

# Document 1



## **Performance Tested Comfort System® Appendix C**

### **Requirements for Utility Exemption from Independent Third Party Quality Assurance**

**October 1, 2004**

#### Introduction

In order to claim credit under the Conservation and Renewables Discount (C&RD) Program for residential air duct sealing, utilities must ensure each system meets the Performance Tested Comfort System® (PTCS) duct system specifications. Usually, in order to certify a duct system as PTCS, the duct-sealing contractor must obtain certification from a third-party organization (e.g., Climate Crafters). The third party organization is responsible for the quality control (QC) and quality assurance (QA) of certified duct sealing work as well as maintaining a registry of certified systems. This document sets forth the requirements for exemption from the third party quality assurance requirement for qualified utilities.

#### Process

Utilities may request third party quality assurance exemption from the Regional Technical Forum (RTF). The RTF will make a recommendation to the Bonneville Power Administration (BPA) as to whether the utility should be granted exemption. Only BPA can grant the exemption.

#### Requirements for Exemption

To be exempt from the third party QA requirements of PTCS duct sealing measures under the C&RD, a utility shall have (1) qualified inspection staff, (2) a quality control program, (3) a duct system certification program, and (4) a qualified registry system.

#### *1. Inspection Staff shall have the following qualifications:*

- 1.1. Knowledge of residential heat transfer and air and moisture movement.
- 1.2. Training in and experience with residential air distribution system diagnostics. This includes successful completion of an RTF approved PTCS training class for residential retrofit duct sealing.
- 1.3. Up-to date knowledge of the PTCS program specifications. The specifications are the latest version of the RTF's Performance Tested Comfort Systems® Duct System Diagnostic Field Guide, Program Standards, Testing Procedures and Reporting Forms.
- 1.4. Training on using the Utility's duct testing equipment (i.e. Blower Door, Duct Blaster, and Digital Manometer regularly calibrated per manufacturer's instructions)

#### *2. The utility Quality Control Program shall include the following components:*

# Document 1

- 2.1. Use of Certified Contractors - Utilities shall certify that contractors have successfully completed an RTF approved PTCS training class for residential retrofit duct sealing.
- 2.2. A Review of Incoming Data - The utility shall review all incoming contractor data for reasonableness and completeness using the Performance Tested Comfort Systems Duct Sealing Quality Control and Tracking Data Base form.
- 2.3. Utility Inspections
  - 2.3.1. All (100%) homes sealed shall be inspected by qualified utility staff to verify compliance with the PTCS specifications and leakage-to-outside test results claimed by the contractor.
    - 2.3.1.1. Inspections shall be performed within 30 business days of completion of the job.
    - 2.3.1.2. The first three installations for each new technician (new to the utility's program) shall be inspected within 10 business days of completion of the job.
- 2.4. Remediation of Contractor Errors
  - 2.4.1. Contractor Errors shall be remedied and re-inspected for compliance with the PTCS Specifications
  - 2.4.2. A Contractor Error is any deviation from the PTCS Specifications and/or Quality Assurance test that the utility inspection finds that fails to meet the PTCS Specification and/or there is more than the greater of 40 CFM<sub>50</sub> or 10 percent difference in contractor reported duct leakage to outside and the utility's quality assurance test results.
3. *Homes certified by the utility's Duct System Certification Program shall meet the latest version of the RTF's Performance Tested Comfort Systems<sup>®</sup> Duct System Diagnostic Field Guide, Program Standards, Testing Procedures and Reporting Forms.*
4. *Each utility shall maintain a registry and reporting system. This system shall include the following information on each house:*
  - 4.1. House characteristics (age, foundation type, square footage)
  - 4.2. Heating system type (electric FAF or heat pump, duct work location)
  - 4.3. Pre-duct sealing leakage to outside (including fan pressure reading and ring number)
  - 4.4. Post-duct sealing leakage to outside (including fan pressure reading and ring number)
  - 4.5. Inspection results (pass or error 1st inspection or error 2nd inspection, etc., and type of error (misrepresentation of leakage number, did not use mastic properly, etc.))
  - 4.6. Be in a user-friendly Excel format.
  - 4.7. Be made available electronically to the Regional Technical Forum within ten business days of request.

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