



Fuel Standards Program

PFI Annual Conference

July 2009

Ponte Vedra Beach, Florida

Seth Voyles & Chris Wiberg




States and PFI Standards

- Washington
- Maine
- Colorado
- New York State Energy Research and Development Authority (NYSERDA)
- British Columbia





Federal Legislation

- If we want a Production Tax Credit (PTC) for the manufacturing of pellets we need standards.
 - This is a requirement for most incentive programs.
- 



Stove Manufacturers

- The use of a fuel other than a PFI Registered Fuel in their appliance may void the warranty.



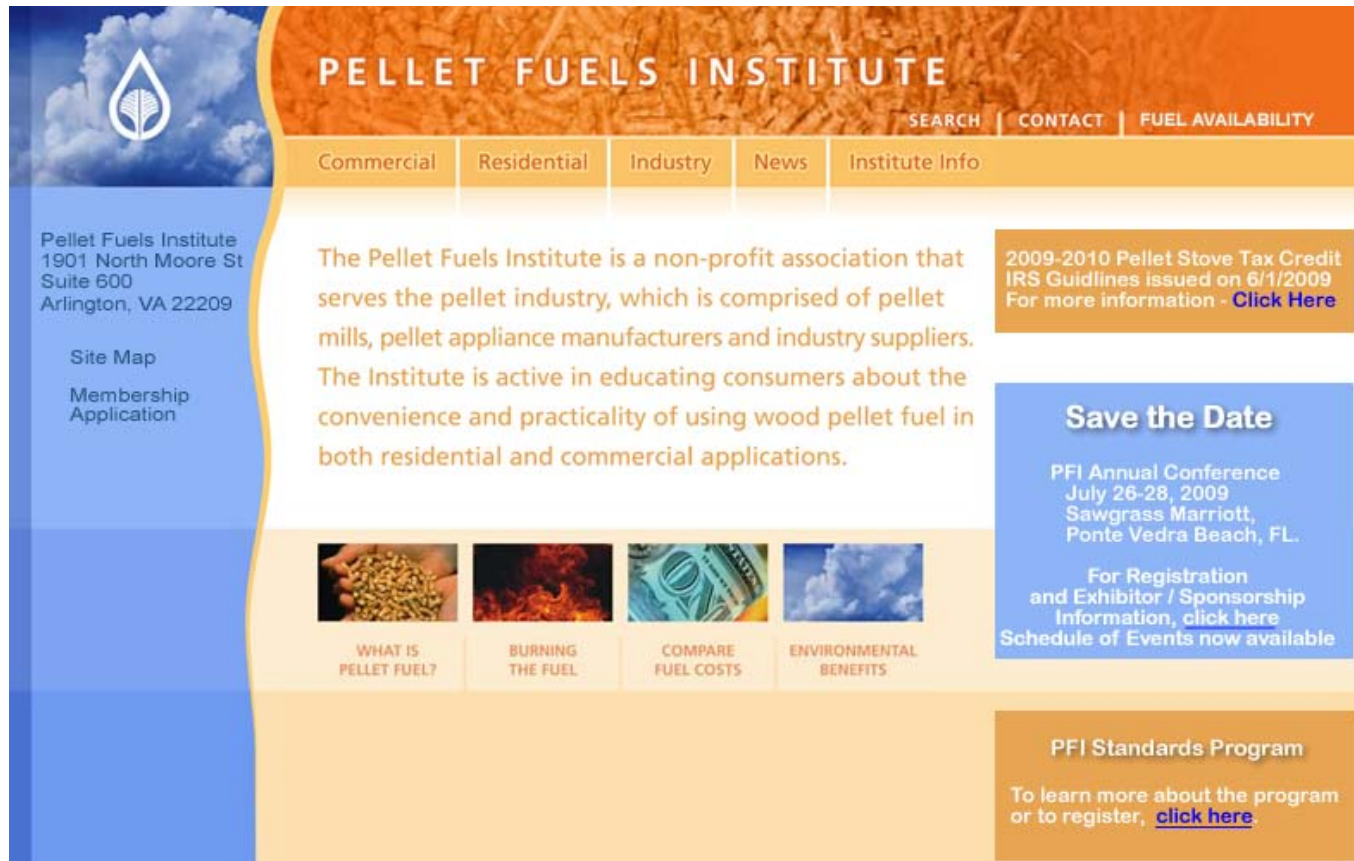
Program Status

- PFI is now accepting registrations from both PFI Members and Non-members.
- Just being a PFI Member does not mean you are enrolled in the program.



