Following is the Final Draft, Version 3.0 product specification for ENERGY STAR certified commercial ovens. A product shall meet all of the identified criteria if it is to earn the ENERGY STAR.

1) Definitions: Below are the definitions of the relevant terms in this document.

A. Oven: A chamber designed for heating, roasting, or baking food by conduction, convection, radiation, and/or electromagnetic energy.¹

1) Oven Types

B. Combination Oven: A device that combines the function of hot air convection (oven mode), steam heating (steam mode), and a combination of both (combination mode), which includes high and low temperature steaming, baking, roasting, rethermalizing, and proofing of various food products. In general, the term combination oven is used to describe this type of equipment, which is self-contained.² The combination oven is also referred to as a combination oven/steamer, combi, or combo.

a. Half-Size Combination Oven: A combination oven capable of accommodating a single 12.7 x 20.8 x 2.5-inch steam table pan per rack position, loaded from front-to-back or lengthwise.

b. Full-Size Combination Oven: A combination oven capable of accommodating two 12.7 x 20.8 x 2.5-inch steam table pans per rack position, loaded from front-to-back or lengthwise.

c. 2/3-Size Combination Oven: A combination oven capable of accommodating a single 13.8 x 12.7 x 2.5-inch steam table pan per rack position, loaded from front-to-back or lengthwise. The 2/3-Size Combination oven may also be referred to as a mini-size combination oven.

C. Convection Oven: A general-purpose oven that cooks food by forcing hot dry air over the food product's surface. The rapidly moving hot air strips away the cooler air layer next to the food and enables the food to absorb the heat energy. For this specification, convection ovens do not include ovens that can heat the cooking cavity with saturated or superheated steam. However, this oven type may have moisture injection capabilities (e.g., baking ovens and moisture-assist ovens). Ovens that include a hold feature are eligible under this specification as long as convection is the only method used to cook the food fully.

a. Half-Size Convection Oven: A convection oven capable of accommodating half-size sheet pans measuring 18 x 13 x 1-inch.

b. Full-Size Convection Oven: A convection oven capable of accommodating standard full-size sheet pans measuring 18 x 26 x 1-inch.

D. Conventional or Standard Oven: An oven that cooks food primarily using the naturally occurring hot air currents to transfer heat over the food product's surface without the use of a fan or blower. The burner or elements heat the air within the oven cavity and the cavity walls, causing currents of hot air that transfer heat to the surface of the food. The hot air's buoyancy

carries it upward through cooler air, which then slowly sinks to the bottom of the oven as it cools off.

E. **Conveyor Oven**: An oven designed to carry food product on a moving belt into and through a heated chamber.

F. **Slow Cook-and-Hold Oven**: An oven designed specifically for low-temperature (e.g., less than 300°F) cooking, followed by a holding period at a specified temperature.

G. **Deck Oven**: An oven that cooks food product directly on the floor of a heated chamber. The bottom of each compartment is called a deck and heat is typically supplied by burners or elements located beneath the deck. The oven ceiling, floor, and walls are designed to absorb heat quickly and radiate that heat back slowly and evenly.

H. **Hearth Oven**: An oven designed with an open doorway and dome-shaped interior, usually composed of high-temperature refractory ceramic or concrete. Hearth ovens do not include ovens designed to use interior walls as cooking surfaces.

   **NOTE** — Hearth ovens are designed with an unrestricted open doorway due in part to potentially high operational temperatures. A closed grease-laden oven compartment may present a fire hazard when oven surface temperatures exceed 600 °F (316 °C), and an oven door is opened.³

I. **Microwave Oven**: An oven in which foods are heated and/or cooked when they absorb microwave energy (short electromagnetic waves) generated by a magnetron(s).⁴

J. **Rack Oven**: A high-capacity oven that offers the ability to produce steam internally and is fitted with a motor-driven mechanism for rotating multiple pans inserted into one or more removable or fixed pan racks within the oven cavity.

   a. **Mini Rack Oven**: A stand-mounted rack oven designed with a load-in-place rack that cannot be removed. Mini rack ovens can accommodate up to 10 standard full-size sheet pans measuring 18 x 26 x 1-inch.

   b. **Single Rack Oven**: A floor-model rack oven that can accommodate one removable single rack of standard sheet pans measuring 18 x 26 x 1-inch.

   c. **Double Rack Oven**: A floor-model rack oven that can accommodate two removable single racks of standard sheet pans measuring 18 x 26 x 1-inch or one removable double-width rack.

   d. **Quadruple Rack Oven**: A floor-model rack oven that can accommodate four removable single racks of standard sheet pans measuring 18 x 26 x 1-inch or two removable double-width racks.

