INSPECTION OF COMMERCIAL KITCHEN PLUMBING

- by John Williams, Jr.
Plumbing Control Supervisor
Onondaga County Water Environment Protection

801.1 SCOPE

Food-handling establishments

PLUMBING DEFINITIONS

AIR BREAK (DRAINAGE SYSTEM)

- A piping arrangement in which a drain from a fixture, appliance or device discharges indirectly into another fixture or interceptor at a point below the flood level rim and above the trap seal.

AIR GAP (DRAINAGE SYSTEM)

- The unobstructed vertical distance through the free atmosphere between the outlet of the waste pijpe and the flood level rim of the receptacle into which the waste pipe is discharging.

AIR GAP (WATER DISTRIBUTION SYSTEM)

- The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture or other device and the flood level rim of the receptacle.

BACKFLOW

- Pressure created by any means in the water distribution system, which by being in excess of the pressure in the water supply mains causes a potential backflow condition.

BACKFLOW PREVENTER/VACUUM BREAKER

- A device to prevent backflow into the potable water system.

There are three (3) types of vacuum breakers:

1. Atmospheric
2. Pressure
3. Hose bibb

To determine which one you might need, call your county health department.

ATMOSPHERIC VACUUM BREAKER (AVB)

- When the inlet valve of an AVB is closed, water flows in the normal direction, but, as water stops flowing, the air inlet valve opens, and interrupts any back siphonage effect.

BACKSIPHONAGE

- The reversal of normal flow in a water system caused by negative pressure (vacuum or partial vacuum) in the water supply piping.

Example: a garden hose attached to a service sink with the end of the hose submerged in a bucket full of detergent, then there is a loss of pressure in the water supply line and the detergent water flows into the potable water supply pipes.

CROSS CONNECTION

- A direct arrangement of a piping line which allows the potable water supply to be connected to a line which contains a contaminant.

FLOOD LEVEL RIM

- The edge of the receptacle from which water overflows.

INDIRECT WASTE PIPE

▶ A waste pipe that does not connect directly with the drainage system, but that discharges into the drainage system through an air break or air gap into a trap, fixture, receptor or interceptor.

POTABLE WATER

- Water that is *SAFE TO DRINK!*

801.2 PROTECTION

All devices that discharge to the drainage system *shall* be provided with protection against:

- Backflow
- Contamination
- Flooding
- Stoppage of the drain
- Fouling

FOOD-HANDLING ESTABLISHMENTS

SECTION 802 INDIRECT WASTES

802.1 WHERE REQUIRED

- Fixtures not required by this section to be indirectly connected *shall be* directly connected to the plumbing system in accordance with Chapter 7.

802.1.1 FOOD HANDLING

- Equipment and fixtures utilized for...
  - Storage
  - Preparation
  - Handling of food

  ... *shall* discharge through an indirect waste pipe by means of an air gap.

STORAGE

- Floor drains that are located within walk-in refrigerators or freezers *shall* be indirectly connected to the sanitary drainage system by means of an air gap.

PREPARATION

- Two-bay sink
- Single-service wash station
- Ice cream dipper wells

HANDLING OF FOOD

- Two-bay sink
- Any other food-handling sinks or food/drink preparation sinks *shall be* indirectly connected to the drainage system.

802.1.2 FLOOR DRAINS IN FOOD STORAGE AREAS

- Floor drains located within walk-in refrigerators or freezers in food service and food establishments *shall be* indirectly connected to the sanitary drainage system by means of an air gap.

802.1.2 *EXCEPTION!*

- Where protected against backflow by a backwater valve, such floor drains *shall be* indirectly connected to the sanitary drainage system by means of an air break or an air gap.

802.1.7 COMMERCIAL DISHWASHING MACHINES

802.2 INSTALLATION

All indirect waste piping shall discharge through an air gap or air break into a waste receptor or standpipe.

