DELFIELD®

Memo

Date
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From
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To
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Subject
Delfield Discussion Topics for Energy Star v5

Delfield Discussion Topics for Energy Star Version 5 – February 16, 2021

Griddle Stands

- Exemption status should continue because:
  - Refrigerated volume is significantly less than work counters in the same footprint.
  - Drawer units have more gasket perimeter, so higher heat gain.
  - Griddle stands require more airflow due to drawer cartridges, frequent drawer openings, proximity to cooking equipment, kitchen ambient etc. More airflow requires means more energy
  - Top structure of a griddle stand is designed to support more weight due to the cooking equipment. The additional weight means additional structure is required that reduces the R-value of the top.
  - Tops often see more than 200°F with some types of cooking equipment

- If exemption is not an option:
  - It should be a unique category with different formulas that allow for more energy per cubic foot than a typical refrigerator for the reasons listed above.
    - Could we discuss a no-load test like NSF 7 instead of ASHRAE 72 to reduce test burden?

Prep/Buffet Tables

- Exemption status should continue because:
  - So many different types of units
    - Units with or without a refrigerated under-storage
    - Different top designs
      - Air cooled
        - Takes cool air from the base for cooling product in the top
          - All air can be directed below the pans which is more energy efficient but results in higher product temperatures.
          - Air can be split so some goes below the pans while some goes over the pan. This requires more energy but

maintains product temperature more consistently and for longer periods of time
    - Some manufacturers have adjustable baffles that can send more or less air to the top based on needs. How would that be tested?

- Coldwall
    - Is controlled independently from refrigerated under-storage that can be turned off while under-storage is still on.
    - Separate refrigeration circuit than refrigerated under-storage. Most have some cooling that takes place below and above the pan (recessed pans) but some are just below the pan (flush pans). Generally speaking, recessed pans will hold product better but take more energy than flush mount pans.
    - Glycol – is an additional cooling method that uses mass and/or phase change as a medium to cool the pans. The pulldown is the biggest energy consumer in this design and tests often don't take that into account.

- Test methods
    - ASTM F2143-16 is a difficult test to repeat especially if the pans have to be removed from the opening and stored in the base. We do like the 24-hour duration and water filled pans.
        - Could we deviate from ASTM and say to turn the top off rather than transfer pans to the under-storage?
    - NSF 7 is only 4 hours and can be passed by varying levels. Some units will hold product almost indefinitely while others will barely make the 4-hour mark. Each one uses different amount of energy. It is nice to standardize a test that we already do though
    - I don't think there's a good test method that is repeatable

- Energy
    - What will be used for baseline considering CEC is ASTM F2143-01 rather than -16? No test data to reference (need database)

- Custom units
    - These are customer specific units that are based off from a standard unit but with modifications that will influence energy. This is not manageable to report energy for all configurations.