How do I get started?

www.pelletheat.org



The image shows a screenshot of the Pellet Fuels Institute website. The background is a close-up of wood pellets. The website has a blue and orange color scheme. At the top, there is a logo of a leaf inside a water drop, and the text "PELLET FUELS INSTITUTE". Below the logo, there is a navigation menu with links for "SEARCH", "CONTACT", and "FUEL AVAILABILITY". A secondary navigation bar includes "Commercial", "Residential", "Industry", "News", and "Institute Info". The main content area features a paragraph about the institute's mission, a "Save the Date" box for the 2009-2010 Pellet Stove Tax Credit, and a row of four small images with captions: "WHAT IS PELLE FUEL?", "BURNING THE FUEL", "COMPARE FUEL COSTS", and "ENVIRONMENTAL BENEFITS". A sidebar on the left contains contact information and links for "Site Map" and "Membership Application". A bottom right box highlights the "PFI Standards Program".

PELLET FUELS INSTITUTE

SEARCH | CONTACT | FUEL AVAILABILITY

Commercial | Residential | Industry | News | Institute Info

Pellet Fuels Institute
1901 North Moore St
Suite 600
Arlington, VA 22209

Site Map
Membership Application

The Pellet Fuels Institute is a non-profit association that serves the pellet industry, which is comprised of pellet mills, pellet appliance manufacturers and industry suppliers. The Institute is active in educating consumers about the convenience and practicality of using wood pellet fuel in both residential and commercial applications.

2009-2010 Pellet Stove Tax Credit
IRS Guidelines issued on 6/1/2009
For more information - [Click Here](#)

Save the Date
PFI Annual Conference
July 26-28, 2009
Sawgrass Marriott,
Ponte Vedra Beach, FL.

For Registration and Exhibitor / Sponsorship Information, [click here](#)
Schedule of Events now available

WHAT IS PELLE FUEL? **BURNING THE FUEL** **COMPARE FUEL COSTS** **ENVIRONMENTAL BENEFITS**

PFI Standards Program
To learn more about the program or to register, [click here](#)

Standards and Quality Assurance/ Quality Control program

PFI's original pellet fuel standards were developed in the 1990s to help bring consistency to pellet fuel for an improved consumer experience. Those first standards were quickly adopted by manufacturers within and outside the Pellet Fuels Institute. Fourteen years later, as the conversion to pellet heat has grown, we have new challenges in feed stock supply as well as higher performance expectations from consumers, requiring consistent testing procedures and more specific grades of fuel. PFI has worked diligently to bring forth updated standards as well as a quality management program for the pellet industry. Their development has been a combined effort between PFI's Board of Directors, Standards Committee, members and staff.

We are proud to announce that the Pellet Fuels Institute's Standards Program is now open for registration. Registration is open to both PFI members as well as non-members.

Standards Program Registration: To register for PFI's Standards Program, Please [click here](#).

PFI Standards Program Participating Mills

[Woodgrain Millwork](#)

PFI Standards Program Participating Testing Labs

[Intertek](#)

[MVTL Laboratories, Inc.](#)

[Timber Products Inspection](#)

[Twin Ports Testing](#)

Question/Answer Resources

PFI staff can be reached at 703-522-6778 or questions emailed to hedrick@pelletheat.org.



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1901 North Moore St
Suite 600
Arlington, VA 22209
(703) 522-6778



PFI's Standards Program

Follow the steps below.

