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# **Pellet Fuels Institute**

## **North American Certification of Residential/Commercial Densified Fuel**

**Draft manual**

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## **1 CERTIFICATION SYSTEM BACKGROUND AND GOAL**

The goal of the following certification system is to secure the supply of standardized residential/commercial densified fuel that can be fired trouble-free in commercially available residential/commercial densified fuel combustion appliances.

To assure the consistent quality of densified fuels leaving the production facility, this certification system includes the manufacturing process, finished product quality verification, packaging and storage of product. As the quality of the densified fuels leaving the production facility is not decisive for customer satisfaction, but rather the quality of the densified fuels that arrive at the end consumer's location, the complete supply chain will be examined, however certifying the entire supply chain is beyond the scope of this certification system.

Four densified fuels grades are defined including Super Premium, Premium, Standard, and Utility. These grades are based on PFI's Standard Specifications for Residential/Commercial Densified Fuel.

This certification system contains the following essential components:

- Specifications for Residential/Commercial Densified Fuel
- Third party independent oversight by a certification body
- Accreditation of auditing agencies and testing laboratories
- Certification of densified fuel production facilities
- A Certification Mark for compliant materials
- A registration system for all compliant entities
- Enforcement actions for non-compliance

This certification system shall be reviewed and revised as necessary by the Pellet Fuels Institute.

## **2 CERTIFICATION SYSTEM DOCUMENTS**

PFI Standard Specification for Residential/Commercial Densified Fuel

PFI Residential/Commercial Densified Fuel QA/QC Handbook

PFI Residential/Commercial Densified Fuel Enforcement Regulations

PFI Residential/Commercial Densified Fuel Certification Oversight Standard

### **3 CERTIFICATION SYSTEM ASSIGNMENT OF RESPONSIBILITIES**

#### **3.1 Issuer**

The Pellet Fuels Institute (PFI) with corporate offices located in Arlington, VA shall be deemed the issuer and maintainer of this certification system. PFI shall contract a certification body to provide independent oversight of this certification system. PFI shall provide a web based registry identifying the certification body as well as all accredited auditing agencies, accredited testing laboratories, and certified production facilities.

#### **3.2 Certification Body**

The certification body shall accredit auditing agencies and testing laboratories in accordance with PFI Residential/Commercial Densified Fuel Enforcement Regulations and shall evaluate certification effectiveness in accordance with the PFI Residential/Commercial Densified Fuel Certification Oversight Standard. Effectiveness will be evaluated by means of inspections performed at certified densified fuel production facilities. The certification body will also maintain a densified fuel laboratory proficiency program for all accredited testing laboratories

#### **3.3 Accredited Auditing Agencies**

Accredited auditing agencies shall provide initial assurance that densified fuel producers have properly implemented PFI's Residential/Commercial Densified Fuel QA/QC Handbook. In addition, auditing agencies shall enforce the certification system by performing audits and issuing certificates in accordance with PFI's Residential/Commercial Densified Fuel Enforcement Regulations.

#### **3.4 Accredited Testing Laboratories**

Accredited testing laboratories shall conduct all testing in accordance with the methodology outlined in PFI's Standard Specification for Residential/Commercial Densified Fuel and in accordance with PFI's Residential/Commercial Densified Fuel Enforcement Regulations. Certified densified fuel production facilities shall use accredited testing laboratories as necessary to demonstrate product quality. Auditing agencies shall use accredited testing laboratories to analyze samples collected during audits. Accredited testing laboratories shall participate in the densified fuel laboratory proficiency program maintained by the certification body.

### 3.5 Certified Densified Fuel Production Facilities

Certified densified fuel production facilities are production facilities that have successfully implemented PFI's Residential/Commercial Densified Fuels QA/QC Handbook and have demonstrated through audit and testing that the densified fuel, as well as the process used to produce the fuel, is in compliance with PFI's Standard Specifications for Residential/Commercial Densified Fuel and PFI's Residential/Commercial Densified Fuel QA/QC Handbook. Certified densified fuel production facilities must maintain compliance with both standards in order to keep their certification.

