

**STATE OF OREGON
WEATHERIZATION ASSISTANCE PLAN
FOR THE UNITED STATES
DEPARTMENT OF ENERGY
(USDOE STATE PLAN)**

JULY 1, 2019-JUNE 30, 2020

**Oregon Housing and Community Services
North Mall Office Building
725 Summer Street NE, Suite B
Salem, OR 97301-1266
www.ohcs.oregon.gov**

**Margaret Salazar, Director
Tim Zimmer, Energy Services Manager
Steve Divan, WAP Program Manager**

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INTRODUCTION

The State of Oregon Weatherization Assistance Program State Plan for United States Department of Energy (USDOE) is based on the rules contained within 10 CFR Part 440; 2 CFR Part 200; and all subsequent guidance contained in the U.S. DOE Weatherization Program Notices (WPN). It is the responsibility of the Subgrantee to know and be familiar with these rules and guidance. All DOE rules and guidance can be found on the web at www.nascsp.org

1.0 PART I – ANNUAL FILE

1.01 Overall Main Budget with Allocations

DOE 2019-2020 Allocations*

Agency	Admin	Program	T&TA	Total
ACCESS	\$13,334	\$120,010	\$12,887	\$146,231
CAO	\$23,416	\$210,746	\$22,307	\$256,469
CAPECO	\$9,116	\$82,042	\$8,946	\$100,103
CAT	\$8,231	\$74,082	\$8,119	\$90,433
CCWX	\$17,544	\$157,900	\$16,821	\$192,265
NI	\$12,785	\$115,065	\$12,374	\$140,224
CCNO	\$8,183	\$73,646	\$8,074	\$89,903
CSC	\$16,834	\$151,504	\$16,157	\$184,494
CINA	\$9,792	\$88,129	\$9,577	\$107,498
Lane County	\$23,692	\$213,230	\$22,565	\$259,487
MCCAC	\$7,694	\$69,248	\$7,617	\$84,560
MWVCAA	\$24,904	\$224,137	\$23,697	\$272,738
MULTCO	\$18,614	\$353,674	\$35,212	\$407,500
OHDC	\$9,166	\$82,494	\$8,992	\$100,652
ORCCA	\$7,706	\$69,350	\$7,628	\$84,684
UCAN	\$15,760	\$141,841	\$15,154	\$172,755
YCAP	\$6,462	\$58,158	\$6,466	\$71,086
Native American	\$7,789	\$70,102	\$0	\$77,891
Total	\$241,024	\$2,355,356	\$242,594	\$2,838,973

OHCS Admin	\$166,274
SUBS Admin	\$241,024
Program	\$2,355,356
OHCS T&TA	\$320,270
SUBS T&TA	\$242,594

*** If grant funds are not obligated for reimbursement by Subgrantee in a timely manner as determined by OHCS, OHCS may at its sole discretion, reduce Subgrantee funding and redistribute such funds to other Subgrantees. OHCS may implement adjustments by modifying the applicable Notice of Allocation (NOA). This remedy is in addition to any other remedies available to OHCS under the Master Grant Agreement or otherwise.**

1.02 Subgrantees

Oregon’s low income weatherization network is made up of 17 Subgrantees each with their own service area. The Subgrantees are comprised of 17 community action agencies; housing authorities; local governments; area agencies on aging; senior centers; a development corporation. Many of the weatherization Subgrantees have over 20 years’ experience in delivering weatherization services.

The Oregon Energy Coordinators and Affiliates (OECA) is a statewide association made up of weatherization and energy assistance coordinators from a majority of the Subgrantees. OECA serves as Community Action Partnership of Oregon’s (CAPO) committee on energy issues. Their goal is to conserve energy and to help low-income residents meet their energy needs while ensuring their health and safety.

The following is a list of Oregon’s weatherization Subgrantees.

Name: **ACCESS**
Address: 3630 Aviation Way Contact: Toby Bunow
City: Medford Phone: 541-618-4018
State: Oregon FAX: 541-779-8886
Zip: 97504 E-mail: tbunow@accesshelps.org
Congressional District(s): 2 & 4
County(s) served: Jackson

Name: **NeighborImpact**
Address: 20310 Empire Ave, Contact: Christina Zamora
#A100
City: Bend Phone: 541-323-6574
State: Oregon FAX: 541.749-4948
Zip: 97701 E-mail: christinaz@neighborimpact.org
Congressional District(s): 2
County(s) served: Crook, Deschutes, and Jefferson

Name: **Community Action Organization (CAO)**
Address: 1001 SW Baseline Contact: Renée Bruce
City: Hillsboro Phone: 503-648-6646
State: Oregon FAX: 503-648-4175
Zip: 97123 E-mail: rbruce@caowash.org
Congressional District(s): 1
County(s) served: Washington

Name: **Community Action Programs of East Central Oregon (CAPECO)**
Address: 721 SE 3rd Suite D Contact: Jody Warnock
City: Pendleton Phone: 541-278-5668
State: Oregon FAX: 541-276-7541
Zip: 97801 E-mail: jwarnock@capeco-works.org
Congressional District(s): 2
County(s) served: Gilliam, Morrow, Umatilla, and Wheeler

Name: **Community Action Team (CAT)**
Address: 125 N 17th Street Contact: Casey Mitchell
City: St. Helens Phone: 503-369-3133
State: Oregon FAX: 503-325-6738
Zip: 97051 E-mail: cmitchell1@cat-team.org
Congressional District(s): 1
County(s) served: Clatsop, Columbia, and Tillamook

Name: **Community Connections of Northeast Oregon (CCNO)**
Address: 104 Elm Street Contact: Kale Elmer
City: La Grande Phone: 541-963-3186
State: Oregon FAX: 541-963-3187
Zip: 97050 E-mail: Kale@ccno.org
Congressional District(s): 2
County(s) served: Baker, Grant, Union, and Wallowa

Name: **Community Services Consortium (CSC)**
Address: 2995 SW Ferry St. Contact: Joe Collett
City: Albany Phone: 541-758-2782
State: Oregon FAX: 541-752-2348
Zip: 97322 E-mail: jcollett@communityservices.us
Congressional District(s): 4 & 5
County(s) served: Benton, Lincoln, and Linn

Name: **Community in Action (CINA)**
Address: 49 NW 1st Street Contact: Barb Higinbotham
City: Ontario Phone: 541-889-1060
State: Oregon FAX: 541-889-0768
Zip: 97914 E-mail: barb@cina.team
Congressional District(s): 2
County(s) served: Harney and Malheur

Name: **Oregon Human Development Corporation (OHDC)**
Address: 531 S. 6th Street Contact: Mike House
City: Klamath Falls Phone: 541-881-1491
State: Oregon FAX: 541-883-8053
Zip: 97601 E-mail: mike.house@ohdc.org
Congressional District(s): 2
County(s) served: Klamath and Lake

Name: **Mid-Columbia Community Action Agency (MCCAC)**
Address: PO Box 1969 Contact: Glenn Thornton
City: The Dalles Phone: 541-298-5131
State: Oregon FAX: 541-298-5141
Zip: 97058 E-mail: glennt@mccac.com
Congressional District(s): 2

County(s) served: Hood River, Wasco, and Sherman

Name: **Mid-Willamette Valley Community Action Agency (MWVCAA)**
Address: 2585 State Street Contact: Rogelio Cortes
City: Salem Phone: 503-585-8491
State: Oregon FAX: 503-585-8462
Zip: 97301 E-mail: Rogelio.Cortes@mwvcaa.org
Congressional District(s): 5
County(s) served: Marion and Polk

Name: **Oregon Coast Community Action (ORCCA)**
Address: P.O. Box 899 Contact: Ashley Horath
City: Coos Bay Phone: 541-435-7750
State: Oregon FAX:
Zip: 97420 E-mail: ashleys@orcca.us
Congressional District(s): 4
County(s) served: Coos and Curry

Name: **Yamhill County Community Action Partnership (YCAP)**
Address: PO Box 621 Contact: Kraig Ludwig
City: McMinnville Phone: 503-472-0457
State: Oregon FAX: 503-472-5555
Zip: 97801 E-mail: kludwig@yamhillcap.org
Congressional District(s): 1
County(s) served: Yamhill

Name: **Clackamas County Weatherization (CCSS)**
Address: PO Box 2950 Contact: Korene Mather
City: Oregon City Phone: 503-650-5683
State: Oregon FAX: 503-650-3336
Zip: 97045 E-mail: Korenemat@co.clackamas.or.us
Congressional District(s): 3 & 5
County(s) served: Clackamas

Name: **Lane County Human Services Division (LCHSD)**
Address: 125 E 8th Ave Contact: Mary Ellen Bennett
City: Eugene Phone: 541-682-7473
State: Oregon FAX: 541-682-3760
Zip: 97401 E-mail: MaryEllen.Bennett@co.lane.or.us
Congressional District(s): 4
County(s) served: Lane

Name: **Multnomah County (MULTCO)**
Address: 421 SW 6th, Suite 200 Contact: Christina Kenney
City: Portland Phone: 503-988-6139
State: Oregon FAX: 503-988-3332
Zip: 97204 E-mail: Christina.l.kenney@co.multco.us
Congressional District(s): 1 & 3
County(s) served: Multnomah

Name: **United Community Action Network (UCAN)**
Address: 280 Kenneth Ford Drive Contact: Andrea Chaney
City: Roseburg Phone: 541-492-3531
State: Oregon FAX: 541-672-1983
Zip: 97470 E-mail: andrea.chaney@ucancap.org
Congressional District(s): 4
County(s) served: Douglas and Josephine

NOTE: The following numbers may change with final budget figures

1.03 Estimated Production Schedule

	Annual Total
Weatherized Units (total).....	345
Units by Type	
Owner-Occupied Single Family	165
Single-Family Rental	18
Multi-Family (5 or more units per building & Geographical-Multi)	7
Owner-Occupied Manufactured home.....	138
Renter-Occupied Manufactured home	10
Shelter	7
Units by Occupancy	
Elderly-Occupied	169
Persons with Disabilities-Occupied	135
Native American-Occupied	14
Children-Occupied	51
High Residential Energy User-Occupied.....	0
Households with High Energy Burden	0
Other Unit Types	
Re-weatherized Units.....	0
Low-Cost / No-Cost.....	0
Total People Assisted	
Elderly.....	208
Persons with Disabilities.....	147
Native Americans.....	28
Children.....	65

1.04 Energy Savings

Oregon will use the WAP algorithm of 29.3 MMBTUs for energy savings for all fuel types. If we apply this average to Oregon’s 345 projected homes to be weatherized, the resulting energy savings climbs to 10,108 MMBTUs.

1.05 Monitoring Activities

1.05.1 Introduction

Monitoring is the principle method by which OHCS can identify areas within the Subgrantee's program operation and administration where assistance may be required. OHCS ensures that each Subgrantee is monitored during the current grant year. The monitoring visit will consist of all areas under item **1.05.3 c. On-Site Review** of this section. The results of these reviews and individual Subgrantee requirements will determine the need for Training and Technical Assistance (T&TA) and/or additional monitoring.

There have been many improvements as a result of monitoring efforts of OHCS. Client files have become more complete, forms contained within those files are more consistent statewide, and the quality of work is continuing to improve across the state.

1.05.2 Peer Exchange

Subgrantees will receive Training and Technical Assistance funds to participate in Peer Exchange. These funds are designed to cover the cost of time, travel, lodging and meals of those involved in Peer Exchange. The Peer Exchange funds will be included in the general T&TA allocation.

- a. The cost of Peer Exchange visits has been established at \$1,000 per Subgrantee. OHCS reserves the right to reduce the allocation for Peer Exchange if federal funds are reduced to the state. T&TA funds are used because the emphasis of Peer Exchange reviews is on information exchange and the opportunity to learn new skills and techniques, as well as the inspection of DOE funded weatherization and job performance. However, with downsizing and contracting of services, some Subgrantees have entered into contracts with other Subgrantees to deliver weatherization services including audits, inspections, and installation of weatherization measures. OHCS reserves the right to disallow allocations of T&TA Peer Exchange funds to Subgrantees
- b. Training needs of Subgrantees will in part be identified and remedied through Peer Exchange, the OECA T&TA Committee and OHCS.
- c. Agencies will follow the Peer Exchange Protocol (See Appendix A).

1.05.3 OHCS Monitoring of Subgrantees

- a. **Audit** - An annual audit, as required by contract agreement, shall be monitored by OHCS to verify information received on quarterly reports and clarify questions raised by OHCS, the Subgrantee and/or the auditor.
- b. **In-House** - All quarterly reports shall be monitored by OHCS to determine compliance with program requirements, monitor spending patterns and chart program progress. Any irregularities or questions raised by the in-house review that are not readily resolved will be sufficient reason to schedule an on-site review.
- c. **On-Site Review** - OHCS may conduct an on-site review on an annual basis and when required in item 2 above. The on-site review shall consist of staff from OHCS and qualified technicians as necessary under the direction of OHCS. The following items shall be reviewed at a minimum.
 - c.1 **Financial Records** - Including but not limited to: general ledger, bank statements, checks, audit reports, financial statements and other records necessary for the review of the financial records.
 - c.2 **Inventory System** - Including but not limited to purchasing system, controls, perpetual inventory, financial records and other records deemed necessary by the reviewer.
 - c.3 **Client Files** - For accuracy, completeness, demographic information and proper reflections of work needed/work completed, client eligibility and inspection of work.
 - c.4 **Work Completed** - Homes shall be reviewed to determine: quality of work, completeness of work, conservation measures installed follow a computerized methodology to determine cost effectiveness, geographic distribution, proper documentation in client files, client satisfaction and other information deemed necessary by the reviewer.
- d. **Subgrantee Post-Installation Inspection** - Each weatherized unit **must** be inspected by the Subgrantee to ensure that the work is in compliance with required specifications before the unit is reported to OHCS as completed. A complete inspection form, legibly signed by the Subgrantee's inspector shall be placed in each job file. In addition, Subgrantee shall provide homeowner with a legibly signed copy of the inspection form that includes a statement that the completed work is guaranteed for one year.
- e. **Subgrantee Review** - If deficiencies in agency program operations indicate non-compliance with Low Income Weatherization Program Implementation Report, Master Grant and/or federal rules and regulations, OHCS will respond by working with the Subgrantee to correct deficiencies.
- f. **Provide Training and Technical Assistance** - T&TA activities are intended to maintain or increase the efficiency, quality, and effectiveness of the Weatherization Assistance

Program at all levels. Such activities should be designed to maximize energy savings, minimize production cost, improve program management, and/or reduce the potential for waste, fraud and abuse.