1. Download the [PFI Standards](#) and the [PFI QA/QC Program](#) documents. It is highly recommended that you review these documents very carefully before starting the registration process.
2. After reading the standards and QA/QC Program documents, the next step is to prepare a written Quality Control Program for your facility. PFI has created a Quality Control Program template based on MIL-I-45208 which meets the requirements of PFI's QA/QC Program. We strongly recommend using this for your written Quality Control Program. If you already have a written Quality Control Program you may use your current program provided it contains at a minimum all of the components outlined in the template. You can download PFI's MIL-I-45208 Quality Control Program template document through the following link:

[Pellet Fuels Institute Quality Program Standard](#)

The full download is an inspection kit consisting of several documents. When the download is complete, find the document labeled "QA-QC-Program." This document provides the template for your written in-house Quality Control Program. There are several additional documents that come with the inspection kit. These documents may be useful to assist with the completion of the QA-QC program.



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Thank you for choosing At-PQC™ for your project.

Creditcard purchases are delivered immediately by a download page and backed-up by download link in the email receipt.

PayPal purchases are delivered only by the email receipt that is sent immediately after the transaction.

Please look for the email receipt in your **spam or junk mail folder**.

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Products in your shopping cart:

1: Pellet Fuels Institute Quality Program Standard

Amount to pay: \$197.00

Choose one of the following payment options...

Credit Card

Please review and accept our **purchase terms and conditions** on the next page.

Click the "Next>>" button shown below to complete a secure online **credit card**

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PFI's Quality Control Program Template Download

- Contains 38 files (*download within 48 hours*)
- Identify the word file named “QA-QC-Program” (*This is the Quality Control Program template*)
- Optional files that may be helpful:
 - Inspection forms/records
 - Good/bad material tags
 - Non-conformance reports
 - Calibration procedures/records



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3. Utilizing the QA-QC Program document you can draft your written in-house Quality Control Program. This process should be fairly self explanatory by following the template. However, it is at this point that questions often arise. Please review our **Question/Answer Resources** section below. We strongly recommend that you review the **FAQs** prior to drafting your Quality Control Program.



Questions on Writing Your Own Quality Control Program

- What are the minimum requirements of the program?
- Can I / should I use alternative testing methods?
- Where can I get copies of the ASTM methods?
- What about bag labeling and date stamping?
- Where can I get the necessary testing equipment?



Questions

- PFI has contracted with Twin Ports Testing to answer questions.
 - General questions regarding the program should be directed to PFI Staff.
 - Technical questions regarding the program should be directed to Twin Ports Testing.
 - www.twinportstesting.com/forum



www.twinportstesting.com/forum

Twin Ports Testing Forums		User Name <input type="text" value="User Name"/> <input type="checkbox"/> Remember Me?			
		Password <input type="password"/> <input type="button" value="Log in"/>			
Register	Blogs	FAQ	Calendar	Today's Posts	Search

Welcome to the Twin Ports Testing Forums.

Twin Ports Testing (TPT) has been a leader in the renewable energy marketplace for over 30 years. Specializing in biomass and pelletized fuels, TPT consults this industry by offering insight and direction to researchers and venture capitalists. Our forum is the perfect way to share your industry news, ask questions, and connect to people and places within this industry. TPT values your expertise and can't wait to see what you have to say! If you are a new member please click the [register](#) link to proceed, and also be sure to check out our [FAQ](#) by clicking the link above. If you are a returning member, enter your username and password above, then select the forum you want to view from the selection below.