K. **Range Oven**: An oven base for a commercial range top (i.e., burners, electric elements, or hobs). Range ovens may use either standard or convection technologies to cook food.

L. **Rapid Cook Oven**: An oven that utilizes one or more non-traditional heat transfer technologies to cook food product significantly faster than would be possible using conventional (e.g., convection, conduction, radiant) heat transfer technologies. Heat transfer technologies that may be employed include microwave, quartz halogen, and high-velocity or impingement convection.

M. **Rotisserie Oven**: An oven fitted with a mechanism to move or turn food past a fixed heat source while the food is slowly being cooked on all sides.

N. **Reel-type Oven (revolving tray oven)**: An oven with a motor-driven Ferris wheel device.⁵

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Preheat Values

O. **Preheat Energy**: The amount of energy consumed by the convection, combination, or rack oven while preheating its cavity from ambient temperature to the specified thermostat set point. It is expressed in Btu or kWh.

P. **Preheat Time**: The time required for the oven cavity to preheat from ambient temperature to the specified thermostat set point. It is expressed in minutes (min).

Energy Efficiency Metrics

Q. **Baking-Energy Efficiency**: Quantity of energy imparted to the specified load, expressed as a percentage of energy consumed by the oven during the baking event.

R. **Cooking-Energy Efficiency**: Quantity of energy imparted to the specified load, expressed as a percentage of energy consumed by the oven during the cooking event.

S. **Idle Energy Rate**: The rate of oven energy consumption while it is maintaining or holding at a stabilized operating condition or temperature. Also called standby energy rate.

T. **Total Idle Energy Rate**: The rate of oven energy consumption while it is maintaining or holding at a stabilized operating condition or temperature. Total idle energy rate includes gas and electric energy (primary and auxiliary). Also called total standby energy rate.

Water Consumption

U. **Average Water Consumption Rates**: The monitored water consumption of an oven during specified test conditions. These metrics shall include condensate cooling water, if applicable.

a. **Combination Oven Water Consumption Rate**: The water consumed during idle and heavy-load cooking periods in steam and convection mode, expressed as gallons per hour per steam pan (gal/hr/pan) during idle, and gallons per steam pan (gal/pan) during cooking. Gallon per hour per pan and gallons per pan shall be based on GN 1/1 steam table pans as defined in Section 1.B.a and 1.B.b for full and half-size combination ovens and GN 2/3 steam table pans as defined in Section 1.B.c. for 2/3-size combination ovens.

b. **Convection Oven Water Consumption Rate**: The water consumed during the steam injection mode is expressed as gallons per minute (gal/min), as defined in Section 1.C.a and 1.C.b., respectively.

c. **Rack Oven Water Consumption Rate**: The water consumed during the steam injection mode is expressed as gallons per minute (gal/min).

V. **Average Combination Oven Condensate Temperature**: The condensed steam and cooling water mixture’s average temperature exiting the combination oven and directed to the drain during heavy-load cooking in steam and convection modes.

W. **Maximum Combination Oven Condensate Temperature**: The maximum temperature of the condensed steam and cooling water mixture exiting the combination oven and directed to the drain during heavy-load cooking in steam and convection modes.
Note: EPA received stakeholder support on the Draft 2 proposal to include maximum water consumption criteria for combination ovens in steam and convection modes during cooking periods. The Agency also received positive feedback in support of introducing the new water use reporting requirements for combination ovens in idle modes, convection and rack ovens.

