



HOSHIZAKI AMERICA, INC.

February 3, 2017

Ms. Kirsten Hesla
ENERGY STAR
US EPA
Washington, D.C. 20460

RE: Comments on Draft 1 Version 3.0 ENERGY STAR Commercial Ice Makers Specification

Dear Ms. Hesla,

Thank you for the work ENERGY STAR put into the first draft of Commercial Ice Makers Version 3.0. We welcome the chance to review the standard.

Below is a list of concerns and also answers to questions in your draft:

1. We welcome the opportunity to look into including water-cooled models in Energy Star. While this is not a large class of machines, there are models in the class that are very energy efficient. Hoshizaki America gives instructions for both open and closed-loop systems. Some applications necessitate a water-cooled system. Just like the stipulation put on remote ice maker models that they have to be listed with the corresponding condenser, Hoshizaki America believes water-cooled models should be eligible when used in a closed-loop system.
2. Hoshizaki America also welcomes the discussion to add ice/water dispensers into the scope. Residential appliances with ice/water dispensers are eligible for Energy Star and we should take strides to allow models with these common features be adapted into the ACIM standard as well.
3. Hoshizaki America does not advocate for the addition of Load Management systems into the ENERGY STAR standard. There is not enough data available on all the facets of Commercial Ice Maker usage to determine whether there are any energy savings associated with Load Management systems. Various factors also make Load Management problematic for the Commercial Ice Maker industry, including food safety, demand for ice, additional energy use for ice meltage in off peak time, and possibility of excluding manufacturers due to intellectual property protections. Not all ice is used for drinks, some is used for health care (hospital) or food safety (grocery stores). If a user is without ice for over 5 hours due to a load shift, it could be more than just an inconvenience. There is a concern that energy use could actually increase due to ice meltage during higher ambient conditions which could cause additional ice to be manufactured to compensate for the ice loss. Ice bins are traditionally nonrefrigerated and are looked at for immediate use. Bin capacity is calculated for rush peak times, not for a five hour gap of no ice production during dinner hours. Studies have shown that our service technicians are very efficient in specifying our machines to the end users requirements. In most high traffic areas the ice machine usage is over 95%. Such optimum use would leave an empty bin during the dinner rush with load shifting from 5-9PM. Having to compensate for such a gap would not

only necessitate a larger machine at a premium cost, but also adds additional energy for this additional ice per day. Studies show that in certain circumstances load shifting may work for a customer if they elevate their purchase from the factory recommended 1100 pound machine to a 1500 pound machine and moving from a 900 pound bin to a 1650 pound bin. This increase would raise the collective ice machine and bin cost a total of \$6640. The energy savings would not compensate the customer for this decision over their first two years. Due to the small region of the country asking for this feature, it should not be a requirement for ENERGY STAR for a feature that has not been proven to save the consumer money and energy. Hoshizaki America wants to combine efforts with ENERGY STAR to promote the most energy efficient products tailored for the end users recommended use.

4. Since refrigerant type is currently included on Commercial Ice Maker nameplates as a regulatory requirement, Hoshizaki America has no issue with reporting this for ENERGY STAR. Hoshizaki America requests that the input method for this entry be simple using a drop down menu on the form with only currently accepted refrigerants for Commercial Ice Makers through EPA. The form could easily be updated by the EPA when new refrigerants are approved for use with Commercial Ice Makers.
5. Concerning the standard draft:
 - a. For remote condensing units the classifications should be separated in remote with remote compressor and no remote compressor. We also suggest linear graphs in relation to the cutoff points to match those of the DOE.
 - b. For continuous ice-making head, we suggest a cutoff to match that of the DOE at 310 pounds as there are no models that qualify for version 3 below 310 pounds. We need to make sure it is not too stringent between 50 and 310 lbs to allow for market penetration.
 - c. For continuous self-contained, we suggest a cutoff to match that of DOE for the range of 50 to 200 pounds as there are no models that qualify for version 3 below 200 pounds. We need to make sure it is not too stringent between 50 and 200 lbs to allow for market penetration.
 - d. For batch ice-making head, we suggest cutoffs to match that of the DOE at 300, 800, and 1600 pounds. On the first draft there are no models that qualify for version 3 below 300 pounds. Also we suggest extending the allowance past 1600 pounds to 4000 pounds just in the case that the market extends beyond to the commercial limit of 4000.
 - e. For batch self-contained, we suggest a separate curve for 50 to 110 pounds to parallel that of DOE as there is only one unit that clearly meets the standard for version 3. We need to make sure it is not too stringent between 50 and 110 lbs. The limit for 200 pounds needs to be raised enough to allow for penetration into the market. We also suggest extending from 500 pounds to 4000 to remain consistent with the industry standard for commercial ice makers to go up to 4000 pounds.
6. Manufacturer recommend settings are set as they come out of the factory. Hoshizaki America's machines are made so that only a trained service technician can change the settings. These changes are only done in extreme conditions. Hoshizaki America would gladly have our Technical Service department provide more information upon request.
7. ENERGY STAR requests additional information on dump water collections. At this time ASHRAE 29 does not call out separate collection of dump water but requests data collection of total water used as the combination of both dump and harvest water together. The industry would have to address the separate recording of dump water in the ASHRAE 29 standard.

8. Per the question on recommendations of machine setup for water quality, Hoshizaki America suggests that the end user always use some form of filtration for the best quality ice. Trained, local service technicians are relied upon to advise customers on the best filters, strainers, and/or softeners depending on a location's water quality. Water hardness is only one of many criteria. Hoshizaki America would gladly elaborate on this area if additional information is needed.

We look forward to the final draft and hope for a challenging and achievable standard for Commercial Ice Makers. Thanks again for all your help in this matter.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'SAS', written in a cursive style.

Stephen Schaefer