accurately. 62 FR 51976.[1] The microwave oven test procedure incorporates portions of the International Electrotechnical Commission (IEC) Standard 705–1998 and Amendment 2–1993, "Methods for Measuring the Performance of Microwave Ovens for Households and Similar Purposes," (IEC Standard 705) [2] and measures microwave oven cooking efficiency and energy factor (EF). *Id.* However, IEC Standard 705 has been declared obsolete by IEC, and the current IEC test procedure is IEC Standard 60705–2006, "Household microwave ovens—Methods of measuring performance" (IEC Standard 60705).

As part of the appliance standards analysis leading to a final rule published on April 8, 2009 (74 FR 16040), DOE tested 32 microwave ovens, and the Association of Home Appliance Manufacturers (AHAM) tested 21 additional units, for a total of 53 microwave ovens, according to the DOE microwave oven test procedure, using provisions from both IEC Standard 705 and IEC Standard 60705.[3] DOE observed significant variability in the cooking efficiency measurements from both methods, and was unable to ascertain why similarly designed, equipped, and constructed microwave ovens showed varying efficiencies.[4]

Because DOE is not aware of other existing test procedures that produce representative and repeatable cooking efficiency measurements for microwave ovens, and because of the issues with using the existing DOE microwave oven test procedure, DOE has published a final rule elsewhere in today's **Federal Register** to repeal the existing active mode provisions in the microwave oven test procedure.

The public meeting announced in today's notice is the first step in considering the development of a new active mode test procedure for microwave ovens. DOE will work with industry and interested parties to discuss the various issues associated with the current microwave oven test procedure, and to determine if any test methods are currently available to address these concerns.

DOE will make a presentation summarizing the current status and will initiate a discussion regarding any test procedures that could help address each issue. DOE encourages those who wish to participate in the meeting to make presentations that address these issues. If you would like to make a presentation during the meeting, please inform Ms. Edwards at least two weeks before the date of the meeting and provide her with a copy of your written material at least one week before the date of the meeting.

The meeting will be conducted in an informal, conference style. A court reporter will be present to record the minutes of the meeting. There shall be no discussion of proprietary information, costs or prices, market shares, or other commercial matters regulated by antitrust law. After the meeting and a period for written statements, DOE will begin collecting data and developing a notice of proposed rulemaking for the microwave oven test procedure.

Issued in Washington, DC, on July 9, 2010.

Cathy Zoi,

Assistant Secretary, Energy Efficiency and Renewable Energy.

[FR Doc. 2010–17774 Filed 7–21–10; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

10 CFR Part 430

[Docket No. EERE–2008–BT–TP–0011]

RIN 1904–AB78

Energy Conservation Program for Consumer Products: Test Procedure for Microwave Ovens

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Supplemental notice of proposed rulemaking.

SUMMARY: On October 17, 2008, the U.S. Department of Energy (DOE) issued a notice of proposed rulemaking (NOPR) in which DOE proposed test procedures for microwave ovens under the Energy Policy and Conservation Act (EPCA) to measure standby mode and off mode power use by microwave ovens. To address issues raised in comments responding to the NOPR, DOE conducted additional research and analysis. In today's supplemental notice of proposed rulemaking (SNOPR), DOE proposes adopting definitions of modes based on the relevant provisions from the IEC Standard 62301, *Household electrical appliances—Measurement of standby power,* Second Edition, Committee Draft for Vote (IEC Standard 62301 CDV), as well as language to clarify application of these provisions for measuring standby mode and off mode power consumption in microwave ovens. DOE will hold a public meeting to discuss and receive comments on the issues presented in this SNOPR.

DATES: DOE will hold a public meeting on Thursday, September 16, 2010, from 9 a.m. to 4 p.m., in Washington, DC. DOE must receive requests to speak at the public meeting before 4 p.m., Thursday, September 2, 2010. DOE must receive a signed original and an electronic copy of statements to be given at the public meeting before 4 p.m., Thursday, September 9, 2010.

DOE will accept comments, data, and information regarding this SNOPR before and after the public meeting, but no later than October 4, 2010. For details, see section V, "Public Participation", of this SNOPR.

ADDRESSES: The public meeting will be held at the U.S. Department of Energy, Forrestal Building, Room 8E–089, 1000 Independence Avenue, SW., Washington, DC 20585–0121. To attend the public meeting, please notify Ms. Brenda Edwards at (202) 586–2945. Please note that foreign nationals visiting DOE Headquarters are subject to advance security screening procedures. Any foreign national wishing to participate in the meeting should advise DOE as soon as possible by contacting Ms. Edwards to initiate the necessary procedures.

Any comments submitted must identify the SNOPR on Test Procedures for Microwave Ovens, and provide the docket number EERE–2008–BT–TP–0011 and/or regulatory information number (RIN) 1904–AB78. Comments may be submitted using any of the following methods:

1. *Federal eRulemaking Portal: www.regulations.gov.* Follow the instructions for submitting comments.

2. *E-mail: MicroOven-2008-TP-0011@ee.doe.gov.* Include docket number EERE–2008–BT–TP–0011 and/or RIN 1904–AB78 in the subject line of the message.

3. *Mail:* Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, Mailstop EE–2J, 1000 Independence Avenue, SW., Washington, DC 20585–0121. Please submit one signed original paper copy.

4. *Hand Delivery/Courier:* Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, 6th

[1] DOE's active mode test procedure was formerly codified at appendix I to subpart B of Title 10 of the Code of Federal Regulations (CFR).

[2] IEC standards are available online at: *http://www.iec.ch.*

[3] Both DOE's and AHAM's microwave oven samples contained units with manufacturer-rated output powers ranging from 700 to 1,300 W.

[4] For more details of the cooking efficiency testing conducted as part of the appliance standards rulemaking, see the 2009 *Technical Support Document for Residential Dishwashers, Dehumidifiers, and Cooking Products and Commercial Clothes Washers.* Available online at *http://www1.eere.energy.gov/buildings/appliance_standards/residential/cooking_products.html.*

Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024. Telephone: (202) 586–2945. Please submit one signed original paper copy.

For detailed instructions on submitting comments and additional information on the rulemaking process, see section V (Public Participation) of this document.

Docket: For access to the docket to read background documents or comments received, visit the U.S. Department of Energy, 6th Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024, (202) 586–2945, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays. Please call Ms. Brenda Edwards at the above telephone number for additional information about visiting the Resource Room.

FOR FURTHER INFORMATION CONTACT: Mr. Wes Anderson, U.S. Department of Energy, Energy Efficiency and Renewable Energy, Building Technologies Program, EE–2J, 1000 Independence Avenue, SW., Washington, DC 20585–0121. Tel.: (202) 586–7335. E-mail: *Wes.Anderson@ee.doe.gov*.

Ms. Elizabeth Kohl, U.S. Department of Energy, Office of the General Counsel, GC–71, 1000 Independence Avenue, SW., Washington, DC 20585–0121. Tel.: (202) 586–7796. E-mail: *Elizabeth.Kohl@hq.doe.gov.*

SUPPLEMENTARY INFORMATION:

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I. Background and Legal Authority

Title III of the Energy Policy and Conservation Act (42 U.S.C. 6291 *et seq.;* EPCA or the Act) sets forth a variety of provisions designed to improve energy efficiency. Part A of Title III (42 U.S.C. 6291–6309) establishes the "Energy Conservation Program for Consumer Products Other Than Automobiles" for consumer products, including microwave ovens. (42 U.S.C. 6291(1)-(2) and 6292(a)(10)) Under the Act, this program consists essentially of three parts: Testing, labeling, and establishing Federal energy conservation standards.

Manufacturers of covered products must use DOE test procedures to certify that their products comply with energy conservation standards adopted under EPCA and to represent the efficiency of their products. (42 U.S.C. 6295(s); 42 U.S.C. 6293(c)) DOE must also use DOE test procedures in any action to determine whether covered products comply with EPCA standards. (42 U.S.C. 6295(s)) Criteria and procedures for DOE's adoption and amendment of such test procedures, as set forth in EPCA, require that test procedures be reasonably designed to produce test results which measure energy efficiency, energy use, or estimated annual operating cost of a covered product during a representative average use cycle or period of use. Test procedures must also not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3))

If DOE determines that a test procedure amendment is warranted, it must publish proposed test procedures and offer the public an opportunity to present oral and written comments on them. (42 U.S.C. 6293(b)(2)) In any rulemaking to amend a test procedure, DOE must determine to what extent the proposed test procedure would alter the measured energy efficiency of any covered product as determined under the existing test procedure. (42 U.S.C. 6293(e)(1)) If DOE determines that the amended test procedure would alter the measured efficiency of a covered product, DOE must amend the applicable energy conservation standard accordingly. (42 U.S.C. 6293(e)(2))

DOE is also required to amend the test procedures for covered products to address standby mode and off mode energy consumption and to integrate such energy consumption into the energy descriptor for that product unless the current test procedures already fully account for such consumption. If integration is technically infeasible, DOE must prescribe a separate standby mode and off mode energy use test procedure, if technically feasible. (42 U.S.C. 6295(gg)(2)(A)) Any such amendment must consider the most current versions of IEC Standards 62301 ["Household electrical appliances—Measurement of standby power," First Edition 2005–06 (IEC Standard 62301)[1] [2]] and IEC Standard 62087 ["Methods of measurement for the power consumption of audio, video, and related equipment," Second Edition 2008–09]. *Id.* For microwave ovens, DOE must prescribe any such amendment by March 31, 2011. (42 U.S.C. 6295(gg)(2)(B)(vi))

Historically, DOE's test procedure for microwave ovens appeared at appendix I to subpart B of Title 10 of the Code of Federal Regulations (CFR).[3] That test procedure was part of an October 3, 1997, final rule that also revised the test procedures for other cooking products to measure their efficiency and energy use more accurately. 62 FR 51976. That final rule incorporated portions of the International Electrotechnical Commission (IEC) Standard 705–1998 and Amendment 2–1993, "Methods for Measuring the Performance of Microwave Ovens for Households and Similar Purposes" to measure microwave oven cooking efficiency, but did not address energy use in the standby or off modes. *Id.*

DOE published a notice of proposed rulemaking (NOPR) on October 17, 2008

[1] IEC standards are available for purchase at: *http://www.iec.ch.*

[2] Multiple editions of this standard are referenced in this SNOPR. Unless otherwise indicated, the terms "IEC Standard 62301" or "IEC Standard 62301 First Edition" refer to "Household electrical appliances—measurement of standby power" (First Edition, 2005–06).

[3] As explained in more detail later in the preamble, DOE published a final rule to repeal the active mode test procedure for microwave ovens elsewhere in today's **Federal Register**.

(hereafter referred to as the October 2008 TP NOPR), in which it proposed incorporating provisions from IEC Standard 62301 into the DOE active mode test procedure, as well as language to clarify application of these provisions for measuring standby mode and off mode power in microwave ovens. The October 2008 TP NOPR also proposed correcting a technical error in the calculation of microwave test cooking energy output. 73 FR 62134 (Oct. 17, 2008). DOE held a public meeting on November 14, 2008 (hereafter referred to as the November 2008 public meeting), to hear oral comments on and solicit information relevant to the October 2008 TP NOPR. Interested parties remarked upon, among other things, harmonization of standards and test procedures with those of other countries and international agencies. In particular commenters urged DOE to consider IEC Standard 62301 Second Edition, which was in the process of being finalized and published.

After the October 2008 TP NOPR was published, DOE determined that it would consider the revised version of IEC Standard 62301, *i.e.,* IEC Standard 62301 Second Edition, in the microwave oven test procedure rulemaking. The revised version was expected in July 2009. DOE anticipated, based on review of drafts of the updated IEC Standard 62301, that the revisions could include different mode definitions.

DOE later received information that IEC Standard 62301 Second Edition is not expected to be issued until late 2010. Because EPCA requires DOE to establish test procedures for standby and off mode by March 31, 2011 and DOE is conducting a concurrent energy conservation standards rulemaking for standby and off mode energy use, discussed below, DOE publishes today's SNOPR to consider the new mode definitions from the most recent draft version of IEC Standard 62301, designated as IEC Standard 62301 Second Edition, Committee Draft for Vote (IEC Standard 62301 CDV). IEC Standard 62301 CDV contains proposed amendments to IEC Standard 62301, including new mode definitions based on those proposed in IEC Standard 62301 Second Edition, Committee Draft 2 (IEC Standard 62301 CD2) [4] and which address comments received by interested parties in response to IEC Standard 62301 CD2. As a result of this continued refinement on the basis of public comment, DOE believes that these most recent mode definitions represent the best definitions available for the analysis in support of today's SNOPR.

As stated in the previous paragraph, DOE is considering amended microwave oven energy conservation standards addressing standby and off mode energy use concurrently with the test procedure rulemaking process. The National Appliance Energy Conservation Act of 1987 (NAECA; Pub. L. 100–12), which amended EPCA, established prescriptive standards for kitchen ranges and ovens, but no standards were established for microwave ovens. 42 U.S.C. 6295(h) The NAECA amendments also required DOE to conduct two cycles of rulemakings to determine whether to revise the standard. DOE undertook the first cycle of these rulemakings and issued a final rule on September 8, 1998 (63 FR 48038), in which DOE found that no amended standards were justified for electric cooking products, including microwave ovens.