- Floor sinks
- Floor drains

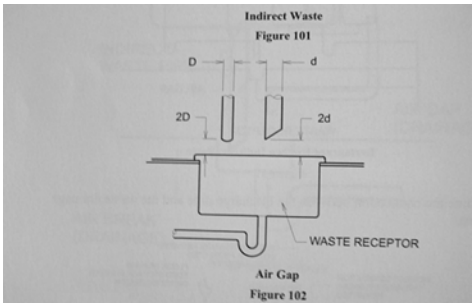
All above *shall be* trapped.

802.2.1 AIR GAP

- The air gap between a waste pipe and the flood level rim of the waste receptor *shall be* a minimum of twice the effective opening of the indirect waste pipe.

AIR GAP DESIGN

- If you have a 2" effective opening, the air gap *shall be* 4"
- If you have a 1-1/2" effective opening, the air gap *shall be* 3"



802.2.2 AIR BREAK

- *Shall be* provided between the indirect waste pipe and the trap seal of the waste receptor or stand pipe.

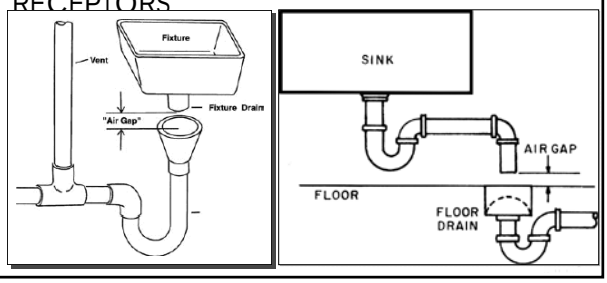
802.3 WASTE RECEPTORS

- A removable strainer or basket *shall* cover the waste outlet of the waste receptor.
- Access *shall be* provided to all waste receptors.

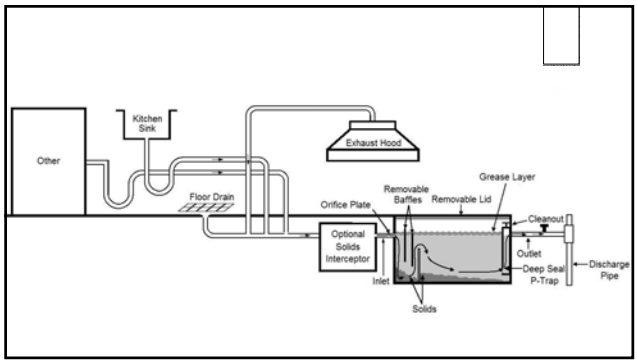
802.3.1 SIZE OF RECEPTORS

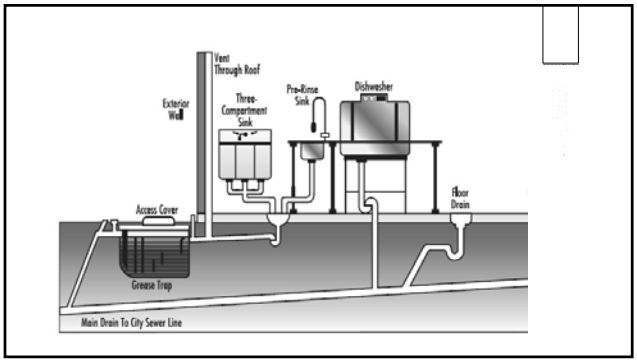
- A waste receptor *shall be* sized for the maximum discharge of all indirect waste pipes served by the receptors.
- Receptors *shall be* installed to prevent splashing or flooding.

802.3.2 OPEN HUB WASTE RECEPTORS



TRAPS, INTERCEPTORS AND SEPARATORS





1003.1 INTERCEPTORS & SEPARATORS - WHERE REQUIRED

- Substances harmful or hazardous to the building drainage system, the public sewer, or sewage treatment plant or processes and private sewage disposal systems.

1003.2 APPROVAL

- Size, type and location of each interceptor and of each separator *shall be* designed and installed in accordance with manufacturer's instructions and the requirements of this section based on the anticipated conditions of use.
- Wastes that do not require treatment or separation *shall not* be discharged into any interceptor or separator.