1.06 Training and Technical Assistance

Training and Technical Assistance (T&TA) funds are allocated to support all levels of staff working within the weatherization program; this includes field/technical staff as well as staff responsible for supporting and/or managing the program. Training for field staff should be tied into an overall certification program (Residential Energy Analyst (REA) Program, Building Performance Institute (BPI) certification program or Home Energy Professional (HEP) certifications, which is designed to bring the skill and competence level of all weatherization Subgrantee staff and contractors to a uniform standard.

The T&TA Plan identifies the type of training that is required and which certifications are required to perform work for the WAP program in each of the following four job categories:

- Auditor
- Inspector
- Crew Leader
- Field Installer

A detailed Training & Technical Assistance (T&TA) Plan has been developed by OHCS. See appendix C.

1.06.1 Allocation of T&TA Funds

OHCS will allocate T&TA funds to Subgrantees to meet their training and technical assistance needs. Subgrantees need not notify OHCS when they spend T&TA “Training” funds as long as they are spent on the following:

- a. Registration costs for conferences, meetings, workshops and other related energy functions.
- b. Travel, lodging, meals and parking to attend activities identified in a. above.
- c. Salary and fringe costs for direct agency staff while attending approved training functions.
- d. The purchase of materials and/or supplies for trainings.
- e. Subscriptions to magazines, newsletters and memberships.
- f. Other energy related functions, activities or events not mentioned in **1.06.1 a. - d.** above.

1.06.2 Availability of T&TA funds

OHCS will determine the amount of T&TA funds to allocate to Subgrantees based on availability of funding from DOE and the cost of planned trainings such as Energy Outwest and REA Program or BPI certification programs. OHCS will hold back (not allocate all available T&TA funds) and

use T&TA funds to pay for Subgrantees to attend trainings, conferences and workshops as prescribed within the T&TA Plan.

1.06.3 Technical Assistance

OHCS staff will provide technical assistance on DOE related matters to all weatherization programs. Technical assistance shall include but not be limited to the following:

- a.** Provide guidance in use of regulations.
- b.** Advise and assist in use of a computerized audit tool for determining the cost effectiveness of weatherization measures.
- c.** Provide information obtained from local programs on innovative and successful program methods that are readily adaptable to other projects.
- d.** Provide monitoring of local projects to assure improvement in quality and services.
- e.** Identify specific problem solving techniques in areas of labor, transportation, administration, management and financial control.
- f.** Provide information on new materials, procedures and processes for weatherization work.
- g.** Coordinate efforts among federal, state, local and private agencies to assure continued improvements in the effectiveness of weatherization projects.
- h.** OHCS shall address deficiencies that are identified by program review, audit, reports, regional or national reviewer or other sources.

1.06.4 Contract Training

OHCS may contract with the Oregon Training Institute (OTI) or other approved training organizations for some of the required weatherization certification trainings.

1.06.5 Travel

All travel will be consistent with the State T&TA Plan. DOE considers attendance by State staff at National and regional conferences, as well as participation on related planning committees, task forces and other scheduled and related meetings as high priorities. DOE is aware that many states have placed travel restrictions due to budgetary constraints. It should be noted that funds to pay for state and local travel are provided as part of the Weatherization grant, and proper usage of these funds will be closely monitored by DOE to ensure compliance with state travel indicated in states' annual plans.

1.07 Leveraging Activities

1.07.1 Other Funds

OHCS administers “Other Funds” for low income weatherization. These “Other Funds” include Low Income Home Energy Assistance Program (LIHEAP), Bonneville Power Administration Low Income Weatherization Program (BPA), the occasional Petroleum Violation Escrow Program (PVE) funds and the Energy Conservation Helping Oregonians (ECHO) program and any funds designated for low income weatherization awarded to the state as a result of legal settlements. Subgrantees also have access to funds from utility rebates and the State Home Oil Weatherization Program (SHOW). Utility rebates are not administered by OHCS.

1.07.2 DOE Funds as Leverage

Historically, DOE funds have not been used to create leverage opportunities. However, Subgrantees are encouraged to use all available funding (including DOE) to perform energy audits and related activities on homes that will be weatherized under ECHO, NW Natural Low Income Energy Efficiency program (OLIEE), Cascade Natural Gas Oregon Low-Income Energy Conservation Program (OLIEC), BPA, SHOW, REACH and the AVISTA program. DOE funds used in any part of a completed weatherization project (single family, multifamily and shelters) are considered a DOE completion, regardless of the amount of DOE funds actually spent.

1.08 Policy Advisory Council

1.08.1 Make up and Meetings

The Housing Stability Council provides policy direction and oversight to Oregon Housing and Community Services. Previously named the State Housing Council, legislation passed in 2015 (HB 2442) expands the membership of the Council from seven to nine and increases the scope of their oversight. The Housing Stability Council now reviews all program areas of the agency and provides direction and guidance. The Council meets monthly and includes a range of expertise and geographic representation. For more information related to the Housing Stability Council, see OHCS website: <http://www.oregon.gov/ohcs/OSHC/Pages/index.aspx>

1.08.2 HSC Membership List

Oregon Housing Stability Council (HSC) Members	
Adolph "Val" Valfre, Jr. Member, Forest Grove City Council	Sarah DeVries Project Manager, AHE Group
Claire Hall Commissioner, Lincoln County	Anna Geller President, Geller Silvis & Associates, Inc.
Mary Li Director, Multnomah Idea Lab (MIL)	Charles Wilhoite Managing Director, Willamette Management Associates
Gerardo F. Sandoval, Ph.D. Associate Professor, University of Oregon	

1.09 Public Hearing

Oregon Housing and Community Services (OHCS) will hold a Public Hearing on Tuesday, April 2, 2019, at OHCS Room 124 B from 1:30 PM to 2:30 PM located at: North Mall Office Building, 725 Summer Street NE, Salem OR 97301. Contact Steve Divan at (503) 986-0979.

2.0 PART II – MASTER FILE

2.01 Eligible Population

2.01.1 Households at or under 200% of federal poverty level

In determining the level of eligibility, the State shall use the LIHEAP criteria for those households that are at or under 200% of federal poverty level. These criteria shall be applied throughout an agency's entire service territory. Persons who have applied for and have been found eligible for the Low Income Home Energy Assistance Program Act of 1981 (LIHEAP) will be eligible for DOE-WAP. The state of Oregon will use the current statewide manual established for LIHEAP, as established by the U.S. Office of Management and Budget in determining eligibility for households that meet LIHEAP criteria.

Eligibility under LIHEAP or DOE-WAP is valid for a period of twelve months. Applicants whose most recent LIHEAP or DOE application is older than twelve months or who have not applied can qualify using the following criteria. **Subgrantees are not required to re-verify income eligibility once the project is started. The project start is defined as the date the energy audit is completed.**

Income is defined by the Department of Health and Human Services as a household's countable cash receipts, before taxes. To be eligible for assistance, a household's gross income must be in accordance with the DOE WAP 200% of federal poverty level guidelines provided by OHCS each program year. Eligibility for LIHEAP/DOE WAP is based on the following:

- All household income before any deductions (gross income).
- Number of household members.

Households must provide documentation of their gross income for the eligibility period determined by their local agency (in compliance with the timelines expressed the LIHEAP manual). State-approved, agency-developed Declaration of Household Income Forms (DHI) must be used for the households or household members claiming zero income (local agencies may require that applicants and/or households claiming zero income to submit additional information).

2.01.1a What is Income

<https://www.oregon.gov/ohcs/CRD/SOS/docs/2019-Manual-Master-09-24-2018.pdf>

Please refer to the current Oregon LIHEAP manual for definition of income.

2.01.1b What Is Not Considered Income

Please refer to the current Oregon LIHEAP manual for the definition of what is not considered income.

**200% of Federal Poverty Level by Household Size
For Use in DOE Program Year 2019
Poverty Income Guidelines -Source USDOE**

Household Unit Size	Gross Annual Income	Gross Monthly Income
1	\$24,980	\$2,081.66
2	\$33,820	\$2,818.33
3	\$42,660	\$3,555
4	\$51,500	\$4,291.66
5	\$60,340	\$5,028.33
6	\$69,180	\$5,765
7	\$78,020	\$6,501.66
8	\$86,860	\$7,238.33
9	\$95,700	\$7,975
10	\$104,540	\$8,711.66
11	\$113,380	\$9,448.33
12	\$122,220	\$10,185
Each Additional Member	\$8,840	\$736.66

2.01.2 Time Period for Income Verification

The period for determining income eligibility will be based on the same standards, protocols, and guidelines for LIHEAP. Verification of income **must** be recertified when the eligibility determination exceeds 12 months. In multi-family buildings agencies must make every effort to obtain an application for each household. If it is not possible to obtain applications for all households, then documentation must be included in the file as to why the application(s) could not be obtained. A minimum of 66% of the households in the multi-family building must meet income guidelines in order to qualify for assistance unless the requirements of section 2.18.2 are met. Both renters and homeowners will be eligible, and those households in similar circumstances will receive similar benefits. Applications older than one (1) year **must** have the household income verified again. **Subgrantees are not required to re-verify income eligibility once the project is started. The project start is defined as the date the energy audit is completed.** Subgrantees are strongly encouraged to coordinate with the local Low Income Home Energy Assistance Program provider to obtain eligible LIHEAP/DOE applicants who have requested weatherization.

2.01.3 Priorities

An actual waiting list to determine who is next to receive weatherization services must be developed with priority given to: elderly persons (60 years of age and older), persons with disabilities, and families with children eighteen (18) years of age and under. Priority can also be given to high residential energy users (i.e. energy usage is above average as a result of household composition or unusual needs for energy), and households with a high energy burden (i.e. when 11.6 percent or more of the household income is going towards energy). Other criteria may be used as long as it does not have greater weight than the five above that are listed in the enabling legislation for the DOE WAP program.

The priority criteria used for determining applicant priority **must** be in writing and on file with the Subgrantee. The criteria must be used consistently for all applicants unless the Subgrantee is involved in an OHCS sanctioned special project. Subgrantees must notify OHCS of changes and additions to their priority criteria.

Subgrantees shall ensure that weatherization services are being provided to low-income persons that live in all types of housing (i.e. single family, rentals, manufactured housing units, and multi-family buildings). Housing type is not a recognized priority.

2.01.4 Equity and Racial Justice

OHCS has committed to advance equity and racial justice by identifying and addressing institutional and systematic barriers that have created and perpetuated patterns of disparity in housing and economic prosperity. Towards that goal, OHCS will be evaluating equity and racial justice of populations served by the Oregon WAP.

Implementation Strategies

- Create and maintain a system to analyze the WAP program delivery for equity and racial justice.
- Evaluate the Oregon WAP to identify barriers to access the program to ensure equitable outcomes.
- Establish intentional outreach and educational strategies to engage culturally specific and culturally responsive organizations to ensure communities of color are aware of and have the ability to access weatherization services.
- Collaborate with USDOE to find pathways within the confines of the program to prioritize and provide services to underserved populations.

2.01.5 Nondiscrimination

No person shall on the grounds of race, color, religion, national origin, sex, disability, familial status, sexual orientation, gender identity, marital status, or source of income be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or part with DOE funds. Any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified disabled individual as provided in section 504 of the Rehabilitation Act of 1973, also shall apply to this weatherization program.

2.01.6 Temporary Disqualification of certain newly legalized aliens from receipt of weatherization benefits

Sections 245A and 210A of the Immigration and Nationality Act (INA), as amended, made certain aliens, legalized under the Immigration and Control Act (ICA) of 1986, temporarily ineligible for Weatherization assistance. The provisions of this law have expired. The only potential

implications affecting weatherization services are those individual cases that were open while this law was in effect.

The Welfare Reform Act, officially referred to as the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), H.R. 3734, placed specific restrictions on the eligibility of aliens for "Federal Means-Tested Public Benefits" for a period of five (5) years. As defined in a Federal Register notice dated August 26, 1997 (62 FR 45256) the U.S. Department of Health and Human Services (HHS) is interpreting "Federal Means-Tested Public Benefits" to include only those benefits provided under Federal Means-Tested, mandatory spending programs.

HHS Information Memorandum LIHEAP-IM-25 dated August 28, 1997, states that all qualified aliens, regardless of when they entered the United States, continue to be eligible to receive assistance and services under the Low Income Home Energy Assistance Program (LIHEAP) if they meet other program requirements. To eliminate any possible contradiction of eligibility for weatherization services at the state and local levels for qualified aliens, the definition adopted by HHS will also apply to the U.S. DOE Weatherization Assistance Program.

HHS issued Information Memorandum LIHEAP-IM-98-25 dated August 6, 1998, outlining procedures for LIHEAP and weatherization grantees serving non-qualified aliens to implement new status verification requirements. This memorandum is based on a proposed rule issued by the U.S. Department of Justice (DOJ) on August 4, 1998. The Welfare Reform Act is a complex issue, and there is some confusion on the specific application of this part of the Act. To insure program continuity between LIHEAP & Weatherization for the many Subgrantees operating both programs, the U.S. DOE Weatherization Assistance Program will follow the interpretation as adopted by HHS.

The primary area of confusion resides in the types of local agencies that are exempt/non-exempt from "status verification requirements." Local agencies that are both charitable and non-profit, which comprise about three-quarters of the local agency network, would be exempt. **However, those agencies which are designated as local government agencies operating the Weatherization Program would not be exempt; therefore, must conduct "status verification." Under the DOJ ruling, grantees subject to this ruling have two (2) years to fully implement this procedure after the publication date of the final rule. As of this date the final rule has not yet been issued.**

Also addressed in the LIHEAP-IM-98-25, is the issue of unqualified aliens residing in multi-family buildings. Since many LIHEAP grantees also use the DOE rules to implement their programs, HHS has adopted the 66 percent provision of the DOE regulations to address this issue. Under DOE rules, a multi-family building may be weatherized if 66% of the units are eligible for assistance (50% in the case of a 2 or 4 unit building). HHS has modified the provision concerning citizenship verification in multi-family buildings. LIHEAP-IM-99-10 issued June 15, 1999, retracts any requirement that Weatherization Program providers **must** do any type of certification of citizenship in multi-family buildings.

2.02 Climatic Conditions

The State of Oregon is comprised of two (2) basic climatic regions. Western Oregon (west of the Cascade Mountains) experiences a wetter climate, and has an average of approximately 4,500

heating degree-days. Eastern Oregon (east of the Cascade Mountains) experiences a drier, colder climate and averages close to 6,000 heating degree-days.

2.03 Weatherization Work

Activities included in the weatherization of qualified homes will include measures allowed in the Oregon Single family and multi-family audit protocols and health and safety inspections. These activities will be guided by a DOE approved computerized audit and in accordance with the provisions of the Oregon Housing and Community Services Department's Site Built & Mobile/Manufactured Homes Weatherization Specifications, or amendments to it. The actual installation of weatherization materials is specified in the above referenced documents.