Following the release of the Draft 2 proposal, EPA hosted an ENERGY STAR Version 3.0 Commercial Ovens Draft 2 Webinar along with representatives from WaterSense® to discuss the proposed changes in the Draft 2, including harmonization with other standards that have existing maximum water consumption criteria levels for combination ovens. Specifically, the Agency cited:

- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 189.1-2020 Standard for the Design of High-Performance Green Buildings (10 gallons per hour in full operational mode),

- Leadership in Energy and Environmental Design (LEED) Version 4.1 (<1.5 gallons per hour per pan including condensate cooling water),

- ANSI/GBI 01-2019 Green Globes Assessment Protocol for Commercial Buildings (<1.5 gallons per hour per pan in steam mode), and

- International Association of Plumbing and Mechanical Officials (IAPMO’s) Water Efficiency and Sanitation Standard for the Built Environment 2020 (<0.5 gallons per hour per oven cavity in convection mode, and <1.5 gallons per hour per pan in steamer mode).

The concept of normalizing the water consumption in gallons per hour per pan was to allow end-users to compare the water consumption rates of the ovens with similar capacities. This approach was also intended to align the water consumption rate unit (gal/hr/pan) rate with market standards.

However, during this webinar and in subsequent meetings with various stakeholders, along with formal written comments in response to the Draft 2 specification, stakeholders expressed concern with EPA’s proposed water consumption units (gal/hr/pan) during cooking, noting that energy efficient combination ovens with higher production rates would be placed at a disadvantage. Higher production capacity combination ovens have shorter cook times. Expressing the water consumption value in gal/hr/pan during cooking periods could therefore potentially be misleading for some models and may reflect negatively on some highly energy and water efficient ovens with high throughput. Multiple stakeholders suggested that EPA instead consider using (gal/pan) to express the water consumption value during combination oven cooking periods for both steam and convection modes to avoid any displacement of highly energy and water efficient combination ovens with high production capacities.

As such, EPA has amended the Combination Oven Water Consumption Rate definition in Section 1.U.a. to reflect the unit change. Similarly, the combination oven water consumption rate for steam and convection cooking periods has been amended under Section 3.B. in Table 2 to reflect the change in units and corresponding criteria. Furthermore, Sections 1.U.b. and 1.U.c. were simplified to align more closely with the units and terminology in the respective ASTM test methods, F1496 for convection ovens and F2093 for rack ovens. Similarly, the convection and rack ovens water consumption units and/or terminology have been amended under Section 3.B. Table 1 and Table 3.

Certification Terms

X. Product Family: Individual models offered within a product line based on the same engineering design, including pan capacity, fuel type, and method of steam generation, as applicable. Acceptable differences within a product family for certification purposes include controls, door-opening orientation, and any aesthetic additions that have no impact on oven energy consumption in any operating mode. Double stacked ovens with two separate, individually operated ovens shall be listed as an additional model under the product family base model since these ovens are tested as a single cavity and therefore have identical performance values. All models within a product family shall be listed as an additional model.
Y. Pan Capacity: The number of steam table pans the combination oven can accommodate as per the ASTM F1495-20 standard specification.

Z. Single Rack: Single racks shall accommodate 15 full-size sheet pans measuring 18 x 26 x 1-inch, at a 4-inch spacing between rack positions. Single racks accommodate 1 full-size sheet pan per rack position.

AA. Double-Width Rack: Double racks shall accommodate 30 full-size sheet pans measuring 18 x 26 x 1-inch, at a 4-inch spacing between rack positions. Double racks accommodate 2 full-size sheet pan per rack position.

BB. Set-Back Idle Mode: A feature that includes automatic temperature reduction after extended periods of non-use. In addition, the feature may also incorporate the reduction or elimination of fan speed, lighting, and automatic rack rotation during periods of non-use.

2) Scope:

A. Included Products: Products that meet the definitions of a Commercial Oven and Convection Oven, Combination Oven, or Rack Oven as specified herein are eligible for ENERGY STAR certification, except products listed in Section 2.B. The following sub-types are eligible:

a. Full-size gas and half- and full-size electric convection ovens.

b. Half- and full-size gas combination ovens with a pan capacity ≥ 5 and ≤ 40.

c. Half- and full-size electric combination ovens with a pan capacity ≥ 3 and ≤ 40.

d. 2/3-size electric combination ovens with a pan capacity ≥ 3 and ≤ 5.

e. Single and double gas rack ovens.

To ensure only commercial ovens are certified under this specification, products shall be third-party certified to NSF/ANSI Standard 4, Commercial Cooking, Rethermalization, and Powered Hot Food Holding and Transport Equipment.