Forum	Last Post	Threads	Posts
Pellet Fuels Institute Technical Support Information			
Industry news for PFI's standardization programs			
PFI QA/QC program for pellet standardization Frequently asked questions & answers	Private	10	18

PFI QA/QC program for pellet standardization Frequently asked questions & answers



Threads in Forum : PFI QA/QC program for pellet standardization			Forum Tools ▼	Search this Forum ▼		
	Thread / Thread Starter	Rating	Last Post ✓	Replies	Views	▼
	ASTM Methods Chris Wiberg		05-06-2009 08:36 AM by Chris Wiberg	<u>0</u>	7	<input type="checkbox"/>
	Bag Labeling Chris Wiberg		05-06-2009 08:25 AM by Chris Wiberg	<u>3</u>	36	<input type="checkbox"/>
	PFI article: What you need to know, & how to get started. Tammy Hippchen		04-09-2009 07:45 AM by Tammy Hippchen	<u>0</u>	10	<input type="checkbox"/>
	Laboratory Testing Equipment Chris Wiberg		01-28-2009 03:16 PM by shoutler@azic.com	<u>2</u>	50	<input type="checkbox"/>
	Drafting an In-House QA/QC Program Chris Wiberg		01-20-2009 03:43 PM by Chris Wiberg	<u>2</u>	37	<input type="checkbox"/>
	PFI Standards Program - Addendum #1 Chris Wiberg		01-20-2009 11:26 AM by Chris Wiberg	<u>1</u>	77	<input type="checkbox"/>
	Utilizing Alternative Test Methods Chris Wiberg		12-31-2008 04:36 PM by Chris Wiberg	<u>0</u>	26	<input type="checkbox"/>
	Chemically Treated Feedstock Materials? Chris Wiberg		12-31-2008 04:15 PM by Chris Wiberg	<u>0</u>	19	<input type="checkbox"/>



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4. The next step is to select a PFI registered testing laboratory. [Click here](#) to see a list of participating labs.
5. Implement your Quality Control Program and initiate third party QA testing (one sample per 1,000 tons of product produced, tested for all parameters listed in the PFI Standards).
6. Complete your [PFI QA/QC Program - Pellet Fuel Manufacturer Registration Form](#)
7. Sign your [Certification of Compliance](#).
8. Send your Registration Form, a copy of your Quality Control Program, Certification of Compliance, and applicable registration fee ([click here for information on fees](#)) to Pellet Fuels Institute, 1901 North Moore Street, Suite 600, Arlington, VA 22209.

PFI Fuel Standards Program Registration Form



PELLET FUELS INSTITUTE

IN ALLIANCE WITH THE HEARTH, PATIO & BARBECUE ASSOCIATION

1901 North Moore Street
Suite 600
Arlington, VA 22209

(703) 522-6778
fax:(703) 522-0548

PFI QA/QC Program – Pellet Fuel Manufacturer Registration Form

The following information will be required of any pellet fuel production facility intending to participate in PFI's QA/QC program with the intent of manufacturing a PFI Registered Pellet Fuel and use PFI's QA/QC program Certification Mark.

Company Name: _____

Mailing address: _____

Physical Address: _____

Company Contact:

Contact name: _____ Contact phone: _____

Contact Fax: _____ Contact E-mail: _____

How many production facilities does your company operate? _____

What are the names of each of your production facilities and where are they located (city and State/Province)?

If your company has more than one production facility, do separate production facilities sell product under the same brand name? Yes No

If yes, how do you differentiate the product produced by each production facility?

Please select one of the production facilities listed above to be registered with this form.

Note: You must register each production facility separately.

Production Facility Name: _____

Mailing Address: _____

Physical Address: _____

PFI Fuel Standards Program Certification of Compliance



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1901 North Moore Street
Suite 600
Arlington, VA 22209

(703) 522-6778
fax:(703) 522-0548

Certification of Compliance – Pellet Fuel Manufacturer

Facility Name: _____ Year: _____

Facility Location: _____

Note: All pellet fuel manufacturers participating in the PFI registration program must submit on an annual basis a certification by the responsible parties that the results of any testing conducted to demonstrate product grade have been reported accurately, that sampling was conducted in accordance with the required sampling procedures, and that analysis was conducted by an outside laboratory utilizing the methods required by PFI. Products will not be registered by PFI without this certification.

