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Subject: Comments on Draft 2: Version 2.0 Commercial Dishwasher Specifications

In Draft 2: Version 2.0 – Definitions, Item B. Stationary Rack Machines sub item a) Undercounter: we ask that the wording be changed to allow booster heaters be used for both hot water and chemical sanitizing applications. In many facilities the maximum temperature of the general hot water system is limited to prevent scalding injuries or due to the distance of a dishwasher from the water heater and consequentially the temperature may fall to an unacceptable level before reaching the dish washer.

There are new machines entering the market which use a smaller rack size and may be eligible for the current energy star ratings of water consumption per rack while not offering the same efficiencies. This is similar to the relationship determined with existing pot and pan washers. Water use per rack is dependent on the dish rack area.

Some undercounter dish washers are installed in bars under a food-service counter. We propose the definition change as follows

*Under Counter: A machine with an overall height 38 inches or less, designed to accept standard 20"x20" racks, and to be installed under food preparation or food service workspaces. Under counter dishwashers can be either chemical or hot water sanitizing, with an internal booster heater for the latter. Internal or external booster heaters may be used.*

The proposed wording would be:

*Under Counter: A machine with an overall height 38 inches or less, designed to accept standard 20"x20" dish racks, and to be installed under food preparation workspaces or food service workspaces.. Under counter dishwashers can be either chemical or hot water sanitizing. Internal or external booster heaters may be used.*

In Draft 2: Version 2.0 under 1) Definitions item B. Stationary Rack Machines sub item b) reads:

*b) Single Tank, Door Type: A machine designed to accept a standard 20"x20" dish rack which requires the raising of a door to place the rack into the wash/rinse chamber. Closing of the door typically initiates the wash cycle. Subcategories of stationary door type machines include: single and multiple wash tank, double rack, pot, pan and utensil washers, chemical dump type and hooded wash compartment ("hood type"), with an internal or external booster heater for the latter.*

- A similar situation, with regard to the booster heater, exists here and as previously noted with the Under counter machines
- The words "multiple tank" conflict with the category name of "Single Tank" and should be removed.
- The portion of the definition "raising of a door" is restrictive and thereby causes the extra description of a "hood type" subcategory
- The category name could change to "Upright" as the primary difference between the two categories is their height of the operating chambers.

An Alternative definition could read as follows:

*Upright: A machine with an entry height of approximately 32" to 38" designed to accept standard 20"x20" dish racks that can be used free standing or with dish tables. Loading and unloading of the dish racks usually involves opening and closing the wash/rinse chamber. These machines can process 1 or 2 racks during a cycle, can be both chemical or hot water sanitizing and Internal or external booster heaters may be used. Subcategories of upright machines include pot, pan, and utensil washers.*

Currently NSF does not require retesting dish machines with different cabinet heights when critical component are the same therefore in Draft 2: Version 2.0 under 1) Definitions item F, we propose adding the words ", wash cavity height" as follows.

F. Product Family: Variations of one model offered within a single product line with design differences limited to: finish/color; length of pre-wash section, **wash cavity height**, voltage, and orientation (e.g., corner, straight through models). Individual models represented by a product family must have the same final rinse water and idle energy consumption.

In Draft 2: Version 2.0 under 1) Definitions there is item C, the note describing the reason to remove "an auxiliary rinse section between the power rinse and final rinse sections " would indicate the need to remove "but may include a pre-washing section ahead of the washing section." The following wording is proposed.

a) Single Tank Conveyor: *A conveyor type machine that includes a tank for wash water followed by a final sanitizing rinse. This type of machine does not have a pumped rinse tank or a pre-washing section ahead of the washing section. Single tank conveyor dishwashers can be either chemical or hot water sanitizing, with an internal or external booster heater for the latter.*

In Draft 2: Version 2.0, 1) Definitions, the wording "*can be either chemical or hot water sanitizing, with an internal or external booster heater for the latter.*" is repeated in several of the definitions. Adding this language to the dishwashing machine definition would allow it to be removed from the other sub-items and improve readability.

In the note attached to the Section 2) Scope, EPA asks for industry standards that should be referenced. A reference to NSF standard 3 should be added to the dishwashing machine definition. The proposed wording is:

A. Dishwashing Machine: *A machine designed to clean and sanitize plates, glasses, cups, bowls, utensils, and trays by applying sprays of detergent solution (with or without blasting media granules) and a sanitizing final rinse. Dishwashers can be either chemical or hot water sanitizing. Internal or external booster heaters may be used. All dish washing machines must conform to NSF standard 3 Commercial Warewashing Equipment.*

The ASTM F1696-07 test method requires the machine to maintain idle tank temperatures for 3 hours or the test is considered a failure. This does not take into account the potential for any type of auto-shut down feature that could be incorporated into the control system of the machine to reduce power when the machine is idle for extended periods of time.

Many fill and dump type machines do not have a maintenance heater. The ASTM F1967-07 standard does not address the fill and dump style machines lack of a maintenance heater. Fill and dump type machines should be excluded from the idle energy testing if there is no maintenance heater.

Regards  
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