Oregon has added LED lighting upgrades as an approved baseload measure. LED lighting upgrades must be determined cost effective using the USDOE approved audit tool using a measure life of 12 years based on a daily use of 3 hours. Any LED lighting installed must be Energy Star rated.

Housing units that were weatherized prior to September 30, 1994 may be "re-weatherized" using DOE funds. No unit weatherized after September 30, 1994 can be re-weatherized using DOE funds at this time. **DOE funds may not be used for call-backs or missed opportunities. Once a DOE funded project is reported as complete, only funds other than DOE funding can be utilized for this type of activity.**

2.03.1 Prior to Audit

Prior to an audit of a prospective dwelling, the Subgrantee **must** have a completed application and all necessary paper work, including proof of income eligibility, owner's name and address/contact information as well as utility supplier(s).

2.03.2 Permission to Proceed

Prior to any work being done on a dwelling (including baseload measures), and prior to a subcontractor visiting the dwelling for purposes of evaluating job costs, the Subgrantee **must** have a signed statement from the owner or their agent that permission has been granted to perform weatherization and baseload measures on and at the dwelling. At a minimum, the statement **must** include:

1. A list of possible measures that may be installed.
2. If walls are to be blown with insulation, it must indicate the owner or their agent has seen pictures of what a wall blown with insulation includes, and how the dwelling will look when completed.
3. If windows are replaced or repaired it must indicate that the owner or their agent is aware the measure will not include the cosmetic treatment of the window trim.
4. If a refrigerator(s) is to be installed, the statement **must** clearly indicate who owns the refrigerator. A copy of this statement with owner's (**and** owner's agent) signature,

printed/typed name of each signatory, and date signed, **must** be clearly visible in the job file. A second copy of the signed refrigerator owner statement **must** be given to the tenant; and the original signed statement **must** be given to the owner (or owner's agent).

Neither stand-alone freezers nor through the door ice/water dispensers are allowed when utilizing DOE funding.

*Note: Subgrantees **must** have an OHCS approved refrigerator replacement plan prior to replacing refrigerators.*

2.04 Energy Audit Procedure

One energy modeling software platform has been approved by DOE for use in the OR WAP program. REM/Design™ (NORESKO) is approved for single family homes, mobile homes and small multifamily dwellings.

REM/Design™ Dwelling Criteria

As defined in the policy, REM/Design™ audit is to be used for the following building types:

- Single-family dwellings up to 4-plexes,
- Mobile homes, and
- Multifamily buildings:
 - Containing five to 25 dwelling units,
 - Individually metered,
 - Where the unit is heated and cooled independently.

The REM/Design™ energy audit process requires a physical inspection of the home, specific diagnostic tests, and proper data input into the software program. An energy profile of the existing home is compared to a set of improvements recommended for installation. Each measure is then evaluated and a report is generated with the cost-effectiveness of each measure listed by SIR (Savings to Investment Ratio).

Subgrantees are required to have one (1) staff member certified in the use of the REM/Design™ software. It is recommended that agencies have additional staff certified to ensure continuity in the case of loss of staff. Non-certified REM/Design™ users must have REM/Design™ models reviewed by a certified user before certification is obtained.

Continuing Education Units: All REM/Design™ Operators are required to complete 4 hours of training in the use of REM/Design™ during each calendar year. Documentation of CEU's must be submitted to OHCS.

Large Multi-family buildings utilizing USDOE funds in any amount must have the audit submitted to USDOE for approval before any work may commence.

Large Multi-family dwelling criteria:

- Multi-Family residential buildings 4 stories and above.
- Multi-Family residential buildings 3 stories or fewer with shared HVAC Systems.
- Multi-family residential buildings containing 5 or more units with shared HVAC systems.
- Multi-Family residential buildings containing 26 or more units.

- Multi-Family residential buildings not meeting the REM/Design™ criteria.

2.04.1 Use of the Computerized Audit Tool

Subgrantees **are required** to only provide weatherization measures that have been identified as “cost effective” (a SIR of 1.0 or greater) by a DOE approved computerized audit, or other computerized audit approved by DOE and adopted by OHCS. Actual costs must be used to determine cost effectiveness of individual measures, at this time; REM/Design™ is the approved audit tool. No other method of establishing cost effectiveness/SIRs can be used by a Subgrantee other than those approved by DOE and adopted by OHCS.

2.04.2 Coordinator Override

Coordinator Override is not allowed under the DOE State Plan. If a measure is deemed not cost effective through the use of a computerized audit, it must be omitted or the non-cost effective portion “bought down” or paid for completely utilizing appropriate funding sources. All measure buy down activity must be documented in OPUS and on a funding summary report included in the file.

2.04.3 Prioritization of Work

Work will be prioritized and completed in descending order with measures receiving the highest cost effectiveness (SIR) to lowest cost effectiveness. The average unit cost for overall program expenditure is limited to **\$7,541** as established by DOE.

2.04.4 Audit Tool Training

OHCS currently requires training on TREAT (for agencies designated by OHCS) and REM/Design™. Training is available for any Subgrantee that is having difficulties using the approved computerized audit tool. Agencies should contact OHCS for assistance.

2.05 Final Inspection

All dwelling units (100 percent of jobs weatherized or where baseload measures were installed) that are being reported as completed for the purpose of obtaining DOE funds, **must** have in the job file an Oregon Weatherization Assistance Program Quality Control Inspection form completely filled out and legibly signed by an inspector certified in the HEP Quality Control Inspector designation (staff person other than those that performed the installation). The inspection form **must** indicate that all measures designated to be installed, including mechanical work, were installed in compliance with the Standard Work Specifications and the Oregon Site Built and Manufactured Home Field Guide and Standards. *If a designated measure is not installed, then a written explanation shall be included in the file and noted on the inspection form.*

For OHCS Quality Control Inspector Policy, see Appendix E.

A DOE Weatherized unit is: DOE funds used in any part of a completed weatherization project (single family, multifamily and shelters) are considered a DOE completion, regardless of the amount of DOE funds actually spent. As funds allow, the DOE measures installed on this unit

have an SIR of 1.0 or greater, but also may include any necessary incidental and health and safety repairs. The use of DOE funds on this unit may include, but are not limited to: auditing; testing; measure installation; inspection; use of DOE equipment; vehicles; or DOE provided training and/or administration. Therefore, a dwelling unit that meets both the definition of a DOE weatherized unit, and has DOE funds used directly, must be counted as a DOE completed unit.

Furthermore, a Final Inspection Certification form legibly signed by a designated Subgrantee staff person and all warranties and user manuals for installed equipment shall remain with the occupant. This completion form **must** indicate:

- a. All of the measures were installed in a workmanlike manner and according to specifications.
- b. The measures installed should under reasonable conditions save energy and make the dwelling more comfortable for the inhabitants.
- c. All of the weatherization measures installed are guaranteed for material and workmanship defect for a period of one year (365 days) from the date signed.
- d. The contact information for the contractors who completed work on the project.

2.05.1 Self Declaration

Subgrantees may use an OHCS approved form (such as a post card mailed by owner) for declaration of receipt and installation of refrigerator. If Subgrantee does not receive the self-declaration form within two weeks of delivery, Subgrantee **must** explore other ways of verifying inspection. A refrigerator is not considered completed until it has passed final inspection (10 CFR 440.16 (g)).

2.05.2 Funding Summary Report

All weatherization projects are required to include a funding summary report in the file. The funding summary report **must**, at minimum, include:

- Actual costs of each measure completed
- Funding source(s) utilized for each measure
- If a non-cost effective measure is “bought down” using appropriate funding, the amount of the “buy down” must be indicated, funding source identified and explained on the funding summary report.
- If a non-cost effective measure is completed and paid for completely using appropriate funding, the funding must be identified and explained on the funding summary report.
- Health & Safety (H&S) repair costs: Indicate which funding source(s) were utilized and an explanation of what the H&S repairs included

- Incidental repairs costs, funding source(s) utilized and an explanation of what the incidental repairs included.
- Total of each individual funding source as well a combined total of all funding sources.

2.06 Analysis of Effectiveness

In order to calculate the most accurate energy savings, Subgrantees are required, when possible, to obtain twelve months' prior energy usage of metered energy sources for each dwelling to be weatherized.

REM/Design™: If 12 months' usage is not available, and missing usage can be estimated reasonably, it is allowable to estimate the missing billing periods. Documentation of thought processes to estimate usage must be included in the file. The REM/Design™ model must be tried according to the [OHCS REM/Design™ Technical Policies](#).

2.07 Health and Safety Plan

DOE requires that all grantees develop a Health & Safety Plan (H&SP). OHCS will work with OECA to consistently review and maintain the Oregon Health & Safety Plan as an updated, useful and meaningful tool for all Subgrantees and contractors.

The primary goal of the DOE Weatherization Assistance Program is energy efficiency. DOE is concerned that the achievement of this goal endures even with the program changes which allow DOE funds to be used for health and safety risk mitigation. ***The final rule has eliminated the requirement that the cost of all energy-related health and safety risk mitigation be within the per home expenditure average. Agencies are still required to identify health and safety procedures and the percentage of costs involved per DOE.*** This change will allow local agencies greater flexibility and incentive to incorporate new technologies and their costs into their programs by removing health and safety costs from the per-house limitation, if they are budgeted separately. In providing this flexibility, OHCS will continue to encourage agencies to be prudent in their oversight of the percentage of funds approved for health and safety mitigation on homes weatherized by their local agencies

The final rule does not mandate a separate health and safety budget cost category, but rather allows the state to budget health and safety costs as a separate category and, thereby, exclude such costs from the average cost calculation.

2.07.1 Mold and Mildew

See Exhibit 2

2.07.2 Training for Mold & Mildew Safe Work Practices

OHCS in conjunction with OECA has developed and instituted a training program. The training program for weatherization workers included:

- a. How to identify mold and mildew conditions.

- b. How to understand and eliminate the conditions responsible for the growth of mold and mildew.
- c. How to protect occupants and workers from the harmful effects of mold and mildew.

2.08 Health and Safety – Incidental Repairs

This is an issue that concerns everyone involved in the delivery of weatherization services. As our understanding of the systems within a house expands, attention **must** be given to health and safety of the occupants and workers. All Subgrantees have the equipment and skill to identify the major energy related health and safety/ incidental repair problems found in dwellings. To support Subgrantees in the identification and reduction of health and safety repair problems, a maximum of 15 percent of the Average Cost Per Home (ACPH) may be used to mitigate problems identified (ACPH = \$7,541 x .15 = \$1,131). Funds dedicated for health and safety repairs **cannot** exceed 15 percent of a Subgrantees allocated program dollars.

A health and safety repair is defined as those actions necessary to maintain the physical well-being of both the occupants and/or weatherization workers where:

- Costs are reasonable and do not exceed 15% of the Subgrantees total allocated program dollars; **AND**
- The actions must be taken to effectively perform weatherization work; **OR**
- The actions are necessary as a result of weatherization work.

Health and safety repairs **do have to be included in the overall job cost. But do not have to be included in SIR calculations.**

An incidental repair is a repair necessary for the effective performance or preservation of weatherization materials. **Incidental repair costs must be included in the job cost and SIR calculations.**

For additional information on Health and Safety see Appendix D.

2.08.1 Reporting

Subgrantees **must** report all expenditures related to Health & Safety into OPUS database within 15 days of the end of a quarter.

2.09 Rental Procedures

The following guidelines are to be followed when rental units are weatherized. Specifically, these regulations say when a Subgrantee weatherizes rental dwellings:

- a. No dwelling unit shall be weatherized without first obtaining the written permission of the owner or the owner's authorized agent.

- b.** The Subgrantee shall establish procedures to be approved by OHCS to ensure that:
 - b1. The benefits of weatherization assistance shall accrue primarily to the low income tenants;
 - b2. Rents shall not be raised because of the increased value of the dwelling unit(s) due solely to weatherization assistance provided under this part;
 - b3. Subgrantee can receive tenant complaints and owners can appeal should rental increases occur;
 - b4. No undue or excessive enhancement shall occur to the value of the dwelling unit(s).
 - b5. The residence is not currently for sale by owner of property, nor is it designated for acquisition or clearance (foreclosure) by federal, state or local programs.
- c.** Weatherization services will not be provided to eligible clients who pay their energy cost as part of their rent unless:
 - c1. Landlord agrees to make reductions in rent to reflect in some equitable way the reductions achieved in fuel cost due to weatherization;
 - c2. There are health or safety reasons, which justify weatherization.

2.10 Lien on Property

As stated in 10 CFR Part 440.22 (c): “In order to secure the Federal investment made under this part and address the issues of eviction from and sale of property receiving weatherization materials, States may seek landlord agreement to placement of a lien or to other contractual restrictions.”

At the current time, OHCS does not require any Subgrantee to include lien or contractual restrictions on property owners.

2.11 Documentation

All documentation shall remain the property of OHCS. In the event of program closure, such files shall revert to OHCS.

2.12 Program Management

Under the Energy Conservation in Existing Building Act of 1976, funds are available for weatherization assistance for low income persons. As outlined in 10 CFR 440, the Governor of each state shall designate a grantee at the state level to receive and administer these funds within the state.

2.12.1 Overview

Based on experience in granting funds to local agencies for operating programs designed to assist low income persons, the Governor of Oregon has designated the Oregon Housing and Community Services Department (OHCS) as the agency that shall have responsibility to apply for, receive, and administer U.S. Department of Energy - Weatherization Assistance Program funds.

2.12.2 Service Delivery System

OHCS intends to utilize the existing network of service provider agencies including: Community Action Agencies (CAAs); Community Based Organizations (CBOs); Area Agencies on Aging (AAAs); and Special Population Organizations (SPOs). For the purpose of this plan, there will not be a distinction as to type of agency, but rather all agencies shall be identified as “Subgrantees.”

2.12.3 Designated Subgrantee

OHCS will fund only one Subgrantee within any geographical area. An exception to this rule is “Special Population Organizations,” in which case, if any two Subgrantees operate within a common geographical area, a “Memorandum of Understanding” will first be negotiated to insure full access to the program for all persons within the geographical area and to prevent duplication of services.

2.12.4 Contract with Subgrantees

Subgrantees identified for weatherization funds shall prepare a Low Income Weatherization Program Implementation Report as part of their Housing Stabilization Division (HSD) planning process. OHCS shall review and approve all Low Income Weatherization Program Implementation Report. Funding to Subgrantees shall be formula based and Subgrantee status shall be protected except for the following reasons:

- a. Funding from U.S. DOE ceases or is rescinded.
- b. A Subgrantee elects to close out their grant and return funds or does not request new funds.
- c. Subgrantee is determined to be consistently below program standards by public hearing process.
- d. Subgrantee does not comply with the terms of negotiated contract or Low Income Weatherization Program Implementation Report.