DOE initiated the second cycle of energy conservation standards rulemakings for cooking products by publishing a framework document covering, in part, microwave ovens, and giving notice of a public meeting and the availability of the document. 71 FR 15059 (March 27, 2006). In its subsequent advance notice of proposed rulemaking (ANOPR) (72 FR 64432, Nov. 15, 2007; hereafter the November 2007 ANOPR) concerning energy conservation standards for commercial clothes washers and residential dishwashers, dehumidifiers, and cooking products, including microwave ovens (hereafter referred to as the appliance standards rulemaking), DOE determined that energy consumption by microwave ovens in the standby mode represents a significant portion of microwave oven energy use, and that a standard regulating such energy consumption would likely have significant energy savings. 72 FR 64432, 64441–42 (Nov. 15, 2007). Before standby power could be included in an efficiency standard for microwave ovens, however, test procedures for the measurement of standby power would be required. *Id.*

On December 13, 2007, DOE held a public meeting to receive and discuss comments on the November 2007 ANOPR (hereafter referred to as the December 2007 public meeting). At the December 2007 public meeting, DOE presented for discussion the possibility that test standard IEC Standard 62301 First Edition could be incorporated by reference into DOE's microwave oven test procedure to measure standby power. DOE also discussed clarifications to the IEC Standard 62301 test conditions at the December 2007 public meeting, including a requirement that, if the measured power is not stable, the standby mode power test would be run for a period of 12 hours with an initial clock setting of 12 a.m. This would permit more accurate measurement of average standby power consumption.

DOE published a NOPR for the appliance standards rulemaking on October 17, 2008, in which it tentatively concluded that a standard for microwave oven standby mode and off mode energy consumption would be technologically feasible and economically justified. 73 FR 62034. DOE received responses to the NOPR from interested parties regarding the harmonization of standards and test procedures with those of other countries and international agencies. As a result of these comments, DOE decided to consider the revised version of IEC Standard 62301 (*i.e.,* IEC Standard 62301 Second Edition) in the development of energy conservation standards for the standby mode and off mode power consumption of microwave ovens. As stated above, issuance of the revised version was expected in July 2009 but is now expected in late-2010, and as a result, DOE is considering the most recent draft version IEC Standard 62301 CDV for today's SNOPR.

In a final rule published on April 8, 2009 (74 FR 16040), DOE established amended standards for gas cooking products, but again found that no active mode cooking efficiency standards were justified for electric cooking products, including microwave ovens. This rulemaking completed the second cycle of rulemakings required by the NAECA amendments to EPCA. (42 U.S.C. 6295(h)(2))

In its analysis for the second cycle of rulemakings, DOE determined that the microwave oven test procedure provisions to measure cooking efficiency do not produce accurate and repeatable test results. DOE is unaware of any test procedures that have been developed that address the concerns with the DOE microwave oven cooking efficiency test procedure. DOE, therefore, repealed the regulatory provisions establishing the cooking efficiency test procedure for microwave ovens under EPCA in a final rule published elsewhere in today's **Federal Register**. DOE has also published a notice of a public meeting to discuss a separate rulemaking process to establish new provisions for measuring microwave oven energy efficiency in active (cooking) mode in today's **Federal Register.**

[4] IEC Standard 62301 CD2 was the draft version immediately preceding IEC Standard 62301 CDV.

II. Summary of the Proposed Rule

In the October 2008 TP NOPR and this SNOPR, DOE proposes amending its test procedures for microwave ovens to:

(1) Assist DOE in the concurrent development of energy conservation standards that address use of standby mode and off mode power by this product.

(2) Address the statutory requirement to establish procedures for the measurement of standby mode and off mode power consumption.

In the October 2008 TP NOPR, DOE proposed incorporating by reference specific clauses from IEC Standard 62301 regarding test conditions and testing procedures for measuring the average standby mode and average off mode power consumption into the microwave oven test procedure.[5] These proposals are not affected by this SNOPR, though DOE proposes in this SNOPR to incorporate two additional clauses from IEC Standards 62301, as described in more detail below. DOE also proposes in this SNOPR to incorporate into the microwave oven test procedure definitions of "active mode," "standby mode," and "off mode" that are based on the definitions provided in IEC Standard 62301 CDV. DOE further proposes language to clarify the application of clauses from IEC Standard 62301 for measuring standby mode and off mode power in this SNOPR. Specifically, DOE proposes defining the test duration for cases in which the measured power is not stable (*i.e.,* varies over a cycle), recognizing that the power consumption of microwave oven displays can vary based on the displayed clock time.

The EISA 2007 amendments to EPCA direct DOE to amend the microwave oven test procedure to integrate energy consumption in standby mode and off mode into the overall energy descriptor. (42 U.S.C. 6295(gg)(2)(A)) If that is technically infeasible, DOE must instead prescribe a separate standby mode and off mode energy use test procedure, if technically feasible. *Id.*

In response to the October 2008 TP NOPR, DOE received comments from interested parties regarding the accuracy and repeatability of the existing DOE microwave oven test procedure for measuring cooking efficiency. Because of issues DOE identified with using its existing microwave oven test procedure, including the large test-to-test variation in cooking efficiency measurements, and because DOE is unaware of any test procedures that have been developed that address the concerns with the DOE microwave oven cooking efficiency test procedure raised by these interested parties, DOE repealed the provisions in the existing microwave oven test procedure relating to the measurement of cooking efficiency and energy factor (EF) elsewhere in today's **Federal Register**. Therefore, the requirement to integrate energy consumption in standby mode and off mode into an overall energy descriptor does not apply. DOE also published a notice in today's **Federal Register** announcing a public meeting to consider developing a new test procedure for active mode energy consumption of microwave ovens, and DOE will consider the statutory requirement to integrate the test procedures for standby and off mode as any active mode test procedures are developed.

As noted above, EPCA requires that DOE determine whether a proposed test procedure amendment would alter the measured efficiency of a product, thereby requiring adjustment of existing standards. (42 U.S.C. 6293(e)) Because there are currently no Federal energy conservation standards for microwave ovens (including energy use in the standby and off modes), such requirement does not apply to this rulemaking. DOE is conducting a concurrent rulemaking process to consider standby and off mode energy conservation standards and will consider this test procedure rulemaking as any standards are developed.

III. Discussion

A. Products Covered by This Test Procedure Rulemaking

This proposal would amend the test procedures for kitchen ranges and ovens to include test procedures for the measurement of standby mode and off mode power use for microwave ovens. This proposal would also clarify that the definition of "microwave oven" in 10 CFR 430.2 includes microwave ovens with or without thermal elements designed for surface browning of food and combination ovens.

DOE defines "microwave oven" as "a class of kitchen ranges and ovens which is a household cooking appliance consisting of a compartment designed to cook or heat food by means of microwave energy." 10 CFR 430.2. In the October 2008 TP NOPR, DOE stated that the proposed amendments would establish test procedures for all microwave ovens for which the primary source of heating energy is electromagnetic (microwave) energy, including microwave ovens with or without thermal elements designed for surface browning of food. DOE stated that the proposal did not address test procedures for combination ovens (*i.e.,* ovens consisting of a single compartment in which microwave energy and one or more other technologies, such as thermal or halogen cooking elements or convection systems, contribute to cooking the food). DOE noted that the proposal also did not propose test procedures for the type of cooking appliance classified by DOE regulations as a microwave/conventional range, which has separate compartments or components consisting of a microwave oven, a conventional oven, and a conventional cooking top. DOE requested data on the efficiency characteristics of combination ovens in the November 2007 ANOPR, but did not receive any information. DOE also noted in the October 2008 TP NOPR that if this information is made available at a later date, DOE may consider combination ovens in future proceedings. 73 FR 62134, 62137 (Oct. 17, 2008).

The Association of Home Appliance Manufacturers (AHAM), GE Consumer & Industrial (GE), Pacific Gas & Electric (PG&E), Whirlpool Corporation (Whirlpool), and Earthjustice (EJ) commented that the proposed definition for products covered by this test procedure was unclear, seeking clarification on the definition of a "microwave oven" and "combination oven" and whether combination ovens would be covered by the test procedure. (AHAM, No. 8 at pp. 1–2; GE, Public Meeting Transcript, No. 7 at pp. 16–17; PG&E, Public Meeting Transcript, No. 7 at pp. 24–25, 32; Whirlpool, Public Meeting Transcript, No. 7 at p. 21; EJ, Public Meeting Transcript, No. 7 at pp. 24, 32)

The Appliance Standards Awareness Project (ASAP) questioned the need to determine whether combination ovens fall within the definition of a microwave oven for this rulemaking, because the rulemaking is focused on standby power. (ASAP, Public Meeting Transcript, No. 7 at p. 26) GE cited DOE's statement in the October 2008 TP NOPR that the proposal does not provide test procedures for combination ovens because DOE did not have sufficient efficiency characteristic data to include these products in the rulemaking, but that microwave ovens

[5] DOE also proposed in the October 2008 TP NOPR a technical correction to the equation for calculating the microwave oven test cooking energy output which, as stated at the time in the test procedure, produced a value with incorrect units. Because DOE published a final rule elsewhere in today's **Federal Register** that eliminated provisions for measuring microwave oven cooking energy use, including the calculation of test cooking energy output, DOE no longer is proposing such a technical correction.

with or without thermal elements are included. GE also stated that the proposed definition for microwave ovens is unclear, inconsistent with current regulations, and leads to confusion about what is a covered product. (GE, No. 9 at pp. 2–3) GE suggested that DOE review available data, determine the types of products used to generate the data, and include them in the rulemaking if there is adequate data. GE added that, if there is insufficient characteristic data to support DOE's analysis, these products should be excluded. GE also requested clarification on microwave ovens with thermal elements, because there are microwave ovens that also grill or brown. GE stated that there are units that have modes that are grill-only and microwave-only, but if there was a combination microwave-grill cycle that would classify it as a combination unit. (GE, Public Meeting Transcript, No. 7 at pp.16–17)

AHAM, likewise, noted no mention of "thermal elements designed for surface browning of food" in the definition in 10 CFR 430.2, and added that the proposed definition for microwave ovens is inconsistent with current regulations. AHAM urged DOE to clarify these definitions through a transparent process involving all interested parties. (AHAM, No. 8 at p. 2) Whirlpool added that they manufacture a product, and believes GE does as well, that can work as a microwave only, work as a convection oven, or in combination and questioned whether this would be a covered product. (Whirlpool, Public Meeting Transcript, No. 7 at p. 21)

ASAP commented that they understood a microwave grill to be a microwave and not a combination oven, questioned whether such a unit with a combined cooking cycle would be considered a covered product, and asked whether DOE had information indicating that combination ovens cannot be measured under the test procedure proposed in the October 2008 TP NOPR. (ASAP, Public Meeting Transcript, No. 7 at p. 18) PG&E stated that for products with browning functions that cook by microwave energy, the controls could be set to use only the browning function, in which case the product would not be covered (PG&E, Public Meeting Transcript, No. 7 at pp. 19–20), and noted that many microwaves in homes also have functions which would cause them to be classified as combination ovens. (PG&E, Public Meeting Transcript, No. 7, pp. 21–22) EJ stated that even a combination product would still be considered a household cooking appliance that consists of a compartment designed to cook or heat food using microwave energy. (EJ, Public Meeting Transcript, No. 7 at p. 24)

ASAP, Alliance to Save Energy (ASE), American Council for an Energy-Efficient Economy (ACEEE), Natural Resources Defense Council (NRDC), Northeast Energy Efficiency Partnerships (NEEP), Northwest Power and Conservation Council (NPCC), and Southern California Edison (SoCal Edison) in a joint comment (hereafter "Joint Comment") supported the application of the proposed standard and test procedure to at least the category of microwave ovens specified in the October 2008 TP NOPR, and supported their application to all microwave ovens, including combination ovens, in the absence of evidence that the proposed standard and test procedure are unreasonable. (Joint Comment, No. 11 at pp. 1–2) The Joint Comment supported Whirlpool's assertion that DOE appears to be creating a new product definition, and stated that, although DOE's proposed exclusion of combination ovens does not appear in the draft text of either the proposed microwave oven efficiency standard or revision to the test procedure, the plain reading of the October 2008 TP NOPR makes it clear that some portion of this product class is proposed to be carved out for separate treatment. The Joint Comment pointed out that manufacturers have not presented evidence that the proposed test procedure *per se* is impractical or unworkable for any class of microwave ovens and recommended that the test procedure be finalized as proposed, so that standby and off mode power use of all microwave ovens can be measured, and leave the coverage of the efficiency standard to the efficiency standard rulemaking. (Joint Comment, No. 11 at p. 2)

ASAP noted that DOE elected to move the test procedure modification for microwave ovens forward to incorporate standby mode while the remainder of cooking products will be addressed by the EISA 2007 statutory date, and inquired about the interpretation that combination ovens would thus be addressed in the 2011 rulemaking. (ASAP, Public Meeting Transcript, No. 7 at pp. 29–31)

GE noted that the majority of over-the-range units are microwave only and are not combination modes (GE, Public Meeting Transcript, No. 7 at p. 33) and combination ovens represent a smaller segment of the market. (GE, Public Meeting Transcript, No. 7 at pp. 28–29) EJ commented that although combination ovens are a very small portion of the market, they represent higher-end units that presumably would be the ones with the thermal elements and are more likely to have high-intensity displays, maybe with backing fluorescents. EJ pointed out that DOE could be allowing manufacturers to have excessive standby consumption on those products deemed to be combination ovens, if they are not covered. (EJ, Public Meeting Transcript, No. 7 at p. 32)

The Joint Comment also noted that excluding subclasses of microwave ovens that comprise a significant share of the total microwave oven market from the coverage of the standby efficiency standard could invite actions by States to set efficiency standards for those uncovered products. (Joint Comment, No. 11 at p. 2) PG&E suggested clarifying what products are covered, because California and PG&E intend to pursue a state standard for combination ovens. (PG&E, Public Meeting Transcript, No. 7 at pp. 24–25) PG&E also stated that it would advocate in California for a prescriptive standard covering just standby energy use of combination ovens to bring it in line with microwave-only products. (PG&E, Public Meeting Transcript, No. 7 at p. 32)

In response, DOE first notes that, for this SNOPR, it conducted a survey of microwave oven models currently available on the U.S. market, including countertop, over-the-range, and built-in configurations. DOE determined that fewer than 1 percent of the available models (1 out of 129) have thermal elements for grilling but no convection capability, while 16 percent (21 out of 129) are combination units (microwave + convection and possibly thermal elements). Although DOE does not have shipment-weighted data regarding the percentage of microwave ovens with thermal elements for grilling or combination ovens, DOE does not believe that including microwave ovens with thermal elements only, with or without further specification of the function of the thermal elements, would substantially affect the number or scope of covered products in this rulemaking. DOE proposes to clarify that microwave ovens with thermal elements only would be considered covered products under the definition provided in 10 CFR 430.2. Based on DOE's product literature review for the single available microwave oven with thermal elements only, DOE believes that the standby and off mode operation for microwave ovens with thermal elements only does not differ from that of microwave-only units.

