

**Appliance Standards Awareness Project
Alliance to Save Energy
American Council for an Energy-Efficient Economy
Consumer Federation of America
National Consumer Law Center
Natural Resources Defense Council
Northeast Energy Efficiency Partnerships
Northwest Energy Efficiency Alliance**

March 2, 2018

Caitlin Davis
U.S. Department of Energy
Office of the General Counsel
1000 Independence Ave.
Washington, DC 20585

RE: Process Rule RFI

Submitted via email to Regulatory.Review@hq.doe.gov

Dear Ms. Davis:

This letter responds to the Department of Energy's (DOE) Request for Information concerning "Procedures, Interpretations, and Policies for Consideration of New or Revised Energy Conservation Standards for Consumer Products," a.k.a., the "Process Rule RFI," published in the Federal Register on December 18, 2017 (82 Fed Reg 59992). The signatories represent the Appliance Standards Awareness Project (ASAP), Alliance to Save Energy, American Council for an Energy-Efficient Economy (ACEEE), Consumer Federation of America (CFA), National Consumer Law Center (NCLC), Natural Resources Defense Council (NRDC), Northeast Energy Efficiency Partnerships (NEEP), and Northwest Energy Efficiency Alliance (NEEA). We appreciate the opportunity to provide this input.

The RFI states its purpose as follows: "(DOE) is seeking comments and information from interested parties to assist DOE in identifying potential modifications to its "Process Rule" for the development of appliance standards to achieve meaningful burden reduction while continuing to achieve the Departments' statutory obligations in the development of appliance standards."

Standards are among the most effective policies for cutting energy and water waste, thus saving money for U.S. consumers and businesses. ASAP estimates that the typical U.S. household is saving about \$500 per year because of national standards for consumer products. U.S. businesses also save due to existing standards for equipment used in commercial buildings and industry—an estimated \$23 billion in 2015

alone. Combined, total consumer and business bill savings reached about \$80 billion in 2015.¹ DOE estimates that cumulative savings from already existing appliance standards will exceed \$2 trillion dollars by 2030.² Recent research has shown that standards have not only saved money, but have also induced innovations leading to enhanced choices available to consumers.³

ASAP and ACEEE estimate that improvements to standards for which reviews are due within the next few years can potentially increase annual savings by another \$43 billion by 2035, increasing to an annual rate of \$65 billion by 2050. Cumulative savings through 2050 could be increased by \$1.1 trillion.⁴

Currently, our major concern with DOE's processes is the agency's failure to meet multiple Congressionally-mandated deadlines and its published regulatory plan that will cause it to miss many more. DOE's recent practices used for developing standards and test procedures have generally worked well: they are not in urgent need of revision. However, we believe it would be valuable to have these practices written down in one place to improve stakeholder understanding of DOE's processes as long as doing so does not interfere with DOE's work to meet its statutory obligations. With respect to reducing burdens, based on statements made by industry representatives at the January 9 public meeting, we understand their top concerns with DOE procedures to be as follows: (1) predictability; (2) the sequencing of test procedure revisions and updates to standards; (3) a pathway to a quick determination that a standard will be left unchanged; and (4) the role of negotiation. We believe each of these concerns can be addressed within the framework of existing law and look forward to working with DOE and industry stakeholders to do so.

In these comments, we first underscore the primacy of DOE's statutory obligations. We next explain our qualified support for an updated written set of procedures. Subsequently, we address the four topics which we understand to be the top concerns of industry. The final section responds to other issues raised by DOE in the RFI.

DOE MUST COMPLY WITH STATUTORY DEADLINES

DOE's February 2018 "Energy Conservation Activities Report to Congress" lists 14 products for which the agency has missed legal deadlines related to energy conservation standards and another eight for which DOE has missed test procedure review deadlines.⁵ Products for which DOE has missed standards

¹ <http://appliance-standards.org/sites/default/files/Appliances%20standards%20white%20paper%20%202-14-17.pdf>. Published DOE estimates are somewhat lower than ASAP estimates, but do not account for savings from some of the plumbing product standards.

² See DOE fact sheet at

https://energy.gov/sites/prod/files/2017/01/f34/Appliance%20and%20Equipment%20Standards%20Fact%20Sheet-011917_0.pdf.

