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Colorado Department
of Public Health
and Environment

RETAIL FOOD ESTABLISHMENT INTERPRETATION #01-04

DATE: October 5, 2001

SUBJECT: Guidelines for Calculating Total Water Usage Requirements in Retail Food Establishments

In response to requests for clarification of section 9-104, Colorado Retail Food Establishment Rules and Regulations, a committee of Consumer Protection Division and local health agency personnel developed the attached guidelines. Section 9-104, in reference to a potable water system, states in part: "The system shall be of sufficient capacity to furnish adequate hot and cold water for food preparation, utensil cleaning, sanitizing, and handwashing in accordance with the requirements of these rules and regulations."

Although these are only guidelines, they are intended to assist you in determining whether a retail food establishment has a potable water system of sufficient capacity to meet the total water usage demands of the establishment.

Barbara A. Hruska, Director
Consumer Protection Division

GUIDELINES FOR CALCULATING TOTAL WATER USAGE REQUIREMENTS IN RETAIL FOOD ESTABLISHMENTS

Water usage in retail food establishments with seating should be calculated using the *Guidelines on Individual Sewage Disposal Systems*, revised 1994. These guidelines include the following:

- Facilities serving 1-2 meals per day (that is, breakfast, lunch or dinner) should be calculated at 50 gallons/seat.
- Facilities serving 3 meals per day or open 24 hours require 75 gallons/seat.
- 25 gallons/seat are required for paper service for 1-2 meals per day (and up to 50 gallons/seat if 24-hour service).
- Add thirty gallons/seat to any of the above figures if the facility includes a bar.

Water usage in retail food establishments without seating requires calculation on a per fixture basis. This category includes mobile units and stationary facilities without permanent plumbing. The designation for each fixture is as follows:

- Warewashing sinks - volume of the sink (L x W x H X 3) x the number of fills per day, with at least one fill every four hours. Batch washing once a day would be permitted only if the facility has an adequate number of utensils, so that soiled utensils may be replaced with clean utensils at least every four hours.
- Toilets - For employee use only - 25 gallons per person per day.
Public - 250 gallons per day per fixture
- Hand sink - 3 gallons per hour x the number of operating hours for 1-2 employees
5 gallons per hour x the number of operating hours for 3 or more employees
- Utility/mop sink - 7 gallons per day
- Prep sink - volume x number of times used per day for batch preparation
- Dishmachine - per manufacturers' specifications
- In-line coffee/tea dispensers - 5 gallons per hour
- Espresso machines - 1.25 gallons per hour (10 gallons/8-hour day). Machines are rated from 1.2 to 18.75 gallons per hour.
- Ice machine - per manufacturers' specifications
- Pre-rinse sprayer - 32 gallons per hour
- Fountain machine - per manufacturers' specifications

Any fixture, which requires the continuous flow of water, should be prohibited from use in a facility without plumbed water. This includes dipper wells, filling faucets and water-cooled ice machines.

If the facility has water tanks, these tanks must be sized according to the above calculations or the facility must have a plan for refilling the water tanks at sufficient intervals. Additionally, a plan for disposal of wastewater must be in place.