DOE also proposes to clarify that combination microwave ovens (*i.e.,*

microwave ovens that incorporate convection features and possibly other means of cooking) would be considered covered products under the regulatory definition in 10 CFR 430.2 because they are capable of cooking or heating food by means of microwave energy. As a result, DOE analyzed the features and operation of these products, conducting in-store surveys and product literature reviews, to determine if additional testing procedures would be required that differ from the testing procedures for microwave-only units. DOE recognizes that combination ovens may have more sophisticated displays and menu screens, as well as additional features associated with active mode operation (*i.e.,* fans, heater elements, etc.) that may require larger power supplies than a microwave-only unit and therefore may consume more power in standby or off mode. However, based on its preliminary analysis, DOE believes that the general standby and off mode operation for combination microwave ovens does not differ from that of microwave-only units and microwave ovens with thermal elements only. The standby mode operation for combination microwave ovens, as with other types of microwave ovens, consists of an energized display with a clock.

This SNOPR does not affect DOE's proposal from the October 2008 TP NOPR that the test procedure would cover microwave ovens with and without browning (thermal) elements. However, this SNOPR clarifies what is meant by a combination oven and revises the proposal to include microwave ovens that incorporate convection systems as products to which the test procedures would be applicable. Because DOE tentatively determines that the operation in standby and off mode for microwave-only units, microwave ovens with thermal elements only, and combination microwave ovens is the same, DOE is proposing that the same test procedure amendments for standby and off mode testing, discussed in the sections below, be used for all of these product types. DOE welcomes comment on this determination and whether there are additional standby and off modes or other product features for each particular type of microwave oven that would require separate testing procedures.

B. Effective Date for the Test Procedure and Date on Which Use of the Test Procedure Would Be Required

As indicated above, EPCA requires that the microwave oven test procedure be amended to incorporate measurement of standby mode and off mode power by March 31, 2011. While DOE published a NOPR on October 17, 2008 and subsequently a final rule on April 8, 2009 for the appliance standards rulemaking, DOE determined it appropriate to consider the revised IEC Standard 62301 Second Edition, expected in July 2009, in determining whether to adopt energy conservation standards for the standby mode and off mode power consumption of microwave ovens. As noted in section I, DOE was later notified that the revised IEC Standard 62301 would not be available until late 2010, and determined to publish today's SNOPR to consider the new mode definitions from the language in IEC Standard 62301 CDV.

The effective date of the standby and off mode test procedures would be 30 days after the date of publication in the **Federal Register** of any final rule in this test procedures rulemaking. However, DOE's amended test procedure regulations codified in the CFR would clarify that the procedures and calculations proposed in today's SNOPR need not be performed to determine compliance with energy conservation standards until compliance with any final rule establishing amended energy conservation standards for microwave ovens in standby mode and off mode is required. However, the standby mode and off mode energy consumption test procedures would need to be used by manufacturers for making any representations on standby and off mode power consumption. Specifically, clarification would also be provided that, as of 180 days after publication of any test procedure final rule, any representations as to the standby mode and off mode energy consumption of the products that are the subject of this rulemaking would need to be based upon results generated under the applicable provisions of this test procedure. (42 U.S.C. 6293(c)(2))

AHAM suggested DOE harmonize its effective date with the 2013 effective date for a 1–Watt (W) standard in other countries (AHAM, Public Meeting Transcript, No. 7 at p.10), noting that many other countries are moving to 1–W standby requirements or targets for reporting, and the European Union (EU) is moving towards manufacturer self-reporting. AHAM stated that DOE's proposed standards are going to be one of the most stringent in the world (AHAM, Public Meeting Transcript, No. 7 at pp. 34–35), and as Europe is on the forefront of standby power guidelines and clarifications (AHAM, Public Meeting Transcript, No. 7 at p. 9), DOE must ensure that test procedures are as thorough and current as possible and capable of harmonization with international standards. (AHAM, No. 8 at p.1)

AHAM cited deficiencies in the proposed microwave oven test procedure and suggested that the test procedure be modified and reviewed based on the original timeline of March 31, 2011, for incorporation of standby power into kitchen ranges and ovens. This, AHAM suggested, would ensure that the test procedure is accurate and consistent across all products and within the international community. (AHAM, No. 8 at p. 4) GE and Whirlpool agreed with AHAM's comments regarding the status and condition of the proposed test procedure (GE, No. 9 at p. 2; Whirlpool, No. 10, at p.1), and Whirlpool also noted that the EU has promulgated a standard for standby and off mode energy consumption (1–W standby mode, 0.5–W off mode) using a draft of IEC Standard 62301, with an effective date of January 2013. Whirlpool asserted that consumers would benefit from lower product costs if manufacturers were able to plan for one harmonized effective date for standards in the United States and Europe. (Whirlpool, No. 10 at p.1)

As noted above, DOE determined it appropriate to consider the revised IEC Standard 62301 Second Edition, expected in July 2009, in developing energy conservation standards for microwave oven standby and off mode power consumption. DOE was later notified that the revised IEC Standard 62301 would not be available until late-2010 and, therefore, determined to consider the language from IEC Standard 62301 CDV. DOE noted that the EU recently enacted the Commission Regulation (EC) No. 1275/2008 of December 17, 2008, implementing design requirements for standby and off mode power for electrical and electronic household and office equipment, including microwave ovens. The regulation specifies the maximum allowable power consumption for standby mode and off mode with phased effective dates in 2010 and 2013. Although these international effective dates are not the basis for DOE's energy conservation standards rulemaking schedule for microwave ovens, DOE's determination to consider the language from IEC Standard 62301 CDV as this rulemaking proceeds will result in a methodology and an effective date which are harmonized to the extent possible with certain international standby and off mode standards.

GE commented that it could be difficult for manufacturers to meet the 1–W standard while providing consumer utility, especially for over-the-range units, which, according to GE,

cannot use Light Emitting Diode (LED) and Liquid Crystal Display (LCD) technologies. GE stated that the power consumption of LEDs varies as a function of what is illuminated, but Vacuum Fluorescent Displays (VFDs) have the same power draw even when the display is off. (GE, Public Meeting Transcript, No. 7 at p. 67) DOE plans to address issues regarding the technological feasibility and economic justification of proposed energy conservation standards for standby and off mode energy consumption for microwave ovens as part of the concurrent appliance standards rulemaking rather than this test procedure rulemaking.

The Joint Comment stated that deferring the microwave oven test procedure revision until after the finalization of the cooking products rule will result in the exclusion of subclasses of microwave ovens, which would imply that States could set efficiency standards for these products. The Joint Comment further stated that, in this case, some States may not realize these energy savings until 2020—the earliest effective date for a subsequent federal cooking products rulemaking—but cost-effective methods to reduce unnecessary standby consumption from microwave ovens are more immediately available. (Joint Comment, No. 11 at p. 2) As discussed above, DOE is considering energy conservation standards for microwave oven standby mode and off mode energy consumption in a concurrent rulemaking process.

C. Measures of Energy Consumption

Historically, DOE's microwave oven test procedure provided for the calculation of several measures of energy consumption, including cooking efficiency, energy factor (EF), and annual energy consumption, and DOE's rulemaking analyses have used EF as the energy conservation metric for microwave ovens.[6,7]

A number of commenters provided input on the integration of standby and off mode test procedures in response or the October 2008 TP NOPR, in which DOE proposed separate metrics (average standby mode power (P_{SB}) in W and average off mode power (P_{OFF}) in W, rather than EF) to measure standby mode and off mode power given the measurement variability in the active mode test procedure and related concerns. 73 FR 62134, 62139 (Oct. 17, 2008).

AHAM commented that it is not practical to include standby and off mode power into a single energy descriptor because standby power is a substantial fraction of the overall energy use of a microwave oven (AHAM, No. 8 at pp. 3–4), while the Joint Comment supported DOE's conclusion for a separate metric. (Joint Comment No. 11 at p. 4) Whirlpool agreed that, although a combination energy descriptor is arithmetically possible, such a metric would be illogical and should not be pursued. (Whirlpool, No. 10 at p. 1) PG&E commented that microwave ovens do not have high annual energy usage, and that the range of cooking efficiency between the best and the worst is only 5–7 percent; this implies that cooking efficiency is not a significant opportunity for regulation, but that standby efficiency is significant. (PG&E Public Meeting Transcript, No. 7 at p. 41)

ASAP also cited substantial problems with the test procedure for measuring cooking efficiency that have not yet been addressed, including a lack of repeatable and consistent results and the possibility that the challenge of dealing with cooking efficiency is being compounded by rating the cooking efficiency of combination ovens in their various cooking modes. (ASAP, Public Meeting Transcript, No. 7 at p. 25) PG&E noted that heat transfer in a microwave oven depends on the specific resistivity of the load, and that pure water has relatively low specific resistivity, and items that might be cooked in a microwave oven would have more salt and thus absorb microwave energy more efficiently than pure water. PG&E noted that, while water is easily obtainable for testing, using it probably results in lower cooking efficiency measurements than would be expected from using actual food products. (PG&E, Public Meeting Transcript, No. 7 at pp. 44–45)

DOE addressed the issues with the cooking efficiency measurement in its repeal of the active mode test procedure and notice announcing a public meeting to discuss the development of new active mode test procedure published elsewhere in today's **Federal Register**. DOE also believes that it is infeasible to specify a food load in the test procedure at this time. Specification of a food load would require additional analysis and inputs from interested parties to understand what a representative food load is and how to ensure consistency in food properties from test to test. DOE is unaware of any test procedures that have been developed that address the concerns with the DOE microwave oven cooking efficiency test procedure discussed above. DOE is also unaware of any research or data on consumer usage indicating what a representative food load would be, or any data showing how changes to the representative test load would affect the measured EF or repeatability of test results. For these reasons, DOE proposes only to establish the test procedure for microwave ovens to address standby mode and off mode energy consumption in today's SNOPR. However, DOE welcomes consumer usage data on representative food loads, as well as data indicating how changes to the test load would affect the measured EF and on the repeatability of such test results.

D. Incorporating by Reference IEC Standard 62301 for Measuring Standby Mode and Off Mode

EPCA, as amended by EISA 2007, requires that DOE consider the most current versions of IEC Standards 62301 and 62087 when amending test procedures to include standby mode and off mode energy consumption. (42 U.S.C. 6295(gg)(2)(A))

DOE noted in the October 2008 TP NOPR that IEC Standard 62301 provides for the measurement of standby power in electrical appliances, including microwave ovens, and, thus, is applicable to the proposed amendments to the test procedure. As discussed in more detail below, the SNOPR does not affect DOE's proposal of the clauses from sections 4 and 5 of IEC Standard 62301 identified in the October 2008 TP NOPR, but proposes to incorporate by reference two additional paragraphs in response to comments. DOE also reviewed IEC Standard 62087, which specifies methods of measurement for the power consumption of TV receivers, VCRs, set top boxes, audio equipment, and multi-function equipment for consumer use. IEC Standard 62087 does not, however, include measurement for the power consumption of electrical appliances such as microwave ovens. Therefore, DOE determined that IEC Standard 62087 was not suitable for the proposed amendments to the microwave oven test procedure for this rulemaking. 73 FR 62134, 62139 (Oct. 17, 2008).

In considering IEC Standard 62301, DOE noted that the microwave oven standby power data that AHAM provided to DOE for the energy conservation standards rulemaking were based on measurements of standby power in accordance with IEC Standard 62301, as were the data DOE gathered in response to interested parties'

[6] As stated previously, DOE published a final rule elsewhere in today's **Federal Register** repealing the active mode test procedure for microwave ovens because of measurement variations incurred through use of the test procedure.

[7] DOE previously defined microwave oven EF in 10 CFR 430.23 (i)(2) as the ratio of (Annual Useful Cooking Energy Output/Annual Total Energy Consumption), which was equivalent to microwave cooking efficiency (Test Energy Output/Test Energy Consumption).

comments on the framework document in that rulemaking. As stated in the October 2008 TP NOPR, DOE conducted a test program to analyze the suitability of IEC Standard 62301 for incorporation into the DOE microwave oven test procedure. Specifically, DOE sought to determine whether the IEC Standard 62301 test conditions and procedures would be suitable for incorporation into the DOE test procedure for microwave ovens to measure standby mode power use. Test data affirm that, with additional specifications added for test cycle duration and starting clock time, IEC Standard 62301 appears suitable for inclusion in the DOE test procedure for that purpose. 73 FR 62134, 62139 (Oct. 17, 2008).