B. Excluded Products: This specification is intended for commercial food-grade ovens. Ovens designed for residential or laboratory applications cannot be certified for ENERGY STAR under this specification. The following oven types and sub-types are ineligible for ENERGY STAR:


b. Dual-fuel heat source combination ovens.

c. Hybrid ovens not listed in Section 2.A, above, such as those incorporating microwave settings in addition to convection.

d. Conventional or standard ovens; conveyor; slow cook-and-hold; deck; hearth; microwave; range; rapid cook; reel-type; and rotisserie.

e. Half- and full-size gas combination ovens with a pan capacity of < 5 or > 40.

f. Half- and full-size electric combination ovens with a pan capacity < 3 or > 40.

g. Mini and quadruple gas rack ovens.

h. Electric rack ovens.
i. 2/3-size electric combination ovens with a pan capacity >5.

3) Certification Criteria:

A. Convection Oven Cooking-Energy Efficiency and Idle Energy Rate Requirements:

| Table 1: Energy Efficiency and Water Consumption Rate Requirements for Convection Ovens |
|-----------------------------------------------|-----------------|------------------|
| **Gas**                                      | **Electric**   |
| **Oven Capacity**                            | **Idle Rate, Btu/h** | **Cooking-Energy Efficiency, %** |
| Full-Size                                    | ≤ 9,500         | ≥ 49             |
| Half-Size                                    | ≤ 1.00          | ≥ 71             |
| Full-Size ≥ 5 Pans                           | ≤ 1.40          | ≥ 76             |
| Full-Size < 5 Pans                           | ≤ 1.00          |                   |

**Water Consumption Rate: All Convection Ovens with Moisture Injection Mode**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Steam Injection (gal/min)</th>
<th>Reporting Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steam Injection Mode</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Pans = Standard full-size sheet pan capacity as defined in Section 1.C.b., above.

B. Combination Oven Cooking-Energy Efficiency and Idle Energy Rate Requirements:

| Table 2: Energy Efficiency and Water Consumption Rate Requirements for Combination Ovens |
|-----------------------------------------------|-----------------|------------------|
| **Gas: 5-40 Pan Capacity**                   | **Electric: 5-40 Pan Capacity** |
| **Operation**                                | **Idle Rate, kW** | **Cooking-Energy Efficiency, %** |
| Steam Mode                                  | ≤ 200P+6,511    | ≥ 41              |
| Convection Mode                             | ≤ 140P+3,800    | ≥ 57              |
| **Electric: 3-4 Pan Capacity and 2/3-size with 3-5 Pan Capacity** |
| **Operation**                                | **Idle Rate, kW** | **Cooking-Energy Efficiency, %** |
| Steam Mode                                  | ≤ 0.60P         | ≥ 51              |
| Convection Mode                             | ≤ 0.05P+0.55    | ≥ 70              |

**Water Consumption Rate: All Combination Ovens**

| **Operation**                                | **Electric and Gas During Idle Periods (gal/hr/pan)** | **Electric and Gas During Cooking Periods (gal/pan)** |
| Steam Mode                                  | Reporting Requirement                                  | < 0.5 gal/pan                                      |
| Convection Mode                             | Reporting Requirement                                  | < 0.4 gal/pan                                      |

Note: P = Pan capacity as defined in Section 1.Y, above.

C. Rack Oven Baking-Energy Efficiency and Idle Energy Rate Requirements:

| Table 3: Energy Efficiency and Water Consumption Rate Requirements for Rack Ovens |
|-----------------------------------------------|-----------------|------------------|
| **Gas**                                      | **Water Consumption Rate: All Racks Ovens with Steam Injection Mode** |
| **Oven Size**                                | **Total Energy Idle Rate, Btu/h** | **Baking-Energy Efficiency, %** |
| Single                                       | ≤ 25,000        | ≥ 48             |
| Double                                       | ≤ 30,000        | ≥ 52             |
| **Steam Injection Mode**                     | Reporting Requirement |
| Steam Injection Mode                         |                           |
Note: Water Consumption Criteria

EPA received stakeholder support for the proposal to add new water consumption criteria thresholds for gas and electric combination ovens in both steam and convection modes during cooking periods. As outlined in the notebox under Section 1., in response to stakeholder feedback, EPA revised the water consumption units (from gal/hr/pan to gal/pan) and criteria values for combination oven cooking in steam and convection modes to more accurately express the metric without disadvantaging high production (faster cook time) combination ovens. The unit conversion steps are included in Section 3.F. Additional Combination Oven Water Consumption Rate Guidance.