1.) Certification by Mill Owner/Operator:

"I certify that the mill listed above has adopted and is currently implementing a quality management program consistent with the QA/QC program outlined by PFI and that the data presented by the mill to represent product quality and quantity produced is to the best of my knowledge and belief, true, accurate and complete. All exceptions are listed and explained on the attached sheet."

Signature

Printed Name of Person Signing

Title

Date

2.) Certification by mill Quality Manager:

"I certify that the quality management program of the mill listed above is implemented under my direction and/or supervision and that all sampling and analysis conducted within the mill for the use of establishing pellet fuel quality is conducted in accordance with the QA/QC program outlined by PFI. I further certify that the data presented by the mill to represent product quality and quantity produced is to the best of my knowledge and belief, true, accurate and complete. All exceptions are listed and explained on the attached sheet."

Signature

Printed Name of Person Signing

Title

Date

Exceptions to PFI's QA/QC Program:



Registration Fees

PFI Members

- First Year - \$1,000
 - If you operate more than one production location you can register each additional production location for \$750
- Second Year - \$400
 - If you operate more than one production location you can register each additional production location for \$300.

PFI Non-members

- First Year - \$2,500
 - If you operate more than one production location you can register each additional production location for \$1,500
- Second Year - \$1,200
 - If you operate more than one production location you can register each additional production location for \$600.



Registration Review Process

- PFI Staff
 - Review Registration Form
 - Facility has copies of the standards
 - Facility has submitted and implemented their QA/QC Program
 - Facility has initiated third party testing with a PFI registered lab
 - Review Certification of Compliance
 - Document has been signed
- Twin Ports Testing
 - Review of Quality Control Program



Registration Review Process

- Programs with discrepancies will receive phone calls.
- Document revisions may be necessary.
- Non-compliant components will need to be brought into compliance.
- When all necessary components are in compliance registration will be approved.

PFI Fuel Standards Program Letter of Acceptance



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1901 North Moore Street
Suite 600
Arlington, VA 22209

(703) 522-6778
fax: (703) 522-0548

July 27, 2009

Mr. John Smith
ABC Pellets
P.O. Box 123
Anytown, FL 12345

Dear John:

Thank you for your interest in PFI's QA/QC Program. I'm writing to inform you that your application (including your company's Quality Control Program) has been accepted and you have been formally enrolled in the program.

Your company's name will now be listed on PFI's website as a participant in PFI's QA/QC Program. In the upcoming weeks, we will send you an interim bag label that you can use to signify participation in the PFI's QA/QC Program. This will eventually be replaced by a Certification Mark.

You listed Twin Ports Testing as your third party lab of choice. PFI will be submitting a data tracking spreadsheet to Twin Ports Testing on your behalf for data submittal purposes. PFI's data evaluation cycle runs on a quarterly basis. Your cycle will begin on July 1, 2009. Twin Ports Testing will be submitting your testing data to PFI at the end of each quarter.

If you have any questions on next steps, please do not hesitate to contact the PFI office at 703-522-6778. For questions related to the technical aspects of the program, please see the forum located at <http://twinportstesting.com/forum>.

Sincerely,

Jennifer Hedrick
Association Manager

Interim Certification Mark

This Production Facility is a

PFI QA/QC PROGRAM PARTICIPANT

GRADE REGISTRATION PENDING - FACILITY # _____



Pellet
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- Provided to mill after program registration has been approved.
- Can be placed on the manufacturers bag at the next available opportunity (bag printing).
- Will be used for at least 1 year, but may be used longer while grade compliance is being verified.