In the October 2008 TP NOPR, DOE also considered harmonization of test procedures with international standby programs, such as the International Energy Agency (IEA) "1–Watt Plan." [8] DOE stated that it believes that incorporating IEC Standard 62301 into the DOE test procedure will provide harmonization with most international standards for standby power in microwave ovens. 73 FR 62134, 62140 (Oct. 17, 2008).

In the October 2008 TP NOPR, DOE also proposed incorporating specific clauses from IEC Standard 62301 by reference into the DOE test procedure for microwave ovens for the measurement of standby and off mode power. These clauses provide test conditions and testing procedures for measuring the average standby mode and average off mode power consumption: section 4 of IEC Standard 62301 provides conditions for the supply voltage waveform, ambient room air temperature, and power measurement meter tolerances to provide for repeatable and precise measurements of standby mode and off mode power consumption; and section 5 of IEC Standard 62301 clarifies the measurement of standby mode for units with a short-duration higher power state before a lower power state, and provides methods for measuring standby mode and off mode power when the power measurement is stable and unstable (*i.e.,* varies over a representative cycle). *Id.* Thus, DOE proposed incorporating the same clauses from IEC Standard 62301 for measuring both standby mode and off mode power consumption.

DOE also stated in the October 2008 TP NOPR that it believes that the proposed amendments to the microwave oven test procedure would provide a uniform and widely accepted test method for measuring standby mode and off mode power consumption. DOE also believes that the proposed amendments to the microwave oven test procedure would provide a method to measure the standby energy use of not just the clock display, but all microwave oven components, such as control electronics and power supply losses. *Id.*

Finally, DOE recognized that the IEC is developing an updated test procedure (IEC Standard 62301 Second Edition). As discussed above, DOE proposed microwave oven test procedure amendments using IEC Standard 62301 First Edition 73 FR 62314, 62140–41 (Oct. 17, 2008). DOE also stated in the October 2008 TP NOPR that the IEC projected publication of the new test procedure in July 2009. DOE now understands that the revised IEC test procedure is not expected to be published until late 2010. For purposes of the EPCA requirement to consider the most current version of IEC Standard 62301, therefore, DOE considered IEC Standard 62301 First Edition for the October 2008 NOPR and this SNOPR. (42 USC 6295(gg)(20(A).

AHAM supports the inclusion of Section 4 and Section 5 from IEC Standard 62301 into the measurement of standby power. (AHAM, Public Meeting Transcript, No. 7 at pp. 52–53), but commented that DOE does not specify how the microwave oven should be set up during testing. AHAM also noted that DOE references IEC Standard 62301 Paragraph 5.1 "General" and Paragraph 5.3 "Procedure," but neglects to reference Paragraph 5.2 "Preparation of Appliance or Equipment." AHAM asserted that this step is crucial to a robust procedure, and that DOE should accept the clarification from IEC Standard 62301, Section 5.2 that "[t]he appliance shall be tested at factory or 'default' settings. Where there are no indications for such settings, the appliance shall be tested as supplied." (AHAM, No. 8 at p. 3) The Joint Comment supported this recommendation. (Joint Comment, No. 11 at p. 4) GE also deemed the October 2008 TP NOPR unclear on how the unit should be set up for the standby measurement, and reinforced the importance of harmonizing with IEC Standard 62301. (GE, No. 9 at p. 3)

DOE agrees that incorporating paragraph 5.2, "Selection and preparation of appliance or equipment," of IEC Standard 62301 provides clarification to the installation requirements for standby mode and off mode energy consumption testing. DOE also agrees that paragraph 5.2 of IEC Standard 62301 provides additional guidance regarding specifications for test setup that would result in a measure of standby and off mode energy consumption that best replicates actual consumer usage. For these reasons, DOE proposes in today's SNOPR to incorporate by reference paragraph 5.2 of IEC Standard 62301.

PR China underscored the importance of taking into account the accuracy of the equipment providing electrical supply for testing; pointing out that IEC Standard 62301 has a provision that the electrical supply should be 120 volts (V) ± 1 percent and 60 Hertz (Hz) ± 1 percent. PR China also noted that, according to Article 2.4 of the World Trade Organization/Technical Barriers to Trade Agreement (WTO/TBT Agreement),[9] members should use existing technical regulations and international standards as a basis for their technical regulations. PR China recommended that DOE adopt the same requirements as those in IEC Standard 62301 or provide reasonable scientific basis for having different requirements. (PR China, No. 12 at p. 3)

DOE notes that section 4.3 of IEC Standard 62301 specifies the electrical supply requirements, stating that "where this standard is referenced by an external standard or regulation that specifies a test voltage and frequency, the test voltage and frequency so defined. Where the test voltage and frequency are not defined by an external standard, the test voltage and test frequency shall be * * *" 115 V ± 1 percent and 60 Hz ± 1 percent for North America. In addition, section 4.3 of IEC Standard 62301 specifies that some single phase voltages can be double the nominal voltage specified for that region, which would result in a voltage requirement of 230V ± 1 percent for North America. DOE believes that the accuracy of the electrical supply, including voltage and frequency, specified in IEC Standard 62301 are generally recognized as suitable for producing robust standby and off mode power measurements in microwave ovens. However, DOE conducted a product literature review to analyze the electrical supply requirements for microwave ovens available on the U.S. market and determined that all microwave ovens specify a rated voltage of 120V or 240V (for a small number of combination microwave ovens) and a frequency of 60 Hertz (Hz). For this reason, DOE proposes in today's SNOPR to specify electrical supply requirements of 120/240 V ± 1 percent

[8] For more information on IEA's "1–Watt Plan," visit *http://www.iea.org/textbase/subjectqueries/standby.asp.*

[9] For more information on this agreement, please visit: *http://www.wto.org/english/tratop_e/tbt_e/tbtagr_e.htm.*

and 60 Hz ± 1 percent in section 2.2.1 of the DOE microwave oven test procedure. As noted in section 4.3 of IEC Standard 62301, the proposed voltage requirement of 120/240 V for standby and off mode testing would supersede the requirement of 115/230 V specified in IEC Standard 62301.

As discussed above in section III.A, because DOE has tentatively concluded that the operation in standby and off mode is the same for microwave-only units, microwave ovens with thermal elements only, and combination microwave ovens, DOE is proposing that the same test procedure amendments for standby and off mode testing discussed in this section be used for all of these product types.

E. Definitions of "*Active Mode,*" "*Standby Mode,*" *and* "*Off Mode*"

DOE proposed using the EPCA definitions of "active mode," "standby mode," and "off mode" in the October 2008 TP NOPR. EPCA defines "standby mode" as the condition in which an energy-using product is connected to a main power source and offers one or more of the following user-oriented or protective functions: A remote switch (including remote control), internal sensor, or timer to facilitate the activation or deactivation of other functions (including active mode; and continuous functions, including information or status displays (including clocks) or sensor-based functions. (42 U.S.C. 6295(gg)(1)(A)(iii))

EPCA defines "off mode" as the condition in which an energy-using product is connected to a main power source and is not providing any standby mode or active mode function. (42 U.S.C. 6295(gg)(1)(A)(ii))

EPCA defines "active mode," which is referenced in the definition of "off mode," as the condition in which an energy-using product is connected to a main power source, has been activated, and provides one or more main functions. (42 U.S.C. 6295(gg)(1)(A)(i))

As discussed in the October 2008 TP NOPR, DOE considers "main functions" for a microwave oven to be those operations in which the magnetron and/or thermal element is energized for at least a portion of the time for purposes of heating, cooking, and/or defrosting the load. 73 FR 62134, 62141 (Oct. 17, 2008). DOE noted that a microwave oven with a continously energized display or cooking sensor, or a microwave oven that automatically powers down certain energy-consuming components after a cooking cycle and waits to detect an event to trigger re-energization of these components, would be considered capable of operation in standby mode but not off mode. DOE additionally noted that if the microwave oven is equipped with a manual power on/off switch, which completely cuts off power to the appliance (*i.e.,* removes or interrupts all connections to the main power source, in the same manner as unplugging the appliance), the microwave oven would not be in the "off mode" when the switch is in the "off" position. *Id.*

AHAM and Whirlpool both stated that DOE's incorporation of the EISA 2007 standby and off mode definitions into the proposed microwave oven test procedure does not acknowledge the substantial effort and progress made by the IEC in clarifying these definitions during the past year. AHAM affirmed that IEC Standard 62301 CD2, even in draft form, should be included in this rulemaking to ensure that international consistency in standards and testing is obtained to the greatest extent practical. AHAM further stated that DOE can clarify the EISA 2007 language using IEC Standard 62301 CD2, which would result in a stronger, more consistent test procedure. (AHAM, No. 8 at p. 2; Whirlpool, No. 10 at p. 2) Whirlpool noted that EISA 2007 (Section 310 (gg)(1)(B)) allows the Secretary to amend the definitions of standby mode and off mode, taking into account revisions to IEC Standard 62301, and suggested DOE adopt IEC Standard 62301 CD2, along with the definitions and examples proposed by AHAM and Whirlpool, as discussed in section III.E. (Whirlpool, No. 10 at pp. 2–3) EJ disputed DOE's assumption that it cannot consider any pending amendments to IEC Standard 62301. (EJ, Public Meeting Transcript, No. 7 at p. 80) PG&E supports harmonization with international standards because of the international markets for these products. (PG&E, Public Meeting Transcript, No. 26 at p. 35) PR China suggested DOE amend its testing measures in accordance with IEC Standard 62301 or provide reasonable scientific basis for not doing so, noting that this is in accordance with Article 2.4 of the TWO/TBT Agreement. PR China suggested the U.S. government further harmonize standards in order to facilitate international trade. (PR China, No. 12 at p. 4)

AHAM commented that IEC Standard 62301 CD2 modernizes and clarifies the definitions for each mode, and proposed that DOE consider incorporating this language, or the clarifications AHAM provided in its submitted comments, into the DOE microwave oven test procedure (AHAM, No. 8 at pp. 2, 4, 5–6) Whirlpool supported the mode definitions and clarifying examples developed by AHAM members. (Whirlpool, No. 10 at pp. 2–3) AHAM stated that the industry's premise for this proposal is harmonization with the international community—in particular, Europe—on standby power standards. AHAM stated that its proposal utilizes elements of IEC Standard 62301 CD2 and the European directive published in June 2008 and provides clarification to EISA 2007 requirements for microwave ovens. (AHAM, No. 8 at p. 2) AHAM's proposed definitions include:

Off Mode

Off mode describes the status of an appliance when it is connected to the main electricity supply and is not providing any function. Off mode may persist for an indefinite period of time.

Off Mode includes:

1. LED or some other indication of off mode condition;

2. Electric noise reduction capacitor, choke or filter;

3. The state where a one-way remote control device will turn the product off, but cannot be used to activate the product;

4. Leakage current will occur in some appliances, and may include voltage and current flow in 208/230 volt appliances where only one leg of the line is isolated by the switch;

5. May include electrical energy flow to a primary transformer of some electronics units.

Standby Mode

Standby mode describes the status of an appliance when it is connected to the mains electricity supply and is not performing its primary function, but is providing a consumer or protective function as defined by the manufacturer's instructions. Standby mode for an appliance is the power (wattage) consumed after it has been automatically or manually placed in Standby mode and allowed to stabilize. Standby mode may persist for an indefinite period of time. Standby mode may allow activation of other modes by local or remote switch.

Standby Mode includes continuous subsidiary functions such as:

1. Continuous time of day displays at the lowest power state selectable by the user;

2. Power required to perform two-way consumer convenience remote control operation;

3. Sensor maintenance power (keeping sensors warm) at the lowest power state selectable by the user;

4. Low voltage power supplies for controls, switches, memories and clocks.

Active Mode

Active mode describes the state of an appliance when it is connected to the main electricity supply and is providing

one or more of the primary functions required of it by the consumer in accordance with the manufacturer's instructions. Active modes may or may not persist for an indefinite period of time, but must be initially activated by the consumer.

Active Mode includes:

1. Washing or drying clothing; heating, cooking or warming food; heating or cooling air; heating or cooling water; cleaning, drying, or warming dishes; disposing of food; compacting trash; dehumidifying, vacuuming, brewing coffee, ironing clothes, toasting bread, or any other traditional task expected of a home appliance.

2. Preparing to start a cycle or appliance program while in a delay start or a timed control format when required;

3. Waiting for a resume signal when in a "pause" mode in the midst of a program or cycle;

4. Receiving or searching for signals from power or utilities companies as part of an energy management or demand management system;

5. Cycling heaters or other components based upon input from time, temperature, or other internal, or external control sensors;

6. Maintaining a temperature or condition;

7. Providing lighting, or ventilation when required by the consumer or as a result of an action. [This includes night lights, over the range (over-the-range) microwave oven lights, dryer drum lights, etc.]

8. Continuous protective (safety) functions (e.g. water leakage detectors).

9. Actively completing safety or reliability functions such as removing residual heat from controls or ovens, automatic fans used to protect over-the-range microwave ovens from cooktop heat, cleaning filters, etc. [These functions are considered active in that they are a result of the requirements placed upon the appliance by the consumer.]