³ For sources and a discussion of how standards expand and enhance consumer choices, see comments filed by ACEEE, ASAP et al. in the Program Design docket, EERE-2017-BT-STD-0059, and by Alliance to Save Energy et al. in the Regulatory Review docket. Those latter comments are posted at <https://appliance-standards.org/sites/default/files/DOE%20Regulatory%20RFI%20-ASAP-ASE-ACEEE-CFA-NWPCC%20comments.pdf>

⁴ A. deLaski, J. Mauer, et al., "Next Generation Standards: How the National Energy Efficiency Standards Program Can Continue to Drive Energy, Economic, and Environmental Benefits. Appliance Standards Awareness Project and American Council for an Energy-Efficient Economy. August 2016.

⁵ Prior versions of this DOE report included columns in the tables of products showing missed and upcoming statutory deadlines. These columns have been deleted from the latest report. Because the deadlines are not easily available elsewhere, removing them from this report makes it harder for Congress and the public to understand

deadlines include refrigerators, room air conditioners, small electric motors and clothes dryers. In ASAP and ACEEE's 2016 report that evaluated the potential savings from future standards, several of the overdue standards rank among those with the largest savings potential.⁶ DOE's top priority must be advancing work to catch up on all of its missed deadlines and ensuring that it meets all upcoming deadlines. Unfortunately, DOE's current regulatory plan, published in December, sets the agency on course to miss many more deadlines in 2018 and beyond. Any work DOE undertakes to update standards development procedures must not take agency resources away from work needed to meet statutory deadlines. Revisiting the process rules is a voluntary undertaking, as opposed to the mandatory statutory deadlines. In addition, any revisions DOE makes to its procedures must not further slow the rulemaking process or cause the agency to fall further behind on legal deadlines.⁷

DOE SHOULD UPDATE WRITTEN PROCEDURES PROVIDED IT DOES NOT IMPEDE MEETING STATUTORY REQUIREMENTS

The DOE standard-setting process has worked well in recent years. At the end of 2016, DOE was current with most legal deadlines and, based on its published schedule, appeared on track to catch up with those missed and meet future deadlines. DOE had selectively encouraged negotiation with great success. Between 2010 and 2017, fifteen major new standards resulted from successful negotiations. Some of these negotiations were completed privately between stakeholders, resulting in joint recommendations to DOE (e.g., electric motors and various home appliances) while others were completed under the official auspices of a federal advisory committee.⁸ Many other standards completed through the regular rulemaking process have broad stakeholder support – for example, final rules published in 2016 for ceiling fans, dehumidifiers and battery chargers. The broad support for (or acceptance of) these recent rules from a range of interests including consumer and environmental groups, manufacturers and utilities is a testament to the effectiveness of DOE's procedures.

Looking back over the past decade, DOE completed 55 new standards. Of these, only five were challenged in court. For comparison, between 1997 and 2007, a period during which DOE was falling behind on its legal deadlines, the agency completed a total of just nine revised standards and three resulted in litigation, or a 33% rate. Achieving a less than 10% rate of litigation with respect to major rulemakings is a record most other federal regulatory agencies would find enviable.

There have been some controversial rulemakings, such as the 2011 furnace standard, adopted using the direct final rule process, and the 2014 proposed dishwasher standard. But each of these led to changes in DOE practices. DOE settled litigation brought regarding the furnace standard, voiding that decision and initiating a new rulemaking. DOE and other stakeholders learned from that experience and the agency subsequently has successfully completed four new standards using the direct final rule process.

how far behind DOE has fallen. In the interest of transparency, we urge DOE to reinsert those columns in future iterations of this report.

⁶ deLaski, Mauer, et. al., 2016 available at <https://appliance-standards.org/document/report-overview-next-generation-standards>.

⁷ In the RFI, DOE listed all of the original ten objectives of the 1996 "Process Rule" except one. Specifically, the RFI does not list objective (j) "*Reduce time and cost of developing standards*" (Appendix A to Subpart C of 10 CFR Part 430). While the exclusion of one out of the ten objective may be an oversight, given the published DOE schedule and apparent disregard for legal deadlines, we are concerned that the agency may no longer prioritize reducing the time or cost needed to complete rulemakings.

⁸ See <https://energy.gov/eere/buildings/appliance-standards-and-rulemaking-federal-advisory-committee>.

In the case of dishwashers, after receiving significant input from manufacturers on the proposed rule and making revisions to the analysis, DOE determined that more stringent standards would not be economically justified and thus ended the rulemaking process without updating the standard. Since the completion of the dishwasher rulemaking process, DOE has included a pre-NOPR step in each rulemaking.