2.12.5 Administrative Expenditure Limits

U.S. DOE Weatherization Assistance Program Final Rule 10 CFR Part 440.18 (d) clearly defines the amount of allowable administration funds as up to 10 percent, where Subgrantees receive less than \$350,000. There is a statutory limit of 10 percent on funds that may be used for administrative purposes. Not more than 5 percent of new funds may be used by the state for administrative purposes, with the remainder to go to Subgrantees. Subgrantees receiving more the

\$350,000 will receive no more than 5 percent for administration. An exception to exceed the 10 percent total administrative requirement may apply to Subgrantees funded at **less than \$350,000 of new DOE funds if the state provides its administration**. Subgrantees that fall below the above threshold are allotted the full 10 percent administration funding level under DOE rule. However, OHCS is limited to 5 percent administration for their part in the DOE WAP.

2.12.6 Special Populations

Allocation of weatherization funds to Subgrantees will correspond to the following formula:

- a. OHCS will calculate from the total grant received an amount equal to 10 percent, which will be allocated to Subgrantees, based on the percent of farm worker population measured in the state as a whole. OHCS will utilize the best information available from all sources, including but not limited to, the State Employment Division using peak season population figures and U.S. Census data.
- b. OHCS will calculate from the total grant received an amount equal to 3 percent which will be used in one of the following ways:
 - b1. Option 1: New DOE funds set aside for Native Americans are being proposed to be used in total for weatherization projects directed to Native Americans. These funds will be awarded each year on July 1st, to any weatherization Subgrantee that proposes a Native American weatherization project in cooperation with one or more of the nine Tribes of Oregon. Weatherization Subgrantees are encouraged to work with Tribes to coordinate these projects. Projects will be evaluated based on their overall merit by a review committee of OHCS, OECA, and the Community Action Partnership of Oregon (CAPO). Number of units, type of measures, energy savings and leverage will be considered. The review committee may recommend that all or part of the available set-aside funds be awarded. All proposals **must** be submitted no later than July 1st of each year.
 - b2. Option 2: If no proposals are received by July 1st of each year, all remaining Native American funds will be allocated in the traditional fashion to the six (6) Subgrantees with Tribal Reservation lands within their service areas.

2.12.7 Funding Formula

Funds remaining, after Administration, T&TA and Native American allocations have been removed from the grant will be allocated to Subgrantees using the following formula:

- a. Households below the poverty level as established by the Federal Office of Management and Budget and the most current U.S. Census will account for 85 percent of the funds allocated to Subgrantees.
- b. Heating degree-days squared, (averaged for Subgrantees with multi-county service areas) will account for 15 percent of funds allocated.

2.12.8 Floor Funding

A weatherization funding floor of \$100,000 has been established to assist Subgrantees. When the allocation based on factors in section 2.12.7(a) and (b) does not provide \$100,000 to a Subgrantee (based on a combination of weatherization funding from the U.S. DOE, HHS, BPA, public purposes, PVE, or legal settlements), then floor funding kicks in. Floor funding is only available to Subgrantees if OHCS has access to funds in excess of the grant allocation formula.

- a. Initial Funding/Start-Up Funds** – OHCS, as a part of the HSD grant process, shall negotiate with all Subgrantees a contract to transfer to the Subgrantees an amount not to exceed 10 percent of the Subgrantees allocation. These funds shall be available within the first 15 days after the approval of the agreement for delegation of funds.
- b. Expenditure Reports** – Subgrantees shall enter completions and expenditures into the OPUS database within 15 days of the end of a quarter. Completions entered and expenditures into OPUS after 15 days of the end of a quarter must be entered into the next quarter. OHCS will generate a quarterly report based on the submitted information. These reports shall be considered amendable allowing for revisions. Any revisions or amendments to submitted reports shall be noted in the following quarter.
- c. Expenditure Reimbursements** – All reimbursements are subject to approval by OHCS and may be denied on the basis of lack of funds; improper documentation; improper expenditures; or other reasons deemed necessary by OHCS. It is the responsibility of the Subgrantee to reimburse OHCS for any expenditure determined improper by OHCS.
- d. Cash Requests** – Subgrantees are encouraged to request cash as needed upon completion of weatherization work. Only funds sufficient to cover all costs of the work should be requested. Funds requested in advance of completed jobs (except as stated in 2.12.8(a) above) are not permitted.

2.13 Monitoring – Quality Assurance

OHCS employs four types of monitoring activities to ensure the quality of work and the adequate financial management controls at the Subgrantee level.

- a.** OHCS’s Weatherization Field Monitor schedules, at minimum, a yearly visit to each Subgrantee. During these visits the Monitor reviews subgrantee policy, procedures, client files and field operations.
- b.** OHCS’s Fiscal Monitor schedules a yearly visit to each Subgrantee. During these visits, the Monitor conducts a comprehensive review of all ledgers, budgets, and accounting systems, related to the weatherization program.
- c.** The Weatherization Program Manager may conduct spot visits of Subgrantees at random. During these visits all aspects of the program may be reviewed.
- d.** Peer Exchange is optional, and is used as both a monitoring tool as well as a training opportunity. Subgrantees may choose to visit another Subgrantee for the exchange.

2.13.1 Exemplary Agencies

OHCS will use the following criteria for designating a Subgrantee as an “Exemplary Agency”.

Levels of Agency Performance

High Performance or Exemplary Agencies:

By way of monitoring review, an agency has demonstrated performance standards that meet or exceed that commonly observed in the following areas:

1. Program Operations:
 - a. No Health and Safety finding as identified in previous monitoring report.
 - b. No procedural findings related to program rules, and policies and procedures.
2. Fiscal:
 - a. No annual program specific audit findings.
3. Technical:
 - a. Provide comprehensive service utilizing the latest building science and renewable technology, in a cost-effective manner in accordance with State of Oregon guidelines. Peer monitoring is completed as documented in Agency Low Income Weatherization Program Implementation Report.
4. Production:
 - a. In general, the agencies production is high relative to funding.
5. Qualified staff:
 - a. Agency will receive higher credit for exemplary status with REA Program or BPI certified staff and contractors. Agency staff has received appropriate job related certification. Agency staff have conducted, or proctored, OHCS sponsored/endorsed certification trainings.
6. Risk:
 - a. No “at-risk” elements are found in major categories for an agency.

If the above is met, a final visit may be made by an OHCS Weatherization Coordinator for final confirmation of achievement.

Typical Agency Performance:

Typically, the frequency of monitoring will be one or two visits per year by an OHCS Program Monitor and/or an OHCS Weatherization Program Monitor and Fiscal Monitor. Peer Exchange may also be included. The need for a second visit will be determined by OHCS based on such factors as past state and peer monitoring results, an agency’s program funding and production

level, and the completeness of the monitoring within the time available. OHCS expects every agency to meet these standards of performance:

1. Well-established systems for program administration and operations, with no finding in the following areas:
 - a. Compliance with major program requirements, such as, lead-based paint procedures, cost allocation plan/indirect rate, required contractor information.
 - b. No program specific finding in the annual audit.
 - c. Staff well trained in performance of specific job duties.
 - d. Complete and organized files.
2. Evidence of prudent decision making as to use of program resources:
 - a. Complete scopes of work.
 - b. REM/*Design*TM documentation is current and consistent with billing.
 - c. Staff proficient in its use.
 - d. Evidence REM/*Design*TM is used with actual and true pre-post data (including costs).
 - e. Evidence REM/*Design*TM is used effectively and thoughtfully in determining cost-effective measures.
3. Staff and contractors have demonstrated proficiency in technical applications, including diagnostics.
4. Agency has a minimal number and severity of procedural findings (as related to programs rules and policies and procedures), as well as health and safety findings from previous monitoring report.
5. Agency complies with Occupational Safety and Health Administration (OSHA)/DHS/OHCS safety rules, as applicable.
6. The agency maintains a professional working relationship with OHCS.
7. Past corrections made and reported in a timely manner.
8. No “at-risk” elements are found in major categories for an agency.

At-Risk Agency Performance:

At-risk agencies may be identified as a result of a variety of factors that may include:

1. There is evidence of significant administrative or program sub-standard performance; for example, repetitive pattern of findings, failure to have copies of permits on file, or lack of compliance with historical preservation rules.
2. The agency is not in compliance with three (3) or more program policies, procedures and specifications.
3. The agency has three (3) or more health and safety findings.
4. Agency staff/crew members have been unable to pass certification training.
5. The agency has deficient scopes of work.
6. The agency has three (3) or more program specific audit findings.
7. The agency files are incomplete or disorganized.
8. The agency staff is unresponsive to OHCS requests and deadlines. For example, the agency consistently fails to provide monthly reports and contract closeouts in a timely manner.
9. Agency production is substantially low relative to funding.
10. Other OHCS programs (Community Services Block Grant (CSBG), LIHEAP, Food, Homeless, etc.) have indicated problems with, or concerns about, the agency.

At-risk agencies will be monitored no less than twice annually. Other factors in the frequency of monitoring visits may be based upon the requirements of specific funding sources.

2.14 Certification for Lead Safe Renovators

OHCS will continue with the help of Oregon Training Institute to make training available for the Lead Based Paint Renovation, Repair and Painting Program (RRP). All individuals performing lead safe weatherization **must** be either certified renovators or have been trained by a certified renovator. Training is required prior to performing any weatherization work that will disturb lead based materials in homes built before 1978. All Subgrantees and contractors **must** be a certified firm. **See Appendix D V11**

2.15 Monitoring - Productivity

OHCS monitors Subgrantee productivity through information provided on quarterly reports, Peer Exchange, and Fiscal/Program Monitoring reports. If a Subgrantee falls consistently and considerably below their projections, OHCS reserves the right to redistribute their unexpended funds.

2.16 T&TA Plan

See Appendix C

2.17 Evaluation

OHCS continually evaluates the effective utilization of T&TA funds through the monitoring process, Subgrantee input, and quality of work. Information from these sources has shown that OHCS/T&TA activities have had a beneficial effect on statewide weatherization services provided to low income consumers. OHCS will continue to evaluate T&TA activities and expenditures in an effort to ensure that the level of technical expertise necessary to provide efficient, effective service to low income consumers is maintained.

2.18 Multi-Family

2.18.1 Eligibility

Prior to weatherizing multi-family housing units, not less than 66 percent (50 percent for duplexes and four-plexes) must be occupied by income eligible households in order for the entire building to qualify for weatherization assistance.

Shelters may be weatherized under the program. Below is a list of criteria that a shelter must meet before being considered as a candidate for services.

- Property is managed by non-profit organization
- Property is utilized as transitional housing
- Property is utilized as overnight shelter
- Project is approved by OHCS before proceeding with weatherization activities

2.18.2 Landlord Contribution Clause

Some large multi-family buildings with less than 66% eligible units, (but at least 50%) may be weatherized if agencies can demonstrate the investment of DOE funds would result in significant energy-efficiency improvements, **AND**

- a. Additional funds are leveraged from landlords, utilities, or other sources; **AND**
- b. Leveraged funds **must** equal at least 10 percent of the total job cost to be eligible for reduced unit eligibility percentage.

2.18.3 Flexibility within the Multifamily Weatherization Provisions

In the final rule, DOE offered flexibility by adding certain eligible types of large multi-family buildings to the list of dwellings that are exempt from the requirement that at least 66 percent of the units **must** be occupied by income-eligible persons. In these large multi-family buildings, as few as 50 percent of the units would have to be certified as eligible before weatherization services can be offered. This exception would apply only to those large multi-family buildings where an investment of DOE funds would result in significant energy-efficiency improvement because of the upgrades to equipment, energy systems, common space, or the building shell. By providing

this flexibility, local agencies will be better able to select the most cost-effective investments and enhance their partnership efforts in attracting leveraged funds and/or landlord contributions. This flexibility does not apply to any other type of multi-family unit.

Note: Agencies should exercise caution when utilizing flexibility in this area. The key is the investment of DOE funds coupled with leveraged resources which result in significant energy savings. Absent this investment, lowering the eligibility to 50 percent may lead to disallowed costs. Local agencies uncertain on a given multi-family project should seek approval through OHCS Weatherization Program Manager.

2.19 Standard Weatherization Procedures

2.19.1 Labor

It is the Subgrantees responsibility to ensure that employees and contractors are qualified and properly supervised.

See Appendix C for specifics on required certifications and timeframes for obtaining certifications.

2.19.2 Davis-Bacon Act-Compliance

Weatherization activities under the U.S. DOE-WAP are not considered a public works projects under ORS 279C.810 and are therefore exempt from prevailing wage.

Exceptions:

- a. *Generally:* Possible future government (federal) grants or funding vehicles that may impose wage compliance and reporting of same.

2.19.3 Authorization

Prior to weatherizing residential units, the following procedures shall be followed. The owner or authorized agent shall give written permission for the weatherization assistance. Such written authorization **must** be signed by the owner (or owner's authorized agent) and **must** include:

- a. Location of dwelling (physical street address).
- b. Name of eligible tenant.
- c. A list of possible work to be completed.
- d. See 2.03.2 for additional requirements and baseload measure requirements.

2.19.4 Operation of the Program

It is the Subgrantee's responsibility to identify and procure the local resources necessary to operate this program. These would include, but not be limited to local and state funds, donated materials, space, support, and any resources not provided for by U.S. DOE funds. Such resources are to be

identified by the Subgrantees in their grant proposals to OHCS. Additionally, the Subgrantee shall insure prior to operating the program, that the criteria are met.

Contractor Procurement: All Subgrantees that employ private licensed contractors to provide weatherization, repairs, or inspections where the cumulative one-year compensation is \$25,000 or more, **must** have a policy in place and use said policy to procure contractors.

2.19.5 Expansion of Manufactured Home Definition

The definition of manufactured homes is expanded to include travel trailers and motor homes under the following conditions:

- a. Unit is a permanent residence; **AND**
- b. The unit has an address; **AND**
- c. The occupant has a utility bill in their name or can demonstrate an energy burden; **AND**
- d. The occupant has a legal lease or contract to live in the unit and park the unit at said location; **AND**
- e. There must be cost-effective (SIR of 1.0 or greater) weatherization improvements to be completed on the structure; **AND**
- f. Health and safety improvements are only related to weatherization and *do not* address mechanical, other than Heating, Ventilation, and Air Conditioning (HVAC).

2.19.6 Certify Work

Subgrantees and their subcontractors **must** certify all weatherization work and materials including base load measures for a period of one year from the time of completion. Certification includes the repair and replacement of defective measures resulting from improper installation or material defect.

2.19.7 National Environmental Policy Act Information (NEPA)

The following activities are categorically excluded from further NEPA review, absent extraordinary circumstances, cumulative impacts, or connected actions that may lead to significant impacts on the environment, or any inconsistency with “integral elements” (as contained in 10 CFR Part 1021, Appendix B) as they relate to a particular project, and adhere to the applicable State’s programmatic agreement with the cognizant State Historic Preservation Office (SHPO).