(AHAM, No. 8 at pp. 5–6)

The Joint Comment supported DOE's proposal in the October 2008 TP NOPR to use the EPCA definitions of active mode, off mode, and standby mode for the microwave oven test procedure, noting that these definitions were enacted the previous year with the explicit support of AHAM and efficiency advocates, and opposed AHAM's proposed definitions and clarifications. The Joint Comment stated that the revisions proposed by AHAM constitute a significant re-write of the statutory scheme, with an apparent bias toward redefining standby functions as off mode functions or active mode functions. (Joint Comment, No. 11 at pp. 2–3) According to the Joint Comment:

1. An LED display light and the power drawn to enable a remote control device to turn the product off are both standby functions rather than off mode functions.

2. The components of a protective function, such as controlling electronic noise, fall within the statutory definition of standby mode, rather than off mode.

3. The continuous protective functions and the search for utility demand management signals to resume activity, both proposed by AHAM as active mode functions, are more properly considered standby functions under the statute. *Id.*

The Joint Comment stated that designating power consuming activities as off mode rather than standby mode for reasons of harmonization is problematic in this rulemaking because DOE has proposed an efficiency standard for microwave oven standby power without concurrently proposing a standard for off mode power. The Joint Comment also stated that the lack of an off mode efficiency standard invites gaming the standby standard, a process that it believes will gain significant traction if the AHAM recommendations for modified definitions are accepted. The Joint Comment also stated that AHAM's language qualifying that the continuous time of day displays and sensor maintenance power should be measured at the lowest power state selectable by the user is not required by statute and should not be accepted by DOE. (Joint Comment, No. 11 at pp. 3–4)

In response to the Joint Comment as it relates to the test procedure rulemaking and as discussed in section I, after the October 2008 TP NOPR was published, DOE determined it appropriate to consider IEC Standard 62301 Second Edition in developing the test procedure for standby and off mode. DOE anticipated, based on review of drafts of the updated IEC Standard 62301, that the revisions could include different mode definitions. At that time, the revised standard was expected in July 2009. Later, however, DOE received information that IEC Standard 62301 Second Edition would not be available until late 2010. As a result, DOE decided to publish today's SNOPR to consider the new mode definitions from the latest draft version, IEC Standard 62301 CDV.

DOE believes the definitions of standby mode, off mode, and active mode provided in IEC Standard 62301 CDV expand upon the EPCA mode definitions and provide additional guidance as to what functions are associated with each mode. DOE also believes that the comments received by IEC on IEC Standard 62301 CD2, and the resulting amended mode definitions proposed in IEC Standard 62301 CDV, demonstrate significant participation of interested parties in the development of the best possible definitions. For these reasons, in today's SNOPR DOE is proposing definitions of standby mode, off mode, and active mode based on the definitions provided in IEC Standard 62301 CDV. DOE believes that the mode definitions in the draft versions of IEC Standard 62301 Second Edition represent a substantial improvement over those in IEC Standard 62301, and represent the best available definitions at this time as confirmed by the review and inputs from interested parties as part of the IEC rulemaking process. For the reasons discussed in section III.A, DOE believes that the proposed definitions of standby, off, and active mode in today's SNOPR would be applied to microwave-only units, microwave ovens with thermal elements only, and combination microwave ovens. DOE will address standards for standby mode and off mode energy use in a separate energy conservation standards rulemaking, as discussed in section I.

DOE is proposing in today's SNOPR to define "standby mode" as the condition in which an energy-using product is connected to a mains power source and offers one or more of the following user oriented or protective functions which may persist for an indefinite time: [10] a remote switch (including remote control), internal sensor, or timer to facilitate the activation of other modes (including activation or deactivation of active mode); and continuous functions, including information or status displays (including clocks) or sensor-based functions.

DOE is proposing an additional clarification for standby mode that continuous clock functions include a timer that operates continuously, provides regular scheduled tasks (*e.g.* switching), and may or may not be

[10] The actual language for the standby mode definition in IEC Standard 62301 CDV describes "* * * user oriented or protective functions which usually persist" rather than "* * * user oriented or protective functions which may persist for an indefinite time." DOE notes, however, that section 5.1 of IEC Standard 62301 CDV states that "a mode is considered persistent where the power level is constant or where there are several power levels that occur in a regular sequence for an indefinite period of time." DOE believes that the proposed language, which was originally included in IEC Standard 62301 CD2, encompasses the possible scenarios foreseen by section 5.1 of IEC Standard 62301 CDV without unnecessary specificity.

associated with a display. This definition was developed based on the definitions provided in IEC Standard 62301 CDV, and expands upon the EPCA mode definitions to provide additional clarifications as to which functions are associated with each mode. Under this definition of standby mode, remote controls and low voltage power supplies for controls, switches, memories and clocks would be considered as operating in standby mode. DOE believes that a requirement for measuring standby power at "the lowest power state selectable by the user" is inconsistent with the proposed conditions for measuring standby mode because such a provision would potentially require the device to be operated at settings other than the "factory or 'default' settings" specified for testing in paragraph 5.2 of IEC Standard 62301. Therefore, DOE does not intend to incorporate such a provision in the definition of standby mode.

DOE is proposing to define off mode as the condition in which the energy-using product is connected to a mains power source, is not providing any active or standby mode function, and may persist for an indefinite time.[11] Off mode would also include an indicator that shows the user only that the product is in the off position.

Under this proposed definition, an energized LED or other indication that shows the user only that the product is in the off position would be considered part of off mode, provided that no other standby or active mode functions are energized. However, if any energy is consumed by the appliance in the presence of a one-way remote control, the unit would be considered to be operating in standby mode because the remote control would be used to deactivate other mode(s). Electrical leakage and any energy consumed for electrical noise reduction, which are not specifically categorized as standby power functions, would be indicative of off mode.

Whirlpool commented that the addition of off mode to the proposed rule is necessary to ensure that all power consumption is properly accounted for (Whirlpool, No. 10 at p. 2), and questioned the need to differentiate between an electromechanical control versus a manual operation that puts the microwave oven into off mode, because power may not be consumed by either option. (Whirlpool, Public Meeting Transcript, No. 7 at pp. 57–58) PG&E noted that there may be some small power demand in the off mode, and commented that if the power demand were zero because the electromechanical control was receiving no power, then the appliance would technically be in the disconnected mode and not the off mode. PG&E subsequently noted that there is no clear distinction between off mode and disconnected mode, especially in situations where a device is equipped with a manual on/off switch. (PG&E, Public Meeting Transcript, Notice, No. 7 at pp. 58–59)

ASAP stated that DOE's definition of off-mode is stretching the interpretation of the statutory language, and did not agree that zero power (*e.g.* plugged in but turned off with a switch) would necessarily indicate disconnected mode rather than off mode. ASAP asserted that the language regarding off mode was placed into law to clarify definitions for consumers and manufacturers, and to facilitate DOE in setting standards for products that were not off when consumers thought they were off. (ASAP, Public Meeting Transcript, No. 7 at pp. 60–61) Additionally, ASAP inquired whether it is correct that testing is required for a device with off mode capability even though there is no reporting requirement or standard. (ASAP, Public Meeting Transcript, No. 7 at pp. 77–79)

The Joint Comment further stated that the October 2008 TP NOPR erred in stating that a microwave oven with a manual power on/off switch would not be in off mode when the switch was in the off position because the switch's physical gap to the main power supply has interrupted the electrical connection. The Joint Comment asserted that this interpretation is not required by law, which only refers to a product "connected to a main power source", and term "connected" should be satisfied by the product being plugged into a power source. (Joint Comment, No. 11 at p. 2) The Joint Comment noted that the significance of distinguishing the off mode is limited in the test procedure rulemaking, but more important in the efficiency standard rulemakings that address off mode. The Joint Comment also stated that products with hard-off switches should be accounted for in the off mode condition, and such a design option would allow consumers to reduce energy use and increase their overall energy savings. According to the Joint Comment, DOE's "mischaracterization" of the off-mode definition will discourage manufacturers from reintroducing mechanical switches that could reduce or eliminate off-mode power consumption from their products. (Joint Comment, No. 11 at p. 3)

DOE examined the issue of how to classify a microwave oven that is plugged in to the main power supply but is not consuming energy due to the presence of an on/off switch. DOE first reviewed the discussion provided in annex A of IEC Standard 62301 CDV; according to section A.2, disconnected mode is included as a mode definition because many products are removed by users from mains power sources for substantial periods of time. DOE interprets this condition to refer to the power cord being unplugged from the power source. Section A.2 further states that "[a] product may have several off modes or it may have no off mode. Switches on products that are labeled as power, on/off or standby may not reflect the mode classification based on the actual functions active in that mode." Although this statement does not definitively establish a means by which to treat the presence of a power or on/off switch, DOE infers it to mean that products equipped with such switches can operate in off or standby mode(s), depending on what components may remain energized with the switch in the "off" position. However, this discussion is silent on whether activation of an on/off switch can place the product in disconnected mode. Considering section A.2 in total, DOE concludes that disconnected mode for microwave ovens would be associated only with the removal of the power cord from the power source. Based on this review and acknowledging that classification of an on/off switch as operating in off mode in the absence of other energy use associated with standby mode would encourage manufacturers to provide such an energy-saving feature, DOE revises its determination proposed in the October 2008 TP NOPR and tentatively concludes that zero energy consumption due to activation of an on/off switch would be indicative of off mode rather than a disconnected mode.

In response to ASAPs question of whether testing would be required for a device with off mode capability even though there is no reporting requirement or standard, DOE notes, as discussed in section III.B, that any representations as to the standby and off

[11] As with the definition for standby mode, IEC Standard 62301 CDV qualifies off mode as one that "* * * usually persists" rather than one that "* * * may persist for an indefinite time." For the same reasons as discussed for standby mode, DOE is proposing the latter definition. In addition, the off mode definition in IEC Standard 62301 states it is not providing a network mode function. Since DOE is unaware of any microwave oven that incorporates a network function, such as reactivation via network command or network integrity communication, it is not proposing to include this language in the definition of off mode in today's SNOPR.

mode energy consumption for microwave ovens would need to be based upon results generated under the applicable provisions of this test procedure.

Finally, DOE is proposing to define active mode as the condition in which the energy-using product "is connected to a mains power source, has been activated, and provides one or more main functions," with the additional clarification that "delay start mode is a one off user initiated short duration function that is associated with an active mode." DOE notes that IEC Standard 62301 CD2 provided additional clarification that "delay start mode is a one off user initiated short duration function that is associated with an active mode." IEC Standard 62301 CDV eliminated this clarification; however, in response to comments on IEC Standard 62301 CD2 that led to IEC Standard 62301 CDV, IEC stated that delay start mode is a "one-off" function of limited duration, which suggests that IEC does not consider it as part of standby mode although no conclusion is made as to whether it would be considered part of active mode.

DOE is tentatively proposing to consider delay start mode as part of active mode because it is a condition of finite duration that is user-initiated and uniquely associated with a cooking cycle. DOE determined that cooking or warming of food would be considered active mode functions as well. DOE does not believe that it has sufficient information on the remainder of the conditions specified by AHAM as part of active mode for microwave ovens to determine whether the conditions should be classified as such under the proposed definition of active mode. However, DOE believes that many of these functions may not persist for an indefinite time and, therefore, would not be considered part of standby mode or off mode. DOE invites information and comments on specific functions that would be associated with microwave oven active mode.

DOE also notes that section 3.9 of IEC Standard 62301 CDV defines disconnected mode, as "the status in which all connections to mains power sources of the energy using product are removed or interrupted." IEC Standard 62301 CDV also adds a note that common terms such as "unplugged" or "cut off from mains" also describe this mode, and that this mode is not part of the low power mode category. DOE believes that there would be no energy use in a "disconnected mode," and therefore is not proposing a definition or testing methods for such a mode in the DOE test procedure for microwave ovens.