Recent improvements to DOE's practices build on prior improvements developed over the course of five administrations as well as several major statutory changes, most recently in 2007 and 2011. For example, the 2007 amendments to the statute established the regular reviews provision, created the direct final rule process option, and removed the statutory requirement for an Advanced Notice of Proposed Rulemaking (ANOPR). The 2011 amendments extended the regular reviews provision to more products.

We support updating DOE's written procedures to reflect legislative changes, improve predictability and make the rulemaking process more easily understood. However, while we believe there is value in having DOE's general procedures written down in one place, DOE cannot let the process of updating its procedures interfere with legal obligations. Any work to update the process should not divert agency resources needed for reviewing standards and test procedures or create new impediments to the timely completion of reviews.

KEY AREAS OF CONCERN RAISED AT DOE'S JANUARY PUBLIC MEETING

The stated purpose of the RFI is to reduce regulatory burden while meeting statutory requirements. This section summarizes our ideas for how the concerns we heard industry stakeholders prioritize at the January 9 public meeting can best be addressed while also continuing to develop standards that serve consumers' interests and the nation's interest in energy and water conservation.

Predictability

The most important step DOE can take to improve predictability is to adhere to statutory deadlines. Stakeholders must be able to count on DOE adherence to the schedules established by Congress.

In the past, DOE has published a schedule for its regulatory work, detailing the year and month in which it anticipates issuing each rulemaking stage. DOE published its most recent comprehensive schedule in January 2017.⁹ We urge DOE to publish an updated schedule. In addition to the information on DOE's planned timing for each rulemaking step as shown in the January 2017 document, the updated schedule should also show statutory deadlines. Unfortunately, the December 2017 regulatory plan falls far short of this level of information. For the handful of rulemakings classified as "active," the regulatory plan identifies and shows the expected timing of only the next step. For the large number of rulemakings now classified as "long term actions," DOE has not even assigned a date for the planned next step. In many cases, not only is the Department's planned timing a mystery, but so is the action anticipated: it is listed as simply "undetermined." DOE can best improve predictability by publishing a detailed schedule and sticking to it.

⁹ Located at https://energy.gov/sites/prod/files/2017/01/f34/5-year_current_and_future_rulemakings_asrac_01.18.2017.pdf.

Sequencing of test procedure and standards changes

Manufacturer groups have emphasized their preference for DOE to complete any revisions to test procedures in advance of publication of a proposal to revise standards. In general, we support this sequencing because it allows manufacturers and other stakeholders to better assess the effects of proposed standard levels. DOE procedures should include two features to address this concern. First, DOE should begin the process of test procedure revision far enough in advance of standards NOPR deadlines to make it possible for the agency to complete a revision before the standards NOPR is published. (This schedule should allow DOE to easily comply with statutory requirements to review test methods at least once every seven years.) Second, DOE should commit to best efforts to complete the process no later than the publication date of the proposed rule.

We recommend “best efforts” rather than an ironclad commitment for several reasons. First, statutory deadlines must take precedence: DOE cannot delay meeting standards deadlines just because it has not yet completed test method work. Second, the data and information needed to revise test methods often is possessed by manufacturers. Manufacturers should not be empowered to delay the DOE process simply by withholding needed information. Third, test procedures must meet the statutory requirement for representativeness and shall not be “unduly burdensome to conduct” (42 U.S.C. 6293(b)(3) – (4)). Information often comes up during the course of a standards rulemaking that informs needed test procedure revisions. If this information enables DOE to improve a test procedure, then DOE should make the necessary changes, provided those changes are not so disruptive as to undermine the purposes of the standards program. In the Appendix to these comments, we have detailed several situations where DOE revised test procedures after publication of a standards final rule or where standards and test procedures were negotiated concurrently. We do not believe any of these examples proved unduly burdensome to manufacturers, but they did result in clearer and more representative and repeatable test procedures. At the January 9 public meeting, some manufacturers’ representatives argued for flexibility to address test procedure flaws discovered after the standards final rule publication.¹⁰

