January 27, 2011

Rebecca Duff
ICF International

Subject: Comments on Draft 1: Version 2.0 Commercial Dishwasher Specification

Dear Ms. Duff,

Thank you for providing the draft Energy Star specification 2.0 for commercial dishwashers. In general, we support the proposed levels for water consumption and idle energy rate.

Comments regarding the specific requests from the January 4 letter are addressed below.

1. **Stakeholder idle energy performance data on non-qualified machines for EPA consideration**
   - The Hobart models not ENERGY STAR qualified at this time are the LT-1 fill-and-dump, chemical sanitizing door machine, the SR24 fill-and-dump type undercounter models and the UW50 door type utensil washer. The idle energy data for these models is provided in a separate attachment.

2. **Latest NSF/ANSI 3 standard reference**
   - Although 2009 is the current standard, the revisions are due to be published soon, possibly yet in January 2011.

3. **Flight Type Conveyor Evaluation**
   - We whole-heartedly support developing ENERGY STAR criteria for flight type conveyor dishwashers. The criteria must be thought out carefully due to the many configurations available and the way these machines are used in the field. Our concerns with the proposed method of rating water consumption in gallons per (100) 9 in. plates:
     A. **Peg-to-peg Spacing** – Conveyor configurations can vary widely depending on the type of ware intended to be washed by the customer. For example, compartmental trays will require a larger peg-to-peg spacing than plates. Some customers use a flat conveyor with no pegs. Some conveyors use a combination of pegs and flat areas for plates and flatware. It would be more advantageous to take the conveyor configuration out of the equation so that customers can purchase a system that is appropriate for their application.
     B. **Conveyor Speed** – There are two main reasons why we believe the conveyor speed of flight type dishwashers should not be a part of the equation for water consumption. First, manufacturers will have an incentive to rate the machines at a fast speed, even if they are more frequently set at a lower speed in the field. Second, even when a machine is rated for a fast conveyor speed, it is physically impossible to load even simple 9 in. plates at that rate. No customer that I am aware of has 4 employees available at each end of the machine to load and unload dishware. The suggestion to use the lowest conveyor speed when calculating the water consumption value is also not preferred since it penalizes models that have the capability of effectively washing and sanitizing ware at a faster rate.
Our suggestion is to calculate the water consumption based strictly on the gallons per hour (GPH) rating from the NSF/ANSI 3 Certification. There should be separate ratings for each main category as shown in Table A below. The ranges for narrow and standard width machines would need to be defined.

<table>
<thead>
<tr>
<th>Rackless Conveyor Dishwashers</th>
<th>Narrow Width</th>
<th>Standard Width</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Single Rinse</td>
<td>Dual Rinse</td>
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<tr>
<td>Single Tank</td>
<td></td>
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<tr>
<td>Multiple Tank</td>
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Idle Energy Consumption - Sample idle energy data for Hobart flight type dishwashers can be provided in a future correspondence. In our experience, machines used in high-use locations, such as airline catering, casinos and cruise ships do not spend very much time at all in the idle mode, perhaps an hour or two each day. Other applications such as school cafeterias, hospitals and large restaurants may spend approximately 8-10 hrs running and about 2-4 hrs in the idle mode.

Additional Concerns – In addition to the issues raised by EPA, we believe the following concerns should be discussed as potential ENERGY STAR prerequisites:

A. Active Final Rinse - Some models deactivate the final rinse when dishes are not going through the machine or if the conveyor stops, such as when a dish reaches the end of the unload section without being removed. Others allow the final rinse to flow continuously.

B. Active Pumps – Again, models that deactivate the prewash, wash and power rinse pumps when dishes have not been run through the machine for a given amount of time may have lower energy consumption than models without this feature.

C. Prewash Temperature Control – This option injects cold water into the prewash tank to limit the temperature of the water. If provided, should it be temperature activated rather than on continuous? Does the fact that it is an option have any effect on the ENERGY STAR qualification?

Field Adjustment of Chemical Sanitizing Machines – In our experience, commercial dishwashers are not generally designed with operator adjustable water consumption systems. If a given model designation is certified by a third party to a specific water consumption value, there should be no recommendation in the manufacturer literature or other media to suggest a field modification for higher water consumption and better results. There may be a need for discussion with third party CB’s to confirm that this is indeed the intent of certification to NSF/ANSI 3. If there are machines available that are certified with variable water consumption rates, the worst-case or highest rating for water use per rack should be used for the ENERGY STAR qualification evaluation. By “variable water consumption rates”, the intent is machines that can be varied by the operator without modification to the design. We understand there are situations where a factory authorized service representative
may adjust a program or modify construction to allow longer rinse times for certain extenuating circumstances.

Thank you for the opportunity to comment on the second draft. If you have any questions regarding this letter, please don’t hesitate to call.

Sincerely,

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File Comments draft 1-V2.0-Hobart