F. Specifications for the Test Methods and Measurements for Microwave Oven Standby Mode and Off Mode Testing

DOE noted in the October 2008 TP NOPR that, because IEC Standard 62301 is written to provide a certain degree of flexibility so that the test standard can be used to measure standby mode and off mode power for most household electrical appliances (including microwave ovens), it does not specify the test method for measuring the power consumption in cases in which the measured power is not stable. Section 5.3.2 of IEC Standard 62301 states that "[i]f the power varies over a cycle (*i.e.,* a regular sequence of power states that occur over several minutes or hours), the period selected to average power or accumulate energy shall be one or more complete cycles in order to get a representative average value." 73 FR 62134, 62141 (Oct. 17, 2008). For the October 2008 TP NOPR, DOE investigated the possible regular sequences of power states for microwave ovens in order to propose clarifying language to IEC Standard 62301 that would provide accurate and repeatable test measurements. DOE's testing of standby power led it to propose the test period in cases in which the power is not stable as "a 12-hour ± 30-second period" to assure comparable and valid results. *Id.*

AHAM and Whirlpool agreed with DOE's conclusion that a 12-hour test period would measure all possible configurations for a 12-hour clock, but commented that such an approach is impractical and costly and would be a constraint on resources, including laboratory space and time. (Whirlpool, Public Meeting Transcript, No. 7 at pp. 70–71; AHAM, Public Meeting Transcript, No. 7 at pp. 69–70) Whirlpool commented that running a 12-hour test would be a huge drain on facilities and would require substantial investment to expand those facilities, adding that their testing is done on the production line in order to assure product quality. (Whirlpool, Public Meeting Transcript, No. 7 at pp. 70–71) AHAM and Whirlpool commented that the test period of 12 hours ± 30 seconds should only apply to displays where the power consumption varies within the number of segments lit, such as LEDs. (Whirlpool, No. 10 at p. 3; AHAM, No. 8 at p. 3) ASAP also questioned if the 12-hour test would be required for all units, or whether it would just be for units with LED displays. (ASAP, Public Meeting Transcript, No. 7 at pp. 74–45) ASAP requested responses from manufacturers about the difficulty in obtaining a representative standby power measurement due to the clock start time, and asked if it is possible to use a shorter interval that could be multiplied to obtain the equivalent of a 12-hour measurement. (ASAP, Public Meeting Transcript, No. 7 at p. 72)

AHAM and Whirlpool also disagreed with DOE's statement that the proposed test procedure "obviates the need for a specific starting time, which could not be ensured for microwave ovens that have an automatic power-down feature." AHAM and Whirlpool commented that IEC Standard 62301 states that a product's standby power should be measured in its low power state, so if a display powers down, then the microwave oven should be allowed to stabilize until the unit powers down, and then standby power is measured. AHAM and Whirlpool stated that the benefit of a 12-hour test is unclear, as there is no need to capture power usage during the power down mode. (AHAM, No. 8 at p. 3; Whirlpool, No. 10 at p. 4) AHAM also commented that if a microwave oven powers down, the display would no longer be powered, so the starting clock time does not matter. (AHAM, Public Meeting Transcript, No. 7 at p. 69)

The Joint Comment responded to AHAM's comments, stating that since there is no assurance regarding the length of time a unit with power down capability might require to power down to a stable state, the Joint Comment supports DOE's approach of a 12-hour test period, which would more realistically capture standby energy use by measuring the energy consumed in standby both before and after the device powers down. The Joint Comment also stated that it is open to considering a shorter test cycle as long as comparative testing shows that energy use is the same. Absent such testing, The Joint Comment supports DOE's proposal for a 12 hour ± 30 second test period where the unit's power consumption is not stable. (Joint Comment, No. 11 at p. 4)

Whirlpool and AHAM stated that the number of segments of 7-segment LEDs lit over 12 hours can be averaged, and there are 10-minute periods that are representative of the 12-hour cycle, which DOE should consider using instead of the 12-hour cycle. Whirlpool added that using these 10-minute periods would yield the same results as taking a 12-hour average, but would be much faster. (Whirlpool, Public Meeting Transcript, No. 7 at pp. 72–73; AHAM, Public Meeting Transcript, No. 7 at p. 69) GE supported a 10-minute test for establishing a baseline, and agreed that a 12-hour test of three of each model is

difficult. (GE, Public Meeting Transcript, No. 7 at pp. 71–72) AHAM and Whirlpool proposed the following method for determining standby power on a unit with a display:

If the appliance has a clock that is displayed in Standby Mode and the clock does not result in any power fluctuations, standby power will be measured for at least 10 minutes. If the appliance has a clock that is displayed in Standby Mode and changes in the display segments affects the power measurements, the clock will be set to allow the testing to begin at 3:33 and the unit stabilized as specified above. Average or accumulated energy (based on Section 5.3.2 of IEC 62301 2007 CD2, see below) will be measured from 3:33 through 3:42 (10 full minutes) following the general conditions for measurement outlined in Section 4 of IEC 62301 Ed.2 CD2. This specific 10 minute interval provides the same average number of display segments as a 12-hour measurement period (14.6). (AHAM, No. 8 at p. 3; Whirlpool, No. 10 at p. 4)

ASAP suggested setting the clock at 1:11 for the standby power test. (ASAP, Public Meeting Transcript, No. 7 at p. 68) As noted above, the Joint Comment stated that it is open to considering a shorter test cycle as long as comparative testing shows that energy use is the same, and absent such testing, the Joint Comment supports DOE's proposal for a 12 hour ± 30 second test period where the unit's power consumption is not stable. (Joint Comment, No. 11 at p. 4)

DOE investigated tests method to determine standby power over a shorter period than 12 hours. DOE first evaluated using 18 different clock display times to produce a standby power measurement representative of a 12-hour cycle, as discussed in appendix 5B of the November 2007 ANOPR technical support document (TSD). Using this method, the standby power consumption and line voltage are measured as the clock is cycled through all the possible digit combinations (in terms of active elements) and then a regression analysis is performed to quantify the impact of the number of lit elements (by digit) and voltage on power consumption. The results were then integrated across the number of minutes that each active element combination is "on" through the course of the 12 hours. As noted in chapter 5 of the November 2007 ANOPR TSD, the results for average standby power consumption using the methodology described above produced results that were within 1 to 2 percent of the 12 hour test results.

For this SNOPR, DOE also investigated whether a single 10-minute measurement period with a starting clock time of 3:33, as suggested by AHAM and Whirlpool, would be a reasonable proxy for the 12-hour standby power measurement in the event that power consumption is not stable. DOE analysis indicates that the proportion of time that each possible number of segments in a 7-segment LED display that are lit over the 10-minute time period from 3:33 to 3:42 is representative of the distribution of lit segments over a 12-hour period with an arbitrary starting time. This suggests that the 10-minute test period starting at 3:33 would produce average standby power measurements that are comparable to average standby power measured over 12 hours. Table 1 shows the comparison of average standby power measured for 11 units in DOE's microwave oven test sample using the 18-point, and 10-minute methodologies as compared to the 12-hour test.

TABLE 1—COMPARISON OF METHODOLOGIES FOR MEASURING MICROWAVE OVEN STANDBY POWER

Test Unit	Display type	12-Hour Method	18-Point Method		10-Minute Method	
		Standby watts*	Standby watts*	Percent difference	Standby watts*	Percent difference
1	LCD	1.567	1.552	−0.99	1.592	1.60
2	LCD	1.571	1.560	−0.70	1.554	−1.08
3	LCD	1.812	1.812	0.03	1.801	−0.61
4	LCD	1.490	1.475	−0.96	1.492	0.17
5	LCD	1.859	1.847	−0.60	1.874	0.84
6	LCD	3.788	3.798	0.26	3.818	0.81
7	LCD	3.641	3.642	0.04	3.606	−0.95
8	LED	1.802	1.796	−0.35	1.797	−0.32
9	LED	1.825	1.820	−0.25	1.816	−0.47
10	LED	3.185	3.177	−0.27	3.290	**3.28
11	VFD	5.600	5.611	0.20	5.607	0.13

* Standby power measurements are scaled to normalize the supply power to 120.0 volts.
** For this test, the supply power was significantly different than 120.0 volts. Therefore, DOE believes the scaling of the measured standby power and thus the percentage difference from the 12-hour standby power measurement are not valid.

Within DOE's limited test sample, the average standby power measured over the specified 10-minute test period agrees within 2 percent with average standby power measured over 12 hours. Therefore, DOE tentatively concludes that a 10-minute measurement period with a starting time of 3:33 provides a valid measure of standby energy use for those microwave ovens with power consumption varying according to the time displayed on the clock. DOE proposes in today's SNOPR to specify that, for microwave ovens for which standby power consumption is not stable, the clock display shall be set at 3:33 at the conclusion of the stabilization period and the test period shall be 10 minutes.

DOE recognizes that both the 18-point and 10-minute approaches for accelerated standby testing offer the possibility that a microwave oven could be programmed to alter its behavior when such a test is detected in order to minimize measured standby power consumption. For example, a microwave oven could be programmed to turn off its cooking sensors and/or dim its display only during the display times associated with the 18 measurement points or between display times 3:33 and 3:42.

DOE notes that the microwave oven test procedure is designed to provide a measurement consistent with representative average consumer use of the product, even if the test conditions and/or procedures may not themselves all be representative of average consumer use (*e.g.* a display of only 3:33 to 3:42). DOE's proposal reflects the statutory requirement, and the Department's longstanding view, that the overall objective of the test

procedure is to measure the product's energy consumption during a representative average use cycle or period of use. 42 U.S.C. 6293(b)(3). Further, the test procedure requires specific conditions during testing that are designed to ensure repeatability while avoiding excessive testing burdens. Although certain test conditions specified in the test procedure may deviate from representative use, such deviations are carefully designed and circumscribed in order to attain an overall calculated measurement of the energy consumption during representative use. Thus, it is—and has always been—DOE's view that products should not be designed such that the energy consumption drops during test condition settings in ways that would bias the overall measurement to make it unrepresentative of average consumer use. DOE proposes to address this issue through this test procedure and related certification requirements. Accordingly, DOE's proposed language both (1) makes explicit in the regulatory text the Department's long held interpretation that the purpose of the test procedure is to measure representative use and (2) proposes a specific mechanism—the waiver process—as a mandatory requirement for all products for which the test procedure would not properly capture the energy consumption during representative use.

DOE seeks comment on this proposed language to address products equipped with controls or other features that modify the operation of energy-using components during testing. The language does not identify specific product characteristics that could make the test procedure unsuitable for testing certain products (*e.g.* modification of operation based on display time) but rather describes such characteristics generally, in order to assure that the language can apply to any potential features that would yield measurements unrepresentative of the product's energy consumption during a representative use cycle.

Regarding test burden, DOE believes that the number of units to be tested according to the sampling requirements in 10 CFR 430.24(i) is reasonable and, with a 5-minute stabilization period and a 5-minute or 10-minute test time depending on whether the standby power consumption is stable, would not substantially add to manufacturer test burden and would allow manufacturers that conduct testing on the production line in order to assure product quality to continue to do so.

G. Other Issues

DOE proposed in the October 2008 TP NOPR to change the value of a conversion factor, used in the microwave oven active mode calculations to correct an erroneous value. 73 FR 62134, 62141–42 (Oct. 17, 2008). AHAM and Whirlpool supported DOE's proposed technical correction to the conversion factor. (AHAM, No. 8 at p. 4; Whirlpool, No. 10 at p. 4) Because the active mode provisions were removed from the microwave oven test procedure in the final rule published elsewhere in today's **Federal Register**, the need for the technical correction is obviated and no such amendments are proposed in today's SNOPR.

H. Compliance With Other EPCA Requirements

Section 323(b)(3) of EPCA requires that test procedures shall be reasonably designed to produce test results which measure energy efficiency, energy use or estimated annual operating cost of a covered product during a representative average use cycle or period of use. Test procedures must also not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3))

DOE stated in the October 2008 TP NOPR that it believes that the incorporation of clauses regarding test conditions and methods in IEC Standard 62301, along with the modifications described above, would satisfy this requirement. DOE also noted that the proposed amendments to the DOE test procedure incorporate a test standard that is widely used and accepted internationally to measure standby power in standby mode and off mode. Based on DOE testing and analysis of IEC Standard 62301, DOE determined in the October 2008 TP NOPR that the proposed amendments to the microwave oven test procedure produce standby mode and off mode average power consumption measurements that represent an average use cycle both for cases in which the measured power is stable and when the measured power is unstable (*i.e.,* varies over a cycle). DOE also stated that the test methods and equipment that the amendments would require for measuring standby power in microwave ovens do not differ substantially from the test methods and equipment in the then-current DOE test procedure for measuring microwave oven cooking efficiency, and therefore manufacturers would not be required to make a major investment in test facilities and new equipment. For these reasons, DOE concluded in the October 2008 TP NOPR that the amended test procedure would produce test results that measure the power consumption of a covered product during a representative average use cycle as well as annual energy consumption, and that the test procedure would not be unduly burdensome to conduct. 73 FR 62134, 62142 (Oct. 17, 2008).

For similar reasons to those stated above, the proposed amendments in today's SNOPR to measure the standby and off mode power consumption of microwave ovens would also not require manufacturers to make major investments in test facilities and new equipment and would not be unduly burdensome to conduct. In addition, today's SNOPR proposes a significantly shorter test duration than the 12 hours that was proposed in the October 2008 TP NOPR.

IV. Procedural Requirements

A. Review Under Executive Order 12866

Today's regulatory action is not a "significant regulatory action" under section 3(f) of Executive Order 12866, Regulatory Planning and Review, 58 FR 51735 (Oct. 4, 1993). Accordingly, this action was not subject to review under the Executive Order by the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget (OMB).

B. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires preparation of an initial regulatory flexibility analysis for any rule that by law must be proposed for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. As required by Executive Order 13272, "Proper Consideration of Small Entities in Agency Rulemaking,"67 FR 53461 (August 16, 2002), DOE published procedures and policies on February 19, 2003, to ensure that the potential impacts of its rules on small entities are properly considered during the rulemaking process. 68 FR 7990. DOE's procedures and policies may be viewed on the Office of the General Counsel's Web site (*http://www.gc.doe.gov*). DOE reviewed today's proposed rule under the provisions of the Regulatory Flexibility Act and the procedures and policies published on February 19, 2003.

In conducting this review, DOE first determined the potential number of affected small entities. The Small Business Administration (SBA) considers an entity to be a small business if, together with its affiliates, it

employs fewer than the threshold number of workers specified in 13 CFR part 121 according to the North American Industry Classification System (NAICS) codes. The SBA's Table of Size Standards is available at: *http://www.sba.gov/idc/groups/public/documents/sba_homepage/serv_sstd_tablepdf.pdf.* The threshold number for NAICS classification 335221, *Household cooking appliance manufacturers,* which includes microwave oven manufacturers, is 750 employees. DOE surveyed the AHAM member directory to identify manufacturers of microwave ovens. In addition, as part of the appliance standards rulemaking, DOE asked interested parties and AHAM representatives within the microwave oven industry if they were aware of any small business manufacturers. DOE consulted publicly available data, purchased company reports from sources such as Dun & Bradstreet, and contacted manufacturers, where needed, to determine if they meet the SBA's definition of a small business manufacturing facility and have their manufacturing facilities located within the United States. Based on this analysis, DOE understands that only multinational companies with more than 750 employees, and their wholly owned subsidiaries, exist in this industry. As a result, DOE does not expect any small businesses to be impacted by the proposed rule.