Early “quick look” for standards rulemakings

Nearly all future standards rulemakings will be conducted under the regular reviews provision enacted in 2007, yet DOE has relatively little experience with this provision to date. The statutory process for regular reviews differs from reviews that the law requires for specific products because it provides for an early determination that no change is warranted (42 U.S.C. 6295(m)(1)). Just three rulemakings conducted exclusively under the regular reviews provision have been completed so far, one resulting in a determination to leave the standards unchanged (direct heating equipment) and the other two in new standards for dehumidifiers and central air conditioners and heat pumps, both of which DOE successfully updated without controversy.¹¹

At the January 9 public meeting, industry representatives advocated for an initial “quick look” to determine whether a full rulemaking is merited. One speaker identified the direct heating equipment rule as an example. We believe that DOE acted expeditiously in that instance, no party objected to the

¹⁰ See, for example, Public Meeting Transcript, pp 217-222.

¹¹ DOE has described some rulemakings (e.g. residential boilers) as fulfilling both statutory requirements specific to that product and the regular reviews provision.

proposed determination, and DOE proceeded with a final determination of no change (81 Fed Reg 71325). This example demonstrates that existing law provides the necessary framework for DOE to relatively quickly determine, after notice and comment, that no change is warranted for a particular standard.

We note, however, that in the case of direct heating equipment, DOE based its determination to leave the standard unchanged on an evaluation of the seven factors used for economic justification. DOE found that manufacturer impacts would be severe, and relied on that factor in explaining the decision to leave the standard unchanged. Although we did not object to the ultimate outcome of that process, the decision to issue a determination that a standard be left unchanged under the regular reviews provision must be based on the statutory criteria contained at 42 U.S.C. 6295(n)(2). DOE cannot develop an alternative or additional set of criteria. The meaning of “significant” energy or water savings, one of the criteria, has been adjudicated and DOE must comply with the meaning provided by *NRDC v. Herrington*. DOE cannot set an arbitrary threshold for significance. Similarly, cost effectiveness, another criterion, must be determined by the Secretary as described at 42 U.S. Code 6295(o)(2)(B)(II).

Role for negotiation

DOE has done a very good job of fostering negotiation in recent years. Fifteen out of the 55 revised or new standards published over the last ten years resulted from negotiated agreements. (As noted, the vast majority of rules completed through the regular rulemaking process also have been non-controversial.) The 2007 amendments to the statute provided for new procedures (direct final rules or “DFRs”) to enable DOE to adopt negotiated agreements on an expedited basis. The DFR provision further encourages negotiation by allowing for additional flexibility in rulemakings, making agreements more likely. Using the DFR authority, for example, DOE has adopted standards with alternate compliance dates, two-step standards and multiple efficiency metrics that might not have been possible under the normal rulemaking process. In 2012, DOE formed a Federal Advisory committee to serve as a dedicated entity for forming DOE-sanctioned working groups to negotiate recommendations for new standards. DOE renewed the Advisory committee’s charter in 2016 and in early 2018 re-convened the committee.

While negotiation has been very successful, multiple participants pointed out at the January 9th public meeting that negotiation does not make sense in every case. Negotiations are resource and time intensive and should only be used in relatively complex situations with good chance of success. Negotiations can only be successful if stakeholders are willing to make compromises and work in good faith to find middle ground. Therefore, while DOE should encourage negotiation in some cases, it should not be required for each rulemaking.

OTHER TOPICS IDENTIFIED BY DOE

This section addresses specific topics raised in the RFI which have not been addressed above.

Direct Final Rules (DFRs)

We support the use of DFRs when the criteria established for their use in statute have been met, including support for the recommended standards by the types of parties provided at 42 U.S. Code 6295(p). We believe that the “balancing test” described in the RFI used for evaluating adverse

comments has worked well in all cases since the 2011 furnace rule and that DOE should continue to use that approach.

Elimination of the ANOPR

The 2007 amendments to the statute eliminated the statutory requirement for an Advanced Notice of Proposed Rulemaking (ANOPR), streamlining DOE procedures. Since then, with just one or two exceptions, DOE has published a pre-rulemaking step of some type (e.g., Request for Information (RFI), Notice of Data Availability (NODA)) before publishing a NOPR. We support inclusion of a pre-NOPR public stage before the NOPR publication. This early step allows all stakeholders to be put on notice and to provide data and input in advance of a proposed rule. However, DOE must initiate this pre-NOPR step early enough such that it can meet statutory deadlines for NOPRs (or determinations to leave a standard unchanged).