## 4 CERTIFICATION SYSTEM

### 4.1 Overview

The essential components of the certification program are:

- PFI contracts a certification body to provide independent oversight of the certification system.
- The certification body accredits auditing agencies and testing laboratories in accordance with PFI's Residential/Commercial Densified Fuel Enforcement Regulations.
- Accredited auditing agencies inspect densified fuel production facilities to verify compliance with PFI's Standard Specification for Residential/Commercial Densified Fuel as well as with PFI's Residential/Commercial Densified Fuel QA/QC Handbook.
- Accredited testing laboratories provide independent third party testing to densified fuel producers as needed for internal QA/QC purposes to demonstrate the quality of densified fuel produced.
- Accredited testing laboratories provide independent third party testing for samples collected by accredited auditing agencies during inspections.
- Accredited auditing agencies issue certificates to densified fuel production facilities that are found to be in compliance with PFI standards.
- Certified densified fuel production facilities are periodically monitored by accredited auditing agencies to verify continued compliance with PFI standards.

- Accredited auditing agencies and testing laboratories are periodically monitored by the certification body in accordance with PFI's Residential/Commercial Densified Fuel Certification Oversight Standard.
- PFI provides a web based registry of the certification body, accredited auditing agencies, accredited testing laboratories, and certified densified fuel production facilities.
- Accreditations, certifications and/or registrations are revoked if compliance is not maintained.
- PFI provides a Certification Mark for all compliant product.
- PFI maintains the certification system documents.
- PFI pursues any misuse of the Certification Mark or other infringements of the certification system.

## **4.2 Certification Body**

PFI shall enter into a contract with a certification body to independently oversee the certification system.

### **4.2.1 Certification Body Selection**

PFI will select a certification body based on the needs of the residential/commercial densified fuels industry, including the needs of densified fuel consumers, producers, retailers, distributors, suppliers and appliance manufacturers. PFI's selection will also be based on the need to comply with any applicable Federal, State, and/or local regulations. All contracts with the certification body will be reviewed and renewed annually. The certification body will be monitored periodically throughout the contract term through direct communications.

### **4.2.2 Major Changes**

The certification body shall immediately report major changes to the PFI. Major changes are all changes to the organization structure or responsibilities that may affect the ability of the certification body to manage and oversee this certification system. Such changes may include loss or reassignment of key staff, conflicts of interest, or the acceptance of additional responsibilities that may reduce the time and attention dedicated to this certification system.

### **4.2.3 Certification Body Fees**

The certification body will be charging fees to all accredited auditing agencies. These fees will be used to pay for the services of the certification body. PFI requires that the certification body add 5% to their fee base for direct payment to PFI upon receipt. Fees collected by PFI through the certification body will be used to manage the certification system documents and to conduct research pertinent to the development of the standards and/or certification system.

## **4.3 Accreditation of Auditing Agencies**

Auditing agencies will be accredited by the certification body in accordance with PFI's Residential/Commercial Densified Fuels Enforcement Regulations.

### **4.3.1 Accreditation Process**

To gain accreditation, prospective auditing agencies must contact the certification body. The certification body will issue an application as well as a copy of PFI Residential/Commercial Densified Fuel Enforcement Regulations, PFI Residential/Commercial Densified Fuel QA/QC Handbook, and PFI's Standard Specifications for Residential/Commercial Densified Fuel. The prospective auditing agency must complete and submit the application to the certification body. Upon approval of the application by the certification body an initial audit of the auditing agency will be performed by the certification body to verify compliance with PFI Residential/Commercial Densified Fuel Enforcement Regulations. If deficiencies are found during the audit the applicant must prove to the certification body that corrective measures have been taken. Once all deficiencies have been corrected the certification body will issue a certificate of accreditation to the applicant.

### **4.3.2 Accreditation Monitoring**

Accredited auditing agencies are monitored by the certification body in accordance with PFI's Residential/Commercial Densified Fuel Certification Oversight Standard.

### **4.3.3 Major Changes**

The accredited auditing agency shall immediately report major changes to the certification body. Major changes are all changes to the organization structure or responsibilities that may affect the ability of the accredited auditing agency to manage and oversee the certification of densified fuel production facilities. Such changes may include loss or reassignment of key staff, conflicts of interest, or the acceptance of additional responsibilities that may reduce the time and attention dedicated to this certification system.