For these reasons, DOE tentatively concludes and certifies that the proposed rule would not have a significant economic impact on a substantial number of small entities. Accordingly, DOE has not prepared a regulatory flexibility analysis for this rulemaking. DOE seeks comment on this certification and will transmit the certification and supporting statement of factual basis to the Chief Counsel for Advocacy of the SBA for review under 5 U.S.C. 605(b).

C. Review Under the Paperwork Reduction Act of 1995

This rule contains a collection-of-information requirement subject to the Paperwork Reduction Act (PRA) which has been approved by OMB under control number 1910–1400. Public reporting burden for compliance reporting for energy and water conservation standards is estimated to average 30 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate, or any other aspect of this data collection, including suggestions for reducing the burden, to DOE (see **ADDRESSES**) and by e-mail to *Christine_J._Kymn@omb.eop.gov.*

Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA, unless that collection of information displays a currently valid OMB Control Number.

D. Review Under the National Environmental Policy Act of 1969

In this proposed rule, DOE proposes test procedure amendments that it expects will be used to develop and implement future energy conservation standards for microwave ovens. DOE has determined that this rule falls into a class of actions that are categorically excluded from review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*) and DOE's implementing regulations at 10 CFR part 1021. Specifically, this rule amends an existing rule without changing its environmental effect and, therefore, is covered by the Categorical Exclusion in 10 CFR part 1021, subpart D, paragraph A5. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

E. Review Under Executive Order 13132

Executive Order 13132, "Federalism," imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have Federalism implications. 64 FR 43255 (August 4, 1999). The Executive Order requires agencies to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States, and to carefully assess the necessity for such actions. The Executive Order also requires agencies to have an accountable process to ensure meaningful and timely input by State and local officials in the development of regulatory policies that have Federalism implications. On March 14, 2000, DOE published a statement of policy describing the intergovernmental consultation process that it will follow in developing such regulations. 65 FR 13735. DOE examined this proposed rule and determined that it would not preempt State law and would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. EPCA governs and prescribes Federal preemption of State regulations as to the test procedures that are the subject of today's proposed rule. States can petition DOE for a waiver of such preemption to the extent, and based on criteria, set forth in EPCA. (42 U.S.C. 6297) Executive Order 13132 requires no further action.

F. Review Under Executive Order 12988

Regarding the review of existing regulations and the promulgation of new regulations, section 3(a) of Executive Order 12988, "Civil Justice Reform," 61 FR 4729 (Feb. 7, 1996), imposes on Federal agencies the general duty to adhere to the following requirements: (1) Eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; (3) provide a clear legal standard for affected conduct rather than a general standard; and (4) promote simplification and burden reduction. Section 3(b) of Executive Order 12988 specifically requires that Executive agencies make every reasonable effort to ensure that the regulation specifies the following: (1) The preemptive effect, if any; (2) any effect on existing Federal law or regulation; (3) a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) the retroactive effect, if any; (5) definitions of key terms; and (6) other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of Executive Order 12988 requires Executive agencies to review regulations in light of applicable standards in sections 3(a) and 3(b) to determine whether they are met or it is unreasonable to meet one or more of them. DOE has completed the required review and determined that, to the extent permitted by law, this proposed rule meets the relevant standards of Executive Order 12988.

G. Review Under the Unfunded Mandates Reform Act of 1995

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA) (Pub. L. 104–4) requires each Federal agency to assess the effects of Federal regulatory actions on State, local, and Tribal governments and the private sector. For a proposed regulatory action likely to result in a rule that may cause the expenditure by State, local, and Tribal governments, in the aggregate, or by the private sector of $100 million or more in any one year (adjusted annually for inflation), section 202 of UMRA requires a Federal agency to publish estimates of the resulting costs, benefits, and other effects on the national economy. (2 U.S.C. 1532(a), (b)) UMRA also requires

a Federal agency to develop an effective process to permit timely input by elected officers of State, local, and Tribal governments on a proposed "significant intergovernmental mandate." UMRA requires an agency plan for giving notice and opportunity for timely input to potentially affected small governments before establishing any requirements that might significantly or uniquely affect such governments. On March 18, 1997, DOE published a statement of policy on its process for intergovernmental consultation under UMRA. 62 FR 12820. (The policy is also available at *http://www.gc.doe.gov*). Today's proposed rule contains neither an intergovernmental mandate nor a mandate that may result in an expenditure of $100 million or more in any year, so these requirements do not apply.

H. Review Under the Treasury and General Government Appropriations Act, 1999

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. 105–277) requires Federal agencies to issue a Family Policymaking Assessment for any rule that may affect family well-being. Today's proposed rule would have no impact on the autonomy or integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

I. Review Under Executive Order 12630

DOE has determined, under Executive Order 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights," 53 FR 8859 (March 18, 1988), that this regulation would not result in any takings that might require compensation under the Fifth Amendment to the U.S. Constitution.

J. Review Under the Treasury and General Government Appropriations Act, 2001

Section 515 of the Treasury and General Government Appropriations Act, 2001 (44 U.S.C. 3516 note) provides for agencies to review most disseminations of information to the public under guidelines established by each agency pursuant to general guidelines issued by OMB. OMB's guidelines were published at 67 FR 8452 (Feb. 22, 2002), and DOE's guidelines were published at 67 FR 62446 (Oct. 7, 2002). DOE has reviewed today's SNOPR and concluded that it is consistent with applicable policies in the OMB and DOE guidelines.

K. Review Under Executive Order 13211

Executive Order 13211, "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use," 66 FR 28355 (May 22, 2001), requires Federal agencies to prepare and submit to OIRA a Statement of Energy Effects for any proposed significant energy action. The definition of a "significant energy action" is any action by an agency that promulgated or is expected to lead to promulgation of a final rule, and that: (1) Is a significant regulatory action under Executive Order 12866, or any successor order; and (2) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (3) is designated by the Administrator of OIRA as a significant energy action. For any proposed significant energy action, the agency must give a detailed statement of any adverse effects on energy supply, distribution, or use if the proposal were to be implemented, and of reasonable alternatives to the action and their expected benefits on energy supply, distribution, and use. Today's regulatory action is not a significant regulatory action under Executive Order 12866. Moreover, it would not have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of OIRA also did not designate the proposed rule as a significant energy action. Therefore, it is not a significant energy action. Accordingly, DOE has not prepared a Statement of Energy Effects.

L. Review Under Section 32 of the Federal Energy Administration Act of 1974

Under section 301 of the DOE Organization Act (Pub. L. 95–91), DOE must comply with section 32 of the Federal Energy Administration Act of 1974 (Pub. L. 93–275), as amended by the Federal Energy Administration Authorization Act of 1977 (FEAA; Pub. L. 95–70) (15 U.S.C. 788). Section 32 essentially provides that, where a proposed rule authorizes or requires use of commercial standards, the rulemaking must inform the public of the use and background of such standards. In addition, section 32(c) requires DOE to consult with the Attorney General and the Chairman of the Federal Trade Commission (FTC) concerning the impact of the commercial or industry standards on competition.

The proposed rule incorporates testing methods contained in sections 4 and 5 of the commercial standard, IEC Standard 62301. DOE has evaluated this standard and is unable to conclude whether it fully complies with the requirements of section 32(b) of the FEAA, *i.e.,* whether it was developed in a manner that fully provides for public participation, comment, and review. DOE will consult with the Attorney General and the Chairman of the FTC about the impact on competition of using the methods contained in this standard before prescribing a final rule.

V. Public Participation

A. Attendance at Public Meeting

The time, date, and location of the public meeting are listed in the **DATES** and **ADDRESSES** sections at the beginning of this SNOPR. To attend the public meeting, please notify Ms. Brenda Edwards at (202) 586–2945. As explained in the **ADDRESSES** section, foreign nationals visiting DOE Headquarters are subject to advance security screening procedures.

B. Procedure for Submitting Requests To Speak

Anyone who has an interest in today's notice, or who represents a group or class of persons with an interest in these issues, may request an opportunity to make an oral presentation at the public meeting. Such persons may hand-deliver requests to speak to the address shown in the **ADDRESSES** section at the beginning of this SNOPR between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays. Requests may also be sent by mail or e-mail to: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, Mailstop EE–2J, 1000 Independence Avenue, SW., Washington, DC 20585–0121, or Brenda.Edwards@ee.doe.gov. Persons who wish to speak should include in their request a computer diskette or CD in WordPerfect, Microsoft Word, PDF, or text (ASCII) file format that briefly describes the nature of their interest in this rulemaking and the topics they wish to discuss. Such persons should also provide a daytime telephone number where they can be reached.

DOE requests persons selected to be heard to submit an advance copy of their statements at least one week before the public meeting. DOE may permit persons who cannot supply an advance copy of their statement to participate, if those persons have made advance alternative arrangements with the Building Technologies Program. Requests to give an oral presentation should ask for such alternative arrangements.

C. Conduct of Public Meeting

DOE will designate a DOE official to preside at the public meeting and may also use a professional facilitator to aid discussion. The meeting will not be a judicial or evidentiary-type public hearing, but DOE will conduct it in accordance with section 336 of EPCA (42 U.S.C. 6306). A court reporter will be present to record the proceedings and prepare a transcript. DOE reserves the right to schedule the order of presentations and to establish the procedures governing the conduct of the public meeting. After the public meeting, interested parties may submit further comments on the proceedings as well as on any aspect of the rulemaking until the end of the comment period.

DOE will conduct the public meeting in an informal conference style. DOE will present summaries of comments received before the public meeting, allow time for presentations by participants, and encourage all interested parties to share their views on issues affecting this rulemaking. Each participant will be allowed to make a prepared general statement (within time limits determined by DOE), before the discussion of specific topics. DOE will permit other participants to comment briefly on any general statements. At the end of all prepared statements on each specific topic, DOE will permit participants to clarify their statements briefly and comment on statements made by others.

Participants should be prepared to answer DOE's and other participants' questions. DOE representatives may also ask participants about other matters relevant to this rulemaking. The official conducting the public meeting will accept additional comments or questions from those attending if time permits. The presiding official will announce any further procedural rules or modification of the above procedures that may be needed for the proper conduct of the public meeting.

DOE will make the entire record of this proposed rulemaking, including the transcript from the public meeting, available for inspection at the U.S. Department of Energy, 950 L'Enfant Plaza, SW., Suite 600, Washington, DC 20024, (202) 586–9127, between 9 a.m. and 4 p.m., Monday through Friday, except Federal holidays. Copies of the transcript are available for purchase from the transcribing reporter.

D. Submission of Comments

DOE will accept comments, data, and information regarding the proposed rule before or after the public meeting, but no later than the date provided at the beginning of this SNOPR. Comments, data, and information submitted to DOE's e-mail address for this rulemaking should be provided in WordPerfect, Microsoft Word, PDF, or text (ASCII) file format. Interested parties should avoid the use of special characters or any form of encryption, and wherever possible comments should include the electronic signature of the author. Comments, data, and information submitted to DOE via mail or hand delivery should include one signed original paper copy. No telefacsimiles (faxes) will be accepted.

According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit two copies: One copy of the document that includes all of the information believed to be confidential, and one copy of the document with that information deleted. DOE will make its own determination as to the confidential status of the information and treat it accordingly.

Factors of interest to DOE when evaluating requests to treat submitted information as confidential include the following: (1) A description of the items; (2) whether and why such items are customarily treated as confidential within the industry; (3) whether the information is generally known by or available from other sources; (4) whether the information was previously made available to others without obligation concerning its confidentiality; (5) an explanation of the competitive injury to the submitting person that would result from public disclosure; (6) when such information might lose its confidential character due to the passage of time; and (7) why disclosure of the information would be contrary to the public interest.

E. Issues on Which DOE Seeks Comment

Although comments are welcome on all aspects of this rulemaking, DOE is particularly interested in receiving comments and views of interested parties on the following issues:

1. Covered Products

DOE invites comment on the proposal to clarify the definition of a "microwave oven" provided in 10 CFR 430.2 to cover microwave ovens with or without thermal elements designed for surface browning of food as well as combination microwave ovens (*i.e.,* microwave ovens that incorporate convection features and possibly other cooking means). DOE also welcomes comment on the proposal that the same testing procedures and calculations can be applied to each of these types of microwave ovens, and whether there are additional standby and off modes or other product features for each particular type of microwave oven that would require separate testing procedures. (See Section III.A.)

2. Cooking Efficiency Test Load

DOE welcomes comment on test procedures and methods for the active mode cooking efficiency that address the concerns with repeatability and consistency of test results. DOE also welcomes consumer usage data on representative food loads, as well as data indicating how changes to the test load would affect the measured EF and on the repeatability of such test results. DOE will consider such information in its separate rulemaking to develop new methods of measuring microwave oven active mode cooking efficiency. (See section III.C.)

3. Incorporation of IEC Standard 62301

DOE invites comment on the adequacy of IEC Standard 62301 to measure standby mode and off mode power for microwave ovens in general, and on the suitability of incorporating into DOE regulations the specific provisions described in section III.D.

4. Mode Definitions

DOE seeks comment on its proposed definitions of standby mode, off mode, and active mode, which are based on the language in IEC Standard 62301 CDV. DOE also seeks comment on specific functions that would be classified as standby, off, and active modes. (See section III.E.)

5. Test Cycle

DOE seeks comment on its proposed clarification to IEC Standard 62301, in which DOE specifies a test period of 10 minutes with an initial clock display time of 3:33 for microwave ovens for which the measured power is not stable, and the test burden associated with such testing requirements. (See section III.F.)