Process rule application to commercial equipment

DOE has historically applied the same procedures to commercial equipment as those used for consumer products. We support this approach.

Use of industry test procedures

We support the use of established test procedures, whether they originated with industry groups, professional associations, or other entities, provided those test procedures best meet the statutory criteria spelled out at 42 US Code 6293(b)(3) and (4). In all cases, DOE must independently ascertain if the test procedure fulfills the statutory criteria and provides sufficient specificity for DOE regulatory purposes.

DOE test procedures often reference industry or other established test procedures, and established test procedures usually provide a good starting point for a DOE test procedure. However, since industry and other established test procedures are generally not designed to be used for regulatory purposes, they may fail to fully capture actual energy use in the field and may also lack sufficient specificity to be repeatable and reproducible.

For example, an industry test procedure for portable air conditioners, ANSI/AHAM PAC-1-2015, provided a good starting point for how to specify the test conditions and conduct certain measurements. However, this test procedure also had a significant flaw that made it unrepresentative of actual energy use in the field: it failed to capture the impacts of air infiltration and duct heat transfer, which can have a significant impact on cooling capacity and efficiency. DOE ultimately established a test procedure which references ANSI/AHAM PAC-1-2015 but also includes provisions for measuring the heat contributions from air infiltration and duct heat transfer. The DOE test procedure also adds additional specificity regarding things such as test unit placement, electrical supply voltage, and temperature tolerances in order to improve repeatability and reproducibility.

In the case of commercial and industrial pumps, an established industry test procedure (ANSI/HI 14.6) specified how to measure parameters such as flow, pressure, and power. However, when DOE initiated a rulemaking for pumps, the pump industry recognized that the existing industry test procedure was not sufficient for regulatory purposes. Subsequently, the pump industry, with collaboration from DOE, undertook a revision to ANSI/HI 14.6 to make improvements to provide greater precision and accuracy

as well as to ensure the use of mandatory language to aid with repeatability. The revision was ultimately published as ANSI/HI 40.6 and referenced in the final DOE test procedure. The final DOE test procedure also made a few small modifications to ANSI/HI 40.6 to further improve repeatability and reproducibility. In addition, the ASRAC working group for pumps recommended adopting a metric that would capture not just the power associated with the pump itself, but also that of the motor and/or controls in order to capture more of the pump “system” and to reflect the significant energy-saving benefits of speed control. The final DOE test procedure, which reflected the working group recommendations, supplements ANSI/HI 40.6 by adding provisions for determining pump input power (inclusive of motors and controls) for the various pump configurations.

Analysis improvements

We believe DOE’s analytic methods have improved enormously over the past twenty years. For example, DOE now routinely conducts teardown analysis, which provides an independent estimate of the costs of components used to improve efficiency while also allowing for disaggregating the cost of more-efficient components from the cost of other non-energy-related features. For the life-cycle cost analysis, DOE incorporates variability and uncertainty to reflect the diversity of consumer characteristics and product usage. In particular, DOE uses Monte Carlo analysis, which is well-established as an effective tool for capturing variability when dealing with many inputs. The Monte Carlo approach allows DOE to use distributions of variables including hours of operation, equipment lifetime, energy prices, and discount rates to estimate not only the average impact of potential standard levels on purchasers but also the distribution of impacts. Finally, for many years DOE has calculated weighted average real interest rates for consumers based on actual consumer debt and equity holdings and average real interest rates and rates of return. This approach reflects a consumer’s opportunity cost. More recently, DOE further refined this approach to calculate separate discount rate distributions for six income groups. DOE uses a similar approach for commercial purchases based on a weighted average cost of capital for various sectors.

DOE could further improve its analyses by collecting more field data. Additional field data would help ensure that test procedures are representative of the actual energy use of equipment and would improve the analysis of economic and energy savings impacts. DOE could work in partnership with regional energy efficiency organizations, utilities, and states to develop a research and data gathering project aimed at better characterizing the consumption of the highest-priority products that will be subject to standards revisions in the years ahead.

“Market-based” alternatives

At the public meeting, no participant expressed enthusiasm for pursuing “market-based” alternatives. A separate docket is addressing this topic. To the extent DOE does pursue this topic, the agency must comply with existing law.

Definition of “significant”

As noted above, *NRDC v. Herrington* provided the Department with a definition of “significant” and the Department must adhere to that definition.