EPA reevaluated the combination oven data set and established reasonable water consumption thresholds in Table 2 for combination oven cooking periods in steam and convection modes. The Final Draft combination oven water consumption criteria in steam mode cooking (<0.5 gal/pan) and convection mode cooking (<0.4 gal/pan) do not impact the Draft 2 pass rates. In other words, all combination oven models that meet the four energy-based combination oven criteria also meet the water consumption criteria during cooking periods.

D. Additional Idle Calculation Guidance: Compliance with the convection oven and combination oven idle rate requirements shall be based on gas energy only for purposes of certifying gas models. When calculating the gas oven idle rates, electric energy consumed by auxiliary components shall not be considered. However, the electric energy consumption measured during idle tests shall be reported separately, as per Section 4.G.c.

E. Additional Total Idle Calculation Guidance: Compliance with the rack oven total idle rate requirements shall be based on gas and electric energy for purposes of certifying gas models. When calculating the gas rack oven total idle rates, electric energy consumed by auxiliary components shall be converted to Btu/h and added to the gas idle rate expressed in Btu/h. The electric energy consumption measured during idle tests shall also be reported separately as expressed in kW, as per Section 4.G.c.

Example: Consider a double-sized gas rack oven with a gas idle energy rate of 30,000.11 Btu/h; and the electric idle energy rate of 1.51 kW. First, convert the 1.51 kW electric idle energy rate to Btu/h by multiplying the 1.51 kW by 3,412.14. Then add the result to the 30,000.11 Btu/h gas idle rate.

\[ 1 \text{ kW} = 3,412.14 \text{ Btu/h} \]
\[ \text{Electric idle energy rate, converted to Btu/h: } 1.51 \text{ kW} \times 3,412.14 \text{ Btu/h} = 5,152.3314 \text{ Btu/h} \]
\[ \text{Total idle energy rate: } 30,000.11 \text{ Btu/h} + 5,152.3314 \text{ Btu/h} = 35,152.44 \text{ Btu/h} \]

F. Additional Combination Oven Water Consumption Rate Guidance: Compliance with the combination oven water consumption rate for cooking periods shall be calculated according to the following steps. Use ASTM F2861-20 for the average weight of the potatoes per pan, and the ENERGY STAR certified product information for the number of steam pans and production capacity (lbs/hr). These values are used to generate the cook time (hr) in steam and convection modes per the following equation, which is then used with the cooking period time in each mode and multiplied by the average water consumption rate expressed in gal/hr. The final value results in water consumption during cooking periods expressed in gal/pan.

\[ Cooking \ time \ (hr) = \frac{(# \ of \ Pans) \times (lbs \ of \ potatoes)}{Production \ Capacity \ \frac{lb}{hr}} \]

Example: Consider a 14 pan electric combination oven cooking in steam mode with a water consumption rate of 1.5 (gal/hr). Convert the water consumption to gallons per hour per pan (gal/hr/pan) by dividing the water consumption (gal/hr) by the number of pans. Then, apply the formula above to determine the cooking time (hr) in steam mode. Multiply the gal/hr/pan by the cooking time to determine the water consumption rate in gal/pan.
Gal/hr/pan: 1.5 (gal/hr) / 14 (pans) = 0.11 (gal/hr/pan)

Cooking Time (hr): (14 pans x 8 lbs of potatoes) / 150 lbs/hr = 0.75 (hr)

Gal/pan = 0.11 (gal/hr/pan) x 0.75 (hr) = 0.083 (gal/pan)

G. Significant Digits and Rounding:

a. All calculations shall be carried out with directly measured (unrounded) values. Only the final result of a calculation shall be rounded.

b. Unless otherwise specified in this specification, compliance with certification criteria in Section 3 shall be evaluated using exact values without any benefit from rounding.

c. Cooking and Baking-Energy Efficiency: Calculated values that are submitted for reporting on the ENERGY STAR website shall be rounded to the nearest significant digit as expressed in the certification criteria in Section 3.

d. Idle Energy Rate: Calculated values for gas convection, combination, and rack oven idle rates submitted for reporting on the ENERGY STAR website shall be rounded to the nearest whole number. The calculated energy consumption values for electric convection and combination ovens shall be rounded to 0.01 for idle rates.