Data Tracking

- On a quarterly basis, PFI registered laboratories submit the compiled data from each program participant to PFI.
- The data is blinded and refined.
- Refined data is submitted to a Data Review Board.
- Compliance Verification

Data Tracking

- Monthly Data Tracking compiled by testing labs

PFI Registration Number:

Grade of

Sample Identification					Physical Characteristics of Pellets				Laboratory Analytical Results (As Received)				Analyzed by the Production Facility
Mill Sample #	Laboratory Analysis #	Date on Bag	Date Received	Bag Wt (lbs)	Average Diameter (inches)	Length (% > 1.5)	Bulk Density (lbs / cubic ft)	Durability Index	Moisture (% wt)	Ash (% wt)	Heating Value (BTU /)	Chloride (ppm)	Fines (% wt)
A PELLETS	09W0108	1/14/09	1/19/09	40.30	0.256	0.0	43.1	96.7	4.01	0.85	7,891	72	0.24
B PELLETS	09W0249	1/27/09	1/29/09	40.20	0.255	0.0	41.6	95.7	4.30	1.01	7,417	180	0.30
C PELLETS	09W0524	2/12/09	2/18/09	40.10	0.252	0.0	41.1	96.6	4.23	0.70	8,038	51	0.32
D PELLETS	09W0591	2/24/09	2/26/09	40.40	0.257	0.0	41.3	97.5	4.98	1.04	7,899	115	0.12
E PELLETS	09W0728	3/10/09	3/11/09	40.00	0.254	0.0	43.9	97.4	4.59	0.99	8,057	141	0.14
Average				40.20	0.255	0.0	42.2	96.8	4.42	0.92	7,860	112	0.22
Standard Deviation				0.15	0.002	0.0	1.2	0.7	0.35	0.13	245	49	0.09
+2 Standard Deviations				40.50	0.258	0.0	44.5	98.1	5.13	1.19	8,350	210	0.40
-2 Standard Deviations				39.90	0.251	0.0	39.9	95.4	3.72	0.65	7,371	14	0.05


Ash Fusion		
Temperatures (°F)	Oxidizing	Reducing
Initial Deformation		
Softening		
Hemispherical		
Fluid		

Certification Mark

- Provided after a grade has been established (minimum of 1 year).
- Will be verified and/or updated annually.

THIS BAG CONTAINS A

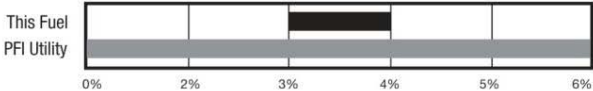
PFI REGISTERED FUEL



Manufacturers Guaranteed Analysis:
Reg. #1234

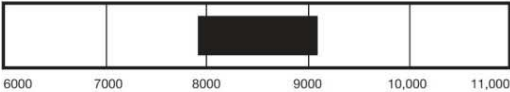
PFI Fuel Grade:	Utility
Type of Material:	Softwood fiber
Additives:	2.0% corn oil by weight
Bulk Density:	38–46 lbs/ft ³
Diameter:	.25–.28 in/6.35–7.25 mm
Durability:	≥95.0
Fines:	≤0.50%
Length:	≤1% >1.5 in.
Moisture:	≤10.0%
Chlorides:	≤300 ppm

ASH CONTENT (As Received)