“Process Rule” compliance

DOE published the 1996 Process Rule as “guidance” and it explicitly acknowledges that the Department may diverge from it. Any new written procedures must similarly take the form of guidance since the Department must always comply with the statute if a conflict between agency procedures and statute arises.

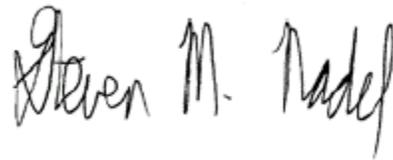
SUMMARY

National appliance standards are saving consumers billions of dollars per year and have the potential to save much more. The benefits of standards far outweigh their burdens. Nevertheless, we support efforts to improve predictability and reduce burdens provided they do not interfere with meeting the statutory purpose of energy and water conservation and compliance with deadlines. We look forward to continuing to work with DOE and other stakeholders on this important program.

Sincerely,



Andrew deLaski
Executive Director
Appliance Standards Awareness Project



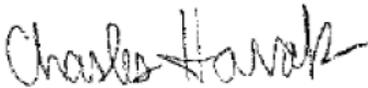
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Appendix

This appendix describes several recent instances in which DOE modified test methods after publishing a standards final rule or standards and test procedures were negotiated concurrently. These examples demonstrate why DOE should not adopt an ironclad rule prohibiting test method revisions after publication of a proposed rule. In the first two instances, information emerged, in part from manufacturers, that indicated the need for test procedures changes. In the third example, negotiating test method changes in parallel to standards changes enabled successful negotiation of a revised standard.

Refrigerators and freezers

In December 2010, DOE concurrently issued a final rule and an interim final rule¹² updating the test procedures for residential refrigerators and freezers in advance of issuing proposed and final rules for standards in 2011. During the comment period on the test procedures interim final rule, DOE received input from manufacturers regarding additional changes that could be made to the test procedures to improve accuracy and clarity. In addition, after the publication of the test procedure final rules, DOE granted a test procedure waiver to a manufacturer for their products with multiple compressors. After publication of the standards final rule in September 2011, DOE subsequently published a new proposed rule for test procedures in July 2013 to address issues including some of those raised by industry stakeholders and the test procedure waiver. DOE finalized an amended test procedure in April 2014, which established test procedures for products with multiple compressors, eliminating the continued need for waivers, and amended certain aspects of the test procedures “to ensure better test accuracy and repeatability.”¹³ These changes helped provide additional clarity to the test procedures in advance of the September 2014 compliance date for the new standards.

Dishwashers

As part of the rulemaking to amend the standards for dishwashers, which resulted in a Direct Final Rule published in May 2012, DOE also considered amendments to the test procedures, in particular to more accurately account for low-power modes and to add a measurement of fan-only energy use. DOE first published a test procedures NOPR in December 2010. Subsequently, IEC published a new version of Standard 62301 for measuring standby power, which improved the measurements. In addition, during this period DOE worked with AHAM and dishwasher manufacturers to develop new specifications to replace obsolete dishware and food items used for the test. Manufacturers also provided helpful suggestions for clarifications to the test procedures to improve repeatability and reproducibility. In October 2012, several months after publishing the standards final rule, DOE published a test procedures final rule adopting the updated provisions for measuring standby energy use, replacing the obsolete dishware and food items, and making a number of clarifications. Similar to the case of refrigerators, these changes helped provide additional clarity to the test procedures in advance of the May 2013 compliance date for the new standards.

Walk-in coolers and freezers

¹² The interim final rule allowed stakeholders an additional opportunity for comment on changes that would affect measured energy use.

¹³ 76 Fed. Reg. 22330 (April 21, 2014).

In 2015, an ASRAC working group negotiated new standards for certain walk-in cooler and freezer equipment. During the negotiations, there was significant debate around a credit in the previously-finalized test procedure for hot gas defrost and whether hot gas defrost should be considered as a design option in the standards analysis. The working group ultimately agreed to remove hot gas defrost as a design option, while also removing the credit in the test procedure. There was also significant discussion related to adaptive defrost and on-cycle variable-speed evaporator fan control. In particular, there were concerns raised related to whether these design options would achieve the expected savings in the field. The working group ended up reaching a compromise whereby compliance with the standards will be determined without these features, but manufacturers will have the option of making representations of the efficiency of basic models with these features included. The ability of the working group to negotiate these changes to the test procedures along with the standards was critical in being able to reach consensus.