- a. Administrative activities associated with management of the designated Weatherization Office and management of programs and strategies in support of weatherization activities.
- b. Development and implementation of training programs and strategies for weatherization effort, including initial home audits, final inspections and client education.

- c. Purchase of vehicles and equipment needed for weatherization audits.
- d. Weatherization activities provided that projects apply the restrictions of each state's programmatic agreement with SHPO, and are limited to:
 - 1. Building shell measures:
 - a. Installation of insulation where needed;
 - b. Air sealing (caulk, door sweeps, weather-stripping, etc.);
 - c. Repair and replace windows.
 - 2. Mechanical Measures:
 - a. Clean, tune, repair or replace heating and/or cooling systems;
 - b. Install duct and heating pipe insulation;
 - c. Repair leaks in heating/cooling ducts;
 - d. Install programmable thermostats;
 - e. Repair/replace water heaters;
 - f. Install water heater tank insulation.
 - 3. Electric and Water Measures:
 - a. Install efficient light sources;
 - b. Install low-flow showerheads;
 - c. Replace inefficient refrigerators with energy-efficient models.
 - 4. Energy-related health and safety measures including:
 - a. Combustion appliance safety inspections;
 - b. Air quality assessment and limited removal of formaldehyde, volatile organic compounds, flammable liquids and other air pollutants;
 - c. Gas and bulk fuel leak inspections;
 - d. Limited testing and/or containment, removal and disposal of lead, asbestos, refrigerant, mercury and other materials generated during the course of WAP activities;
 - e. Cleaning of mold limited to surface preparation for WAP activities;
 - f. Conduct radon testing and precautionary measures;
 - g. Inspect and install carbon monoxide and smoke alarms;
 - h. Install ventilation as required by the American Society of Heating and Air Conditioning Engineers (ASHRAE) 62.2 – 2016 standard. Including blower door testing addressing infiltration, ventilation and exhaust.
 - 5. Incidental and necessary energy related repairs and replacements:
 - a. Repair and replace damaged windows and doors;
 - b. Minor electrical and plumbing repairs.
 - 6. Installation of Solar photovoltaic (PV) and solar hot water heating systems on buildings with 1-4 units' subject to the following restrictions:

- a. PV Systems would be appropriately sized would not exceed 15kW and/or;
- b. Solar hot water heating systems would be appropriately sized and would not exceed 200,000 BTU/HR;
- c. Systems would be roof mounted and attached to structure;
- d. Battery storage, if applicable, would be mounted to the structure.

Activities/projects not listed above are subject to additional NEPA review and approval by DOE, whether the intention is to use WAP formula or Petroleum Violation (PVE) funds to fund the project. For activities requiring additional review, OHCS will assist agencies in the completion and submission an Environmental Questionnaire (EQ)-1 to DOE for approval.

2.20 General Accounting Practices

To insure accurate reporting, proper documentation and compliance with federal and state guidelines for fiscal procedures, all Subgrantees **must** at a minimum:

2.20.1 Submit an Annual Audit

Submit an annual audit of weatherization funds, which shall be conducted by a Certified Public Accountant, using the audit standards contained in 2 CFR 200 – Subpart F.

2.20.2 Inventory Control

Subgrantees will have in place a weatherization inventory control system that outlines, in writing, purchasing authority; access to inventory; quarterly inventory verifications; procedures for fall down (shake or waste); and ability to track purchases to specific jobs and materials installed back to the point of purchase. Fall down shall not exceed two (2) percent of the total materials budgeted annually. All material used in weatherization that are purchased in bulk or by piece for the weatherization program are considered inventory. Weatherization inventory does not include supplies or materials purchased with weatherization administrative funds.

2.20.3 Receive Authorization from OHCS for Purchases or Lease

Receive authorization from OHCS for purchases or lease of acquisitions in excess of **\$5,000**. All capital property and vehicle purchases **must** be forwarded to the U.S. DOE Regional Support Office for final approval.

For approval of Vehicle & Capital Equipment Purchases, the minimum information needed by OHCS is:

- a. Name of requesting local agency.
- b. Where the vehicle will be used and how it will be used – Specify, full or part time use in Weatherization Program.
- c. Statement of whether this is a replacement or an expansion for ramp-up. If this is a replacement, describe how the trade-in is being addressed.

- d. Brief description of how the procurement will be done, and confirmation that the agency maintains policies and procedures for property management that comply with all requirements of the applicable Code of Federal Regulations, 2 CFR Subtitle B with guidance at 2 CFR Part 200.
- e. What the funding source(s) will be (e.g., DOE Weatherization Program Operations funds). **Subgrantee T&TA funds are not an allowable option.**
- f. Copies of bid specs (vehicle description with options requested) and bids received.
- g. Statement that lowest bid will be selected; or a sufficient justification of the “best value selection” if lowest bid is not recommended for DOE approval.

2.20.4 Travel Regulations

Each Subgrantee will have in place travel regulations that include travel authorization, reimbursement, advancements, and per diem rates.

2.20.5 Financial Operations Manual

Each Subgrantee has in place a financial operation manual that details accounting standards, segregation of duties, procurement procedures, program income application, and program rebates.

2.20.6 Use of Weatherization Funds for Renewable Energy Systems

10 CFR §440.18 (Allowable Expenditures) incorporates the renewable energy system provisions and specifies a ceiling of \$3000 per dwelling for labor, weatherization materials, and related matters. Approved renewable energy systems will be listed in Appendix A of Part 440, Standards for Weatherization Materials.

The expenditure of financial assistance provided under DOE WAP for labor, weatherization materials, and related matters for a renewable energy system, shall not exceed an average of \$3,000 per dwelling unit, adjusted. See, 10 CFR 440.18(b) and (c). The PY 2019 adjusted average for renewable energy measures is \$3,699.

To help facilitate the integration of solar PV across the WAP network, DOE has released WAP memorandum 024. This memo allows for the submission of pilot solar projects to DOE for approval. Oregon will be allowing Solar PV on a case by case basis with approval from DOE. Solar PV projects must meet SIR requirements and are limited to the adjusted average limit.

Note: The adjusted average for renewable energy measures is not a separate average, but a part of the overall adjusted average expenditure limit of \$7,541.

2.20.7 Prohibited Expenditures

Funds shall not be expended for the items or services other than those listed in 10 CFR part 440, Weatherization Assistance for Low Income Persons, Final Rule, 440.18 (e.). T&TA funds cannot

be used to purchase equipment used in the day-to-day installation of weatherization measures. Where a need exists to purchase tools and equipment Subgrantees should use program funds.

2.20.8 Discretion of Procurement

OHCS gives Subgrantees discretion in the procurement of materials. All supplies, equipment, materials and services must be procured in accordance with applicable state law and procedures and 2 CFR Subtitle B with guidance at 2 CFR Part 200.

2.20.9 EPA Compliance

Subgrantees shall comply with the Environmental Protection Agency (EPA) regulations as set forth in 40 CFR Part 248 - Guidelines for Procurement of Building Materials, which encourages the use of recyclable materials. Subgrantees shall use recyclable materials whenever possible. Compliance with EPA regulations also applies to the decommissioning of replaced baseload appliances whether subcontracted out or not.

2.21 Reporting Requirements

Each Subgrantee shall submit certified and timely reports to OHCS detailing the progress made towards the program objective(s) and all administrative and program expenditures. The report **must** agree with the Subgrantee's accounting records, and be certified by the Subgrantee's chief executive officer or their designee. **Quarterly reports are to be reviewed by OHCS on or before the 20th working day of the month following the last day of the quarter being reported:**

- a. Reporting Format – OHCS has provided all Subgrantees with online access to OPUS-Wx for the purpose of reporting weatherization activities. All weatherization Subgrantees are required to use OPUS-Wx for quarterly reporting purposes (see Appendix I).
- b. OHCS will work with OECA to improve and develop a reporting method that meets the needs of the funding source, is not a burden and provides useful information to Subgrantees, state and funding source.

2.21.1 Success Story Reports

Subgrantees receiving thank you letters from or about people whose homes were weatherized, should submit selected letters to OHCS. Letters will then be forwarded to DOE to bolster efforts to promote weatherization, and give a human face to people receiving weatherization assistance.

2.21.2 Petroleum Violation Escrow (PVE)

Exxon and DOE weatherization funds are to be budgeted and accounted for separately. Reports for each weatherization grant will be provided to the Subgrantee by OHCS. Stripper Well funds are added to the DOE funds for the purpose of calculating administrative costs. Once "Admin" has been calculated the Stripper Well funds are replaced in total and are allocated as program funds only. Admin for Stripper Well funds has already been calculated in DOE-Admin; therefore, spending DOE and Stripper Well funds on the same job is *not* permitted.

2.21.3 Fuel Switching

In general DOE does not allow wholesale fuel switching. However, changing or converting a fuel source to another on a limited case-by-case basis with pre-approval from OHCS will be considered.

2.21.4 Cook Stoves

DOE does *not* allow cook stoves to be replaced with DOE funds. DOE does, however, allow for repair of gas cook stoves. If a Subgrantee discovers a cook stove that is emitting dangerous levels of carbon monoxide (check ambient CO Levels) and repair is not possible, other funds should be used to remedy the problem. See appendix D, section XII for details.

2.21.5 Disaster Relief

In the event of a declared natural or manmade disaster (those in which the President or the Governor of the state of Oregon has declared the event an Emergency), Oregon will allow Subgrantees to assist their eligible clients with weatherization funds to the extent that the services are in support of eligible weatherization work. The allowable expenditures under the Weatherization Assistance Program (WAP) are limited to include the following:

- 1) The purchase, delivery and installation of weatherization materials and,
- 2) The cost of incidental repairs to an eligible dwelling unit if such repairs are necessary to make the installation of weatherization materials effective and,
- 3) The cost of eliminating health and safety hazards, elimination of which is necessary before the installation of weatherization materials.

All materials utilized must be listed in 10 CFR Part 440 Appendix A. To the extent that the services are in support of eligible weatherization (or permissible re-weatherization) work, such expenditure would be allowable. For example, debris removal at a dwelling unit so that the unit can be weatherized would be an allowable cost. Debris removal from a dwelling unit that is not to be weatherized would not be an allowable cost.

In a declared federal or state disaster, sub grantees may return to a unit previously reported as a completion to the Department of Energy that has been “damaged by fire, flood or act of God to be re-weatherized, without regard to date of previous weatherization”, per 10 CFR 440.18(f)(2)(ii). Local authorities must deem the dwelling unit salvageable as well as habitable and the damage to the materials must not be covered by insurance or other form of compensation. In these cases, the work can be addressed without prior approval or any special reporting.

Please note that the \$7,541 per dwelling unit limit and the H&S budgetary maximum of 15% of the average cost per home for H&S continues to apply.

2.21.6 Wood Stove Replacement

Replacement of wood stoves is allowed. See Appendix D section XI and Exhibit 1 for detailed protocol.

2.22 Quality Control

It shall be the responsibility of the Subgrantee to establish measures to ensure the quality of work completed and address the following areas:

2.22.1 Fire Codes

Each Subgrantee is responsible for contacting the fire code officials in their service delivery area to verify that work done and materials used meet local fire codes. The sole purpose for this requirement is to protect the client and limit the liability of the Subgrantee.

2.22.2 Electrical Codes

Each Subgrantee is responsible for assuring that all work meets local and state electrical codes. Any and all electrical work **must** be performed by a licensed electrical contractor.

2.22.3 Building Codes

Subgrantees *shall not* undertake structural modifications without first consulting the appropriate building codes and contacting local officials.

2.22.4 Materials Installed Properly

It is the Subgrantee's responsibility to ensure all materials are installed to required specifications to achieve maximum benefit from the materials. **All units require post installation inspection.** Inspections of weatherized units **must** be completed by someone other than the installer(s).

2.22.5 Maximum Service – Holistic Approach

All Subgrantees are responsible to ensure each household has received the maximum amount of services available within the expenditure limitations to maximize energy savings. Subgrantees are encouraged to mobilize all funding available to deliver the highest level of energy efficiency improvements in a holistic approach on each dwelling weatherized. Holistic approach refers to treating the dwelling as an integrated complex system where the shell, mechanical and occupants all interact and affect the energy usage.

APPENDICES

- Appendix A Peer Exchange Protocol
- Appendix B Performance Evaluation Tool
- Appendix C Training and Technical Assistance (T&TA) Plan
- Appendix D Health and Safety Plan
- Appendix E Quality Control Inspector Policies and Procedures

Appendix A – Peer Exchange Protocol

The following protocol will be used by OHCS and agencies with a stable or vulnerable score rating:

I. Stable agencies can and Vulnerable agencies will participate in an annual peer exchange

- a. Agencies can visit another agency of their choice. It is encouraged that they seek an agency that has a new or interesting aspect to their program such as a new weatherization measure, technique or technical application.
- b. Agencies may not visit the same agency as prior year without OHCS permission.
- c. Once an agency is chosen for peer exchange, the visiting agency shall inform the agency to be visited of their intentions at least three (3) months prior to the visit.

II. Selecting Units to Visit

- a. At least three (3) weeks prior to the peer exchange, the host agency and visiting agency will communicate and discuss visiting agencies topics of interest.
- b. At least 10 days prior to the visit, monitoring agency will notify host agency of four (4) jobs. Jobs selected based upon a previous conversation(s) concerning visiting agency's topic of interest.
- c. Host and visiting agency will schedule a mutual and convenient time for the peer exchange.
- d. Host agency will schedule any field visits.

III. Elements of Exchange Visits

- a. Discuss new and innovative techniques and applications; administrative procedures' equipment use; applications diagnostic testing techniques; and use of testing equipment.
- b. Job site inspection (all four (4) units):
 - b1. Discuss work and make notes with host agency's representative.
 - b2. Review installation techniques; testing procedures; benefits of application; as well as related benefits to home and occupant.

IV. Discuss Observations

- a. Items of interest should be discussed at length while on site; therefore, both agencies have a clear understanding of the issue, techniques, tools used, and methods.

V. Exit Interview

- a. Staff and program coordinator to discuss visit, roundtable applications, techniques, testing protocol, ideas and improvements.

VI. Report to OHCS

- a. Visiting agency to draft summary report of visit.
- b. The report will include:
 - b1. Topics and discussion.
 - b2. A narrative letter discussing observations, ideas, what they learned, and any differences they plan to implement into their program.
- c. Visiting agency will submit a report to OHCS within 15 working days.

