AHAM Verification Program
Procedural Guide Part 1
For All Major Appliance Verification Programs

Version 2.0
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FOREWORD

The Association of Home Appliance Manufacturers (AHAM) sponsors voluntary Verification Programs (Program or Verification Program) for specific ENERGY STAR® qualified products’ energy, water efficiency and usage claims (claims). This Procedural Guide outlines the general policies and procedures which applies to all Verification Programs operated by AHAM. This Procedural Guide Part 1 should be used in conjunction with the product-specific Part 2 procedural guides.

In order for products to be sold into the market in United States, they must be compliant with applicable energy, water efficiency and usage claims. The U.S. Department of Energy (DOE) has specified the number of tests required to obtain a certified value that is representative of a model’s claims. The products claims data are requested at the time of certification. Product certification is the responsibility of the product Manufacturer. The AHAM Program is not a certification Program – it does not test products prior to their entry into market and it does not submit certification compliance information to Government Stakeholders on behalf of the Manufacturers.

Other Programs, such as the voluntary ENERGY STAR Program, a joint Program of DOE and the U.S. Environmental Protection Agency (EPA), administered by EPA may require that Manufacturers obtain third-party qualification of their products prior to distributing them into the marketplace. The AHAM Program does not qualify products, in the same way that it does not certify products.

The ENERGY STAR Program, as of January 1, 2011, require that any product enrolled in the ENERGY STAR Program must be part of a third-party Verification Program. The selection process for AHAM is based on a sampling rate of 10% of each Participant’s Basic Models with targeted selection requests by Government Stakeholders and the remaining selected randomly. AHAM is a Verification Administrator for ENERGY STAR for Clothes Dryer, Clothes Washer, Dehumidifier, Dishwasher, Refrigerator, Refrigerator/Freezer and Freezer and Room Air Conditioner Verification Programs.

Verification of a product’s stated ENERGY STAR claims are typically conducted through random selection and testing of products already on the market. The AHAM Programs provide a uniform and commercially practical verification of Licensed models claimed values. The intent of this industry Program is to verify that the claims for all models are consistent with the claims values certified to the ENERGY STAR by a Manufacturer or Private Brand Owner. The Program cannot and will not enforce a product’s compliance with energy efficiency standards or other voluntary Program requirements.

Participation in the Program is voluntary. An independent EPA-recognized, ISO/IEC 17025 accredited test laboratory under contract to AHAM provides verification and challenge testing based on the appropriate DOE Test Procedure and EPA ENERGY STAR Product Standard, with additional specificity provided by approved interpretations consistent with the DOE Test Procedure.

To participate in this Program, a Participant must list with AHAM all ENERGY STAR qualified models in production consistent with EPA ENERGY STAR Qualified Product List (QPL) and meet the requirements of 16 CFR 305.8(a)(1), unless the models are outside the scope of the Verification Program Test Procedure.

The AHAM License Agreement (Agreement) is a contract between the Participant and AHAM and is the governing document for participation in this Program. This Procedural Guide is an extension of, and is incorporated into, the Agreement and provides for the administration and uniform execution of the Program. General information and procedural details are included in this Procedural Guide. AHAM’s Major Appliance Verification Steering Committee (MAVSC), with oversight from the AHAM Legal
Operations Advisory Council (LOAC) as needed, and at their sole discretion, may revise the Procedural Guide if such revision is deemed necessary, or as requested by DOE and EPA.

For additional information, contact:

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# Table of Contents

1. DEFINITION OF TERMS ......................................................................................................................... 1

1.1 APPROPRIATE STAKEHOLDERS ........................................................................................................... 1

1.2 BASIC MODEL ....................................................................................................................................... 1

1.3 BRAND NAME ....................................................................................................................................... 1

1.4 CONNECTED MODEL ........................................................................................................................... 1

1.5 DOCUMENTED INTERVIEW .................................................................................................................. 1

1.6 FIRST LINE OF DISTRIBUTION ......................................................................................................... 1

1.7 GOVERNMENT STAKEHOLDERS ........................................................................................................ 1

1.8 LEGAL OPERATIONS ADVISORY COUNCIL (LOAC) ......................................................................... 1

1.9 LETTERS OF INSTRUCTIONS (LOI) ................................................................................................... 2

1.10 LETTER OF RELIANCE (LOR) ............................................................................................................. 2

1.11 LICENSE AGREEMENT ....................................................................................................................... 2

1.12 LICENSOR ............................................................................................................................................. 2

1.13 MAJOR APPLIANCE VERIFICATION STEERING COMMITTEE (MAVSC) ........................................ 2

1.14 MANUFACTURER ............................................................................................................................... 2

1.15 MODEL SUBMISSION/CHANGE FORM (MSF) ................................................................................... 2

1.16 PARTICIPANT ....................................................................................................................................... 2

1.17 PRIVATE BRAND OWNER ................................................................................................................... 2

1.18 PRODUCTION SURVEY ........................................................................................................................ 3

1.19 PROGRAM ......................................................................................................................................... 3

1.20 PROGRAM LABORATORY .................................................................................................................... 3

1.21 PROGRAM MODELS SOLD IN THE UNITED STATES ........................................................................ 3

1.22 PROGRAM MODELS SOLD IN COUNTRIES OUTSIDE THE UNITED STATES .................................. 3

1.23 PROGRAM PARTICIPATION FEE ......................................................................................................... 3

1.24 PROGRAM TESTING FEE .................................................................................................................... 3

1.25 PROGRAM YEAR ............................................................................................................................... 3

1.26 QUALIFICATION ............................................................................................................................... 4

1.27 QUALIFICATION TESTING ............................................................................................................... 4

1.28 QUALIFIED PRODUCT LIST (QPL) ................................................................................................... 4

1.29 SAMPLE ......................................................................................................................................... 4

1.30 SPECIFIED COUNTRIES ................................................................................................................... 4

1.31 STAKEHOLDER ................................................................................................................................. 4

1.32 TEST PROCEDURE ............................................................................................................................. 4

1.33 TOLERANCE ..................................................................................................................................... 5

1.34 UNIT ................................................................................................................................................. 5

1.35 VERIFICATION REQUIREMENTS ...................................................................................................... 5

1.36 WITHDRAW FROM THE AHAM PROGRAM ...................................................................................... 5

2. PROGRAM SCOPE ............................................................................................................................... 5

2.1 CREATION OF NEW VERIFICATION PROGRAM: ............................................................................. 5

2.2 APPLICABLE TEST PROCEDURE ....................................................................................................... 6

2.3 FACTORS VERIFIED ........................................................................................................................... 6

2.4 PRODUCTS COVERED ....................................................................................................................... 6

2.5 ELIGIBLE MODELS ............................................................................................................................ 6

2.6 DETERMINATION OF MODELS TO BE SELECTED .......................................................................... 8

2.7 ENERGY STAR SAMPLE REQUIREMENTS ......................................................................................... 9

2.8 VOLUNTARY MODEL WITHDRAWALS ............................................................................................. 9
2.9 DOCUMENTATION DISCREPANCIES .................................................................................................... 9
2.10 CHANGES TO MODEL SUBMISSION/CHANGE FORMS ................................................................. 9

3. PROGRAM REQUIREMENTS .......................................................................................................... 10
3.1 GOVERNANCE .............................................................................................................................. 10
3.2 PROGRAM PARTICIPANT OBLIGATIONS ........................................................................................ 10
3.3 AHAM OBLIGATIONS ................................................................................................................... 12
3.4 PROGRAM LABORATORY OBLIGATIONS ....................................................................................... 13

4. PROGRAM FUNDING ................................................................................................................... 15
4.1 FEES .......................................................................................................................................... 15
4.2 YEARLY PRODUCTION SURVEY .................................................................................................... 16
4.3 BILLING/INVOICES ...................................................................................................................... 16
4.4 TERMINATION ............................................................................................................................. 16

5. VERIFICATION PROCEDURE ....................................................................................................... 17
5.1 UNIT SELECTION .......................................................................................................................... 17
5.2 RUN-IN PERIOD .......................................................................................................................... 19
5.3 VERIFICATION TEST REPORT ..................................................................................................... 19
5.4 FINDING OF COMPLIANCE & NON-COMPLIANCE WITH CLAIMS ............................................. 19
5.5 FINDING OF COMPLIANCE WITH ENERGY STAR REQUIREMENTS ............................................. 19
5.6 NOTIFICATION OF NON-COMPLIANCE ...................................................................................... 19
5.7 FINDING OF POTENTIAL NON-COMPLIANCE WITH ENERGY STAR REQUIREMENTS .................... 19
5.8 DOCUMENTED INTERVIEW ......................................................................................................... 20
5.9 OPTION 1: LAB CHALLENGE ........................................................................................................ 21
5.10 OPTION 2: WITHDRAW PRODUCT FROM ENERGY STAR ........................................................ 23
5.11 RETURN OF UNITS .................................................................................................................... 24
5.12 TERMINATION FROM THE PROGRAM ....................................................................................... 24
5.13 MARKET SURVEILLANCE .......................................................................................................... 25

6. CHALLENGE PROCEDURE ............................................................................................................ 25
6.1 CHALLENGE RULES .................................................................................................................... 25
6.2 INITIATING A CHALLENGE .......................................................................................................... 25
6.3 MULTIPLE CHALLENGES ............................................................................................................. 26

7. PROPER USE OF THE VERIFICATION CLAIMS .......................................................................... 27
7.1 RULES FOR ADVERTISING .......................................................................................................... 27
7.2 DEFINING WHAT IS BEING CERTIFIED AND VERIFIED ............................................................... 27
7.3 REFERENCE TO THE PROGRAM LABORATORY ......................................................................... 27
7.4 SUBMISSION OF SPECIFICATION SHEETS AND PROMOTIONAL MATERIAL ............................... 27
7.5 EXAMPLES OF IMPROPER USE OR STATEMENTS WHICH MIGHT CAUSE CONFUSION AS TO THE SCOPE OF AHAM VERIFICATION ................................................................. 27
7.6 ACCURATE REPRESENTATION ..................................................................................................... 28
7.7 DISCONTINUING REFERENCES TO AHAM VERIFICATION PROGRAM ............................................ 28

APPENDIX A: ENERGY STAR VERIFICATION TESTING ..................................................................... 29
1. DEFINITION OF TERMS

The texts of definitions from 10 C.F.R. 430.2 and Part 430, Subpart B, are included here for ease of reference only. Should the definitions printed in this Procedural Guide differ from the definitions provided in 10 C.F.R. 430.2 and Part 430, Subpart B, the text of 430.2 and Part 430, Subpart B, shall control in all cases. AHAM should be notified of any inconsistencies found.

1.1 APPROPRIATE STAKEHOLDERS

The Appropriate Stakeholders are Department of Energy (DOE) and Environmental Protection Agency (EPA).

1.2 BASIC MODEL

Basic Model means all Units of a given type of covered product (or class thereof) manufactured by one Manufacturer, having the same primary energy source, and which have essentially identical electrical, physical, and functional (or hydraulic) characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency.

1.3 BRAND NAME

The commercial name by which a product line is known to the consumer as determined and provided by the Program Participant.

1.4 CONNECTED MODEL

A model that is part of the Basic Model family and meets the applicable requirements of connected criteria of the EPA ENERGY STAR program requirements product specification for an applicable product.

1.5 DOCUMENTED INTERVIEW

An interview between the Program Laboratory and Participant after a finding of potential non-compliance.

1.6 FIRST LINE OF DISTRIBUTION

The initial customer(s) to whom the Participant and/or its branch office is/are selling its products that are covered by the AHAM Verification Program. The initial customer may be, for example, another Manufacturer that is being supplied with the Participant's products, a private brander, a distributor that will be selling the products to a retailer, or a retailer to whom the Participant is selling directly.

1.7 GOVERNMENT STAKEHOLDERS

All government agencies to which Manufacturers and Private Brand Owners report model data, including but not limited to, the DOE and EPA.

1.8 LEGAL OPERATIONS ADVISORY COUNCIL (LOAC)

The Legal Operations Advisory Council (LOAC) is the legal authority governing the operations of AHAM activities. As such, LOAC provides final oversight for operation of the AHAM Verification Programs, including oversight to Procedural Guide development.
1.9 **Letters Of Instructions (LOI)**

Letters of Instruction are documents developed by AHAM staff that define or otherwise detail the operation of the Program and associated Procedural Guides. Letters Of Instruction are published as an interim step before updating and balloting of the Procedural Guide is completed.

1.10 **Letter Of Reliance (LOR)**

An agreement between AHAM and DOE that it will refrain from conducting ENERGY STAR verification testing of models that are part of the AHAM Verification Program for clothes washers, dishwashers, dehumidifiers and residential refrigerators, refrigerators-freezers and freezers.

1.11 **License Agreement**

A contract between AHAM and Participants that specifies the obligations of each party as part of the AHAM Verification Program. This Procedural Guide, and the appropriate Part 2, acts as a supplement to and part of the License Agreement.

1.12 **Licensor**

ASSOCIATION OF HOME APPLIANCE MANUFACTURERS (AHAM), a not-for-profit business association incorporated in the District of Columbia, having its principal office at 1111 19th Street, N.W., Suite 402, Washington, DC 20036, USA.

1.13 **Major Appliance Verification Steering Committee (MAVSC)**

This committee is the immediate governing body of the six Major Appliance Division Verification Programs (Room Air Conditioner, Dehumidifier, Clothes Washer, Clothes Dryer, Dishwasher and Refrigerator, Refrigerator/Freezer and Freezer).

1.14 **Manufacturer**

An entity that manufactures products included in one, or more, AHAM Verification Program(s).

1.15 **Model Submission/Change Form (MSF)**

A listing of models submitted annually to AHAM for each Basic Model in current production.

1.16 **Participant**

A Manufacturer or Brand Name owner that executed a License Agreement as a Participant with AHAM and is authorized to participate in one, or more of, the AHAM Verification Program(s).

1.17 **Private Brand Owner**

An entity that markets, but does not manufacture its own Brand Name models.
1.18 **PRODUCTION SURVEY**

A survey distributed by AHAM on July 1 of each year. The survey is used to determine the production volume of models within the Program, as well as the number of Basic Models, for each Participant between July 1 of the previous year and June 30 of the current year to calculate Program Testing Fee and Program Participation Fee.

1.19 **PROGRAM**

The AHAM Verification Program in its entirety, including Participant Qualification, verification testing, and challenge testing.

1.20 **PROGRAM LABORATORY**

An independent EPA-recognized, ISO/IEC 17025 accredited test laboratory under contract to AHAM to collect and review certified data, perform verification tests, and administer the Program.

1.21 **PROGRAM MODELS SOLD IN THE UNITED STATES**

All ENERGY STAR qualified models sold in the United States whose ratings are required to be certified and submitted to the Program under the terms of the License Agreement, the Procedural Guide and Letters of Instruction from AHAM.

1.22 **PROGRAM MODELS SOLD IN COUNTRIES OUTSIDE THE UNITED STATES**

Basic Models that the Participant chooses to include in an AHAM Verification Program must be qualified to the appropriate ENERGY STAR Program. Models included in an AHAM Verification Program must display all marks in accordance with ENERGY STAR requirements.

1.23 **PROGRAM PARTICIPATION FEE**

A fee calculated annually that Participants pay to AHAM for the administration of the Program. Participation Fees are based on the volume of product shipped during a twelve-month period between July 1 of the previous year and June 30 of the current year.

1.24 **PROGRAM TESTING FEE**

A fee calculated annually that Participants pays to AHAM for verification testing.

1.25 **PROGRAM YEAR**

The Program Year is the twelve-month period during which verification testing is performed. The specific twelve-month period for the Program in question is identified in the Part 2 for the specific Program Year in question.
1.26 Qualification

A statement by the Participant that the claims values claimed were determined in accordance with the appropriate Appendix of 10 C.F.R. Part 430, Subpart B, Test Procedure and meet the requirements of the appropriate ENERGY STAR Product Standard Qualification Criteria. Claims values shall be equivalent to those reported to ENERGY STAR and included in the Qualified Products List (QPL). The Verification Program does not certify the claims values. These values will be referred to as ENERGY STAR claims throughout the AHAM Procedural Guides.

1.27 Qualification Testing

Testing in accordance with the appropriate appendix to 10 C.F.R. Part 430, Subpart B, to certify that a model is qualified for the ENERGY STAR mark before a model is entered into the ENERGY STAR Program and added to the AHAM Program.

1.28 Qualified Product List (QPL)

The ENERGY STAR Program list of all ENERGY STAR qualified products available for sale in the United States and Canada.

1.29 Sample

A group of Units of a given model.

1.30 Specified Countries

Countries in which products are sold or distributed that are different from those sold or distributed in the United States.

The United States is distinguished from Specified Countries because of more stringent Program requirements. The United States includes all of the states, the District of Columbia, the Territories and other geographical areas associated with, or subject to the jurisdiction of the United States.

1.31 Stakeholder

Individuals, groups or entities that have a concern in the process and results of the Program. Entities may include, but not be limited to: Program Participants, the DOE and EPA.

1.32 Test Procedure

Verification and challenge testing will be based on the appropriate EPA Energy Star Program Requirements Product Specification and DOE Test Procedure (10 C.F.R. Part 430, Subpart B, any waivers issued by DOE, Letters of Instruction issued by the AHAM Verification Department, with additional specificity provided by approved interpretations originating with the DOE Test Procedure and EPA Energy Star Program Product specification) as defined in appropriate Part 2 Procedural Guides.

Note 1 - Test Procedure to Validate Demand Response

The Demand Response feature of a Connected Model shall be validated according to the applicable ENERGY STAR Test procedure to Validate Demand Response specified in the applicable ENERGY STAR Product Specification.
Note 2 - Validation of Connected Functionality for Connected Allowance

For Connected Models, compliance with Connected Functionality shall be validated according to the appropriate section(s) of the applicable ENERGY STAR Product Specification.

1.33 TOLERANCE

Tolerance allows for a difference in reported claims versus values measured during verification testing. Tolerance allows for variations that inevitably occur in any given manufacturing or testing facility.

1.34 UNIT

Individual product that are tested for verification by the Program Laboratory.

1.35 VERIFICATION REQUIREMENTS

All Units tested as a requirement of an AHAM Verification Program will be evaluated to the current ENERGY STAR specification for that product. The specific requirements are detailed in the appropriate Part 2.

1.36 WITHDRAW FROM THE AHAM PROGRAM

All instances in which a Participant exercises the option to Withdraw a Basic Model from the AHAM Verification Program, shall result in immediate removal of all Units within the Basic Model under the Participants control as of the date of notification of withdrawal from the ENERGY STAR Program. The Participant shall have their CB remove the model from the ENERGY STAR QPL. AHAM shall be copied on the notice from the Participant to ENERGY STAR.

2. Program Scope

The Programs will verify that the Participant’s claims of ENERGY STAR Qualification for models included in all Programs remain consistent as long as the model maintains ENERGY STAR Qualification, as reported by the Participant. The ENERGY STAR claims reported to the Program by Participants must be equivalent to the values reported to EPA. The Program will communicate with Appropriate Stakeholders and affected Participants the notification of potential non-compliances and applicable test data/reports.

AHAM issued Letters of Instruction will detail the implementation of any DOE or EPA guidance, clarifications or rulings issued until such time as this Procedural Guide is updated. As Letters of Instruction are published, they will be disseminated to Program Participants. All such letters will be controlled by a revision coding system and maintained under AHAM’s document retention policy. Letters of Instruction are to be differentiated from AHAM Interpretations, as Interpretations refer only to AHAM Standards. The specific claims parameters are defined in the appropriate Part 2.

2.1 CREATION OF NEW VERIFICATION PROGRAM:

A new Program can only be established if at least three AHAM member companies vote for it and with a majority approval vote of the MAVSC. The Program execution guidelines must be outlined in an appropriate Part 2 Procedural Guide.
2.2 **Applicable Test Procedure**

All testing will be conducted in accordance with the applicable EPA ENERGY STAR Program Requirements Product Specification and current DOE Test Procedure. All Test Procedure interpretation questions arising during the course of verification and challenge testing will be referred to DOE for an official response.

In addition to the Test Procedure, the Program Laboratory will test to waivers that have been granted by DOE and which include an alternative Test Procedure. Participants shall inform the Program Laboratory of any granted waiver from the DOE Test Procedure. Use of a specific waiver shall be documented in the final test report developed by the Program Laboratory. If other waivers exist for similar products or technologies, but the model does not have such a waiver, the product will be tested according to the applicable Test Procedure, without modification. The Program Laboratory must request a meeting with the Participant in order to determine if there is a waiver and the requirements of a Documented Interview (Section 5.10) will be in effect. If no waivers are noted by the Participant and the model cannot be tested under the conditions defined in the applicable Test Procedure, the model is to be considered potentially non-compliant and appropriate reports will be issued to Appropriate Stakeholders.

AHAM issued Letters of Instruction will detail the implementation of any DOE guidance, clarifications or rulings issued until such time as this Procedural Guide is updated.

2.3 **Factors Verified**

Under this Program, Participant models will be tested to ensure the appropriate ENERGY STAR verification compliance requirements are met.

2.4 **Products Covered**

The AHAM Verification Program will verify ENERGY STAR Qualification for models included in the Program, as specified in Test Procedure.

2.5 **Eligible Models**

Each Program Participant shall report the ENERGY STAR claims on all models it manufactures for its Brand Name(s) or for other Participant’s Brand Name(s) for sale within the United States. Each Manufacturer who is a Participant shall also report the ENERGY STAR claims on all private-brand models which the Participant itself is to distribute within the United States. The Participant may report ENERGY STAR claims for any models sold into Canada, but not sold into the United States, at their discretion. ENERGY STAR claims values reported to the AHAM Program shall be consistent with those submitted to the ENERGY STAR Program, for Qualification purposes.

2.5.1 **Mandatory Program Models**

Each Participant shall report the ENERGY STAR claims on all models consistent with the EPA ENERGY STAR Qualified Product List (QPL) and the requirements of 16 CFR 305.8(a)(1), Reported values must be identical to qualified values submitted to EPA.

These requirements apply to all models to be sold, whether or not they are sold for test market purposes, in a limited quantity, or in a specified market area.
2.5.2 Optional Models

The Participant may, at its option, selectively certify and supply data on Basic Models for sale within Specified Countries other than the United States with ENERGY STAR Qualification. If such models are to be included in the AHAM Program, they must be reported to AHAM and the Program Laboratory for verification and inclusion in any appropriate Production Surveys.

These certification requirements apply to all models to be sold, whether or not they are sold for test market purposes, in a limited quantity, or in a specified market area.

2.5.3 Private Brand Models

The Participant must report the ENERGY STAR claims data on private-brand models that it sells within the United States that are manufactured by an entity separate from and unrelated to it. In order to have such private brands included in the Verification Program, the Manufacturer shall report the ENERGY STAR claims on all models that it manufactures for the same private brand(s) that it provides for sale within the United States.

In order for private brands to participate in the Program, Private Brand Owners who sell ENERGY STAR qualified models from multiple Manufacturers must ensure that all Manufacturers for their ENERGY STAR models are Participants. If not all Manufacturers are Participants, the Private Brand Owner must become a Participant and certify those models not certified by the Manufacturer.
2.6 DETERMINATION OF MODELS TO BE SELECTED

The Program Laboratory will select models for verification testing from 10% of each Participant’s Basic Models provided in Model Submission/Change Form, with at least two (2) models selected from each Participant, per year.

2.6.a If a participant has less than 11 basic models, only one basic model needs to be tested per year and the minimum of two models does not apply.

2.6.b If a participant claims the ENERGY STAR allowance for smart/connected feature for any model, it should be identified in the model submission form.

Once the Model Submission Forms have been received by AHAM for a given Program Year, AHAM will acquire nominations from DOE and EPA for test selections. All remaining selections shall be conducted randomly. The AHAM Program will strive to ensure that 50% of all selections will be randomly chosen. The total number of models to be selected will be rounded up from the 10% value. Model selection includes three parts:

2.6.1 Part 1: ENERGY STAR Selection

The Program is to select models from 10% of each Participant’s ENERGY STAR qualified Basic Models for verification testing, for each Participant.

2.6.2 Part 2: Targeted Selection

DOE and EPA may provide suggestions to AHAM regarding specific models, product classes, or energy platforms they would like to be tested. AHAM will provide, prior to the start of each Program Year to DOE and EPA:

- A confidential list of Basic Model subject to verification testing.

The list will include the Name of the Participant, Original Equipment Manufacturer (OEM), Basic Model, Brand, and model number the consumer will see. AHAM will request that DOE and EPA indicate which targeted selections are priorities and will make a good faith attempt to make these selections, while still adhering to ENERGY STAR and AHAM Verification Program requirements. AHAM will also provide DOE and EPA with a list of the final testing selections. Also, AHAM shall provide DOE and EPA with a semi-annual report of models tested, including a summary of the results as per the LOR. Any targeted models not selected will be included in this report. Reasons for models not being selected could include, but are not limited to, over-sampling by the DOE and EPA nominations, initially targeted models not being available, or other models from the same Basic Model being selected. Annually, AHAM will provide DOE with copies of all Test Reports received from the Program Laboratory, with appropriate confidentiality requested for information included in these reports.

2.6.3 Part 3: Random Selection

Any remaining Basic Models which have not been directed for, or excluded from, selection will be randomly selected by the Program Laboratory from all product classes.
2.6.4 Selection Example

Assume a Participant has forty (40) Basic Models included in the AHAM Program.

- 10% of forty (40) total Basic Models is four (4) Basic Models, so the Participant will have a total of four (4) Basic Models selected for verification testing.
- Through the nominations process, DOE provides AHAM with nominations for one (1) model for verification.
- Through the nominations process, EPA provides AHAM nominations for one (1) different models for verification.
- The remaining two (2) models will be randomly selected by the Program Laboratory, except as noted in section 2.6.2, from the remaining thirty-eight (38) Basic Models.
- The Program Laboratory resolves the nominations, following the AHAM Program requirements for random selections.
- Models not selected for testing are listed on the semi-annual Verification Testing report provided to EPA.

2.7 ENERGY STAR SAMPLE REQUIREMENTS

The requirements of this section are consistent with EPA Directive 2011-04, current version (see Appendix A), and if there are any inconsistencies, the EPA Directive 2011-04, current version (see Appendix A) shall control.

The Program Laboratory will initially test one Unit. If that Unit is shown to be compliant with the ENERGY STAR requirements, within the tolerance allowed by section 5.7, then that model will be considered compliant. If the Unit is found to be potentially non-compliant with the ENERGY STAR requirements, the other three Units that have been selected will be tested.

2.8 VOLUNTARY MODEL WITHDRAWALS

Models voluntarily withdrawn prior to selection are not subject to specific reports to Government Stakeholders, but will be included on the semi-annual reports referenced in Section 2.6.2.

2.9 DOCUMENTATION DISCREPANCIES

Documentation discrepancies found prior to the start of testing shall be clarified with the Participant prior to the start of testing and AHAM shall be included in all discussions. Documentation discrepancies found during testing shall be noted in the test report and clarified upon the completion of testing for the Basic Model.

2.10 CHANGES TO MODEL SUBMISSION/CHANGE FORMS

Any corrections or changes to the models could be made using the Model Submissions/Change forms throughout the year.
3. PROGRAM REQUIREMENTS

3.1 GOVERNANCE

All actions of the Procedural Guide, as well as other Program developments and approvals will be the responsibility of the MAVSC, with oversight by LOAC. Given the contractual nature of the parties’ obligations and responsibilities under the Procedural Guide and the legal and regulatory impact of Program determinations, notice of proposals to make substantive changes to the procedural guides shall be given to LOAC for review prior to implementation. LOAC shall form a minimum of three companies and maximum of five companies panel to review and approve Procedural Guide changes. The MAVSC Chair and AHAM VP of Technical Operations & Standards Services will contact LOAC when required.

AHAM staff shall propose any small editorial, non-substantive changes to the Procedural Guide (s) to MAVSC for approval. When changes are made, the Program Participants, Program Laboratory and Appropriate Stakeholders will be notified.

The MAVSC reports to the Major Appliance Engineering Council (MAEC) with a dotted line to LOAC for approval of Procedural Guide changes. The committee is made up of Participants of each of the Programs that are also AHAM members. Each Participant includes one representative to the committee. For members who are Participants in multiple Programs, only one vote is recorded per company. That representative is responsible for sharing the information within their organizations to ensure all responsible parties are informed of the proposed modifications to their specific Program, and casting the members’ ballot. There are two Task Forces under MAVSC, Major Appliance Verification Home Comfort Task Force (Room Air Conditioners and Dehumidifiers) and Major Appliance Verification Kitchen & Laundry Task Force (Refrigerator, Refrigerator-Freezer, and Freezer, Dishwasher, Clothes Washer and Clothes Dryer), which oversees the revisions of Part 2 Procedural Guide (s), Technical revisions to the Verification Programs due to a change in Test Procedure, and provide guidance on the operation of programs they are responsible for. Note that there may be some issues, related to government relations, on which the Major Appliance Division Government Relations Council will be briefed and/or provide input.

3.2 PROGRAM PARTICIPANT OBLIGATIONS

Requirements of the Program Participant are listed below:

1. Abide by the License Agreement, a contract between AHAM and the Participant. Participant enters the Program by having an authorized company representative sign a License Agreement with AHAM and remitting initial estimated Program Testing Fees for a year and that quarter’s Program Participation Fee. Contact AHAM for application information and the Program Laboratory for testing information. Failure to abide by the Program requirements may be grounds for termination from the Program.

2. Upon joining the Program, and annually in July thereafter, Participants are required to complete a Production Survey (an example Survey can be found in the appropriate Part 2) advising AHAM of the number of ENERGY STAR qualified models listed in the Program and which have been sold for the twelve-month period from July 1 of the previous year through June 30 of the current year. The certified sales volume shall include all models sold in the United States and any optional models as
per Section 2.5.2 that bear ENERGY STAR marks. The **Participants** are required to complete the **Production Surveys** within thirty (30) business days from the date it was sent to the **Participant** or as agreed to with the **Participant**. The **Production Surveys** are held confidential within AHAM, maintained for seven (7) years, and then destroyed. Failure to return the yearly **Production Survey** by the due date may result in termination from the **Program**.

3. Pay AHAM **Program Participation** and **Program Testing Fees** within 90 days after an invoice is received from AHAM or payment terms agreed upon between AHAM and the **Participant**. The fee structure is determined by the **MAVSC** and ultimately approved by the Major Appliance Division Board of Directors. Initial estimated **Program Testing Fees** are billed once a year at the beginning of the year to ensure funds are available for testing. If required, additional testing fees will be billed upon completion of all testing for a given **Participant** for the **Program Year**. **Program Participation Fees** are billed in four installments, during each calendar quarter of the current year. Section 4 provides additional information on **Program funding**.

4. Report the ENERGY STAR claims consistent with the ENERGY STAR compliance requirements for all models sold in the United States (see Section 2.5). All models must have claims qualified by the **Participant**. The values reported to AHAM shall be consistent with the values reported to EPA.

5. Submit model data, contact information and **Sample** acquisition information to the **Program Laboratory** under contract to AHAM for verification test selection using the **Model Submission/Change Form**.

6. Furnish Test **Units** at no cost to the **Program Laboratory** and pay all shipping costs.

7. Participate in Challenges brought against **Participant’s Basic Models** and challenge, if warranted, ratings of other **Participants** and provide a detailed report documenting the challenge (Section 6) to the **Program Laboratory** and AHAM.

8. Submit promotional material to AHAM upon request.

9. Submit list of ENERGY STAR qualified models that participates in **Program** at the annual submittal per Section 2.5.

10. Abide by the termination obligations set forth in the **License Agreement**. If a **Participant** is notified of termination from the **Program**, AHAM will immediately notify **Government Stakeholders**.

11. Upon **Units** being selected for verification testing, ship one tagged **Unit** within 5 business days of tagging, and store the additional three **Units** until requested by the **Program Laboratory**. When requested, the additional three **Units**, which have been tagged with tamper-proof packaging, must be shipped so that they are at the **Program Laboratory** within five business days. At the discretion of the **Participant** and **Program Laboratory**, they can agree to ship all four **Units**. The participant should provide reasonable access to warehouses so that units for testing can be tagged. If an agreement cannot be reached between the participant and the program lab, then the program will purchase from the open market and the 6 month rule will not apply. The units will be invoiced separately to the participant.

12. **Participants** shall notify AHAM and the **Program Laboratory** of any special case constructions requiring specific information regarding verification testing (For
example, waivers, variable anti-sweat heaters in refrigerators, sleeves for Room Air conditioners, connected Units, coin box for laundry etc.).

13. When requested, members shall be available and willing to attend audits as defined in Section 3.3 (8).

14. When requested, members shall serve as panel members for interpretations under Section 5.10.1.

3.3 **AHAM Obligations**

AHAM licenses Manufacturers and Private-Brand Owners to participate in the Program through reporting of claims for ENERGY STAR qualified models sold in the United States. In addition, AHAM provides administrative staff for the Program. AHAM:

1. Upon notification from the Program Laboratory, alerts Participant to the presence of models found on the AHAM Model Submission Forms, but not the QPL.

2. Collects fees from Participants for purposes of funding the Program.

3. Monitors Program participation, verification testing results, non-compliance status, product withdrawals from the ENERGY STAR Program due to Program non-compliance and challenges.

4. Seek targeted selections from DOE and EPA.

5. Resolve the EPA and DOE nominations to allow for approximately 50% of each Participant’s testing requirements to be randomly chosen.

6. Communicates confirmed non-compliance to DOE and EPA, including test reports (See section 5.6).

7. Contracts with an independent Program Laboratory to administer the Program.

8. Annually audits the Program Laboratory to ensure that testing and procedures are in accordance with this Procedural Guide, applicable Test Procedures, standards, ISO/IEC 17025 and good lab practices.

9. Refer all Test Procedure interpretation questions from the Program Laboratory to DOE for an official response. In some cases, there may be a test interpretation question as per Section 5.2 prior to sending the interpretation request.

10. Notifies Appropriate Stakeholders of potential non-compliance with ENERGY STAR Program requirements and provides copies of the test reports to DOE, EPA and the Participant.

11. Notify DOE if, during verification, any single ENERGY STAR Unit is found to be potentially non-compliant with federal energy conservation standards.

12. Provide EPA with a bi-annual report of models tested, including a summary of the results. Selected models that are not tested shall be identified in this report.

13. Provide DOE, at the end of each Program Year, with test reports for all ENERGY STAR models tested during the Program Year.

14. Schedule, moderate and provide summary of all Documented Interviews. This includes inviting DOE to participate in all Documented Interviews.

15. Develop and manage the Lab Accountability plan.
16. Maintain a Score Card or **Program Laboratory** Matrix to monitor the performance of all **Program Laboratories**.

17. Develop and manage a Continuous Improvement forum to review issues arising from **Program** operations.

### 3.4 **PROGRAM LABORATORY** OBLIGATIONS

The **Program Laboratory** serves as an independent, test laboratory performing testing for verification purposes and for challenges in accordance with the **Test Procedure**. The **Program Laboratory** shall be an EPA recognized, ISO 17025 certified and accredited by a recognized accreditation body such as the American National Standards Institute (ANSI), and/or the Standards Council of Canada (SCC) to conduct energy and performance testing of **Program** models and will ultimately be selected by the MAVSC based on technical criteria. Contracts with the **Program Laboratory** are reviewed every year. AHAM conducts an audit of the **Program Laboratory** annually. Annual verification and challenge testing can only be performed by the **Program Laboratory**. Any change in the **Program Laboratory** will be the responsibility of the MAVSC. The **Program Laboratory**:

1. Collects and compiles certified model data from **Program Participants** utilizing the **Model Submission/Change Form**.

2.Reviews **Participant** reported certified data for accuracy and consistency.

3. Compares models listed in the AHAM **Model Submission forms** with the current ENERGY STAR QPL for accuracy with any differences noted.

4. Reports the finding of any models shown on the AHAM **Model Submission forms**, but not in the QPL.

5. Execute the EPA and DOE nominations to allow for approximately 50% of each **Participant**’s testing requirements to be randomly chosen.

6. Randomly selects **Basic Models** for verification testing that are not targeted (section 2.5) and acquires randomly selected **Units** as specified (section 5.1).

7. Completes verification testing in accordance with the **Test Procedure**. Refers all **Test Procedure** interpretation questions to AHAM for referral to DOE.

8. Completes verification testing in accordance with the agreed on testing plan as provided under this **Program**.

9. Participates in challenges between **Participants**, and between **Participant** and **Program Laboratory**, as set forth in this **Program**, including completion of all necessary additional testing under the challenge procedure.

10. Monitors submission of model discontinuation documentation associated with any **Basic Model** that is withdrawn from the ENERGY STAR due to this **Program**.

11. Issues verification test reports to the AHAM, and the **Participant**. In addition, issue a redacted version of test report and Confidential Business Information test report to AHAM along with the original test report.

12. Issues notifications of **Program** non-compliance to AHAM **Participant**. Ensures the specified process for ENERGY STAR non-compliance is successfully completed according to the requirements in this Procedural Guide.
13. Disposes of all test Samples at the Participant’s direction. Return of test Sample to the Participant is an option.

14. Notifies AHAM immediately upon completion of an initial spot check that indicates a potential non-compliance.

15. Upon notification from AHAM, verifies the three additional Units that were initially tagged (or in some instances when all four Units were shipped at one time) are received at the Program Laboratory within five business days after confirmation of receipt of request and have no evidence of having been tampered with.

16. Quarantines Units resulting in a finding of potential non-compliance with ENERGY STAR requirements until notified by AHAM to release Units.

17. Notifies AHAM of suspected Models that are not representative of production models to ensure ENERGY STAR requirements are met during verification.

18. For potential ENERGY STAR non-compliances (after all four Units have been tested), the Laboratory notifies AHAM immediately.

19. Responds to annual AHAM audit findings in a timely manner.

20. Prepare a bi-annual report of all models tested, including a summary of the results. Selected models that are not tested shall be identified in this report.
4. PROGRAM FUNDING

4.1 FEES

Upon joining the Program, and annually in July thereafter, Participants are required to complete a Production Survey. The Sales Volume will be used to determine Program Participation Fees. The number of Basic Models will be used to determine the estimated Program Testing Fees. The reported number of ENERGY STAR Basic Models will be used to estimate the number of models for Verification Testing during the following year.

4.1.1 Program Participation Fees

The amount payable by the Participant during the Program Year will be determined by multiplying the current AHAM member or non-member Participation Fee, established periodically by the MAVSC, by the reported shipments. See the specific product part 2 procedural guide for the fee structure for that category. If this amount is less than the minimum Participation Fee specified in the AHAM Production Survey, the Participant pays the minimum fee. One-quarter of the fee is billed by AHAM at the beginning of each quarter and is payable quarterly by Participant during the calendar year.

4.1.2 Program Testing Fees

The initial estimated Program testing fees will be determined from the Production Survey submitted in July of each Year, based on the number of Basic Models a Participant list on the Production Survey. Estimated Program testing fees will be paid in full to AHAM at the beginning of the Program Year to ensure funds for Program testing. If the actual testing fees incurred by the Participant differ from the amount invoiced at the beginning of the calendar year, the difference will either be refunded to the Participant or an additional invoice will be sent to cover the additional testing fees.

Any additional testing fees will not be billed until after all testing of ENERGY STAR models for the Participant has been completed for the Program Year. Reconciliation of test fees will occur after all testing for a given Participant is completed by the Program Laboratory. Participant companies are directly responsible for all testing fees incurred for the testing of their models.

4.1.3 Manufacturers Entering Market

Manufacturers entering the market who become Participants and who do not have any production of ENERGY STAR models during the specified period noted above (July 1 of previous year to June 30 of current year) shall pay the minimum Participation Fee and Program Testing Fees based on the number of Basic Models that are to be incorporated into the Program.

4.1.4 Fee Administration

AHAM pays all Program administration and testing costs except those costs involved in the challenge procedure, additional Sample acquisition, shipping costs and costs associated with the Laboratory having to purchase Units on the open retail market. The Program will invoice Participants for these expenses.
4.2 Yearly Production Survey

AHAM issues a yearly Production Survey to each Participant in order to calculate fees for the Program. The Participant is responsible for returning and certifying that the information is accurate and correct.

The following guidelines are to be used to determine which entity involved in a sourcing agreement is responsible for the model:

- All models in production consistent with EPA ENERGY STAR QPL, by a Participant of an AHAM Verification Program are to be included in the Program, regardless of the Original Equipment Manufacturer.

- If a Participant A buys product manufactured by Participant B, the Participant B is responsible for the resulting Program fees and must include the sourced models for Participant A in its own production figures.

- If a Participant buys product from a non-Participant, the Participant is responsible for the resulting Program fees and must therefore include the sourced models in its product figures (i.e., count sourced models as their own production).

- A retailer who is a Private Brand Owner and purchases models from both Participant and non-Participant Manufacturers may be a Program Participant. Such a Participant must claim the models manufactured by a non-Participant as its production and will be responsible for all fees associated with these models.

- In the case of an alternative arrangement (i.e., purchasing Participant agrees to pay the Program fees), the purchasing Participant has the ultimate responsibility of ensuring the sourced product production data is properly reported and Program fees are paid.

- ENERGY STAR qualified models sourced from OEM’s that are not Participants of the AHAM Program must be included in the Participants Model Submission Form.

4.3 Billing/Invoices

Participants are invoiced quarterly. If invoices are not paid within 90 days after the invoice date, the Participant will be given written notice that they have an additional 45 days to become current, or may be subject to termination from the Program. If a terminated company wishes to rejoin the Program, it will be required to pay all outstanding invoices, and a full year Program fees in advance.

4.4 Termination

A Participant who is terminated from this Program, upon receipt of notice from AHAM of its termination, shall make no further reference to AHAM’s Verification Program. This includes all sales literature, websites, and advertising. Money paid to AHAM quarterly as Verification Fees will not be refunded.
5. VERIFICATION PROCEDURE

5.1 UNIT SELECTION

The Program Laboratory determines which models of a specific Basic Model will be tested in a given Program Year consistent with Section 2.5. Any model within a Basic Model may be tested. Although specific product classes and energy platforms may be targeted, models not targeted as noted in Section 2.6 will be randomly selected by the Program Laboratory.

Once specific models are selected, the Program Laboratory will send a selector to obtain Units for verification testing. The selector must be able to choose random Unit(s) from a Manufacturer or distributor warehouse. The Participant will not be informed of which models will be selected prior to the selector’s arrival at the selection site. If selecting from a Manufacturer warehouse, four (4) Unit Sample selections must be made from fifteen (15) or more of the same Basic Model group. Models that are built to order, or are of extremely low production quantities (less than 100 per year), or production runs (2 days or less) will be required to provide quantities of eight (8) (for 4 Unit selections), as opposed to the figures noted above. If selecting from a distributor Four-Unit Sample group selections shall be made from a group of six (6) or more of the same Basic Model group.

When multiple Units of the same model are selected for verification for ENERGY STAR models, all of the Units are to be selected randomly at the same time, from the same location. The selector will tag the Units selected and record their serial numbers or other unique identifier, and the Program Laboratory will preserve this record for verification and inclusion in the test report, should the Units be subsequently tested. The selector will seal the Units using a tamper proof tape.

Should the results of the first Unit test (spot check or spot checked Unit) be found to be potentially non-compliant with ENERGY STAR requirements, the Program Laboratory shall immediately notify the Participant that the additional three Units, which the Participant has stored since initial tagging, are to be shipped to the Program Laboratory. All three of these Units shall be shipped from the Participant’s facility so that they are available at the Program Laboratory within five (5) business days of completion of the initial spot check. At the discretion of the Participant and Program Laboratory, they can agree to ship all four Units. Should these Units arrive late (unless the reason for late delivery is no fault of the Participant), be unavailable for shipping to the Program Laboratory, or, upon arrival at the Program Laboratory, are suspected of having been tampered with, the model shall be considered a final non-compliance with ENERGY STAR requirements. The Participant shall be responsible for all fees associated with testing and tagging of the Units.

If products are not available in a Manufacturer’s warehouse, Participants will provide a list of products available at specific distribution centers to the Program Laboratory. The Program Laboratory will randomly select Units from single or multiple distribution centers.

A model may be excused from testing if a Participant is able to demonstrate that an identical model or model from the same family was procured for verification testing in the preceding 12 months, or has already been procured by an EPA-approved Certification Body (CB) for verification testing. The Program Laboratory may decide to select alternative models for testing based on the production schedule.

All Units selected and sealed by the Program Laboratory selector are provided by the Participant on a consignment basis and shipped to the Laboratory by a prepaid freight basis.
All Units selected for testing by the Program Laboratory shall be shipped from the Participant’s warehouse within five business days of tagging.

Units may be purchased by the Laboratory on the open market when stock is not available from Manufacturers, criteria for selection cannot be met, or at the request of the Participant. All costs associated with open market purchase must be paid for by the Participant. The Participant must be contacted to determine the least burdensome method of obtaining Units.

Participants shall assure that all Basic Models are available for testing within each Program Year for as long as those models are listed on ENERGY STAR AHAM Model Submission Form. If the Manufacturer does not supply Units for selection or give the location of a retail outlet to purchase the product, the model will be removed from the Program until such a time that a Sample is provided and tested. This is considered a model deletion and shall be reported to the Appropriate Stakeholders.

If a specific Sample is unable to be selected by the Program Laboratory, another random Sample must be selected in its place. At the time of selection, all models in the AHAM Program DOE, EPA and the Program Laboratory have been notified are eligible to be selected.

Verification testing must be completed on Units that are no more than 6 months old and representative of current production, unless agreed to by the Participant or if this requirement is waived in the product specific part 2. The Program Laboratory will work with the Participant to determine the age of the selected product, whether obtained in a Participant’s warehouse, in distribution or retail.

If a subsequent Unit must be tested (due to a determination the Unit is not representative of production, as defined in Section 5.1.1), the Participant will assume all costs incident to the selection, testing and handling of such Units. The Laboratory will invoice the Participant directly in accordance with the current fee schedule in the Service Contract between the Program Laboratory and AHAM.

5.1.1 Determination that Unit is Representative of Production

A Unit will not be considered representative of production if some aspect of the Unit is noticeably damaged in a functional or visual manner to the consumer. Examples of damage that a consumer could detect include such things as visible physical damage to the interior/exterior, a part that will not turn or a Unit that does not operate. Minor cosmetic damage (scratches, etc.) not affecting the performance of the Unit is not to be considered as unrepresentative of production.

The Program Laboratory may request a meeting with the Participant in order to determine if a selected Unit is representative of production. EPA and DOE will be invited to this meeting and the requirements of a Documented Interview (Section 5.10) will be in effect. Audio and video recordings may be used to assist the Participant in the determination of sounds, actions and other questionable events occurring to the Unit under test. If the group finds that a Unit is not representative of production, the Program Laboratory will randomly select a second Unit of the same model. The Participant is responsible for any additional selection and shipping costs.
5.2 **RUN-IN PERIOD**

No run-in shall be performed other than the pre-conditioning specified in the DOE Test Procedure.

5.3 **VERIFICATION TEST REPORT**

The Program Laboratory will provide AHAM with verification test reports which, at the end of each Program Year, AHAM will submit to DOE on a confidential basis. Once a model has been added to the Program, it must continue to be eligible for selection throughout the life of the model (i.e., for as long as it is listed on the Model Submission Form.)

The Program Laboratory will hold the results of all testing in strict confidence, except for:

1. Communication with the Participant with regard to test results and findings on Participant’s own Unit(s); or
2. Communication with Challenger with regard to test results on a challenged Unit(s); or
3. Communication with AHAM in regard to test results and findings that indicate non-compliance with the ENERGY STAR Program or which AHAM deems necessary for the proper operation of the Program.

5.4 **FINDING OF COMPLIANCE & NON-COMPLIANCE WITH CLAIMS**

See appropriate Part 2 for claims requirements.

5.5 **FINDING OF COMPLIANCE WITH ENERGY STAR REQUIREMENTS**

The determination of compliance with ENERGY STAR requirements shall be made according to the requirements of Appendix A (EPA Directive No. 2011-04, most recent date).

Communication between the Participant and the Program Laboratory is not permitted when determining compliance with ENERGY STAR requirements.

5.6 **NOTIFICATION OF NON-COMPLIANCE**

In all cases of accepted non-compliance, AHAM will notify Appropriate Stakeholders.

5.7 **FINDING OF POTENTIAL NON-COMPLIANCE WITH ENERGY STAR REQUIREMENTS**

If the results of the spot check test fall outside the tolerance of ENERGY STAR verification, the Program Laboratory shall immediately notify AHAM. The Program Laboratory shall notify the Participant they are to ship the additional three Units, which the Participant has stored since initial tagging.

If the values measured during a verification test of the four Units fail to meet the ENERGY STAR specification, the Program Laboratory shall immediately notify AHAM and provide copies of all test reports related to this Sample group.

Within 2 days of the determination of potential non-compliance, AHAM shall report the testing failure to EPA and DOE and the Participant, including copies of the test reports provided by the Program Laboratory. The Participant must acknowledge the receipt of potential non-compliance within 24 hours. EPA will then notify the Participant and proceed as outlined in EPA Directive 2011-04, current version (see Appendix A).
Note: If, for ENERGY STAR qualified models only, any single test result (i.e. spot check Unit, or subsequent three Units), does not appear to meet the applicable federal energy conservation standard, with 0% tolerance, AHAM must notify DOE. In such cases, AHAM will not notify the Participant until four business days after notice has been sent to DOE.

After a finding of ENERGY STAR Program potential non-compliance, oral communication between the Participant and the Program Laboratory, e.g., pertaining to the AHAM Program compliance of an ENERGY STAR model, is not permitted without the participation of AHAM. No less than 48 hours prior to any such communication, AHAM shall notify DOE, and DOE shall be allowed the opportunity to be a party to the communication, including the opportunity to be present for any in-person meetings, including site visits. AHAM and DOE shall be copied on all written communications concerning the determination of compliance of an ENERGY STAR model with ENERGY STAR requirements. The finding of potential non-compliance can be resolved by either selecting Option 1: Lab Challenge or Option 2: Withdraw Product as per Figure 1. An option must be selected within 30 business days from the date of original notification to resolve the potential non-compliance.

The Participant may not withdraw the model from the ENERGY STAR Program after a finding of potential non-compliance as a means of avoiding further testing and a finding of non-compliance.

![Figure 1: Finding of Potential Non-Compliance with ENERGY STAR](image)

### 5.8 DOCUMENTED INTERVIEW

In all instances of a finding of potential ENERGY STAR non-compliance, the Participant may elect to request a Documented Interview with the Program Laboratory. DOE will be invited to attend all Documented Interviews. This request must be made within the first five business days after confirmation of receipt of the potential non-compliance, to a maximum of ten (10) days after the original notification was sent. The Participant shall notify AHAM of the request, and AHAM will schedule, moderate and provide a summary of the Documented Interview.
The Documented Interview must be held within fifteen (15) business days of the date on which the initial notification was sent to the Participant.

The Interview is the opportunity for a Participant to gather information regarding the handling, set up, testing and review of test data resulting in a finding of potential AHAM Program non-compliance. Participants may use this opportunity to gather information to assist in making their selection of option to resolve the finding of potential non-compliance. If conducted via telephone call or in person, the results are documented by AHAM and issued to the Participant, the Program Laboratory, EPA and DOE. If conducted via email, AHAM shall also be copied on the mailing. No Test Procedure interpretations are to be made during the Documented Interview. AHAM may request documentation, schematics, reports, and any other clarifying information from both the Participant and laboratory related to the Documented Interview.

During the Documented Interview, all test Units associated with this verification test are to be quarantined. There is to be no physical interaction with the tested Unit, nor any of the Samples quarantined at the Participants facility. Photographs of the Units may be provided. Evidence of any tampering of these Units will result in a reporting of non-compliance with the Sample to ENERGY STAR.

AHAM is to record a summary of the Interview and provide to the Participant and Lab for proposed edits. All edits are due back to AHAM within five (5) business days of the issuance of the draft summary.

5.9 Option 1: Lab Challenge

The Participant may request to challenge the Lab. The Participant may challenge the Program Laboratory’s determination of non-compliance by providing: 1) a detailed written report on why it believes the test value determined by the Program Laboratory is incorrect; and 2) the calculation spreadsheet/protocol used by the Participant to determine the rating in question. Within five (5) business days of receipt, the Program Laboratory will notify AHAM that it proposes to either accept the Participant’s method and withdraw the Program non-compliance or reject the Participant’s Lab challenge.

In the case where the Program Laboratory does not withdraw the potential non-compliance, the Participant will have an option to request an industry position on test interpretation as per Section 5.9.1 within 48 hours after the receipt of Program Lab’s decision. If this option is selected, AHAM will notify DOE once the final industry test interpretation has been received per Section 5.9.1.

AHAM will then notify DOE and the EPA of the Participant’s Lab challenge and provide both agencies a copy of the original test report(CBI and redacted versions), the information supporting the challenge received from the Participant, industry’s test interpretation (if applicable) and the Program Laboratory’s proposed response.

Within twenty (20) business days of AHAM’s notification to DOE, the Participant may present pertinent supplemental information to DOE. Within the first five (5) business days of this period, the Participant may also request a meeting with DOE and any parties that need to be present.

Within five (5) business days of the completion of the initial twenty (20) day period, DOE will issue an interpretation of the Test Procedure as it pertains to the challenge. This interpretation shall be issued to AHAM and the Program Laboratory. The Program Laboratory will then issue a final response to the Participant’s challenge in accordance with
DOE’s interpretation. If DOE does not issue an interpretation within twenty-five (25) business days, the Program Laboratory’s proposed response will serve as the final response to the Participant’s challenge.

If the Program Laboratory’s final response results in a withdrawal of its initial determination of Program non-compliance, the Program Laboratory will retest all Units previously tested (e.g., four Units) and issue a new finding of Program compliance or non-compliance. If the Program Laboratory’s final response is a rejection of the challenge, the Participant must proceed under Option 2: Withdraw Product from ENERGY STAR (section 5.10). Figure 2 outlines the steps if Lab Challenge is chosen.

**Figure 2: Lab Challenge**

### 5.9.1 Test Procedure Interpretation

There are times where a Test Procedure interpretation is required by the Program Laboratory or the by the Program Participant. All final interpretations are from DOE. However, if a Participant would like to gain the industry position on a test interpretation the following method should be followed:

1. **Participant** contacts AHAM requesting a panel review. Their initial rationale for the request is submitted and any test data they would like to provide as support. The process does not start until the request is submitted.

2. **AHAM** builds a panel of a minimum of 3 (three) and maximum of 5 Product Specialists or company representatives from the Program. AHAM puts all Participants of that Program (except the challenging Participant) into a randomizer for 2 random selections. Then, all others (except the challenging Participant) into the randomizer for 1 to 2 more. This process ensures we have some expertise in the area on the panel. Each Participant company that was chosen provides the representative of their choosing. In the event that the panel size would not be at
least three, the challenging participant is allowed to be part of the panel but is not the panel lead. The timing for this step is no more than two weeks to assemble the panel and schedule the first review.

3. Panel reviews all data and develop comments (after AHAM de-identifies) and issues an interpretation within fifteen (15) business days.

4. AHAM sends the panel decision to the Major Appliance Division Government Relations Council (MAD GRC) for review for five (5) business days giving the MAD GRC the option to object before the proposed interpretation is sent to DOE in step 6.

5. If the interpretation panel is the result of a lab challenge then the final AHAM panel information should be sent to the lab for additional review and option to change their lab decision. The lab has 5 days to review and determine if they will withdraw the potential non-compliance. Notify DOE and EPA of this using Documented Interview

6. If the lab decision does not change and there were no objections in step 4, AHAM sends the Test Procedure question, together with the panel interpretation and supporting information to DOE and EPA requesting DOE guidance.

5.10 **OPTION 2: WITHDRAW PRODUCT FROM ENERGY STAR**

To allow AHAM to close an open potential non-compliance, once a decision is made by DOE or EPA, to withdraw or retain the model, the participant will inform AHAM.

If the Participant elects to withdraw the product per clause 5.8 from the ENERGY STAR Program, it must immediately notify EPA of the date of notification of withdrawal. The Participant must send written notice to AHAM and EPA thirty (30) business days of receiving
the notice of Program non-compliance, stating the date of removal of the model from the ENERGY STAR Program.

The Program requires that, if one model is withdrawn, the Participant shall withdraw all models within the Basic Model, as listed on AHAM Model Submission Form as of the date that the Participant was first notified of the model’s selection (Section 5.1). This includes all brands within the Basic Model whether labeled by the Participant, licensed by the Participant or licensed to a private brand reseller. In addition, the Participant shall promptly report to ENERGY STAR that all models within the Basic Model have been discontinued.

AHAM will notify Appropriate Stakeholders of the Participant’s decision to withdraw the product from the ENERGY STAR Program. Figure 3 outlines the required steps if the option to withdraw is chosen.

5.11 RETURN OF UNITS

Upon completion of testing selected Units, the Program Laboratory shall contact the Participant for disposition of tested Units, unless the test Unit is determined to be out of compliance with Program requirements. All costs associated with the disposition of tested Units shall be the responsibility of the Participant.

5.12 TERMINATION FROM THE PROGRAM

A Participant who is terminated from this Program shall immediately notify ENERGY STAR of the termination, with copy to AHAM. If a Participant exercises their option to Withdraw Basic Models from the AHAM Verification Program to move it to another Verification Program, the Participant needs to provide that request in writing so that AHAM can inform Appropriate Stakeholders that this Basic Model is no longer under the AHAM Verification Program.
5.13 **Market Surveillance**

Participants observing or receiving reports of models displaying or advertising ratings at other than the rated value in the DOE CCMS and/or ENERGY STAR QPL are urged to report the fact, with identifying details, to AHAM, or may elect to challenge that Participant (Section 6). AHAM will bring the facts to the attention of the Participant for the brand involved without identifying the source of the complaint.

6. **Challenge Procedure**

6.1 **Challenge Rules**

A Participant within the Program may challenge another Program Participant, using the Challenge Request Form found in the appropriate Part 2. Challenges shall be in good faith, with supporting documentation provided to the Program Laboratory at the time of the challenge. Program Participants may not challenge non-Participants; this is outside the scope of this Program.

However, if AHAM receives multiple indications from Program Participants that a non-Participant may have questionable claims values, AHAM may initiate a challenge of the specified non-Participant working through the MAVSC. There must be unanimous agreement of the MAVSC to challenge the non-Participant, as Program funds will be used for the challenge.

AHAM may not challenge a Program Participant.

6.2 **Initiating a Challenge**

A Participant may challenge the reported claims, or an algorithm of another Participant’s model. For all challenges, the challenging Participant (Challenger) must complete and submit Challenge Request Form found in the appropriate Part 2 to the Program Laboratory. For the challenge to take place, the Challenger must include an explanation of why the challenge should be granted. For claims or algorithm challenges, the Challenger must authorize the Program Laboratory to proceed at the Challenger’s expense for the initial Program Laboratory test.

Upon receipt of this form, the Program Laboratory shall notify AHAM. AHAM will notify the challenged Participant (Challenged Manufacturer) in writing, with a copy to the Program Laboratory, of the challenge. The Program Laboratory will then acquire a Unit of the challenged model and perform verification testing. AHAM and the Program Laboratory shall keep the identity of the Challenger and Challenged Manufacturer under this challenge procedure in confidence throughout the challenge proceedings.

If the Program Laboratory results do not verify the Challenged Manufacturer’s reported certified ratings, this will be considered a Verified Challenge. The Program Laboratory shall inform the Challenger and Challenged Manufacturer of the Verified Challenge, and the Challenged Manufacturer must pay all Program Laboratory testing costs incidental to the Verified Challenge. The Challenged Manufacturer may also select to have more Units tested, as provided in section 5.7. All responses and processes in Section 5.10 shall apply to verified challenge as they do to an initially non-compliant Verification Test.

If the challenges test results confirm the Challenged Manufacturers ratings claim (a Non-Verified Challenge), the Challenger must pay the Program Laboratory for all costs incidental
to the test(s), including all costs associated with procurement of the test Unit. Upon completion of testing, the test Unit will be shipped, COD, to the challenger.

Regardless of the outcome of the challenge, both the Challenger and Challenged Manufacturer will receive copies of reports and findings of the Challenge testing.

Within thirty (30) calendar days of receipt of a Verified Challenge, the Challenged Manufacturer shall submit a written statement to the Program Laboratory, with copy to AHAM, either 1) disputing the Verified Challenge or 2) agreeing to withdraw its product from the market.

If the Challenged Manufacturer does not dispute the Verified Challenge, it must withdraw its product from the market within thirty (30) calendar days of the receipt of the Verified Challenge. The Challenged Manufacturer must pay all Program Laboratory testing costs incidental to the Verified Challenge.

If the Challenged Manufacturer disputes the Verified Challenge it must, within thirty (30) calendar days of receipt of the Verified Challenge, provide a detailed written summary of its method for determining claims and support for why this is the correct method to the Program Laboratory. Within fifteen (15) calendar days of receipt, the Program Laboratory will either accept the Challenged Manufacturer’s method and withdraw its Verified Challenge or reject the Challenged Manufacturer’s method and reinstate the Verified Challenge. Upon reinstatement of the Verified Challenge, the Challenged Manufacturer must, within thirty (30) calendar days, withdraw its product from the market or may choose to seek DOE interpretation of the methods by which the Program Laboratory and the Challenged Manufacturer have determined the claims of the challenged product.

6.3 MULTIPLE CHALLENGES

If the Program Laboratory is working on a challenge and receives a separate challenge relating to the ongoing challenge, the Program Laboratory will notify AHAM, and then notify the second Challenger that a challenge is already underway. The second Challenger has the option to be involved in the challenge. Confidentiality between both challengers and the Challenged Manufacturer will be maintained. Ultimately, if the challenge is not upheld, the Challengers will split the challenge cost. The Program Laboratory may receive multiple challenges on a similar issue. The Program Laboratory is responsible for reviewing the technical viability of each challenge.
7. PROPER USE OF THE VERIFICATION CLAIMS

AHAM has no interest in or authority to limit any claims that do not directly impinge on the validity or credibility of the AHAM Verification Program scope. Validation of claims made outside the Program parameters requires separate and independent substantiation.

Participants are encouraged to properly use and promote the Verification Program in product specifications, literature and advertising.

7.1 RULES FOR ADVERTISING

Participants may not use the terms certified or AHAM verified in connection with advertising to the public in referring to products that are not or are covered within the AHAM Verification Program or from which participation in the Program has been withdrawn. However, Participants are encouraged to properly use and promote the Verification Program in specifications, literature and advertising.

7.2 DEFINING WHAT IS BEING CERTIFIED AND VERIFIED

See appropriate Part 2 for details

7.3 REFERENCE TO THE PROGRAM LABORATORY

Any reference to the Program Laboratory under contract to AHAM must clearly indicate that its function in the Program is limited to testing and technical administration.

For instance, statements regarding claims being “verified by AHAM based on tests by a Laboratory under contract to AHAM” are acceptable. But statements indicating claims are “verified by AHAM and a laboratory” are not acceptable, for it implies incorrectly that the Program Laboratory has a separate verifying function.

7.4 SUBMISSION OF SPECIFICATION SHEETS AND PROMOTIONAL MATERIAL

Upon request, Program Participants must forward specification sheets, advertising and promotional materials (i.e., web site copy) for models subject to the Program which refer to, illustrate, or describe certified models. AHAM shall review these to assure that references Program provisions are in accordance with these recommendations.

7.5 EXAMPLES OF IMPROPER USE OR STATEMENTS WHICH MIGHT CAUSE CONFUSION AS TO THE SCOPE OF AHAM VERIFICATION

Following are examples of practices which must be avoided.

1. Statements that might cause confusion as to the scope of AHAM verification.

For example:

Accurate statement as to scope, except that the statement is immediately followed by: “You know that you are getting all the energy savings you are paying for.” (AHAM makes no verification as to the sales value or the energy savings of any particular model.)

"Every claimed rating is AHAM verified." (Every rating is not verified).

"AHAM certified claims values." (Claims values are certified by the Participant)
7.6 **Accurate Representation**

The above examples are typical of kinds of statements or usages which can cause confusion or suggest more than is covered by the scope of the Program. These rules and suggestions were established to properly promote the AHAM Verification Program and are not intended to otherwise limit or restrict Participants' advertising. Every circumstance where the principle of accurate representation applies cannot be anticipated and dealt with here. It is the responsibility of the Participant not to misrepresent their status in the Program under any circumstances. If there are questions, Participants should submit draft advertisements and/or any other certification claims to AHAM for advanced review.

7.7 **Discontinuing References to AHAM Verification Program**

Upon withdrawal or termination from the Program, a Participant must immediately discontinue publication of documents (including advertisements, websites, etc.,) containing any reference to the Participant's participation in the Verification Program.

The Participant must also notify all channels in their First Line Of Distribution of the withdrawal or termination. This notification is required to ensure that the initial customers to whom the Participant is selling are made aware of the removal of products from the AHAM Verification Program.
APPENDIX A: ENERGY STAR VERIFICATION TESTING

INTRODUCTION
The third-party certification requirements put in place by the U.S. Environmental Protection Agency (EPA) for ENERGY STAR products include provisions for verifying the performance of qualified products through verification and challenge testing. In conjunction with the verification program being run by certification bodies (CBs), the U.S. Department of Energy (DOE) intends to continue to operate a parallel, targeted verification testing program for ENERGY STAR products that also evaluates how models comply with Federal energy conservation standards. More information on DOE’s program is available at http://www1.eere.energy.gov/buildings/appliance_standards/.

Consumers who rely on the ENERGY STAR label in making a purchase decision expect that the unit they purchase will meet ENERGY STAR requirements. EPA has traditionally established program testing requirements with the intention of fulfilling that consumer expectation and ensuring that all units of a qualified model, irrespective of manufacturing and testing variability, meet the ENERGY STAR performance requirements. For certain product categories currently subject to Federal energy conservation standards, the ENERGY STAR specification has allowed for testing consistent with DOE standards, which require testing a sample comprised of no less than two units, and using statistical methods to determine the certified rating of each basic model. Recognizing this variation in sample size approach for qualification, EPA and DOE are proposing that products will be tested for purposes of verification consistent with how they were tested for purposes of qualification using one of the following approaches:

1. If a product was qualified based on a single test, which ENERGY STAR specifications require for products not subject to Federal energy conservation standards, then verification testing will involve a single test.¹
2. If a product was qualified based on multiple test samples, (e.g., per DOE certification sampling plan associated with Federal energy conservation standards²), then four units will be procured at once for verification testing. A spot check will be performed on the first unit. If the test result of the spot check fails by 5% or more, the additional 3 units will be tested and statistical methods applied to the results for purposes of determining a failure.

Testing failures will be referred to EPA for further consideration and a final determination regarding ENERGY STAR compliance. Testing failures that indicate a potential issue with respect to Federal energy conservation standards will be referred to DOE for further testing consistent with DOE’s sampling plans for enforcement testing of products as outlined in 10 CFR Part 429.

¹ Approach 1 will apply if multiple tests are required to determine qualification, but all units must individually meet the ENERGY STAR requirements (e.g., displays, imaging equipment).
² Approach 2 may also apply to products not subject to Federal energy conservation standards if the ENERGY STAR specification allows for and the manufacturer chooses to qualify a product based on a statistical combination of tests on multiple units.
Determination of Testing Failure for the ENERGY STAR Verification Program

The following approaches will be applied by DOE and CBs when conducting verification testing of ENERGY STAR products, depending on how the product was originally qualified.

**Approach 1:** Manufacturer qualifies product for ENERGY STAR based on one representative model

One unit will be selected, obtained, and tested. Consistent with requirements for ENERGY STAR qualification, the measured performance must be equal to or better than the ENERGY STAR specification requirements.

\[
\text{Consumption}_{\text{Test}} \leq \text{ESTAR consumption specification} \\
\text{Efficiency}_{\text{Test}} \geq \text{ESTAR efficiency specification}
\]

**Approach 2:** Manufacturer qualifies product for ENERGY STAR based on multiple test samples

Four units will be selected and obtained at once. One unit will initially be tested for a spot check. If the tested unit fails to meet the requirement by less than 5% of the applicable ENERGY STAR specification, no further tests will be conducted and the model will be considered to meet ENERGY STAR requirements. If the measured performance is not within this range, the three additional units will be tested immediately. In this case, manufacturers shall not be notified of the spot check test results until all four units are tested, at which time a testing failure can be determined.

Test results from the four units will be used to determine if the model meets the ENERGY STAR specification. DOE may also use these results for evaluation of compliance with Federal energy conservation standards.

The following will be calculated on the sample of four units:

<table>
<thead>
<tr>
<th>Term</th>
<th>Formula</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (( x ))</td>
<td>[ x = \frac{1}{n} \left( \sum_{i=1}^{n} x_i \right) ]</td>
<td>( n = 4 ) (number of units tested) ( X_i ) = measured energy efficiency or consumption from test ( i )</td>
</tr>
<tr>
<td>Standard Deviation (( s ))</td>
<td>[ s = \sqrt{\frac{\sum_{i=1}^{n} (x_i - x)^2}{n - 1}} ]</td>
<td></td>
</tr>
<tr>
<td>Standard Error (( s_x ))</td>
<td>[ s_x = \frac{s}{\sqrt{n}} ]</td>
<td></td>
</tr>
<tr>
<td>Lower Confidence Limit (LCL)</td>
<td>[ LCL = EES - t s_x ]</td>
<td>( EES = ) energy efficiency specification or standard ( t = 3.182 ) (97.5% one-sided student's t statistic for a sample size of 4)</td>
</tr>
<tr>
<td>Upper Confidence Limit (UCL)</td>
<td>[ UCL = ECS + t s_x ]</td>
<td>( ECS = ) energy consumption specification or standard</td>
</tr>
<tr>
<td>5% tolerance on LCL</td>
<td>[ LCL(0.05) = 0.95 \times EES ]</td>
<td></td>
</tr>
<tr>
<td>5% tolerance on UCL</td>
<td>[ UCL (0.05) = 1.05 \times ECS ]</td>
<td></td>
</tr>
</tbody>
</table>
For an energy efficiency specification, the LCL and LCL(0.05) are compared, and the greater value is compared to the mean ($\mu$). The model meets the ENERGY STAR specification if the sample mean is equal to or greater than the lower control limit.

$$\text{Mean} (\mu) \geq \text{LCL or LCL (0.05), whichever is greater}$$

For an energy consumption specification, the UCL and UCL(0.05) are compared, and the smaller value is compared to the mean ($\mu$). The model meets the ENERGY STAR specification if the sample mean is equal to or less than the upper control limit.

$$\text{Mean} (\mu) \leq \text{UCL or UCL (0.05), whichever is smaller}$$

**Consequences of Testing Failures**
CBs are required to report testing failures to EPA within 2 days of determining a testing failure. EPA will then notify the manufacturer and provide 20 days for a written response. This may include the submission of additional relevant information to EPA. EPA will review submitted information from the manufacturer and determine if any additional evaluation is necessary. Where applicable, EPA will consult DOE regarding the appropriate application of test methods.

EPA will provide additional time to resolve questions of potential non-compliance as appropriate. If a decision is made to disqualify the product, the manufacturer will be required to discontinue labeling of the product and institute other corrective actions as directed by EPA.

**Relationship to Enforcement of Federal energy conservation standards**
If verification testing performed in support of the ENERGY STAR program suggests that a model is not compliant with Federal energy conservation standards, DOE will proceed in accordance with 10 CFR Part 429, as appropriate.

**Relationship to Enforcement of DOE Certified Ratings**
If verification testing performed in support of the ENERGY STAR program suggests that the test data do not support the DOE certified rating, DOE will proceed in accordance with 10 CFR Part 429, as appropriate.