



Vermont Department of Environmental Conservation
Air Pollution Control Division
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Agency of Natural Resources

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August 11, 2011

Harry H. Dresser, Jr., Ed.D., Managing Director
Maine Energy Systems LLC
8 Airport Road
Bethel, Maine 04217

SUBJECT: Interim Phase II Certification of Pellematic 56 KW Outdoor Wood Boiler under §5-204 of the Vermont Air Pollution Control Regulations

Dear Dr. Dresser:

As described in more detail below, this letter constitutes an interim certification that the Pellematic 56 KW outdoor wood-fired boiler (OWB) is a Phase II OWB under Vermont's Air Pollution Control Regulations (APCR).

The Vermont Air Pollution Control Division (APCD) has completed its review of the information Maine Energy Systems (MES) submitted to this office on June 30, 2011 and subsequent dates, including the test reports for the Pellematic 32 and 64 KW boilers (report reference numbers 153/04 and 048/06 respectively) prepared by BLT Wieselburg (BLT), and engineering drawings and specifications for the model Pellematic 56 KW boiler. Information from sources other than MES, including the Maine DEP's Bureau of Air Quality, was also used in this certification review.

The tests that MES submitted were conducted according to European test method EN 303-5 (heating boilers for solid fuels, hand and automatically stoked, nominal heat output of up to 300 KW). The APCD has reviewed the BLT reports and data and approves the use of method EN 303-5. The APCD's authority to accept the use of alternative emission test methods for the purpose of OWB certification is included in APCR §5-204(e)(3)(iv)(C). The results of the European testing were converted and interpolated to values that would allow a direct comparison with Vermont's Phase II OWB emission limit. Although such a conversion is far from perfect, it offers a reasonable estimate of emissions for comparison to Vermont's emission limit.

Based on our evaluation of the Pellematic test results, the Pellematic 56 KW's particulate matter emissions are estimated as 0.04 lbs/million BTUs of heat output, which is equivalent to or lower than Vermont's Phase II emission limit of 0.32 lbs/million BTUs of heat output. In addition, the test results indicate that the highest grams/hour emission rate is estimated as no greater than 2.6, which is lower than the 18 grams/hour maximum set by APCR §5-204(e)(2)(ii). Since the APCD has approved the test method and the testing was conducted in accordance with European standards at an accredited test center, the APCD is willing, for this particular test series, to waive the requirement in §5-204 regarding 30 days prior notice to the APCD of the testing.

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Based on the APCD's review of all the information described above, the APCD has determined that on an interim basis the model Pellematic 56 KW OWB complies with the Phase II emission limit in APCR §5-204(e)(2)(ii) and that all units with the "Pellematic 56 KW" model designation may be distributed or sold for use in Vermont on or after the date of your receipt of this letter. Please note that in Vermont, APCR §5-204(e)(2)(iii) requires that Phase II OWBs must be located more than 100 feet from the closest residence, school or health care facility not served by the OWB. Due to the inherent uncertainties of using the converted results from method EN 303-5 and the need to improve our technical knowledge of the comparability of European vs. USEPA test results, this is an interim certification which will **expire on August 15, 2013**, unless revoked sooner pursuant to APCR §5-204(e)(4).

We expect that all units designated with the model number Pellematic 56 KW will have the same specifications as those submitted to the APCD, within acceptable manufacturing tolerances, and that any components of these units that may affect emissions will be composed of the same materials as those in the tested unit. Please let me know immediately if this assumption is not accurate. In addition, MES is required to comply with APCR §5-204(e)(5), "Notification by Manufacturers". When an OWB model is certified, this subsection requires the manufacturer to give written notification to its dealers and others who sell or may be selling your OWBs for use in Vermont. This notice should list all the OWB models being sold by MES and specifically identify the model Pellematic 56 KW (along with any other Vermont-certified models) as having been approved to be distributed or sold for use in Vermont. Please provide a copy of this written notice and a list of the addressees and their locations to this office when the mailing is completed.

Before this interim certification expires, I encourage MES to retest the model Pellematic 56 KW using test methods prescribed by the USEPA's hydronic heater Partnership Agreement or by the proposed or final amendments to USEPA's residential wood heater New Source Performance Standard. If MES demonstrates compliance by this model with Vermont's Phase II emission limit using one of the above test methods, the APCD should be able to grant a full five year certification for the model.

Note that all Pellematic models, other than the 56 KW, are currently considered uncertified OWBs and may NOT be sold for use in Vermont, either for indoor or outdoor installation. If MES wishes to sell any of these models for installation in indoor applications in Vermont, you must first remove all reference in your marketing literature, including on your web site and in relevant installation, operation and maintenance manuals, to the installation of these models outdoors or in structures not normally occupied by humans, such as "energy boxes". (See APCR §5-204(b))

Thank you for MES' interest in reducing the air contaminant emissions from OWBs. If you have any questions about this letter, please contact me or Chris Jones of my staff at (802) 241-3840.

Sincerely,



Richard A. Valentinetti, Director
Air Pollution Control Division

cc: Amanda Aldridge, USEPA, OAQPS, RTP, NC
Lisa Rector, NESCAUM