

WPN 15-4

Quality Work Plan

Where are we now and what is yet to come?

Section 1: Definition of Work Quality Guidelines

Requirement: All measures and incidental repairs performed on client homes must meet the specifications, objectives and desired outcomes outlined in the (SWS) for Home Energy Upgrades.

Section 1: Definition of Work Quality Guidelines

What has been completed:

- Field Guide submitted to USDOE on April 1.
- USDOE has 3 months to review and approve.
- All jobs **audited** after July 1, 2015 will fall under the new requirements.

Section 2: Communication of Guidelines and Standards

Requirement: Grantees must provide subgrantees and/or contractors with technical requirements for field work. The technical requirements must be clearly communicated and the specifications for work to be inspected must be referenced in subgrantee contracts. Contractors hired by the subgrantee must have agreements that include the same technical requirements referenced above. The work of the contractor must be consistent with the Grantee standards and field guides.

Section 2: Communication of Guidelines and Standards

The goal is to ensure:

- The Grantee is implementing work quality standards that align with the SWS.
- All subgrantees staff, contractors, and anyone doing the actual work are aware of these standards.
- Every home is inspected to ensure compliance with the requirements of the SWS.

Section 2: Communication of Guidelines and Standards

What has been completed:

- Language is in place in the master grant agreement to meet this requirement.
- Agencies will include language in their contracts ensuring that the SWS aligned field guide is the standard.
- Agencies must have a confirmation of receipt of the Field guide on file for each contractor.

Section 3: Inspection and Monitoring of Work Using Guidelines and Standards

Requirement: Quality Control Inspectors (QCI) working for, or contracted by, the WAP must possess the knowledge, skills and abilities in the National Renewable Energy Laboratory (NREL) Job Task Analysis (JTA) for Quality Control Inspectors. This applies to all individuals who perform an evaluation and sign off on work performed in homes, including final inspectors and Grantee monitoring staff.

Section 3: Inspection and Monitoring of Work Using Guidelines and Standards

Options for QCI Inspections:

- Independent QCI: The QCI is an individual that has no involvement in the prior work on the home either as the auditor or as a member of the crew. This option will require the monitoring of 5% of all completed units.

Section 3: Inspection and Monitoring of Work Using Guidelines and Standards

Options for QCI Inspections:

- Independent Auditor/QCI: The Auditor performs the audit, creates the work order, and performs the final quality control inspection. The auditor is not involved in any of the actual work on the home. This option will require the monitoring of 10% of all completed units.

Section 3: Inspection and Monitoring of Work Using Guidelines and Standards

What has been completed:

- Currently 30 certified QCI's in Oregon
- 5 more are candidates in training as we speak
- One more QCI class has been added in the next few weeks.
- Quality Control Inspector policies and procedures added to the state plan (Appendix E)

Section 3: Inspection and Monitoring of Work Using Guidelines and Standards

What has yet to be completed:

- Multi-family training now required for QCI's who work on MF projects.
- QCI inspection form for use by agency Inspectors and Monitoring staff.
- Update of OPUS to track QCI who inspected each job.

Oregon Weatherization Assistance Program Quality Control Inspection Form

All work must be performed to OR State Weatherization Field Guide and Agency contract specifications and work scope.

Contractor: _____ QCI Inspector: _____
 Client: _____ Date: _____
 Address: _____ Job #: _____

Approved _____
(final approval date if not approved initially)

Not Approved
 Re-inspection required? **YES** **NO**

| |
|--------|
| Notes: |
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Contact Inspector for: _____
 First in-progress Inspection Date: _____
 Second in-progress Inspection Date: _____

This section N/A **MECHANICAL/PLUMBING (Repair/Replacement)** ORSC Chp. 13-15 Comments: _____

- Pass Fail N/A 1) New heating system installed per work scope; functioning properly. _____
- Pass Fail N/A 2) Heating system repaired and operates properly. _____
- Pass Fail N/A 3) Set-back thermostat installed and explained to customer; instructions/warranty on site. _____
- Pass Fail N/A 4) Water heater replaced with new energy efficient unit to current WAP Field Guide specification. _____
- Pass Fail N/A 5) New energy efficient refrigerator installed and operating _____
- Pass Fail N/A 6) Electrical installation/repair completed to current ORSC specification. _____
- Pass Fail N/A 7) Plumbing repair performed adequately and to current ORSC specifications. _____
- Pass Fail N/A 8) Other mechanical equipment installed in accordance with current Chapters 13-15 of the ORSC. _____