#### **4.3.4 Accreditation Fees**

Applicants will be required to pay an application fee. In addition, applicants will be required to pay for the cost of an initial audit, which is required to be performed by the certification body. Accredited auditing agencies will incur the cost of any subsequent audits of their facility that are required to be performed by the certification body and will also be responsible for the balance of all costs associated with the certification system paid for through auditing fees collected from certified densified fuel production facilities.

#### **4.3.5 Accreditation Registration**

Once accreditation is complete, PFI will be informed by the certification body and the accredited auditing agency will be entered into a register with all other accredited auditing agencies on the PFI website.

#### **4.3.6 Objection Proceedings**

Objection proceedings will be outlined in PFI's Residential/Commercial Densified Fuel Enforcement Regulation Standard.

### **4.4 Accreditation of Testing Laboratories**

Testing laboratories will be accredited by the certification body in accordance with PFI's Residential/Commercial Densified Fuels Enforcement Regulations.

#### **4.4.1 Accreditation Process**

To gain accreditation, prospective testing laboratories must contact the certification body. The certification body will issue an application as well as a copy of PFI Residential/Commercial Densified Fuel Enforcement Regulations and PFI Standard Specifications for Residential/Commercial Densified Fuel. The prospective testing laboratory must complete and submit the application to the certification body. Upon approval of the application by the certification body an initial audit of the testing laboratory will be performed by the certification body to verify compliance with PFI Residential/Commercial Densified Fuel Enforcement Regulations and PFI Standard Specifications for Residential/Commercial Densified Fuel. If deficiencies are found during the audit the applicant must prove to the certification body that corrective measures have been taken. Once all deficiencies have been corrected the certification body will issue a certificate of accreditation to the applicant.

#### **4.4.2 Accreditation Monitoring**

Accredited testing laboratories are monitored by the certification body in accordance with PFI's Residential/Commercial Densified Fuel Certification Oversight Standard.

#### **4.4.3 Major Changes**

The accredited testing laboratory shall immediately report major changes to the certification body. Major changes are all changes of the technical equipment as well as the operation processes or the company organization that must be reported during the application process or are required as part of PFI Residential/Commercial Densified Fuel Enforcement Regulations or PFI Standard Specifications for Residential/Commercial Densified Fuel.

#### **4.4.4 Laboratory Proficiency Testing Program**

All accredited testing laboratories must participate in a densified fuel laboratory proficiency program administered by the certification body.

#### **4.4.5 Accreditation Fees**

Applicants will be required to pay an application fee. Applicants will be required to pay for the cost of an initial audit of their facility, which is required to be performed by the certification body. Accredited testing laboratories will incur the cost of subsequent audits of their facility that are required to be performed by the certification body and will also be responsible for the costs associated with their participation in the laboratory proficiency testing program.

#### **4.4.6 Accreditation Registration**

Once accreditation is complete, PFI will be informed by the certification body and the accredited testing laboratory will be entered into a register with all other accredited auditing agencies on the PFI website.

#### **4.4.7 Objection Proceedings**

Testing laboratories will be accredited by the certification body in accordance with PFI's Residential/Commercial Densified Fuels Enforcement Regulations.

### **4.5 Certification of Densified Fuel Production Facilities**

Densified fuel production facilities will be certified by accredited auditing agencies in accordance with PFI's Residential/Commercial Densified Fuels QA/QC Handbook.

#### **4.5.1 Certification Process**

To gain accreditation, prospective densified fuel production facilities must enter into a contract with an accredited auditing agency. The accredited auditing agency will issue an application as well as a copy of PFI Residential/Commercial Densified Fuel QA/QC Handbook and PFI Standard Specifications for Residential/Commercial Densified Fuel. The prospective densified fuel production facility must complete and submit the application to the accredited auditing agency. Upon approval of the application by the accredited auditing agency an initial audit of the densified fuel production facility will be performed by the accredited auditing agency to verify compliance with PFI Residential/Commercial Densified Fuel QA/QC Handbook and PFI Standard Specifications for Residential/Commercial Densified Fuel. If deficiencies are found during the audit the applicant must prove to the accredited auditing agency that corrective measures have been taken. Once all deficiencies have been corrected the accredited auditing agency will issue a certificate to the applicant.

#### **4.5.2 Certification Monitoring**

Certified densified fuel production facilities are monitored by the accredited auditing agency in accordance with PFI's Residential/Commercial Densified Fuel Enforcement Regulations.