Appendix B – Performance Evaluation Tool



State of Oregon Weatherization Assistance Program Performance Evaluation Tool

Oregon Housing & Community Services
725 Summer Street NE, STE B
Salem, Oregon 97301
Phone: (503) 986-2000
Fax: (503) 986-2020
www.ohcs.oregon.gov

Purpose Statement

The purpose of the Training and Technical Assistance (T & TA) agency performance evaluation (PE) tool is to provide compliance review, technical assistance, and information sharing to weatherization agencies to ensure that each home receives the most cost effective and comprehensive weatherization service while maximizing total agency resources available. It will be accomplished by:

- Oregon Housing and Community Services (OHCS) and Subgrantees acting as partners and as a team.
- Quality, comprehensive weatherization and repair services are provided at a consistently high level of effectiveness throughout the state.
- Healthy, safe, and energy efficient housing improvements are provided to low-income households.
- Program accountability and efficiencies are in effect and verifiable.
- Innovative technological advances are promoted.

Guiding Principles

I. Planning

- Program PE is organized, systematic, regular, and scheduled in advance for mutual convenience.
- PE plans are defined with clear expectations, scope, and process.
- Individualized monitoring for every agency is dynamic to reflect historical findings, observations, and needs.
- Technical protocol, standards, and tools are kept current.

II. Constructive process

- PE and technical assistance is conducted in a professional manner with consistency, fairness, respect, and timeliness.
- OHCS fosters positive, open, and constructive working relationships.
- PE reports are consistent with, and based on, adopted program policies, procedures, standards, and protocols.
- Inspections are performed thoroughly and objectively.
- OHCS promotes improvement by providing technical assistance and resources.
- PE reinforces industry best practices to help ensure prudent decisions are made and positive results are achieved for the participants served.

III. Learning and experiences

- OHCS is knowledgeable and skilled to promote new and enhanced methods of service delivery and business practices.
- OHCS serves as a conduit for the delivery of innovative and cutting edge technologies.
- PE serves as a two-way educational experience that promotes interaction, feedback, and state and local program improvements.
- OHCS acknowledges and shares successes, innovations, good practices, experiences and challenges.
- PE, technical assistance and required follow up to findings are structured to protect program integrity and to sustain program support.

Procedures

OHCS WX PE

- File documentation
- Compliance with state & federal regulations
- Compliance with state weatherization assistance program specifications
- Completed project inspection
- Performance testing of homes
- Inventory control
- Health & Safety
- Auditing results
- Resource accountability
- Work quality
- Fiscal controls

Who to meet with:

- Agency Coordinator
- Fiscal Officer
- Crew members
- Participants

▪ **Performance Evaluation Process Outline**

A basic level of core PE will occur as part of every PE visit. In addition to the core PE, the PE agency plan will be an integral aspect of each monitoring. The sequence and timelines outlined below will precede annual PE visits. If any agency is performance evaluated more than once within a calendar year, some steps may be omitted.

1. OHCS will choose a date to perform the PE visit. Six weeks prior to that date. OHCS will e-mail the selected agency requesting the acceptance of these monitoring dates. A schedule letter and a copy of the PE tool will be attached.
2. After the scheduled dates have been accepted an e-mail confirming this will be sent to the agency. Attached to this e-mail will be:
 - A confirmation letter with specific timelines for completing and returning the requested items.
 - A list of completed jobs chosen by OHCS for evaluation from a review of OPUS.
 - A pre-monitoring questionnaire and a weatherization self-assessment
3. Within one (1) week the agency will indicate if the required eight (8) jobs are scheduled for field inspection. If any of the selected jobs are not available for evaluation, the agency will notify OHCS and additional jobs will be chosen. This process should be completed within two weeks.
4. After the homes are scheduled, the agency will provide electronic copies of the REM/Design™ .blg files for all jobs selected.
5. The agency will complete and electronically return the self-assessment evaluation and the weatherization pre-monitoring questionnaire within (2) weeks before the visit.
6. The final evaluation report will be sent to the agency within 30 days of the PE visit.

PE Program Outline:

1. All correspondence will be documented on the OHCS contact sheet.
2. OHCS will send an E-mail with attached scheduling letter and copy of PE tool.
3. Agency will respond and evaluation dates confirmed.
4. OHCS will send an E-mail with attached confirmation letter/completed job selection list/pre-monitoring questionnaire/self-assessment.
5. Agency will confirm scheduling of job inspections. Agency will provide REM/Design™ electronic files for review.
6. OHCS will review pre-monitoring questionnaire/self-assessment/funding summary reports and REM/Design™ files submitted.
7. OHCS will review prior years monitoring report
8. Travel to agency.
9. Entrance interview between OHCS monitor and agency staff.
10. OHCS will review project files with agency staff.
11. Discuss agency operations and mission
12. Discuss community partners.
13. Discuss other resources
14. Perform field inspections.
15. Monitor performance testing of homes.
16. OHCS and agency representative(s) will discuss any opportunities identified during the inspection and performance testing of the home.
17. OHCS monitor will interview participants.
18. OHCS monitor will prepare exit interview comments.
19. OHCS monitor will perform an exit interview with agency staff and discuss findings.
20. Incorporate mutually agreed upon comments into the final review.
21. Discuss new techniques, approaches and protocols.
22. Discuss training needs.
23. Schedule additional follow up(s) on technical assistance needs identified.
24. Review program improvements from prior year.
25. Draft final review.
26. Agency will be scored using the Performance Evaluation WX Tool.
27. Establish time for next monitoring depending on review scores.
28. OHCS will send a copy of the performance evaluation report to the agency Executive Director within 30 days of the PE visit.
29. If required, the agency will provide responses to any concerns, findings or corrective action plans within 30 days of receipt of the PE report.
30. File original at OHCS for a minimum of three years after the grant period ends.

Diagnostic testing is performed, including blower-door tests, combustion safety tests, and duct leakage test. The test results are compared with those noted in the participant file.

Inspection of completed houses, with the accompaniment of the local agency auditor/inspector, provides an opportunity to provide on-site technical assistance. Various installation techniques, quality control issues, or test procedures may be discussed during the course of performing the inspection.

The set-up values of the REM/Design™ audit are checked to ensure they are current and accurate, that staff is proficient in the use of the REM/Design™ audit, and that it is used as directed by OHCS.

Exemplary practices, successful approaches, or creative ideas in the operation of the local program will be identified and noted.

Crew Health and Safety procedures will be checked for compliance with OHCS Health and Safety Plan as contained in the USDOE State Plan.

At the conclusion of the monitor's visit, an exit conference will be conducted with the program manager and appropriate staff. If there are deficiencies, a recommended course of action will be agreed upon.

Every effort will be made to complete and mail a final PE report to the agency's Executive Director within 30 days of the monitoring visit. Within 30 days of receipt of the PE report, the agency will submit a written response providing assurance that identified problems are resolved and documented.

PE Reference Material

1. OAR 813-205 Weatherization program rules.
2. OAR 813-230 Monitoring.
3. The Oregon State Weatherization Assistance Program Specification and requirements.
4. US Department of Energy 10CFR Part 440 Weatherization.
5. Oregon USDOE State Plan / Weatherization Assistance Program.
6. Bonneville Power Administration Weatherization rules and Regulations.
7. Site Built and Mobile Home Specifications for the State of Oregon.
8. Energy Conservation Helping Oregonians (ECHO) Guidelines.

9. Technical procedures adopted for the weatherization program, include:

- Blower Door and Air Sealing Procedures, which are used to determine a baseline goal for directing air-sealing work of the building envelope.
- Duct Pressure Test Procedures are the standards by which to measure the effectiveness of the HVAC system. The pre- and post-weatherization test information is required to be collected and recorded in each client file.
- The Combustion Safety Test Procedures establish worst-case depressurization, spillage, flue draft, carbon monoxide, as well as a visual inspection. This procedure also contains safety thresholds. These tests must be performed and recorded, at a minimum, at the time of audit and final inspection. The test report form is to be completed on all homes that contain combustion appliances and maintained in the participant file.
- Building shell pressure balancing using a digital manometer
- Air barrier pressure testing using a digital manometer
- Exhaust fan flow measurement using a flow testing device coupled with a digital manometer.

Evaluation Tools and Equipment

The following PE tools and equipment will be used by OHCS to help determine satisfactory work performance:

1. Blower door tests on a sample of completed jobs to verify the extent of air-sealing work and to assess the risk of indoor air quality problems.
2. A combustion analyzer and manometer on a sample of completed jobs that have combustion appliance to verify compliance with combustion safety test procedures.
3. A digital hand-held manometer on a sample of completed jobs to verify pressure balancing, and air barrier sealing.
4. An infrared scanner on a sampler of completed jobs to verify uniform insulation coverage in closed cavities and inaccessible areas, as well as adequate air barrier sealing work.
5. Digital cameras to take photos of houses inspected and to record extraordinary circumstances or work performance.
6. Duct Blaster™ to test effectiveness of duct sealing work.
7. An exhaust fan flow meter coupled with a hand held digital monometer to verify exhaust fan flow rates.

On-site PE will focus on field inspections looking at weatherization measure installation, diagnostic testing and health & safety. OHCS fiscal monitors will satisfy most administrative review, including financial examination. OHCS will review fiscal documentation in file to make sure work completed matches the work invoiced.

A key component of on-site monitoring will be to provide on the job training and technical assistance during the course of on-site monitoring and identify the need for future training and technical assistance.

Issues identified during the PE visit will be discussed with the agency whenever possible, especially any observations or findings for specific projects. A final written monitoring report to the local agency will be issued within 30 days of any completed PE visit.

For purposes of consistency, the following definitions for agency classification criteria will be used during monitoring visits and subsequent reports:

Exemplary: Exceeds program expectations. Program is visionary, excels in all program aspects, and is highly responsive and innovative. Overall program evaluation is scored exemplary in the Performance Evaluation WX Tool.

Stable: Meets program expectations, accurate, effective, organized, sound, proficient, and proactive. Good administration systems. Files are complete, organized and accurate. Overall program delivery is effective and sound. Agency staff is proficient in diagnostic testing. Material installation consistently meets standards. Workmanship is good quality.

Vulnerable: Noncompliance issues. Sometimes meets program expectations, marginal administrative systems. File information inconsistent. Overall program delivery has gaps. Diagnostics are inadequate. Material installation sometimes meets standards. Workmanship is inconsistent.

At-Risk: Frequently does not meet program expectations. Program is inadequate, poor, substandard, incomplete, deficient documentation. Poor communications are maintained with inadequate administrative systems. Files are incomplete, inaccurate or both. Overall program delivery is substandard. There are deficiencies in performing diagnostics. Material and workmanship does not meet program standards.

Levels of Agency Performance and PE Frequency

High Performance or Exemplary Agencies

By way of monitoring review, an agency has demonstrated performance standards that meet or exceed that are commonly observed in the following areas:

1. Program operations:
 - No Health and Safety finding as identified in previous monitoring report.
 - No procedural findings related to program rules, and policies and procedures
2. Fiscal:
 - No annual program specific audit findings.
3. Technical:

- Provide comprehensive service utilizing the latest building science and renewable technology, in a cost-effective manner in accordance with State of Oregon Weatherization Assistance Program guidelines.
4. Production:
 - In general, an agency's production is high relative to funding.
 - No rollovers.
 5. Qualified staff:
 - Agency will receive higher credit for exemplary status by having staff and contractors trained in the certifications listed in the USDOE State Plan.
 6. Peer Monitoring
 - Agency will participate annually in peer monitoring of "at-risk" agencies as requested once per year from OHCS.
 7. Risk:
 - No "at-risk" elements are found in major categories for an agency.

If the above is met a final visit may be made by an OHCS weatherization coordinator for final confirmation of achievement.

Stable Agency Performance

Typically, the frequency of monitoring will be (1) visit per year by an OHCS and Fiscal Monitor. The need for a second visit within the same year will be determined by OHCS based on such factors as past state and Peer exchange results, an agency's program funding and production level, and the completeness of the monitoring within the time available. OHCS expects every agency to meet these standards of performance:

1. Well-established systems for program administration and operations, with no more than one finding in the following areas:
 - Compliance with major program requirements, such as, lead-based paint procedures, cost allocation plan/indirect rate, required contractor information.
 - No more than one program specific finding in the annual audit.
 - No more than one fiscal specific finding in the annual audit.
 - Staff well trained in performance of specific job duties.
 - Complete and organized files.
2. Evidence of prudent decision making as to the use of program resources:
 - Complete scopes of work
 - REM/Design™ documentation is current and consistent with billing.
 - Staff proficient in its use
 - Evidence REM/Design™ is used with actual and true pre-post data.(including costs)
 - Evidence REM/Design™ is used effectively and thoughtfully in determining cost-effective measures.

3. Staff and contractors have demonstrated proficiency in technical applications, including diagnostics.
4. Agency has a minimal number, and severity, of procedural findings (as related to programs rules, policies and procedures) and health and safety findings from previous monitoring report.
5. Agency complies with OSHA/DHS/OHCS safety rules, as applicable.
6. The agency maintains a professional working relationship with OHCS.
7. Past corrections made and reported in a timely manner.
8. Participate in annual PEER exchange visits to other agencies.
9. Agency will report as outlined in the PEER exchange guidelines
10. No “at-risk” elements are found in major categories for an agency.

Vulnerable Agency Performance

Typically, the frequency of PE will be (1) visit per year by an OHCS T & TA Monitor and Fiscal Monitor. The need for a second visit within the same year will be determined by OHCS based on such factors as past state and Peer exchange results, an agency’s program funding and production level, and the completeness of the PE within the time available. Agency’s performance is deficient in some or all of the following levels of performance:

1. Agency has a well-established system for program administration and operations, with at least one finding in the following areas:
 - Compliance with major program requirements, such as, lead-based paint procedures, cost allocation plan/indirect rate, required contractor information.
 - No more than one program specific finding in the annual audit.
 - No more than one fiscal specific finding in the annual audit.
 - Staff well trained in performance of specific job duties.
 - Complete and organized files.
2. No evidence of prudent decision making as to use of program resources:
 - Complete scopes of work
 - REM/Design™ documentation is current and consistent with billing.
 - Staff proficient in its use
 - Evidence REM/Design™ is used with actual and true pre-post data (including costs).
 - Evidence REM/Design™ is used effectively and thoughtfully in determining cost-effective measures.
3. Staff and contractors have not demonstrated proficiency in technical applications, including diagnostics.
4. Agency has a number of and severity of procedural findings (as related to programs rules, policies and procedures) and health and safety findings from previous monitoring report.

5. Agency does not comply with OSHA/DHS/OHCS safety rules, as applicable.
6. The agency does not maintain a professional working relationship with OHCS.
7. Past corrections were not made and reported in a timely manner.
8. Does not participate in annual PEER exchange visits to other agencies.
9. Agency does not report as outlined in the PEER exchange guidelines.
10. Several “at-risk” elements are found in major categories for an agency.

