

**Comments of the Maine Energy Marketers Association
Jamie Py, President CEO**

Solid Fuel Rules, new Chapter 110

Before the Maine Fuels Board

August 18, 2011

In general, we are supportive of almost all of the changes to the Solid Fuels Rules as these changes are clearly necessary to address the modern application of solid fuels use to the regulatory structure within the Maine Fuels Board.

We do have one area of concern – That is the allowance of conversion pellet burners into oil and gas appliances. Section 14 of the proposed rules. While we are not totally opposed to the use of conversion pellet burners, we nevertheless recognize that serious performance issues are likely to arise and perhaps more importantly, casually dismissing UL listing and manufacturers use and warranty requirements should not be done without very thorough operational and safety reviews.

We have attached a letter from John Batey, PE and former head of Brookhaven National Labs which outlines his concerns on the pellet burner conversion proposal.

Below are a few of our concerns and questions for the Board:

1. Cleaning frequency disclosure: The significantly increased ash will require much more frequent cleaning. This is a fundamental problem for all pin type boilers and any boilers with a fine or restrictive flue pass. Roger McDonald's air emissions report shows roughly 17x to 25x the particulate emissions of oil, so we can assume the equipment will have to be thoroughly cleaned weekly or bi-weekly. We are not sure of the direct gallon to pound correlation here but encourage the Board to determine this before approval of the conversion rule.
2. Conversion burner manufacturers should not just state "more cleaning than oil is required" or "cleaning more than once a year is likely." For reference, how often do pellet stove owners have to clean their stoves? Some numbers heard in the field are they need to be cleaned for every 80 pounds of pellets used. This could be every other day in the winter.
3. Will this incentivize homeowners to clean the boiler themselves? What liability does this impose on manufacturers and homeowners insurance?
4. How will the burner head last in various combustion chambers (especially non-wet backed chambers and chambers with higher temperature operation)?

5. What is the minimum chamber area (length, diameter or width and height)?
6. Have these been tested and approved by any non-solid fuel furnace or boiler manufacturer for extended periods? With what results?
7. Manufacturers will need to approve operation, and then produce new cleaning, tune up, operation, approvals application instructions and more so that warranties are not voided and the appliance can run safely.
8. Certification labs like UL will never allow a certification to migrate to a fuel or burner not tested in that specific application. They want their money and to make sure it does not pose life, health or safety risks.
9. Every system will need to have a blocked vent and blocked flue pass detection (not just fan proving on the burner). Build up of ash will cause backpressure in the boiler (especially pin type), and in the vent system and draft regulator (which may impair proper operation).
10. The actual firing rate must be consistent with the boiler rating. A lower or higher firing rate will both cause poor, and possibly very unsafe operation.
11. Can corrugated vent systems work properly? The ash will accumulate in the corrugation. Will the clearance to combustible be adequate if it's a lower temperature oil boiler that now has to stand up to A-Vent qualification and burn cycles from the NFPA rating test?
12. Sidewall venting is not appropriate (either positive pressure operation, or fouling of fan blades).
13. Waste oil burner approval and learning is a reasonable model to parallel pellet conversion burners. These were initially introduced as applicable to all heat exchangers (and only in commercial applications). There was a high failure rate on heat exchangers, and the problems were not really solved until the waste oil burners were sold with dedicated heat exchangers, or sold with approved heat exchangers.
14. Good hardwood pellets are about 8000 BTU/lb and cost about \$275 to \$300 in the winter. The low end is \$2.38/gal equivalent of oil at the same efficiency. With fouling and excess air requirements, it could significantly lower efficiency, yielding a price of close to \$3.50/gal equivalent (without considering cleaning, maintenance, and reduced life cycle from additional wear and tear from frequent cleanings).

Thank you for your attention. We look forward to being of assistance to this Board in its deliberations.