4) Test Requirements:

A. Representative models shall be selected for testing per the following requirements:

a. For certification of an individual product model, the representative model shall be equivalent to that which is intended to be marketed and labeled as ENERGY STAR.

b. For a product family certification, any model within that product family can be tested and serve as the representative model. When submitting product families, manufacturers continue to be held accountable for any efficiency claims made about their products, including those not tested or for which data was not reported.

B. When testing commercial ovens, the following test methods shall be used to determine ENERGY STAR certification

Table 4: Test Methods for ENERGY STAR Certification

<table>
<thead>
<tr>
<th>Oven Types</th>
<th>ENERGY STAR Requirements</th>
<th>Test Method Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rack Ovens</td>
<td>Baking-Energy Efficiency, Total Idle Energy Rate, Production Capacity, Preheat Energy Consumption, Steam Rate, Steam Injection Cycle, and Preheat time</td>
<td>ASTM F2093-18, Standard Test Method for Performance of Rack Ovens</td>
</tr>
</tbody>
</table>

Note: The ASTM F2861-20 was removed from Section 3.B. Table 4 as a test method reference for water consumption under convection ovens. The test methods for evaluating water use in convection ovens in the steam injection mode are included in ASTM 1496-13 (2019) Standard Test Method for Performance of Convection Ovens.

C. For ovens with variable Btu/h or kW input, each available input shall be tested and reported.
individually. Ovens need to meet the idle energy rate or total idle energy rate and cooking- or baking-energy efficiency requirements presented in Table 1, Table 2, or Table 3, of this specification at each input setting.

D. For electric ovens with multiple voltage-versatility and those that are available in different voltage configurations, the representative oven shall be tested at the most energy consumptive voltage according to the manufacturer.

E. If the representative combination oven model under test is designed to hold 18 x 26-inch sheet pans, the manufacturer-supplied wire racks shall be positioned in the oven to accommodate 12 x 20 x 2.5-inch steam table pans.

F. Combination ovens with roll-in, removable racks shall have the racks positioned in place during steam mode and convection mode idle tests.

G. Additional Reporting Requirements:

a. The average water consumption rates, average steam injection rate, average steam injection cycle, average condensate drain temperatures, and the maximum condensate drain temperatures shall be reported for all applicable ovens and applicable modes.

b. The production capacity for all convection ovens, combination ovens, and rack ovens cooking, or baking-energy efficiency tests shall be reported.

c. The electric energy idle rate for gas convection, combination, and rack oven idle rate tests shall be reported.

d. Rack ovens that include energy saving feature(s) and meet the minimum requirement of the set-back idle mode definition in Section 1.BB. shall be reported.

e. Preheat energy consumption and time for all convection, combination, and rack ovens shall be reported in Btu or kWh for energy consumption and in minutes for preheat time. For combination ovens, both steam and convection preheat energy consumption and time shall be reported. For gas ovens, the auxiliary components (e.g., fan energy consumption) that use electrical energy shall also be reported.

5) Effective Date: This ENERGY STAR Version 3.0 Commercial Ovens specification shall take effect on January 19, 2023. To certify to ENERGY STAR, a product model shall meet the ENERGY STAR specification in effect on the model’s manufacture date. The date of manufacture is specific to each unit and is the date on which a unit is considered to be completely assembled.

Note: EPA anticipates completing the Version 3.0 process no later than April 19, 2022, with an effective date of January 19, 2023. Once a final specification is released, manufacturers may immediately begin certifying products to the new Version 3.0 specification, but will have nine months to transition, understanding that certification to the current version must cease 4.5 months after the final specification is published. Once the Version 3.0 specification takes effect, ovens that do not meet the criteria will be removed from the ENERGY STAR Product Finder and may no longer be marketed or labeled as ENERGY STAR unless retested and recertified to Version 3.0.

6) Future Specification Revisions: EPA reserves the right to change the specification should technological and/or market changes affect its usefulness to consumers, industry, or the environment. In keeping with current policy, revisions to the specification are arrived at through industry discussions. In the event of a specification revision, please note that ENERGY STAR certification is not automatically granted for the life of a product model.