This section N/A **ATTIC** (OR WX Specs 1.01-1.49) (SWS 3.10, 4.10) Comments: _____

- Site Built
- Pass Fail N/A 1) Baffling is provided for eave and soffit vents, lights, fans, chimneys, misc. _____
 - Pass Fail N/A 2) Bath/Kitchen fans extended to roofline and terminating according to state specs. _____
 - Pass Fail N/A 3) Attic access is airtight, insulated and baffled _____
 - Pass Fail N/A 4) Knee-wall insulation is R-21 or highest R value practical with proper support. _____
 - Pass Fail N/A 5) Insulation is level and smooth with R-38 total achieved evenly. _____
 - Pass Fail N/A 6) Vapor barrier is between insulation and conditioned space not on top of insulation. _____
 - Pass Fail N/A 7) Insulation damming over thermal boundary so as not to permit thermal breach. _____
 - Pass Fail N/A 8) Pull-down stairs insulated and air-tight according to OR WX Field Guide. _____

- Common
- Pass Fail N/A 1) Natural venting installed to or meets code or audit requirement. _____
 - Pass Fail N/A 2) Certification/coverage chart posted on jobsite _____
 - Pass Fail N/A 3) All penetrations and attic by-passes sealed. _____
 - Pass Fail N/A 4) Dense blow enclosed cavities over garage and seal per specifications. _____

- Mobile Home (OR WX Specs 14.02-14.23)
- Pass Fail N/A 1) EPDM & Rigid insulation installed according to OR WX Field guide. _____
 - Pass Fail N/A 2) All roof protrusions (i.e. fans, vents, chimneys, swamp coolers) extend above insulation and new roof and are adequately flashed and sealed. _____
 - Pass Fail N/A 3) All pre-existing roof drainage systems function to pre-installation conditions. _____

This section N/A **ASHRAE 62.2 VENTILATION** (OR WX Field Guide- section 9) (SWS 6.60, 6.62) Comments: _____

- Common
- Pass Fail N/A 1) New local ventilation fan 3.0 sones or less or whole building fan 1.0 sone or less. _____
 - Pass Fail N/A 2) New exhaust fan operating acceptable near to requested fulltime flow. _____
 - Pass Fail N/A 3) New exhaust fan has an acceptably located kill switch for full-time operation. _____
 - Pass Fail N/A 4) New timer switch settings comply with final calculations on run time. _____
 - Pass Fail N/A 5) New exhaust fan has acceptable venting hardware and terminates per field guide. _____

Signature _____

Section 4: Provide Training to Implement and Maintain Guidelines/Standards

Requirement: Beginning in Program Year 2014, Grantee training plans must include comprehensive training for all WAP workers that is aligned with the NREL (JTA) for the position in which the worker is employed.

Beginning of Grantee's Program Year 2015, all Tier 1 training paid for with WAP T&TA funds must meet the requirements of this section.

Section 4: Provide Training to Implement and Maintain Guidelines/Standards

Training Plans must address two distinct categories:

- 1. Tier 1 Training:** Comprehensive, occupation-specific training which follows a curriculum aligned with the JTA for that occupation. Tier 1 training must be administered by, or in cooperation with, a training program that is accredited by a DOE-approved accreditation organization for the JTA being taught.
- 2. Tier 2 Training:** Single-issue, short-term, training to address acute deficiencies in the field such as dense packing, crawlspace, ASHRAE, etc. Conference trainings are included in this category.

Section 4: Provide Training to Implement and Maintain Guidelines/Standards

What we have done:

- Tier 1 training has been defined in the T&TA plan.
- Tier 2 training has been defined in the T&TA plan.

Section 4: Provide Training to Implement and Maintain Guidelines/Standards

What has yet to be completed:

- OTI must obtain their IREC accreditation.
- OTI has completed their application package has been submitted to IREC.

Questions?