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Re: Comments on Proposed Amended Rule 1153.1 – Emissions of Oxides of Nitrogen from Commercial Food Ovens

Dear Mr. Krause, Ms. Farr, and Mr. Bradley,

RMI submits this letter responding to the Air District's call for comments on the Proposed Amendments to Rule 1153.1. RMI is an independent, non-partisan, nonprofit organization of experts across disciplines working to accelerate the clean energy transition and improve lives.

The Air District should be commended for expeditiously applying the 2022 Air Quality Management Plan's zero-emission paradigm to the proposed amendments to Rule 1153.1, and staff have taken vital steps to revise the Best Available Retrofit Control Technology (BARCT) for this sector. The proposed zero-NO_x emission limits in Phases II and III of the rule amendments will deliver important air quality and health benefits to the region, and the Air District should adopt them with the following modification.¹

In order to ensure the rule will effectively reduce emissions and not delay achievement of zero-emission BARCT under Phases II/III, the Phase I burner replacement(s) provision will require additional amendment. Specifically, staff should take into consideration any net increase in emissions arising from Phase I-mediated delays in Phase II/III compliance, and the rule's compliance framework should be optimized around minimizing the total remaining lifetime emissions curve from the sector. As the rule amendments are currently composed, installation of zero- NO_x units can easily be pushed back by up to 8-10 years from the installation of a single low-NO_x burner. Examples of these expected negative consequences are illustrated in slides [29 and 32](#) of the Public Workshop presentation.

¹ RMI has also signed onto the comment letter supporting the rule submitted by Earthjustice and other nonprofits. Please see that letter for additional analysis in support of the rule and suggested revisions to further strengthen the rule.

A minimum burner age of 10 years was added to the proposed Phase II/III compliance schedules in the weeks between Working Group #7 and the Public Workshop, in response to industry concerns that full unit replacement/decommissioning under Phases II/III could be required shortly after low-NO_x burner replacement is required under Phase I. While manufacturers are understandably concerned about avoiding expenditures that will be made obsolete before businesses are able to recoup their full benefits, this issue needs a different solution to avoid undermining the speed of the proposed rule's emission reductions. As currently proposed, the Phase I requirements may perversely result in greater lifetime emissions than would otherwise be achieved without the inclusion of a low-NO_x requirement. In addition, burner replacement could be employed by a regulated entity as an active means of delaying Phase II/III unit replacement.

Phase I burner replacement would reduce maximum burner emissions by 25-50% from current emission limits in almost all cases² (i.e., 40 ppm to 30 ppm, or 60 ppm to 30 ppm, depending on process temperature). Phase II/III unit replacement, on the other hand, would reduce maximum burner emissions by 100% from current emission limits, with that impact multiplied by the number of burners per unit. Given this analysis, **the Air District should calculate the emissions tradeoffs inherent in Phase I changeouts and concomitant delays in Phase II/III compliance, and the rule's compliance framework should be optimized around minimizing the total remaining lifetime emissions curve from the sector.**

If the agency is uncomfortable requiring a single fossil fuel burner to be upgraded without allowing it to be fired for a full 10 years – *along with many other fossil fuel burners in that unit* – and if the emissions reductions from timely unit replacement under the proposed Phase II/III timelines surpass the net emissions benefits from Phase I (i.e., upgrading N burners to low-NO_x, while delaying Phase II/III unit replacement by Y years as a result), then Phase I requirements should be eliminated from the rule amendments. Setting up a regime that curtails emissions a bit for a few years at the expense of eliminating those emissions entirely will result in greater NO_x emissions from the sector than is necessary and feasible. Given the District's incredibly serious air quality challenges, BARCT must be applied as soon as is feasible, and given the primary and secondary health consequences from these ovens' pollution, the region deserves a rule that minimizes total remaining lifetime emissions from the sector.

We appreciate your consideration of these comments, and we look forward to working with you toward successful adoption of effective and timely zero-emission BARCT for commercial ovens in the region.

Sincerely,
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² The only exception would be tortilla ovens heated solely by infrared burners, which will have a Phase I emissions limit of 15 ppm instead.