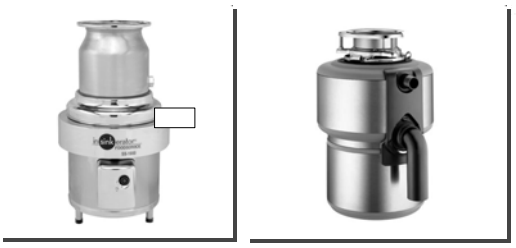
1003.3 GREASE TRAPS AND GREASE INTERCEPTORS

- When are they required?

1003.3.1 GREASE TRAPS AND GREASE INTERCEPTORS REQUIRED

- Are required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas such as restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias or clubs.

1003.3.2 Food Waste Grinders



1003.3.4 GREASE TRAP AND GREASE INTERCEPTORS

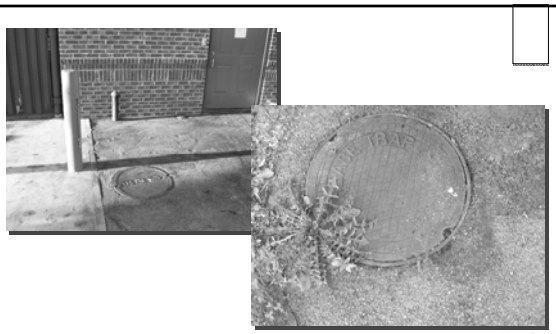
- *Shall* conform to PDI G 101, ASME A 112.14.3 or ASME A 112.14.4 and *shall* be installed in accordance with manufacturer's instructions.

1003.3.4.1 GREASE TRAP CAPACITY AND FLOW RATES

- Determined by fixtures connected to the interceptor
- Minimum fixtures required to be connected to the interceptor *shall* be the hand sink, 3-bay sink, service sink and any and all fixtures that are used in the preparation of food or cleaning of the previously listed establishments.

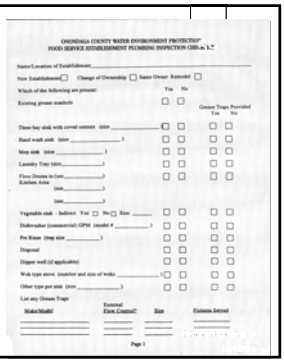
1003.10 ACCESS AND MAINTENANCE OF INTERCEPTORS AND SEPARATORS

- Access to interceptors *shall be* provided for a disposal truck or rendering service to maintain and service interceptors.
- Grease removal systems *shall be* readily accessible without disruption of food preparation process.