#### **4.5.3 Major Changes**

The certified densified fuel production facility shall immediately report major changes to the accredited auditing agency. Major changes are all changes of the production and/or technical equipment as well as the operation processes or the company organization that must be reported during the application process or are required as part of PFI Residential/Commercial Densified Fuel QA/QC Handbook or PFI Standard Specifications for Residential/Commercial Densified Fuel.

#### **4.5.4 Certification Fees**

Applicants will be required to pay an application fee. In addition, applicants will be required to pay for the cost of the initial audit required to be performed by the accredited auditing agency. On an on-going basis there will be a fee charged by the accredited auditing agency to cover the cost of monitoring inspections/production audits.

#### **4.5.5 Certification Registration**

Once certification is complete, PFI will be informed by the accredited auditing agency and the certified densified fuel production facility will be entered into a

register with all other certified densified fuel production facilities on the PFI website.


#### 4.5.6 Objection Proceedings

Testing laboratories will be accredited by the certification body in accordance with PFI's Residential/Commercial Densified Fuels Enforcement Regulations.

### 5 CERTIFICATION MARK

When a certificate is issued to a densified fuel production facility, the certificate holder acquires the right to use PFI's Certification Mark to label the certified product(s) and to use for advertising purposes. The Certification Mark must be exclusively used in direct connection with the certified product(s). Certified densified fuel production facilities who manufacture certified and non-certified products must avoid the impression that the complete production and traded quantities are certified.

PFI's Certification Mark must be displayed as follows:

**PFI CERTIFIED FUEL**  Pellet Fuels Institute

**PFI Fuel Grade: Super Premium**

**Manufacturers Guaranteed Analysis:**  
Reg. #1234

Type of Material:	Softwood fiber
Additives:	2.0% corn oil by weight
Bulk Density:	40–46 lbs/ft <sup>3</sup>
Diameter:	.230–.285 in/5.84–7.25 mm
Durability:	≥96.5
Fines:	≤0.50%
Ash Content (as received):	0.5%
Length:	≤1% >1.5 in.
Moisture:	≤8.0%
Chlorides:	≤300 ppm

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Certification Mark is displayed on the front, lower third of the bag. Additives may not exceed two percent by weight and the additive type must be stated. Materials must also

be disclosed. Material classifications may include: hard wood, soft wood, mixed hard wood and soft wood, agricultural grasses, nutshells, etc.

Densified fuel production facilities that are not certified in accordance with this certification system are not authorized to use the Certification Mark.

## **6 ACCREDITATION AND CERTIFICATION REVOCATION**

When conscious violations of the regulations of this certification system occur or when noticed defects continue despite repeated demands, the applicable accreditation or certification shall be revoked. The certification body shall perform the duty of revoking accreditations if necessary from auditing agencies and testing laboratories. The accredited auditing agency shall perform the duty of revoking certificates if necessary from densified fuel production facilities that they are under contract with.

For densified fuel producers that have several locations, the certificate shall be suspended for the location where the defects have been assessed until they have been corrected. All other production facility locations of the certificate holder may still be marketed as certified product.

In case where the accreditation or certification is revoked, the company can re-apply after a 30 day period.

## **7 CERTIFICATION SYSTEM MISUSE REPORTING PROCEDURES**

When consumers, retailers, appliance manufacturers, industry suppliers, densified fuel producers, testing laboratories, auditing agencies, the certification body or any other industry interest identifies a misuse of the certification system or the Certification Mark, immediately contact PFI to report the activity. Such misuse may include:

- Use of the Certification Mark for non-certified material
- Use of similar markings designed to imitate PFI's Certification Mark
- Continued use of the Certification Mark after the revocation of certification
- Displaying a Certification Mark with incorrect grade or quality claims
- Claims of certification or accreditation when certification or accreditation has not in fact been achieved (verifiable by cross reference with PFI's web-registration).

PFI intends to prosecute all infringements of this certification system and/or the Certification Mark to the full extent of the law.

## **8 CERTIFICATION SYSTEM MAINTENANCE**

PFI will review and update this document as well as all documents outlined in section 2.0 on an annual basis to assure that they continue to reflect the needs of the residential/commercial densified fuel industry.

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