At-Risk Agency Performance

At-risk agencies may be identified as a result of a variety of factors that may include:

1. The agency’s probation. i.e. new agency / program.
2. There is evidence of significant administrative or program sub-standard performance; for example, repetitive pattern of findings, failure to have copies of permits on file or lack of compliance with historical preservation rules.
3. The agency is not in compliance with program policies, procedures and specifications.
4. The agency has repeated health and safety findings.
5. Agency staff members/crew has deficient technical skills.
6. There has been a change in key staff.
7. There has been a change in key weatherization contractors.
8. The agency has deficient scopes of work (Low Income Weatherization Program Work Plan is insufficient).
9. The agency has program specific audit findings.
10. The agency has fiscal specific audit findings
11. The agency files are incomplete or disorganized.
12. The agency staff is unresponsive to OHCS requests and deadlines. For example, the agency consistently fails to provide monthly reports and contract closeouts in a timely manner.
13. Agency production is low relative to funding.
14. Other OHCS programs (CSBG, LIHEAP, Food, Homeless, etc.) have indicated problems with or concerns about the agency.

15. At-risk agencies will be monitored no less than twice annually. Other factors in the frequency of monitoring visits may be based upon the requirements of specific funding sources.
16. When possible, at risk agencies will be PEER monitored by an exemplary agency that delivers program in a similar fashion. Example; a crew based at risk agency will be monitored by a crew based exemplary agency.

Performance Findings Correction Process

1. Each Subgrantee shall be advised within 30 days after the conclusion of the evaluation any findings with a rating below “stable” resulting from the monitoring of its program. If the agencies performance rating is deficient in any categories and that the program is out of compliance with contract provisions or that the program is out of compliance with state or federal regulations, OHCS shall issue preliminary findings which provide specific examples of each such issue, request corrective action on each deficiency rated below “stable” and offer assistance to the Subgrantee in developing a corrective action plan.
2. Subgrantee’s shall respond to preliminary finding corrective action request within 30 days from receipt of the request. The response either shall include a corrective action plan which specifically addresses identified deficiencies or explain why the preliminary findings were in error.
3. OHCS shall notify the Subgrantee within ten days of the Division's acceptance or rejection of all or parts of the Subgrantee's response. The Subgrantee shall be given an additional 20 days from the receipt of the Monitors notification to provide an acceptable corrective action plan for any remaining, unresolved deficiencies.
4. If unresolved deficiencies remain, OHCS shall transmit to the Subgrantee a finding of facts detailing the specific deficiencies, required corrective actions and establishing a 30-day time period for corrective action to take place.
5. If at the end of that 30-day period, specific corrective actions have not been effected, OHCS shall inform the Subgrantee of the sanctions which shall be applied due to non-compliance. Such sanctions may include but not be limited to withholding of funds, disallowance of costs, suspension of contract, or termination of contract. OHCS shall inform the Subgrantee of any appeal rites and procedures to state and federal authorities in the sanction transmittal.

Performance Evaluation Production Visits

During the program year or grant cycle an additional full monitoring evaluation may not be necessary. Due to grant allocation time frames, agency production levels, and OHCS production requirements, it will be acceptable to perform a production visit if a full monitoring has been completed for the program year.

The basic overview is to review the project files of the selected jobs for compliance and to ensure that all of the measures funded have been properly installed in the field.

Due to the nature of this process, there are multiple items completed and reviewed in the standard evaluation, which are not required in the production visit. These include, but are not limited to; the

self-assessment, pre-monitoring questionnaire, safety and lead checklists. Contractor files and outreach, inventories, equipment and diagnostics can be left out of the report. The weatherization performance evaluation tool is not used to score the agency.

The individual site inspections, client file checklist, performance evaluation report and a final cover letter are the only reports required to be completed and included in the agency file. In order to expedite the process, reports will be converted to PDF files and emailed to the agency.

If there are findings, concerns or repairs requiring a corrective action plan, within 30 days of receipt of the production report, the agency will submit a written response providing assurance that identified problems are resolved and documented.

Production Visit Process

1. All correspondence must be documented on OHCS contact sheet.
2. OHCS will send a scheduling e-mail to agency (no time frame).
3. Once the dates are confirmed, OHCS will send a confirmation email to agency and include a list of jobs to be inspected.
4. The agency will schedule inspections and e-mail OHCS a confirmation/schedule.
5. OHCS will request and review REM/Design™ .blg files.
6. OHCS will travel to the agency and perform the production visit.
7. OHCS will email a PDF copy of the production visit report to the agency Executive Director within 30 days of the production visit.
8. If required, the agency will provide responses to any concerns, findings or corrective action plans within 30 days of receipt of the PE report.
10. File original at OHCS for a minimum of three years after the grant period ends.

Appendix C – Training and Technical Assistance Plan

Overview

Oregon’s low income weatherization network is made up of 17 Subgrantees each with their own service area. The Subgrantees are comprised of 17 community action agencies; housing authorities; local governments; area agencies on aging; senior centers; a development corporation. Many of the weatherization Subgrantees have over 20 years’ experience in delivering weatherization services. Delivery methods include a combination of contractor and crew based organizations.

OHCS field representatives conduct annual monitoring visits and conduct report evaluation on an ongoing basis. One of the goals of on-site and report evaluation is to assess the need for training. Problems identified through desk reviews and field visits that can be resolved through training and technical assistance will be handled by the Field Representatives and/or other OHCS staff, outside consultants, and occasionally by staff brought in from other agencies.

All new OHCS weatherization field staff shall attend basic weatherization, combustion appliance, and blower door/duct leakage training courses including both theory and hands on curricula, at OHCS-approved weatherization training facilities. Appropriate OHCS staff will receive updated training as needed. All OHCS field representatives are required to take the appropriate training to become EPA Certified Renovators and HEP Quality Control Inspectors.

Training and Technical Assistance – Grantee

Training and Technical Assistance for Subgrantees

- Field Representatives provide both training and programmatic assistance during on-site visits and through ongoing telephone contact with the Subgrantees.
- Program Analysts provide technical assistance to staff and Subgrantees, develop training curriculum, and assess past and future training needs.
- OHCS staff or approved training providers provide follow-up tier 2 field training and technical assistance pertaining to the installation of weatherization measures, the quality and appropriateness of installed weatherization measures, infiltration reduction, and health and safety measures and develops training curriculum.
- OHCS staff or other approved training organizations provide guidance and training in the appropriate use of the computerized audit tool.

Training and Technical Assistance for OHCS Staff

- OHCS staff will attend the Energy OutWest Peer Exchange and NASCSP meetings and conferences as scheduled as approved by the OHCS director’s office.
- OHCS staff is trained on an on-going basis to keep them abreast of contractual and policy changes. For monitoring purposes, all new OHCS field and technical staff receive the standard weatherization training including combustion appliance safety, blower door and duct leakage diagnostics. All OHCS field staff members are EPA Certified Renovators and Quality Control Inspectors.

Subgrantee Training Evaluation

- OHCS field Representatives make annual monitoring visits. One of the goals of on-site visit is to assess the need for training. OHCS staff will evaluate monitoring reports and if deficiencies are found, either provide training or refer the training to an approved training provider for follow-up.
- As part of the annual monitoring visit, OHCS staff will evaluate a REM/Design™ and/or TREAT audit reports and provide technical assistance as needed.
- OHCS staff will analyze a variety of financial, production and weatherization retrofit data points. Trends indicating extremes in production, costs, energy savings and/or completed weatherization measures will be noted and tracked for appropriate follow-up. This information is used to evaluate sub-grantee effectiveness and to develop targeted training.
- OHCS staff will work with the Oregon Energy Coordinators and Affiliates (OECA), the Oregon Training Institute (OTI) and other approved training organizations to determine training needs not identified through monitoring visits.

Training Development

- OHCS staff develops and provides periodic webinars to key administrative and fiscal Subgrantee staff on programmatic issues.
- OHCS technical staff provides training in various formats on various technical subjects, including but not limited to computerized audit tool use and health and safety issues.

Training and Technical Assistance – Subgrantee

Training and technical assistance funds are allocated to Subgrantees to provide required training. The department allocates a portion of LIHEAP weatherization, Bonneville Power Administration and state public purpose charge funds for training purposes to supplement DOE's contribution. The training encompasses site-built, multi-family and mobile homes. Although there are certain training requirements that apply to all field staff, certification requirements only apply to field staff of Subgrantees and subcontractors who provide audit and inspection services. There are two certification paths allowed under the Oregon WAP, the Building Performance Institute (BPI) and the Residential Energy Analyst (REA) program. With the exception of the REA installer portions, the certifications are not interchangeable. Installers and crew supervisors are not required to be certified, but it is allowable and encouraged to utilize T&TA funds for this purpose.

The REA Program is the certification system designed for use by the Oregon weatherization assistance network to enhance and augment the building performance skills and knowledge of staff, contractors and consultants who serve in participating agencies, businesses, utilities and organizations. It was developed in cooperation with experts and specialists from Oregon Housing and Community Services, OECA, Oregon Training Institute and Saturn Resource Management. The REA Program is designed to develop staff and increase capacity. Highly trained personnel and staff instruct and test students. The "needs-based training" approach is developed and used within the REA system. Training is based on the actual discovered needs of the participants, not based on assumptions.

Required Certifications

Job Title	REA Program Certification Path	BPI Certification Path
Energy Auditor	REA Energy Analyst REA Diagnostic Technician REA Stick Built Installer REA Mobile Home Installer	BPI Building Analyst BPI Envelope Professional BPI Heating Professional REA Stick Built Installer REA Mobile Home Installer
Inspector	REA Energy Analyst REA Diagnostic Technician REA Stick Built Installer REA Mobile Home Installer HEP Quality Control Inspector	BPI Building Analyst BPI envelope Professional BPI Heating professional REA Stick Built Installer REA Mobile Home Installer HEP Quality Control Inspector

REA Program Certification Path

Certification	Agency Staff Required	Contractor Staff Required	Frequency of Renewal	Delivery Method	CEU Requirements	Timeframe
Energy Analyst	Auditors and Inspectors	Auditors and Inspectors	5 Years	OTI	50 hours over 5 years for the first certification. No additional CEU's for added certifications.	Auditors and inspectors must obtain certifications within 1 year of promotion or hire. Until certified, work must be reviewed by certified staff.*
Diagnostic Technician	Auditors and Inspectors	Auditors and Inspectors	5 Years	OTI		
Stick built Installer	Auditors and Inspectors	Auditors and Inspectors	5 Years	OTI		
Mobile Home Installer	Auditors and Inspectors	Auditors and Inspectors	5 Years	OTI		

* Agencies with limited staff may request a waiver of work review by certified staff from OHCS.

BPI Certification Path

Certification	Agency Staff Required	Contractor Staff Required	Frequency of Renewal	Delivery Method	CEU Requirements	Timeframe
Building Analyst	Auditors and Inspectors	Auditors and Inspectors	3 Years	BPI Test Center	30 hours for 3 years. No additional CEU's for additional certifications.	Auditors and inspectors must obtain certifications within 1 year of promotion or hire. Until certified, work must be reviewed by certified staff.*
Envelope Professional	Auditors and Inspectors	Auditors and Inspectors	3 Years	BPI Test Center		
Heating Professional	Auditors and Inspectors	Auditors and Inspectors	3 Years	BPI Test Center		
Shell Technician Stick Built	Auditors and Inspectors	Auditors and Inspectors	5 Years	OTI	50 hours over 5 years for the first certification. No additional CEU's for added certifications.	
Shell Technician Mobile Home	Auditors and Inspectors	Auditors and Inspectors	5 Years	OTI		

* Agencies with limited staff may request a waiver of work review by certified staff from OHCS.

Quality Control Inspector

Certification	Agency Staff Required	Contractor Staff Required	Frequency of Renewal	Delivery Method	CEU Requirements	Timeframe
Quality Control Inspector	All Inspectors	All Inspectors	3 Years	OTI	24 hours over the 3 years of certification.	Must be obtained before inspections may be completed.

Required Certification/Trainings

In addition to the BPI or REA and QCI certification listed above, the following trainings/certifications must be completed.

Certification/Training	Agency Staff Required	Contractor Staff Required	Frequency of Renewal	Delivery Method	CEU Requirements	Timeframe
REM/Design Certification	Auditor/Inspector who utilize REM/Design™	Audit/Inspector contractors who utilize REM/Design™	5 Years	Certification through OHCS Training through OHCS. OTI and other approved training provider.	4 Hours Annually	Must be obtained within 1 year of promotion or hire. REM models must be reviewed by a certified user before certification is obtained.*
Health & Safety Training	All Auditors and Inspectors	Contract Auditors and Inspectors	One Time Only	OTI and other approved training providers	None Required	Within 180 days of promotion or hiring.
Lead Renovator Certification	All Auditors and Inspectors. Crew based: At least one available Renovator.	Minimum 1 certified staff person.	5 Years	EPA Certified Trainer	None Required	Auditors/Inspectors: Within 180 days of hire or promotion or hiring. Crew staff: Renovator required disturbing or testing paint on pre 78 housing.
Multi-Family QCI Inspector Training	All QCI Inspectors who inspect projects with 5 or more units per building.	All contract QCI Inspectors who inspect projects with 5 or more units per building.	One time Only	OTI	None Required	Course must be successfully completed before Multi-family projects may be inspected.

Training Verification

Training records for the required trainings and certifications are verified through a combination of reviewing certified individuals on the BPI website, accessing the OTI database and OHCS staff reviewing training records during monitoring visits. OHCS field representatives and analysts follow up with Subgrantees when the required training was not completed or other training discrepancies are found.

Technical Guides

The key to a successful and effective program is ensuring work is completed and inspected in a consistent manner and according to specifications adopted by the State of Oregon. The technical guides are available on the OHCS website and links to the technical guides are provided to agencies. Agencies are to share the links with their contractors and obtain written confirmation of receipt to be kept in the contractors file. Confirmation of receipt is confirmed during monitoring visits.

The Oregon WAP will use the following technical assistance guides to ensure consistent work and processes:

- Oregon Weatherization Assistance Program Site Built Housing and Manufactured Home Weatherization Field Guide and Standards.
- Oregon Small Multi-Family Energy Audit Protocol
- Oregon Single family/Manufactured Home Energy Audit Protocol
- REM/Design™ Technical Policies

Training Provider

The OTI is the designated provider of comprehensive training in the state of Oregon. The OTI is IREC accredited in the HEP EA and QCI certifications. OTI currently uses Weatherization Assistance Program Standardized Curricula that is aligned for the USDOE JTAs in all of their comprehensive training courses.

Oregon WAP Comprehensive Training

Comprehensive training is defined as comprehensive, occupation-specific training which follows a curriculum aligned with the job task analysis (JTA) for that occupation. To ensure quality work and consistency in the delivery and benefits of the program, comprehensive training must be provided to Auditors and Inspectors on a regular basis. To maintain eligibility to perform audits and inspections in the Oregon WAP, each auditor/Inspector must complete a comprehensive training every three years. Agencies may request a waiver of this requirement from OHCS in special situations.