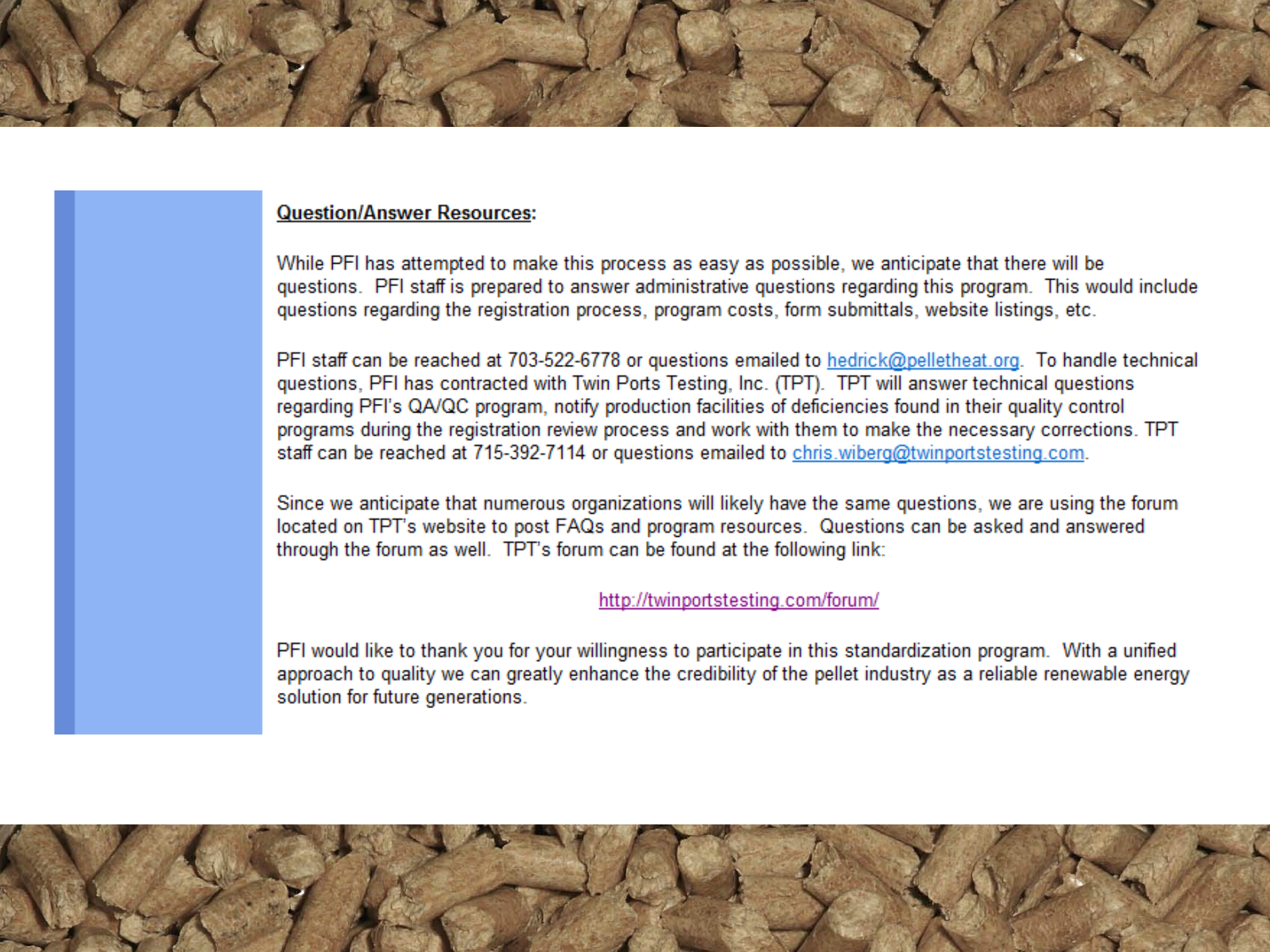
This Fuel	~3.5%
PFI Utility	~3.2%

BTUS PER POUND (As Received)



This Fuel	~8,500
PFI Utility	~8,200

© For more information, please visit the PFI website at www.pelletheat.org.



Question/Answer Resources:

While PFI has attempted to make this process as easy as possible, we anticipate that there will be questions. PFI staff is prepared to answer administrative questions regarding this program. This would include questions regarding the registration process, program costs, form submittals, website listings, etc.

PFI staff can be reached at 703-522-6778 or questions emailed to hedrick@pelletheat.org. To handle technical questions, PFI has contracted with Twin Ports Testing, Inc. (TPT). TPT will answer technical questions regarding PFI's QA/QC program, notify production facilities of deficiencies found in their quality control programs during the registration review process and work with them to make the necessary corrections. TPT staff can be reached at 715-392-7114 or questions emailed to chris.wiberg@twinportstesting.com.

Since we anticipate that numerous organizations will likely have the same questions, we are using the forum located on TPT's website to post FAQs and program resources. Questions can be asked and answered through the forum as well. TPT's forum can be found at the following link:

<http://twinportstesting.com/forum/>

PFI would like to thank you for your willingness to participate in this standardization program. With a unified approach to quality we can greatly enhance the credibility of the pellet industry as a reliable renewable energy solution for future generations.



