.
2. The temperature relief valve shall be set to a maximum of 210 degrees and the pressure relief valve to 150psi with a line draining into the pan.
3. A pressure relief valve set at no greater than 125psi shall be installed at the main water supply connection outside the dwelling.

Section 604.4 Maximum flow and water consumption. REVISE table 604.4 by ADDING new footnote b to read”

b. Water velocity within pipes must not exceed manufacturer recommendation.

Section 608.16.4 Connections to automatic fire sprinkler systems and standpipe systems.

REVISE section by DELETING all text therein and in subsection 608.16.4.1 and REPLACING it with the following:

The potable water supply to automatic fire sprinkler and standpipe systems shall be protected against backflow in accordance with ARS § 41-2168.

Section 707.1 Prohibited joints. REVISE section by DELETING the period at the end of item 5 and ADDING “, unless the solvent-cement is listed for the purpose.”

Section 715.1 Sewage backflow. REVISE section by DELETING the paragraph and ADDING new text to read:

Where the finish floor elevation is less than 12 inches above the elevation of the next upstream manhole cover in the public sewer, a backwater valve shall be installed in the building drain or branch of the building drain serving that floor. Floors discharging from above that reference point shall not discharge through the same back water valve.

By adopted policy of the Chief Building Official on September 2, 2009, the following criteria shall be used for all grease interceptor and related fixture design:

Section 1003.3 Grease interceptors. DELETE section and Table 1003.3.4.1 and REPLACE with the following:

A Fixtures to be connected to a grease interceptor^{1,2}:

- pre-rinse and or pre-wash sinks;
- two or three compartment sinks;
- meat prep sink;
- wok stoves;
- self cleaning stove ventilation/exhaust hood;
- kitchen floor drains;
- floor sinks;
- mop sinks;
- food prep sinks;
- hand sinks³;
- dishwasher; and
- food waste disposal units⁴.

¹A valid Industrial Wastewater Discharge Permit issued by the Pima County Regional Wastewater Reclamation Department (RWRD) may eliminate the need to comply with this section.

² Depending on use and context, the requirement for above listed fixtures to drain through an interceptor may be appealed to RWRD.

³ A hand wash sink located in the kitchen area shall either discharge through a grease interceptor or have a sign posted above it stating: “HANDWASH SINK ONLY! NO FOOD PREPARATION OR DISHWASHING ALLOWED.”

⁴Discharges from food waste disposal units must drain through a minimum 3/8 inch screen.

B Hydromechanical grease interceptors^{1,2}

Hydromechanical grease interceptors (HGI), which are generally installed inside, may be used when there are four (4) or fewer fixtures. The minimum size HGI to be installed shall be rated no smaller than 25 gallon per minute with a 50 pound grease capacity. Flow Control devices shall be designed and installed so that the total flow through such devices shall at no time be greater than the rated flow of the HGI.

Exception: dishwasher and food waste disposal units shall not drain through a hydromechanical grease interceptor.

¹A valid Industrial Wastewater Discharge Permit issued by the Pima County Regional Wastewater Reclamation Department (RWRD) may eliminate the need to comply with this section.

² Depending on use and context, the requirement for above listed fixtures to drain through an interceptor may be appealed to RWRD.

C Grease interceptor sizing criteria

$$V_{(\min)} = F \times R \times S$$

Where:

- $V_{(\min)}$ = Minimum Gravity Grease Interceptor Operating Volume, gallons
- F = Flow Rate (maximum), gallons per minute
- R = Retention Time = 30 minutes
- S = Storage Factor = 25%

Thus: $V_{(\min)} = F \times 30 \times 1.25$

The flow rate shall be determined based on the total flow rate from all equipment and plumbing fixtures connected to the gravity grease interceptor using one of the following equations:

- Drainage Fixture Units (DFU) **less than or equal to 40**: $F = (0.8 \times \text{DFU})$
- Drainage Fixture Units **greater than 40**: $F = (0.3 \times \text{DFU}) + 20$

Where: DFU = Drainage Fixture Units per Table 709.1

- The minimum retention time of 30 minutes is based on Wastewater Engineering, Treatment, Disposal and Reuse, Third Edition, Metcalf and Eddy, Inc., McGraw-Hill, Inc., page 1028.
- A minimum of **25%** storage is required for floatable fats, oil and grease and settled solids is required for gravity grease interceptors.
- The minimum sized GGI to be installed shall be 300 gallons.

Note: Providing additional interceptor capacity can reduce an interceptor's maintenance frequency. However, solid accumulation and low flows in an interceptor can, over an extended period of time, produce a corrosive environment which can damage the structural integrity of the interceptor. An oversized interceptor may also generate odor problems.

Appendix B Rates of rainfall for various cities. REVISE appendix by ADDING "Tucson..... 3.0" under "Arizona".