6. Test Procedure Waivers for Products for Which Test Measurements Are Not Representative

DOE seeks comment on the proposed language requiring petition for waivers to address products equipped with controls or other features that modify the operation of energy using components during the energy test. DOE seeks comment on whether more specific definition could or should be provided to define either the product characteristics that would make the test procedure unsuitable for use or to define representative average use. (See section III.F.)

VI. Approval of the Office of the Assistant Secretary

The Assistant Secretary of DOE's Office of Energy Efficiency and Renewable Energy has approved publication of today's Supplemental Notice of Proposed Rulemaking.

List of Subjects in 10 CFR Part 430

Administrative practice and procedure, Confidential business information, Energy conservation, Household appliances, Imports, Intergovernmental Relations, Small businesses.

Issued in Washington, DC, on July 9, 2010.

Cathy Zoi,

Assistant Secretary, Energy Efficiency and Renewable Energy.

For the reasons stated in the preamble, DOE proposes to amend part 430 of chapter II of title 10, Code of Federal Regulations, to read as set forth below:

PART 430—ENERGY CONSERVATION PROGRAM FOR CONSUMER PRODUCTS

1. The authority citation for part 430 continues to read as follows:

Authority: 42 U.S.C. 6291–6309; 28 U.S.C. 2461 note.

2. Section 430.2 is amended by revising the definition for "Microwave oven" to read as follows:

* * * * *

Microwave oven means a class of kitchen ranges and ovens comprised of household cooking appliances consisting of a compartment designed to cook or heat food by means of microwave energy, including microwave ovens with or without thermal elements designed for surface browning of food and combination ovens.

* * * * *

3. Section 430.23 is amended by adding paragraph (i)(13) to read as follows:

§ 430.23 Test procedures for the measurement of energy and water consumption.

(i) * * *

(13) The energy test procedure is designed to provide a measurement consistent with representative average consumer use of the product, even if the test conditions and/or procedures may not themselves all be representative of average consumer use (*e.g.* specified display times). If (1) a product contains energy consuming components that operate differently during the prescribed testing than they would during representative average consumer use and (2) applying the prescribed test to that product would evaluate it in a manner that is unrepresentative of its true energy consumption (thereby providing materially inaccurate comparative data), the prescribed procedure may not be used. Examples of products that cannot be tested using the prescribed test procedure include those products that can exhibit operating parameters (*e.g.* display wattage) for any energy using component that are not predictably varying functions of operating conditions or control inputs—such as when a display is automatically dimmed when test conditions or test settings are reached. A manufacturer wishing to test such a product must obtain a waiver in accordance with the relevant provisions of 10 CFR part 430.

* * * * *

4. Appendix I to Subpart B of Part 430 is amended:

a. By adding a note after the heading;

b. In section 1. *Definitions,* by:

1. Redesignating sections 1.1 through 1.4 as sections 1.2 through 1.5;

2. Redesignating section 1.5 as section 1.7;

3. Redesignating sections 1.6 through 1.8 as sections 1.9 through 1.11;

4. Redesignating sections 1.9 and 1.10 as sections 1.14 and 1.13, respectively;

5. Adding new sections 1.1, 1.6, 1.8, and 1.12;

c. In section 2. *Test Conditions,* by:

1. Revising sections 2.1.3, 2.2.1, 2.5, and 2.6;

2. Adding new sections 2.2.1.1, 2.2.1.2, and 2.9.1.3; and

d. In section 3. *Test Methods and Measurements,* by revising sections 3.1.1, 3.1.1.1, 3.1.2, 3.1.3, 3.1.3.1, 3.2.3, and 3.3.13.

The additions and revisions read as follows:

Appendix I to Subpart B of Part 430–Uniform Test Method for Measuring the Energy Consumption of Conventional Ranges, Conventional Cooking Tops, Conventional Ovens, and Microwave Ovens

Note: All representations related to standby mode and off mode energy consumption of microwave ovens made after [DATE 180 DAYS AFTER DATE OF PUBLICATION OF THE TEST PROCEDURE FINAL RULE IN THE FEDERAL REGISTER] must be based on results generated under this test procedure (*i.e.,* sections 2.1.3, 2.2.1, 2.5, 2.9.1.3, 3.1.3, 3.2.3, and 3.3.13 of this appendix I). Determination of compliance with any energy conservation standard for standby and off mode made after [DATE 3 YEARS AFTER DATE OF PUBLICATION OF ANY MICROWAVE OVEN STANDARDS FINAL RULE] must also be based on results generated under this test procedure.

* * * * *

1. Definitions

* * * * *

1.1 *Active mode* means the condition in which a microwave oven is connected to a mains power source, has been activated, and provides one or more main functions. Delay start mode is a one off user-initiated short duration function that is associated with an active mode.

* * * * *

1.6 *IEC 62301* refers to the test standard published by the International Electrotechnical Commission, titled "Household electrical appliances—Measurement of standby power," Publication 62301 First Edition 2005–06. (Incorporated by reference, see § 430.3)

* * * * *

1.8 *Off mode* means the condition in which a microwave oven is connected to a mains power source and is not providing any standby mode or active mode function and where the mode may persist for an indefinite time.

* * * * *

1.12 *Standby mode* the condition in which a microwave oven is connected to a mains power source and offers one or more of the following user-oriented or protective functions which may persist for an indefinite time: (1) To facilitate the activation of other modes (including activation or deactivation of active mode) by remote switch (including remote control), internal sensor, or timer; (2) continuous functions, including information or status displays (including clocks) or sensor-based functions. A timer is a continuous clock function (which may or may not be associated with a display) that provides regular scheduled tasks (*e.g.* switching) and that operates on a continuous basis.

* * * * *

2. Test Conditions

* * * * *

2.1.3 *Microwave ovens.* Install the microwave oven in accordance with the manufacturer's instructions and connect to an electrical supply circuit with voltage as specified in Section 2.2.1. The microwave oven shall also be installed in accordance with Section 5, Paragraph 5.2 of IEC 62301 (incorporated by reference; see § 430.3). A watt meter shall be installed in the circuit and shall be as described in Section 2.9.1.3.

* * * * *

2.2.1 *Electrical supply.*

2.2.1.1 *Voltage.* Maintain the electrical supply to the conventional range, conventional cooking top, and conventional oven being tested at 240/120 volts except that basic models rated only at 208/120 volts shall be tested at that rating. Maintain the voltage within 2 percent of the above specified voltages. For microwave oven testing, maintain the electrical supply to the microwave oven at 120/240 volts and 60 hertz. Maintain the electrical supply for microwave oven testing within 1 percent of the specified voltage and frequency.

2.2.1.2 *Supply voltage waveform.* For the microwave oven testing, maintain the electrical supply voltage waveform as indicated in Section 4, Paragraph 4.4 of IEC

62301 (incorporated by reference; see § 430.3).

* * * * *

2.5 *Ambient room air temperature.* During the test, maintain an ambient room air temperature, T_R, of 77°±9° F (25°±5° C) for conventional ovens and cooking tops, or as indicated in Section 4, Paragraph 4.2 of IEC 62301 (incorporated by reference; see § 430.3) for microwave ovens, as measured at least 5 feet (1.5 m) and not more than 8 feet (2.4 m) from the nearest surface of the unit under test and approximately 3 feet (0.9 m) above the floor. The temperature shall be measured with a thermometer or temperature indicating system with an accuracy as specified in Section 2.9.3.1.

2.6 *Normal nonoperating temperature.* All areas of the appliance to be tested shall attain the normal nonoperating temperature, as defined in Section 1.7, before any testing begins. The equipment for measuring the applicable normal nonoperating temperature shall be as described in Sections 2.9.3.1, 2.9.3.2, 2.9.3.3, and 2.9.3.4, as applicable.

* * * * *

2.9.1.3 *Standby mode and off mode watt meter.* The watt meter used to measure standby mode and off mode shall have a resolution as specified in Section 4, Paragraph 4.5 of IEC 62301 (incorporated by reference; see § 430.3). The watt meter shall also be able to record a "true" average power as specified in Section 5, Paragraph 5.3.2(a) of IEC 62301.

* * * * *

3. Test Methods and Measurements

3.1 *Test methods.*

3.1.1 *Conventional oven.* Perform a test by establishing the testing conditions set forth in Section 2, "TEST CONDITIONS," of this Appendix, and adjust any pilot lights of a conventional gas oven in accordance with the manufacturer's instructions and turn off the gas flow to the conventional cooking top, if so equipped. Before beginning the test, the conventional oven shall be at its normal nonoperating temperature as defined in Section 1.7 and described in Section 2.6. Set the conventional oven test block W_1 approximately in the center of the usable baking space. If there is a selector switch for selecting the mode of operation of the oven, set it for normal baking. If an oven permits baking by either forced convection by using a fan, or without forced convection, the oven is to be tested in each of those two modes. The oven shall remain on for at least one complete thermostat "cut-off/cut-on" of the electrical resistance heaters or gas burners after the test block temperature has increased 234 °F (130 °C) above its initial temperature.

3.1.1.1 *Self-cleaning operation of a conventional oven.* Establish the test conditions set forth in Section 2, "TEST CONDITIONS," of this Appendix. Adjust any pilot lights of a conventional gas oven in accordance with the manufacturer's instructions and turn off the gas flow to the conventional cooking top. The temperature of the conventional oven shall be its normal nonoperating temperature as defined in Section 1.7 and described in Section 2.6. Then set the conventional oven's self-cleaning process in accordance with the manufacturer's instructions. If the self-cleaning process is adjustable, use the average time recommended by the manufacturer for a moderately soiled oven.

* * * * *

3.1.2 *Conventional cooking top.* Establish the test conditions set forth in Section 2, "TEST CONDITIONS," of this Appendix. Adjust any pilot lights of a conventional gas cooking top in accordance with the manufacturer's instructions and turn off the gas flow to the conventional oven(s), if so equipped. The temperature of the conventional cooking top shall be its normal nonoperating temperature as defined in Section 1.7 and described in Section 2.6. Set the test block in the center of the surface unit under test. The small test block, W_2, shall be used on electric surface units of 7 inches (178 mm) or less in diameter. The large test block, W_3, shall be used on electric surface units over 7 inches (177.8 mm) in diameter and on all gas surface units. Turn on the surface unit under test and set its energy input rate to the maximum setting. When the test block reaches 144 °F (80 °C) above its initial test block temperature, immediately reduce the energy input rate to 25±5 percent of the maximum energy input rate. After 15±0.1 minutes at the reduced energy setting, turn off the surface unit under test.

* * * * *

3.1.3 *Microwave oven.*

3.1.3.1 *Microwave oven test standby mode and off mode power.* Establish the testing conditions set forth in Section 2, "TEST CONDITIONS," of this Appendix. For microwave ovens that drop from a higher power state to a lower power state as discussed in Section 5, Paragraph 5.1, Note 1 of IEC 62301 (incorporated by reference; see § 430.3), allow sufficient time for the microwave oven to reach the lower power state before proceeding with the test measurement. Follow the test procedure as specified in Section 5, Paragraph 5.3 of IEC 62301. For units in which power varies as a function of displayed time in standby mode, set the clock time to 3:33 at the end of the stabilization period specified in Section 5, Paragraph 5.3, and use the average power approach described in Section 5, Paragraph 5.3.2(a), but with a single test period of 10 minutes +0/-2 sec. If a microwave oven is capable of operation in either standby mode or off mode, as defined in Sections 1.12 and 1.8, respectively, or both, test the microwave oven in each mode in which it can operate.

* * * * *

3.2.3 *Microwave oven test standby mode and off mode power.* Make measurements as specified in Section 5, Paragraph 5.3 of IEC 62301 (incorporated by reference; see § 430.3). If the microwave oven is capable of operating in standby mode, measure the average standby mode power of the microwave oven, P_{SB}, in watts as specified in Section 3.1.3.1. If the microwave oven is capable of operating in off mode, measure the average off mode power of the microwave oven, P_{OFF}, as specified in Section 3.1.3.1.

* * * * *

3.3.13 Record the average standby mode power, P_{SB}, for the microwave oven standby mode, as determined in Section 3.2.3 for a microwave oven capable of operating in standby mode. Record the average off mode power, P_{OFF}, for the microwave oven off mode power test, as determined in Section 3.2.3 for a microwave oven capable of operating in off mode.

[FR Doc. 2010–17775 Filed 7–21–10; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2010–0323; Airspace Docket No. 10–ANE–106]

Proposed Establishment of Class E Airspace; Lancaster, NH

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This action proposes to establish Class E Airspace at Lancaster, NH, to accommodate a new Area Navigation (RNAV) Global Positioning System (GPS) Special Standard Instrument Approach Procedure (SIAP) serving the Weeks Medical Center. This action would enhance the safety and airspace management of Instrument Flight Rules (IFR) operations within the National Airspace System.

DATES: Comments must be received on or before September 7, 2010.

ADDRESSES: Send comments on this rule to: U. S. Department of Transportation, Docket Operations, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001; Telephone: 1–800–647–5527; Fax: 202–493–2251. You must identify the Docket Number FAA–2010–0323; Airspace Docket No. 10–ANE–106, at the beginning of your comments. You may also submit and review received comments through the Internet at *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Richard Horrocks, Operations Support Group, Eastern Service Center, Federal Aviation Administration, P.O. Box 20636, Atlanta, Georgia 30320; telephone (404) 305–5588.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to comment on this rule by submitting such written data, views, or arguments, as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing