Residential Wood Heat Appliance Certification

Test Method Review

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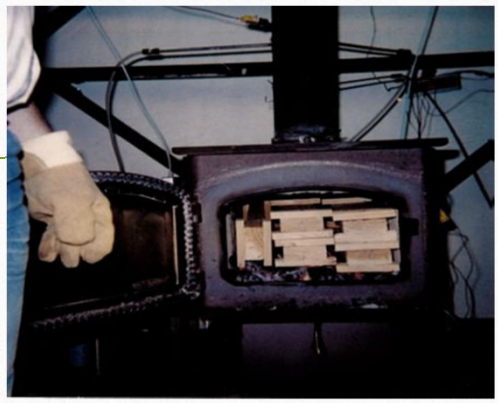
BACKGROUND

- 1988 EPA promulgates NSPS (AAA) to regulate wood heaters. Certification test methods and emissions limits are set via reg-neg process.
- PM emissions standard set at 7.5 grams/hr.
- Experience with the 1988 test methods show that the crib fuel testing approach is not well suited for compliance determination or emissions factor development purposes. As a result, Certification tests do not produce robust data for SIP modeling.

- 2015 NSPS revisions provided for a cord-wood based test compliance track for wood burning appliances (AAA and QQQQ). The new QQQQ rule regulates wood fired hydronic heaters and forced-air furnaces.
- Test methods for wood heaters retained the 1988 crib fuel test, and a cord wood compliance option was also added. ASTM methods were employed for subpart QQQQ compliance tests.
- PM emissions standards lowered to 2.0 grams/hr for wood heaters (crib fuel) and 2.5 grams/hr for wood heaters (cord wood).
- PM emissions standards for hydronic heaters and warm air furnaces are reduced in 2020 "Step 2" standards. Appliance models compliant with 2015 standards must also qualify for 2020 or cannot be sold.

Cord fuel



Crib fuel

- An anticipated ASTM cord-wood fueling protocol was not final in time for inclusion in the 2015 rule and the method was completed after the emissions limits for cordwood were set.
- This ASTM protocol is now allowed to be used for compliance testing through an EPA Alternate Test Method.
- EPA has heard concerns from states that the cord wood test does not provide appropriate data for compliance determinations, nor are those data useful for SIP decision making purposes.

- On November 30, 2018, EPA published an Advanced Notice of Proposed Rule Making (ANPRM), soliciting comments on various aspects of the existing wood burning appliance compliance test program, including the variability and appropriateness of the test methods.
- EPA has reviewed the comments from the ANPRM and will be convening a meeting of state and industry test experts to discuss the best path forward for EPA's wood burning appliance test program.
- We anticipate modification to existing test methods and/or validation testing of new test methodology to begin in earnest in the spring of 2020, with likely finalization of new/revised test methods in late 2022.

- EPA will host a round table format meeting in Research Triangle Park on January 15th, 2020.
- Meeting attendees are expected to bring knowledgeable discussion of cord wood test issues to the table, with a preference for those who have test method design experience.
- The agenda for this meeting is to review comments from the ANPRM notice, discuss EPA program needs moving forward, and to highlight strengths and weaknesses of each of two potential paths forward for EPA's program needs.

- Based on an assessment of the technical discussion, EPA will select a path forward for cord wood test method improvement to better support EPA's program needs.
- A second meeting of the same group, some months into the future, would review available data and determine what data remain to be collected, experimentally, to support improvement /changes to cord wood test methods, intended to meet EPA's program needs.
- A third meeting, some months later would inform the group of ongoing work and next steps toward proposal and promulgation of improved test methods and procedures to support EPA's program.

- New or revised test methods will undergo notice and comment rulemaking processes in on the road to formal promulgation.
- As the test method sets the definition of the pollutant, in this case particulate matter, new or significantly changed test methods will necessitate the collection of data with the new method to support promulgation of a new emissions standard.
- Promulgation of a new emissions standard would also follow notice and comment rulemaking, with the test method used to set the standard then established as the means of compliance determination.