

December 12, 2000

Erik Nicholson
P C U N
300 Young Street
Woodburn OR 97071

Dear Mr. Nicholson:

This is our response to your June 13, 2000 letter regarding hot water requirements for agricultural labor housing. We apologize for the delay but we just now received some of the material needed to complete our research on this issue.

We looked carefully at the OSHA interpretation of November 14, 1988 on this issue. They relied heavily on Chapter 54 of the American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Handbook-1987. That publication no longer exists but similar information is in ASHRAE Handbook-1999, Chapter 48.

We begin with the OSHA assertion that this is a performance standard. While both the federal and state standards require 35 gallons of water per occupant, per day, they do not specify a quantity for hot water beyond the word "adequate" which they do not quantify. The Oregon OSHA standard is similarly a performance standard.

It is here that we detour from the OSHA interpretation. The federal interpretation did not indicate what criteria they used in their calculation although they appear to rely on the 35 gallon figure even though that figure is for overall water supply, not hot water. Further, they were made at a time when high efficiency, energy conservation water heaters were not generally available. They were also made before the industry began shipping hot water heaters set at 120 degrees, affecting how much hot water needs to be mixed with cold for most uses. Both these factors figure significantly in the new ASHRAE handbook information on water heaters.

Also, missing from the OSHA interpretation is consideration of the type of labor housing that this would apply to. There is a valid argument that requirements for a system where all occupants use a central bathing facility would be different from those where each housing unit has its own shower and hot water heater. Also not considered is whether the shower heads are low flow or older units that use large amounts of water. Low flow shower heads are now more common than when the OSHA interpretation was written. Other variable factors would be whether or not the system serves a central laundry and cooking facility in addition to the showers. There is no indication in the OSHA interpretation that any of these variables were considered.

Another factor the OSHA interpretation fails to mention is the demographics of the occupants. Consideration of this as a determining factor is consistent with other parts of the standard, specifically 437-004-1120(16)(j) where there are different space requirements for adults than for children under 12. This is consistent with federal language. We are not convinced that a grower must adjust their hot water system each year based on the demographics of their occupants nor do we require a system sufficiently over designed to deal with any contingency.

In looking at the new ASHRAE handbook, it is apparent that none of the applications they cover are sufficiently similar to agricultural labor housing to be valid. Even the parts about hotels and dormitories fail to consider the variables found in labor housing.

As a result, we are unable to develop a single, specific water storage requirement that would fit all labor housing situations. We also question today's validity of the OSHA interpretation given the changes in water heaters and delivery methods that have occurred since 1988.

Oregon OSHA believes that the best method to determine the adequacy of the hot water supply in labor housing is to evaluate information supplied by the occupants during interviews conducted by OR-OSHA personnel. Regardless of requirements set by our standards, the determining factor remains, is there enough hot water available for occupants to shower, launder clothes and for other uses. The determining factor of whether there is enough hot water should be based on the experiences of the occupants. This testimony would also be our best legal defense of any citations issued for an insufficient supply of hot water.

I would be happy to meet with you to discuss these issues further.

Sincerely,

Marilyn K. Schuster, Manager
Standards & Technical Resources Section
Oregon Occupational Safety & Health Division