



Vermont Department of Environmental Conservation  
Air Pollution Control Division  
103 South Main Street, 3 South  
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Agency of Natural Resources

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April 11, 2012

Mr. Frank Moore, President  
Hardy Manufacturing Co., Inc.  
12345 Road 505  
Philadelphia, MS 39350

**SUBJECT:** Phase II Certification of Hardy Manufacturing Co. Model "KBP270" Outdoor Wood Boiler under Section 5-204 of the Vermont Air Pollution Control Regulations

Dear Mr. Moore:

The Vermont Air Pollution Control Division (APCD) has completed its review of the information Hardy Manufacturing Co., Inc. (Hardy) submitted to this office, including the November 6, 2008 test report (No. 3156662-004c, as revised) prepared by Intertek Testing Services NA Inc. (Intertek), the owner's manual, and engineering drawings and specifications for the model KBP270 continuous feed outdoor wood-fired boiler (OWB). The test results indicate that the model KBP270's particulate matter emissions were 0.23 lbs/million BTUs of heat output (year round weighted average) when burning wood pellets, which is equivalent to or lower than Vermont's Phase II emission limit of 0.32 lbs/million BTUs of heat output. Please note that the reported particulate matter test result was adjusted based on a recalculation of the emissions by Brookhaven National Laboratory using the "load side" data from the original test. USEPA concurred with this modification to the emissions calculation approach. In addition, the test results indicate that the highest grams/hour emission rate for any individual test run was 6.03, which is lower than the 18 grams/hour maximum set by §5-204(e)(2)(ii) of the Air Pollution Control Regulations (APCR). USEPA has reviewed the Intertek test report and has approved the test methods. The test methods used by Intertek are also acceptable under APCR §5-204. Since USEPA has approved the test methods and the testing was performed by an EPA accredited laboratory, 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.

Thank you for providing this office with detailed engineering drawings and specifications for the model KBP270, as required by §5-204(e)(3)(i). This information was included on the disks you submitted with your certification application and will be kept confidential, as requested. We will expect that all units designated with the model number KBP270 will have the same specifications, 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.

(continued)

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Based on the APCD's and USEPA's review of the information submitted by Hardy, and the conditions noted above concerning specifications and materials, the APCD has determined that the model KBP270 OWB complies with the emission limit in APCR §5-204(e)(2)(ii) when burning wood pellets and that all units with the "KBP270" model designation may be distributed or sold for use in Vermont on or after the date of your receipt of this letter. This certification shall expire five (5) years after the date of its issuance, unless revoked sooner pursuant to APCR §5-204(e)(4).

Please be advised that APCR §5-204(e)(2)(ii) requires that separate tests be conducted for each biomass fuel type (e.g. wood pellets, corn kernels, etc.) that the manufacturer's owner's manual or sales/marketing information indicates a model is capable of burning. Therefore, if Hardy decides it would like to market this model for use in Vermont as capable of burning other biomass fuels such as corn, in addition to wood pellets, it must first submit separate test data and obtain Vermont certification for the unit when burning each additional biomass fuel.

I would like to take this opportunity to remind you of a related obligation that Hardy has under 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 Hardy and specifically identify the model KBP270 (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.

Thank you for Hardy's interest in reducing the air contaminant emissions from outdoor wood-fired boilers. 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  
File A8 – Hardy Manufacturing Co.,