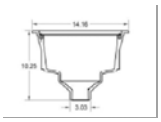


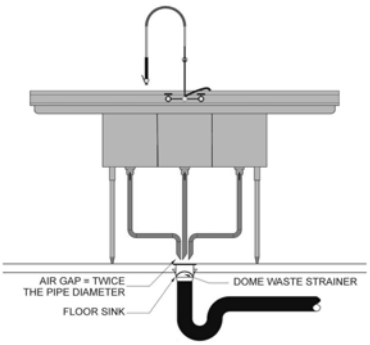
FOOD SERVICE INSPECTION CHECKLIST

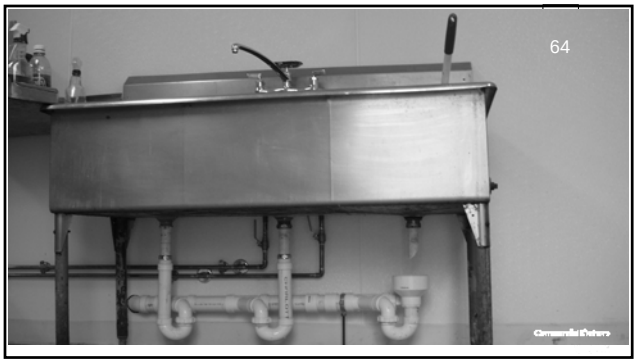
PAGE 1 OF 2

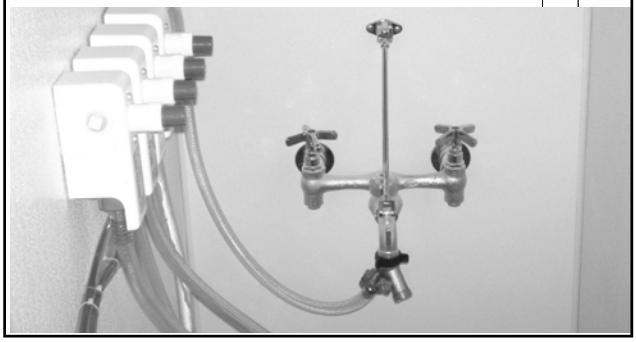


PAGE 2 OF 2


14.16
10.25
3.03


AIR GAP = TWICE
THE PIPE DIAMETER
FLOOR SINK
DOME WASTE STRAINER

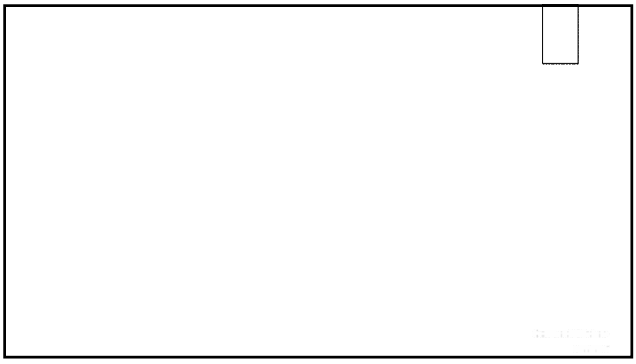

64

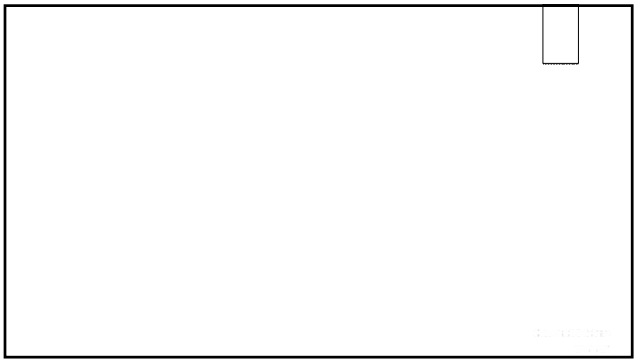


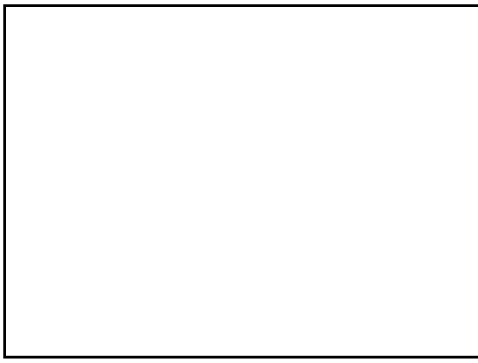

03/13/2012


03/13/2012


11/26/2012







SECTION 608.16.1
BEVERAGE
DISPENSERS

WATER ENVIRONMENT PROTECTION

Grease Interceptor Cleaning Record Verification Form

Facility Name: _____

Address: _____

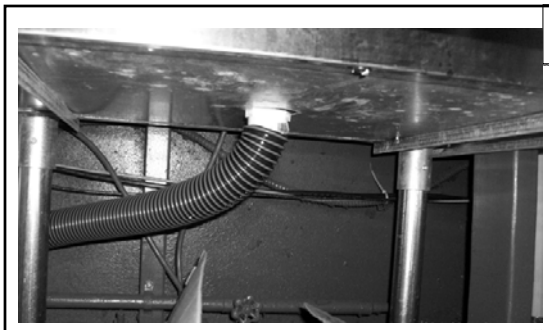
Service Company: _____

Date	Cleaned By	Witnessed By	Gallons Pumped	Grease Disposal Site	Comments

This form must be posted and available for inspection by Onondaga County Plumbing Control or Onondaga County Food Control Section

Any questions, Contact John Williams @ 435-6614


03/28/2012




05/03/2012 12:30

QUESTIONS?

- THANK YOU!