



## **PFI Pellet Fuel Standards:**

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## **A Retailer's Perspective**

PFI Membership Luncheon  
HPBExpo 2009  
Reno, NV  
March 18, 2009



# PFI Standards Program

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- Program Developed for the “End-User”
- Today’s market geared toward “bagged” retail customer
- *BUT*, with Obama Administration’s focus on renewables, we can anticipate more focus on commercial applications and bulk delivery



# Why PFI Standards Need Industry-Wide Acceptance

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- Overwhelming numbers of “nuisance” calls
- Increased service call frequency
- Unrealistic expectations for appliance cleaning frequency
- Expectation for appliance performance not satisfactorily realized



# Why PFI Standards Need Industry-Wide Acceptance

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- End-user unhappiness with renewable energy as fuel of the future due to poor performance
- Overuse of *Premium* labeling—truth in advertising needed
- Safety concerns overwhelming due to hopper fires and smoke damage to home caused by clogging



## Retailers Goals

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- Value-driven market
- Customer ability to select fuel that's appropriate for the performance level of their particular appliance
- Customer satisfaction with appliance purchase



# Standards Review

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- Standards are downloadable from the PFI website
- Pellet production facilities and testing laboratories can also download forms and program components from the site

[www.pelletheat.org](http://www.pelletheat.org)



# Proposed Standards Fuel Grade Classifications

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- ▣ **Super Premium**

Tighter inorganic ash and moisture requirements.

- ▣ **Premium**

Very similar to the current standards for premium.

- ▣ **Standard**

Looser standards than current, except for the tighter requirement on inorganic ash.

- ▣ **Utility**

Loosest standards of all grades



# Residential/Commercial Densified Fuel Standards

Fuel Property	Residential/Commercial Densified Fuel Standards - See Notes 1 - 9			
	PFI Super Premium	PFI Premium	PFI Standard	PFI Utility
Bulk Density, lb./cubic foot	40.0 - 46.0	40.0 - 46.0	38.0 - 46.0	38.0 - 46.0
Diameter, inches	0.250 - 0.285	0.250 - 0.285	0.250 - 0.285	0.250 - 0.285
Diameter, mm	6.35 - 7.25	6.35 - 7.25	6.35 - 7.25	6.35 - 7.25
Pellet Durability Index	≥ 97.5	≥ 97.5	≥ 95.0	≥ 95.0
Fines, % (at the mill gate)	≤ 0.50	≤ 0.50	≤ 0.50	≤ 0.50
Inorganic Ash, % - See Note 1	≤ 0.50	≤ 1.0	≤ 2.0	≤ 6.0
Length, % greater than 1.50 inches	≤ 1.0	≤ 1.0	≤ 1.0	≤ 1.0
Moisture, %	≤ 6.0	≤ 8.0	≤ 8.0	≤ 10.0
Chloride, ppm	≤ 300	≤ 300	≤ 300	≤ 300
Ash Fusion - See Note 8	NA	NA	NA	NA
Heating Value - See Note 1	As-Rec. ± 2SD	As-Rec. ± 2SD	As-Rec. ± 2SD	As-Rec. ± 2SD





## Standards Notes

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- Does not have BTU requirement
- Grade must be specified on the bag
- Material type and additives must be specified
- Must use program graphics
- Chemically treated chemicals are prohibited



## Standards Notes

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- All limits must be met to achieve goal
- Ash fusion assessed quarterly
- All testing by standardized test methods

# Development of Bag Graphics

## PFI REGISTERED FUEL



### Manufacturers Guaranteed Analysis:

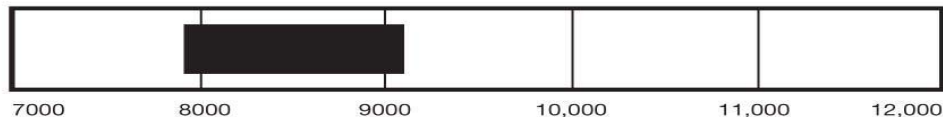
Reg. #1234

PFI Fuel Grade:	Super Premium
Type of Material:	Softwood fiber
Additives:	2.0% corn oil by weight
Bulk Density:	40–46 lbs/ft <sup>3</sup>
Diameter:	.25–.28 in/6.35–7.25 mm
Durability:	≥97.5
Fines:	≤0.50%
Length:	≤1% >1.5 in.
Moisture:	≤6.0%
Chlorides:	≤300 ppm

### ASH CONTENT (As Received)



### BTUS PER POUND (As Received)



For more information, please visit the PFI website at [www.pelletheat.org](http://www.pelletheat.org).



# Why is the Bag Label Important?

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- Retailer/Customer acceptance
- Customer needs guarantee of what the label says is in the bag is actually in the bag



# Standards Review: QA/QC Program

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## Benefits of QA/QC program

- Retailer
- Consumer
- Manufacturer



# **New PFI QA/QC Program**

## **Production Facility QC Requirements**

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- Production facility drafts written QC program
- QC testing performed in-house routinely
- Routine 3<sup>rd</sup> party testing for QA
- Facilities must sign certificate of compliance
- Enforcement through PFI Data Review Board
- Registration system for all compliant facilities
- QA analysis used for grading and bag labeling



# **Quality Assurance**

## **Production Facility QA Requirements**

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- Register with PFI
- Sign a Certificate of Compliance
- Participate in a PFI-administered proficiency testing program
- Submit data on a quarterly basis to the Data Review Board



# Standards Review: Overview of Timelines

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- **July 14, 2008:** Yes Vote by PFI membership
- **Feb. 1, 2009:** Registration opens for labs and mills
- **One Year** of data collection necessary
- Following data collection, *anticipated* start date of **July 2010**—full product packaging/labeling, compliance monitoring and enforcement





# Impact on Appliance Manufacturers

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- Older appliances demand premium or better grades of fuel
- Owners manual guidance needed on type of fuel appliance should be burning

A decorative graphic on the left side of the slide, consisting of two overlapping curved shapes. The top shape is a dark teal color, and the bottom shape is a lighter, medium blue color. They are both semi-circular or quarter-circular in shape, creating a layered effect.

## Conclusion

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- Implementation of Standards Program = Industry Self-Regulation
- Will Help Industry as it Continues to Educate Congress and Executive Branch on Pellets as Viable Renewable Energy Source
- Paramount to our Industry's Future Growth and Success



# Standards Committee

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- Many, many hours logged
- Tireless effort
- **THANK YOU!**