Additional Costs Associated with the Fuel Standards Program

- QA/QC Program
 - MIL-I-45208 (\$197)
- Third Party Testing
 - One bag per 1000 tons produced
 - Costs associated with sending sample to testing lab
- ASTM Method Documents can be purchased at www.astm.org



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Latest News	Recent Publications	New Initiatives
<p>New ASTM Standard for Aquatic Play Equipment Industry</p>  <p>A new ASTM standard provides information and methods for water park</p>	<p>Building Codes New Edition! Available in Print, Online, and CD-ROM ASTM Standards in Building Codes 46th Edition More</p> <p>Safety Toy Safety New Edition! ASTM Consumer Safety Specification for Toy Safety--with official Chinese Translation, 2nd Edition More</p>	<p>Scholarship Winners Announced</p>  <p>ASTM International Year of the PROFESSOR</p> <p>Reed Eppelheimer, a student in the School of Packaging at Michigan State University, is the first recipient of the ASTM International Graduate Scholarship, which was</p>

On-Site Testing

- The QA/QC component of the program requires at a minimum the routine assessment of bulk density, fines, pellet length, pellet diameter and moisture content.
- Cost for in-house testing equipment approx \$6000 (quoted thru Preiser Scientific)

QUANTITY	CATALOG NO.	DESCRIPTION	PRICE	UNIT	EXTENSION
1	91-7590-01	Sample Splitter, Model SP-1	712.00	EA	712.00
1	91-7600-01	Extra Pan for SP-1	53.15	EA	53.15
1	90-5385-05	Unit Weight Measure Container, ¼ cu.ft.	360.00	EA	360.00
1	90-5385-15	Strike-Off Plate, 10" x 10"	64.30	EA	64.30
1	91-9146-25	Sieve, 12" Diameter, Full Height, Brass Frame, Stainless Cloth <ul style="list-style-type: none">• 1/8" Opening• 1/8" is not ASTM E-11 Spec	102.00	EA	102.00
1	91-9158-20	Sieve Pan, Brass, 12" Diameter 3" Deep	69.00	EA	69.00
1	CNL-3416	Calipers, Digital, 8" w/ NIST Traceable Certificate	96.00	EA	96.00
1	91-1732-10	Moisture Analyzer, Model MX-50 115V	2,396.00	EA	2,396.00
1	91-6440-87	Plate Mill Crusher, Hand Operated	221.00	EA	221.00
1	90-1767-12	Balance AND Model GP20K 21kg X 0.1gms 115V	2,420.00	EA	2,420.00



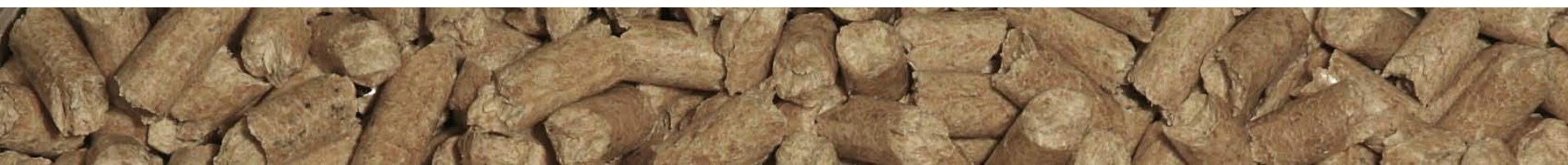
Standards Program Review

- PFI's Standards Program is constantly being refined. Program components that could change are:
 - Grade Requirements
 - Testing Methodology/Frequency
 - Quality Control Program Requirements
 - Etc.





Benefits of Participation

- Quality saves you money
 - Helps you manufacture and sell a better product
 - The consumers experience with your pellets will influence your future sales or the lack of future sales
- 



Questions?