ENERGY STAR®
Combination Washer-Dryers

Version 6.0 Draft 1 Specification
Stakeholder Webinar
October 21, 2011

Agenda

Introduction – Welcome/Goals	Amanda Stevens, U.S. EPA
Combination Washer-Dryers **Draft 1, Version 6.0 – Presentation & Discussion**	Ryan Fogle, D&R International
Conclude &Next Steps **Questions/Discussion**	Amanda Stevens, U.S.EPA

Meeting Goals

1. Highlight proposed changes in the Draft 1, V6.0 specification.

2. Solicit stakeholder feedback on proposal and discuss outstanding issues.

3. Address stakeholder questions about process and/or changes.

4. Discuss next steps and timeline.

Program Updates

- 2009 Memorandum of Understanding (MOU) clearly defines roles and responsibilities:
  - EPA is lead for brand management including setting and revising specifications.
    - 20 specification revisions expected to be completed by late 2011/early 2012.
  - DOE provides technical support, including product testing and test procedure development.
    - 8 test procedures expected to be completed in 2011.
- Third Party-Certification began January 1, 2011
  - All residential and commercial clothes washers are 3rd party certified.
  - More information available at www.energystar.gov/testingandverification.

Maintaining Brand Integrity through Regular Spec Revisions

- MOU trigger for specification reviews
  - *"For appliances and other product categories with longer-lived product models, specifications will be reviewed for a possible revision at a* **minimum of every three years** *or once the market share for ENERGY STAR qualifying products reaches* **about 35%**."

    Source: www.energystar.gov/mou.

- Additional factors that drive specification revisions:
  - Federal Standards
  - Innovation

ENERGY STAR Guiding Principles

- ENERGY STAR criteria are designed to balance a varied set of objectives, including:
  - Significant energy and/or water savings
  - Cost effective
  - Energy consumption that can be measured and verified with testing
  - Equivalent or enhanced functionality and performance
  - Achievable through several technology options; at least one of which is non-proprietary
  - Label provides meaningful differentiation

Specification Development Cycle

Combination W/D Actions to Date

- In the absence of a performance requirement for residential clothes dryers, EPA concluded it was inappropriate to associate the ENERGY STAR label with combination washer-dryers (W/Ds).
  - Product should demonstrate efficiency on a whole product basis.

Date	Action
May/June 2010	EPA announces Combination Washer-Dryers will no longer be included in the ENERGY STAR program. Stakeholder comment period.
August 2010	EPA letter to stakeholders. Followed by stakeholder conference call to discuss possible test approaches.
September 2010	Based on feedback, EPA specified interim test procedure and outlined next steps for test data submission from manufacturers.
January 2011	Amended DOE test procedure published
Summer 2011	Test data collected

Overview of Proposed Changes

- In Draft 1, EPA is proposing the following requirements for combination W/Ds:
  - New requirements for combination washer-dryers
    - Minimum dryer energy efficiency expressed as Combined Energy Factor (CEF)
    - Reporting requirement for dryer water consumption
  - Addition of Combination W/D and CEF definitions

- January 8, 2013 effective date proposed
  - Harmonizes with proposed V6.0 effective date for Commercial washers
  - Manufacturers may qualify products to V6.0 as soon as specification is finalized

Proposed Definitions

- Definition has been crafted using stakeholder feedback and industry test procedure research
  - *Combination All-in-One Washer-Dryer: A consumer product designed to clean and dry fabrics in a single drum, where drying is accomplished through use of electricity or gas as a heat source and forced air circulation.*
- EPA is also proposing adding a definition for Combined Energy Factor (CEF)
  - *Combined Energy Factor (CEF): The energy efficiency measure for clothes dryers. It is calculated as the clothes dryer test load weight in pounds divided by the sum of "active mode" per-cycle energy use and "inactive mode" per-cycle energy use in kWh.*

Proposed Criteria

- Performance requirements for whole-product performance of combination W/Ds:
  - New minimum energy-efficiency of drying:
    - CEF ≥ 2.5
  - Apply current energy-efficiency and water-efficiency criteria for washing:
    - Modified Energy Factor (MEF) ≥ 2.0
    - Water Factor (WF) ≤ 6.0

Dryer Water Consumption Reporting Requirement

- Test data suggested that there can be significant variation in water use during drying (test data showed range from 0.1 to 7.7 gallons per cycle)
  - This range may be due to different condenser types: air- cooled condensing vs. water-cooled condensing.

- EPA is proposing the dryer water consumption be reported due to variations found in the test data and to enable EPA to track and further assess opportunity for savings in this area.

Measuring Dryer Water Consumption

- EPA is proposing similar language to what is in the DOE clothes washer test procedure, for measuring dryer water consumption.
  - Water supply and pressure specifications included for the testing requirements to make results and procedures more repeatable and reproducible.
  - The same instruments (water meter, pressure gauge) used in DOE clothes washer test can be leveraged to measure dryer water consumption.
- Both the hot and cold water lines shall have a water meter to measure the total water consumption.
  - Resolution no larger than 0.1 gallons and a maximum error no greater than 2 percent for the water flow rates measured.
- Water pressure may have an impact on the water consumption of the dryer.
  - Water pressure gauge will be included to measure the water pressure.
  - Resolution of 1 pound per square inch gauge (psig) (6.9 kPa) and an error no greater than 5 percent of any measured value.

Anticipated Timeline for Revision

October 12, 2011	Draft 1, Version 6.0 Specification Released
October 21, 2011	Today's Stakeholder Webinar
November 11, 2011	Comment Period Closes on Draft 1 Specification
December 2011	Final Draft Specification Distributed and Comment Period
December 2011/ January 2012	Final Specification Posted, Combination W/Ds can be qualified
January 8, 2013	Version 6.0 Specification Effective *Note: EPA anticipates that Version 6.0 will also include new requirements for commercial clothes washers being developed through separate revision process

- EPA welcomes all partner and stakeholder comments by **November 11, 2011**
- Comments should be submitted in writing to appliances@energystar.gov

Thank you

Questions?

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