



February 26, 2019

Via E-Mail

South Coast Air Quality Management District
Governing Board
21865 Copley Drive
Diamond Bar, California 91765

RE: Rule 1111 Reduction of NOx Emissions from Natural-Gas-Fired, Fan-Type Central Furnaces

Dear SCAQMD Governing Board:

Please allow this letter to serve as Carrier Corporation's concerns regarding the South Coast Air Quality Management District's ("SCAQMD") Rule 1111 (as amended) and related Rule 1111 Staff and Stationary Source Committee's direction on February 15, 2019 to maintain a hard date of installation cutoff of October 1, 2019 for gas furnaces.

Background

Carrier is the founder of the modern HVAC industry and operates across the globe. Our range of products includes unitary residential and commercial products, ducted and ductless, gas furnaces, refrigeration products, transport refrigeration products, air and water cooled chillers, and HVAC building services. Carrier is the world's largest manufacturer of residential gas furnaces, with all such units manufactured in Indianapolis, Indiana. Our history and diverse business makes us uniquely qualified to comment on regulatory issues associated with environment, product efficiency and new product development.

To-date, Carrier has paid SCAQMD over \$18,000,000 in mitigation fees and has invested over 10 years and \$25,000,000 developing gas fired products compliant with SCAQMD's Rule 1111 emissions limit. Carrier currently has two non-condensing models compliant with Rule 1111 emissions requirements. Developing safe, quiet and otherwise compliant units with ultra-low emissions has been a gigantic undertaking. Our three engineering teams have worked tirelessly on this project, and we were proud to launch our first two compliant non-condensing models earlier this year. Absent setbacks, we will launch additional models later this year after spending another \$7,000,000 on the project.

Carrier has participated in a number of calls and working group meetings with the Rule 1111 Staff over the past several years. The Rule 1111 Staff held its most recent working group meeting on February 6, 2019 at SCAQMD's offices, and on February 15, 2019 presented to the Stationary Source Committee.

Based on the recent working group and Stationary Source Committee meetings, it is Carrier's understanding that the Rule 1111 Staff will move forward with Rule 1111 becoming effective on October 1, 2019 as currently scheduled, and not extend the mitigation fee or add a sell through period for current inventory, primarily because "Commercialized models cover up to 90% of the market for both condensing and non-condensing units."

Concerns

Carrier strongly disagrees with the Rule 1111 Staff and Stationary Source Committee direction, primarily because there will not be sufficient availability of low NOx compliant products to cover the market on October 1, 2019.

The data analyzed by the Rule 1111 Staff confirms Carrier's position. First, the Rule 1111 Staff reports 176 certified models, of which 112 are commercially available, but this figure is misleading. The 112 reported is based on only 21 compliant base models certified across multiple brands. For example, Carrier has 2 compliant models available, but 2 became 32 when Carrier's 16 brands were included. Our two available non-condensing models would cover roughly 35% of Carrier's historical gas furnace shipments into SCAQMD's jurisdiction.

Second, insisting on a hard-stop October 1, 2019 deadline will not have the desired effect of pushing manufacturers to release additional compliant models by the deadline. Safety is the highest priority for Carrier and all other reliable manufacturers. Compliant models planned for release later in 2019 are being subjected to a minimum of 30,000 hours of testing, assuming design changes during development are not required. Shortcuts are not options for gas-fired appliances installed in consumers' homes.

Third, the very small number of low NOx consumer rebates confirms that compliant products are not available in any significant quantity to meet demand. The Rule 1111 Staff attributes the lack of consumer rebates to dealer and distributor's failure to inform consumers about low NOx options. This cannot be true given the required mitigation fees and available rebates. If compliant products were available in large quantities, these market separators would be highly touted and gobbled up quickly by consumers.

Fourth, 16 of the 21 compliant models are offered by a single manufacturer, which also drastically reduces the likelihood that the market will be sufficiently covered on October 1st. These models could very quickly become unavailable if any quality or safety issues arise. Even if the products functioned without incident, and even if this single manufacturer increased production, distributors of a particular manufacturer's products may not be willing to sell single models to installers of other brands, and installers may not be able to quickly switch brands and train installers.¹

Fifth, since compliant products will continue to be released between now and October 2019, distributors and dealers will continue to maintain normal inventory levels on some non-compliant products. Precisely planning the reduction of this inventory before October is highly unlikely without product shortages, which would result in loss of business for those distributors and dealers. A hard date of installation will strand this non-compliant inventory at distributors and dealers, causing additional expense for larger companies to move product outside the district or cause significant obsolete inventory expense for smaller companies landlocked within SCAQMD.

Lastly, new home construction is another major concern with a hard cutoff date. It typically takes 6-9 months for a home builder to integrate a new furnace into their home design, confirm HERS, meet Title 24 requirements, and receive appropriate permits. For models released between now and October 2019, builders will not have time to integrate the new designs into the home before the scheduled October 1, 2019 installation cutoff.

¹ Drastically reducing the number of furnace manufacturers and models in a market could also lead to contractor price gouging. It also could increase NOx emissions if unavailable replacement products force consumers to repair outdated units.

Alternative to Hard Cutoff

For all of these reasons, Carrier proposes that SCAQMD adopt the San Joaquin Valley Air Pollution Control District's approach and, among other things, offer a short, 6 month sell-through period for products manufactured prior to October 1, 2019. This short sell-through will close the gaps in compliant offerings that will exist at least through 2019, provide flexibility for distributors and dealers, and protect against consumer price-gouging. The mitigation fees should continue during this sell-through period. Carrier would also be willing to work with SCAQMD to develop any other sell-off approaches.

Carrier appreciates this opportunity to provide comments related to Rule 1111. Carrier does not waive any available legal claims by writing this letter and communicating our business concerns.

Respectfully submitted,

Matthew Pine

Matthew Pine
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