

DOCKETED

Docket Number:	19-BSTD-03
Project Title:	2022 Energy Code Pre-Rulemaking
TN #:	236696
Document Title:	Docket No 19-BSTD-03, 2022 Energy Code Pre-Rulemaking; Response to TN236371
Description:	N/A
Filer:	Cody Goldthrite
Organization:	Whirlpool Corporation
Submitter Role:	Public
Submission Date:	2/8/2021 11:02:01 AM
Docketed Date:	2/8/2021



February 6, 2021

Building Standards Office
California Energy Commission
1516 Ninth Street
Sacramento, California 95814

Re: Docket No. 19-BSTD-03, 2022 Energy Code Pre-Rulemaking; Response to TN236371

Dear CEC Staff,

Thank you for the opportunity to comment on the California Energy Commission proposals regarding the proposed modifications to the kitchen exhaust performance requirements within California's Energy Standards.

Whirlpool Corporation (NYSE: WHR) is the leading major appliance manufacturer in the world, with approximately \$20 billion in annual sales, 77,000 employees and 59 manufacturing and technology research centers in 2020. The company markets Whirlpool, KitchenAid, Maytag, Consul, Brastemp, Amana, Bauknecht, JennAir, Indesit and other major brand names in nearly every country throughout the world.

Whirlpool Corporation participates in a number of Code, Safety and Regulatory bodies including ASHRAE 62.2 and the subcommittee that was established to develop more appropriate rating conditions. While the subcommittee agreed to establish ratings at a Nominal Installed Airflow rate (NIA), this decision was directional only and did not include discussion of the formula by which it is calculated. There are a number of issues with the HVI formula, a simple example is the difference in the calculation of flow area for a rectangular duct which is not the same as it is within ASHRAE 62.2. The subcommittee to establish the rating conditions was reopened and is currently scheduling meetings on this topic. It is therefore premature to consider the HVI NIA rating as a valid condition until it has been subjected to a consensus review by an independent body, which it has not.

Similarly, the implementation of the Capture Efficiency rating program has not been reviewed for repeatability, a topic which the underlying ASTM 3087-17 Standard specifically identifies: "11. Precision and Bias 11.1 The test method has not yet been subject to long-term or standardized precision and bias testing..." Testing in 2019 specifically identified a number of issues that have not been closed by an engineering review. The international engineering community of the IEC is also reviewing methods to determine

Whirlpool Corporation Global Headquarters
2000 N. M63
Benton Harbor, MI 49022
269-923-5000

capture efficiency and the Association of Home Appliance Manufacturers (AHAM) is coordinating the development of a harmonized test method. This work should be encouraged to proceed by not implementing a premature rating method that will require substantial resources and drive significant testing to demonstrate compliance. Even though the test is an alternative compliance path, its reference adds validity and the Energy Commission should not refer to a non-consensus test standard for a performance measurement.

The data that the Home Ventilating Institute (HVI) presented provides evidence why additional performance requirements should be delayed until appropriate conditions are developed through consensus of all concerned parties. While the method to determine the Nominal Installed Airflow (NIA) rating from the existing data was not shared, it predicts a wide variation of up to 40% from the current standard rating conditions. This should be sufficient justification to delay even the airflow requirements proposed by the CASE team. Manufacturers are still conducting additional testing to capture the sound requirement at working speed, a condition that ASHRAE rejected, and additional requirements could lead to more testing with a questionable future value. The Energy Commission participates as an ASHRAE committee and subcommittee member and we ask that you not only reject these proposals but work to raise the priority of this issue within those groups.

Whirlpool Corporation is committed to meeting the requirements of the Energy Commission, ASHRAE and other regulatory bodies. The performance limits required are part of our design criteria and conflicts such as those in the HVI ratings for working speed and the proposed NIA when compared to the ASHRAE requirements make it difficult to establish the design criteria. Allowing this cycle to pass without revision to the requirements will allow the ASHRAE committee to establish relevant criteria and reduce the resources required to meet interim requirements.

Thank you for your consideration of these comments. Please do not hesitate to contact me if you have any questions or if you would like to discuss this matter in more detail.

Best regards,

Stephen Gatz

Lead Engineer, Codes and Standards

Stephen_E_Gatz@Whirlpool.com