ENERGY STAR® Products
Enhanced Testing and Verification: Commercial Food Service Equipment

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Agenda

- Overview of enhanced testing and verification requirements for ENERGY STAR
- Products covered
- New proposed requirements for CFS equipment
  - Certification programs
  - Lab accreditations for qualifying and verifying products
  - Frequency of testing
- Discussion of CFS equipment considerations
  - Leveraging existing testing programs such as CSA, ETL, UL and NSF
  - Obtaining samples for testing
  - Challenge testing
Key Elements of Enhanced Testing Requirements

• Testing and reporting prior to qualification
  – Ensure that EPA has testing information on all products prior to labeling
  – Require test data from accredited labs that is representative of the product in the marketplace

• Continued testing after qualification
  – Verify that products continue to meet the ENERGY STAR requirements regardless of changes in the production process
  – Provide consumers with confidence that ENERGY STAR products are delivering the savings they expect
ENERGY STAR Enhanced Testing and Verification – Market-Based Testing Program

Market-Based Testing
Scope: All ENERGY STAR Product Categories

Qualification Testing
Purpose: Ensure that testing is conducted as required by ENERGY STAR specification and that lab submits test results to EPA that are representative of products sold to customer

1. Product tested in approved, accredited lab

2. EPA approves submission and adds product to list of ENERGY STAR qualified products

3. Partner labels product
   Provides new data to EPA if changes to the model result in changes to energy consumption

Verification Testing
Purpose: Ensure that products continue to meet ENERGY STAR requirements

1. Product selected for testing
   Third-party administrator facilitates product selection once or twice a year based on certified product (if certification program) or ES QP list (if EPA-selected administrator)

2. Manufacturer pays third-party to administer independent, off-the-shelf or off-the-line witnessed testing

3. Third party administrator has products tested as required and shares results with EPA

4. If models deemed failure based on testing, EPA delists product
   Requires corrective actions and analyzes root cause to prevent future problems
CFS Equipment Covered

- Commercial Dishwashers
- Commercial Fryers
- Commercial Griddles
- Commercial Hot Food Holding Cabinets
- Commercial Ice Machines
- Commercial Ovens
- Commercial Refrigerators/Freezers
- Commercial Steam Cookers
Third Party Certification and Verification Testing

- Laboratory requirements – preference to third-party labs with considerations for manufacturers in-house labs
- Formal market-based certification programs to administer testing
- Verification testing to be conducted on all products within certain timeframe
- Potential for multiple certification/verification programs to serve this function
  - Off-the-shelf testing where possible
  - Combination of random testing and selected products
- Challenge testing requirements
Third Party Certification and Verification Testing

• Certification and verification testing program administration
• Qualification testing
  – Laboratory requirements
• Verification testing
  – Laboratory requirements
  – Process for identifying and selecting products
  – Process for obtaining products
  – Number of units to be tested
• Challenge testing
• Partner responsibilities
Third Party Testing – Program Administration

• Third-party entity will administer certification and verification testing program (more than one third-party may offer such programs as long as they meet the qualification criteria)

• Qualifications
  – Proficiency in measurement testing or statistics
  – Demonstrated impartiality regarding the outcome of testing
  – Quality control measures (e.g., ISO/IEC Guide 65:1996)
  – May not require membership for product to be certified
  – Need to be approved by EPA

• Responsibilities
  – Identify and select qualified laboratories for testing
  – Work with manufacturers to test ENERGY STAR products for both initial qualification and verification purposes
  – Ensure testing remains on schedule
  – Provide detailed test reports and summaries of results to EPA/DOE
Third Party Qualification Testing

- Third-party independent lab will be required by default; in-house labs may be allowed on a product-specific basis
- Products may not be certified based on the rating of another product unless differences do not impact the energy performance of the product
- To certify product, manufacturer must provide information on the distribution of product (for purposes of conducting verification testing)

Comments: How will in-house testing be an improvement? Will there be additional requirements for in-house labs? Would these labs requirements be adequate for verification testing?
Existing Lab Accreditation Requirements

- **Ventilating Fans**
  - Independent, Third-party lab by a signatory to one of the ILAC, APLAC MRAs required for both qualification and verification testing

- **Commercial Refrigeration**
  - CEC approved lab or data verified by a certification body accredited to Standards Council of Canada required for qualification
Third-Party Verification Testing: Laboratory Requirements

- Third-party independent accredited lab will be required by default
- Witness testing may be allowed on a product-specific basis
Third-Party Verification Testing: Selecting Products

- Selected by third-party program, allowing for input from EPA/DOE and other stakeholders
- Must test all certified products at least every three years
- Need to ensure that products still available on market and that the current specification applies
Third-Party Verification Testing: Obtaining Products

• Preferred option is to obtain products from the marketplace

• Other option for prohibitively expensive items or for items not available “off-the-shelf”
  – Random selection of product off production line
  – Testing at manufacturer laboratory under supervision
Third-Party Verification Testing: Sample Size

- The number of units to be tested should be at least the same as required for qualification
Third Party Testing: 
Partner Responsibilities

• Partner is required to pay for third-party certification of product
  – Verification testing will be included in the fee
  – Testing will occur at least annually
Considerations for CFS Equipment

- Leveraging existing testing programs such as CSA, ETL, UL and NSF
- Model after vent fan certification and verification testing requirements
  - [link](http://www.energystar.gov/ia/partners/product_specs/program_reqs/vent_fans_prog_req.pdf)
- Obtaining samples for testing
- Challenge testing
Next Steps

• Comments due April 30, 2010
  – ENERGYSTARVerificationProgram@energystar.gov
• Complete draft including product-specific requirements – May 2010
• Finalize Requirements – July/August 2010
• Phase-in requirements for certification programs
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