Comprehensive Training Provided		
Training	Number of Days	Frequency
HEP Quality Control Inspector	As needed	As defined for comprehensive training compliance
HEP Energy Auditor	As needed	

Oregon WAP Specific Training

Specific training is defined as single issue, short-term, training to address acute deficiencies in the field including dense packing, crawlspace, REM/Design, ASHRAE, etc. All REA and BPI training fall under this category. Conference trainings are included in this category. This list is not all inclusive of specific training.

OHCS staff will evaluate monitoring reports and if deficiencies are found, either provide training or refer the training to an approved training provider for follow-up. These trainings will be provided by a combination of OHCS staff, OTI staff, other approved training organizations and attendance at weatherization related conferences. Delivery methods will include webinars, classroom and in-field trainings.

Specific Training Provided		
Training	Number of Days	Frequency
Introduction to REM/Design™	1	As Needed
Annual REM/Design™ Training	1	1/Year
PTCS Duct Sealing	1	As Needed
Health & Safety Training	1	1/Quarter
ASHRAE 62.2-2016	1	As Needed
Advanced Blower Door	1	As Needed
Duct Diagnostics & Repair	0.5	As Needed
Room Pressure Balancing	0.5	As Needed
Comprehensive CAZ Analysis	1	As Needed
Heat Rise, Static Pressure & Air Flow Measurement	1	As Needed
On Site Contractor Mentoring	Varies	As Needed

Appendix D – Health & Safety Plan

HEALTH AND SAFETY PLAN State of Oregon Low Income Weatherization Assistance Programs

I. Weatherization Program Health and Safety

Funds provided under §440.18(c) (15) are to remedy health and safety hazards, which are necessary before, or because of, the installation of weatherization materials. DOE funds may only be used to mitigate health & safety issues listed under this guidance. In the event that issues are identified that do not fall under the scope of the DOE WAP, other, more flexible, funding sources may be utilized to complete H&S measures that do not fall under the DOE WAP criteria. If neither of these options is possible, every effort must be made to refer the client to resources that may be able to mitigate the issue. If after all of these options are exhausted and documented, then deferral may be required until the problems are resolved. See section XIII deferral standards.

1. Definitions

- a. Health and Safety Measures: Those actions necessary to maintain the physical well-being of both the occupants and/or weatherization workers where:
 - Costs are reasonable and do not exceed 15% of the Subgrantees total allocated program dollars; **AND**
 - The actions must be taken to effectively perform weatherization work; **OR**
 - The actions are necessary as a result of weatherization work.
- b. Weatherization Measures: Building shell and equipment measures determined to be cost-effective by DOE approved OHCS standards.
- c. Weatherization Materials: Those materials listed in Appendix A of the DOE WAP for Low Income Persons Final Rule, 10 CFR Part 440. Materials for incidental repairs do not have to be listed in Appendix A, but should be at least equal to or better than industry standard practices.
- d. Incidental Repairs: Repairs necessary for the effective performance or preservation of weatherization materials.
- e. Lead Renovation, Repair, and Painting Program (LRRP): LRRP is a set of protocols to be used when disturbing surfaces that may have lead-based paint that will reduce and control the amount of lead dust and paint chips that are generated.

2. Expenditure Limits and Reporting - Health and Safety Measures:

- a. Health & Safety expenditures must be no more than 15 percent of the total program budget for DOE. These costs **must** be recorded and tracked separately in the accounts and on the house audit/assessment form and reported as a separate line item on the Invoice Voucher.

II. Crew and/or Contractor Health and Safety

The standards included here provide only general guidelines for health and safety concerns.

Oregon OSHA requires a Hazard Communication Plan and ensures compliance with this requirement. Oregon OSHA ensures compliance with all worker health and safety requirements found in the OSHA Safety and Health Standards (29 CFR 1926\1910). Subgrantees and contractors must maintain compliance with the current OSHA Hazard Communication Standard (29 CFR 1910.1200) for on-site organization of Safety Data Sheets (SDS). These standards are applicable to all workers providing services using funding under the DOE WAP program.

III. Training and Monitoring

The Subgrantee's Weatherization Coordinator is responsible for ensuring that the crew or contractor(s) has a health and safety program in place. Documentation of all required training, for either crew or contractor based programs, is required and must be available for inspection.

1. **Employee Training** - New employees shall not begin working in the field until training is provided. Training will include:
 - a. All **weatherization** crew leaders, crew and contractor based, are encouraged, but not required, to complete the OSHA 30-hour training course.
 - b. All **weatherization** workers, crew and contractor based, are encouraged, but not required, to complete the OSHA 10-hour training course.
 - c. All field auditors/inspectors must complete the Oregon Health and Safety training course.
 - d. Proper usage of hazardous chemicals and substances such as foams, sealants, and cleaners in the weatherization work environment.
 - e. Safety Data Sheets (SDS) provided by suppliers that describe the method to properly handle potentially hazardous materials must be readily available to employees. Inform employees where the SDS are located. Employees must be trained in how to understand their content, and how to obtain and use appropriate hazard information.
 - f. It is strongly encouraged that all field staff (auditors, inspectors, and crew) shall have current First Aid and CPR proficiency cards.
 - g. Every Pre1978 jobsite where lead paint has been identified or presumed and is being disturbed must have an EPA certified renovator onsite during sign posting, work area setup site and cleanup phases of the work. The renovator must be available by phone when off-site.
2. **Safety Meetings** - Safety meetings shall be conducted according to OR OSHA regulations.
3. **On-Site Inspection**

- a. Appropriate Subgrantee staff shall conduct an announced, on-site inspection of each crew periodically. This inspection will include:
 - a1. Ascertaining the extent of the client's understanding of weatherization activities being performed. If health and safety issues are documented, this information shall also be included in the discussion.
 - a2. Inspecting condition of personal safety equipment and confirming that all crew members are adequately supplied. Crew members must wear prescribed equipment if warranted by the activities being conducted.
 - a3. Checking that each crew vehicle is supplied with a:
 - a3.1 Complete first aid kit designed to provide basic first aid.
 - a3.2 Adequately charged hand-operated fire extinguisher, designed for all three types of fire (electrical, wood, and liquid). Ensure service date has not expired.
 - a3.3 Binder containing list of hazardous chemicals (common and chemical name), location where they are used, usage and hazardous information (signs/symptoms of exposure and required first aid), and list of Safety Data Sheets. (Note: Copies of SDS are not required if master files are accessible by all crew members.)
- b. Inspect hand and power tools and similar equipment. Any found to be defective should be tagged and removed from service. Equipment not in use shall be properly stored. Inspect work area to ensure activities are conducted in a safe manner, including provision of adequate light, proper disposal of debris, connection of power equipment to a ground fault circuit interrupter, and resolution of health and safety issues.

IV. General Work Practices

The prevention of occupationally induced injuries and illnesses will be given precedence over production activities. To the greatest degree possible, the Weatherization Coordinator/Contractor will ensure that all equipment and facilities are in compliance. Weatherization personnel are required to exhibit caution and care during the course of the workday.

1. The Crew Leader/Foreman

The Crew Leader/Foreman is responsible for being in compliance with any instructions pertaining to health or safety as they apply to crew production activities:

- a. Contact client before performing work. Provide the opportunity for discussing crew activities that will occur and occupant safety while work is in progress. When subcontractors are used, the Program Manager will be responsible for client contact.
- b. Ensure each crew member is reasonably protected when production activities are being conducted.

- c. For pre-1978 buildings: Lead-Based Paint Hazard Control. Inform the client of the nature of the work to be done, and encourage that children be off-site while the work is taking place. Obtain and post lead hazard signs while working on the dwelling.

2. *Personal Protective Equipment*

The use of personal protective equipment will be strictly enforced. Hearing and ear protection are required for individuals working around high decibel equipment. Each crew person will wear a respirator, protective eyewear, and protective clothing when necessary. Respiratory protection is required for individuals working in high dust environments, including when using loose fill insulation blowing equipment, installing materials in attic and floor areas, and during prolonged use of grinding or power saw equipment. When working in an environment in which lead based paint dust will be generated, each employee within the work area may be required to wear a properly fitted National Institute of Occupational Safety and Health (NIOSH)-approved HEPA respirator and protective clothing which will be removed upon vacating the work area. (See OSHA rules, Section L.3, Other Federal Government Regulations.)

3. *Hand and Power Tools*

All hand and power tools and similar equipment shall be maintained in a safe condition. This equipment will be inspected daily, and any equipment found defective shall be tagged and removed from service until it has been repaired or replaced. Protective guards are to be in place and functioning properly while a power tool is in use.

All electrical equipment, tools, and extension cords shall be grounded properly. All electrical power for 120-volt or greater will be protected by a ground fault circuit interrupter (GFCI). Any extension cords found defective (insulation worn or cut, or frayed wires) are to be removed from the job site and disposed of.

It is recommended that, when using power tools on surfaces that contain lead-based paint, a HEPA dust collection attachment be used. Tools shall be cleaned after use.

4. *General Fall Protection*

Portable ladders shall be placed on a substantial base at a four-to-one pitch. Extension ladders are to be extended a minimum of 36 inches above the landing (i.e., where roof access occurs), or where not practical, be provided with grab rails and be secured against movement while in use. Portable metal ladders shall not be used where they may contact electrical conductors.

The use of ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction is prohibited. When ladders with such defects are discovered, they shall immediately be withdrawn from service.

Extra precaution is required while weatherization activities are conducted on the roof area. When an individual is above 6 feet or adequate stability cannot be maintained, safety gear, such as harness or safety straps, is required.

5. *Housekeeping Activities*

All scrap lumber, waste material, and debris shall be removed from the immediate area as work progresses. An area outside the home should be designated for storing such material, which should be removed from the premises at the end of each workday or when the job is completed. Agency crew/Contractors are encouraged to recycle materials whenever possible.

Equipment shall be removed from the immediate work area and properly stored when no longer required or when each phase of the weatherization process is completed.

When lead-based paint dust is generated during the course of work, the area **must** be cleaned no later than the end of each workday. All materials used in the debris collection system removed in a lead-safe manner, the area is thoroughly vacuumed using a HEPA vacuum, and wash and wipe down the area with a detergent solution.

6. Attic/Crawl Space Areas

Before weatherization activities are conducted, the following is required*:

- a. Health and safety corrective action documented on the Job Order Sheet is to be completed.
- b. Specific instructions are read and understood. Further clarification may be required from the Energy Analyst.
- c. An adequate and safe means of access is provided.
- d. Each individual has accessed the area and become familiar with existing conditions.
- e. When possible, cut out holes required for venting before work is started, installing vents after weatherization activities are completed. This procedure provides both additional ventilation and light.
- f. Precaution shall be taken when working in areas with low clearance. Work in areas with less than 18-inch clearance may be waived.

7. Occupant & Worker Health and Safety

Agency crews and contractors will be aware that some individuals' health problems could be exacerbated by weatherization activities. For example, some clients can be sensitive to dust generated from the installation of cellulose insulation.

All reasonable precautions must be taken against performing work on homes that will subject workers or clients to health and safety risks. Before beginning work on the residence, the agency must take into consideration the health concerns of each occupant, the condition of the dwelling, and the possible effect of work to be performed on any particular health or medical condition of the occupants. When a person's health is fragile or the work activities would constitute a health or safety hazard, the occupants at risk will/can be required to leave the home until work is completed, or the work may be deferred until such time that the conditions or circumstances are more favorable. Costs associated with temporary relocation of at-risk occupants may be allowed on a case by case basis with OHCS approval.

Weatherization services can be provided in a manner that minimizes risk to workers and clients. Although the Weatherization Assistance Program does not provide all the solutions, awareness of potential hazards is essential to providing quality services. Other energy-related hazards should be considered on a case-by-case basis.

V. Potential Hazard Conditions

During the weatherization process, often health & safety hazards are identified. When health and safety hazards are identified, the client **must** be notified in writing and the document, signed by the client, **must** be included in the file. The document **must** include the following:

- Client name and address of the project
- Date of audit
- Date when the client was informed of the hazard(s)
- A clear description of the hazard(s)
- The responsibilities of all parties involved. (Agency, Client, Landlord etc.)
- The clients' signature indicating they have been informed of all of their rights and options. In lieu of a client's signature, the hazard notification form may be mailed via certified mail and return receipt is requested. The file **must** contain **both** the mailing receipt and the return receipt.

Note: If the conditions will require complete deferral of the project, then a deferral form must be completed in addition to the hazard notification form. See section XIII for deferral notification requirements.

See exhibit 3 for an example Health & Safety Hazard form

1. Biological

Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. Addressing bacteria and viruses is not an allowable cost. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers.

A sensory inspection is required. Clients must be informed of observed conditions. If biological hazards are identified, inform the client of observed conditions. Complete a hazard notification form and what steps are necessary to correct deferral conditions.

Field Auditors/Inspectors staff must be able to recognize conditions and when to defer by completing the Oregon Health and Safety Training course. Workers must be aware of safety requirements when coming in contact these conditions.

2. Combustion Appliances and Combustion Gases

Combustion appliances produce potentially hazardous carbon monoxide as a byproduct of incomplete combustion. Any appliance that burns a fuel is a combustion appliance: furnaces, water heaters, cooking ranges and ovens, fireplaces, woodstoves and pellet stoves, and some space heaters. Appropriate **combustion testing and vent inspection shall be performed both**

pre and post weatherization of any dwelling containing a combustion appliance as detailed in the Site Built Housing and Manufactured Home Weatherization Field Guide for the State of Oregon Weatherization Assistance Program Appendices:

- a. Conduct worst case depressurization and spillage testing for all vented combustion appliances (excludes ranges and ovens).
- b. Measure draft in the furnace or water heater exhaust flue in worst case conditions (Excludes sealed combustion appliances).
- c. Measure carbon monoxide levels in the combustion appliance's exhaust flue or exhaust port(s) and also measure the ambient carbon monoxide level in the house.
- d. Diagnostic testing may reveal inefficient operation of a combustion appliance or potentially unsafe operating conditions which require corrective actions such as the cleaning, repair, or replacement of equipment. See section X and XII for allowability of replacement/repair etc. Replacement units must meet the requirements of newly installed equipment as outlined in the Field Guide.
- e. All homes shall have a UL listed carbon monoxide alarm installed on each floor of the house and have a carbon monoxide release form signed by the owner/occupant and placed in their file. Installation shall be in compliance with manufacturer's instructions.
- f. Proper venting to the outside for combustion appliances, including gas dryers, is required. Correction of venting is allowed when testing indicates an existing problem.
- g. Unvented combustion space heaters **must be removed** from the home before any weatherization work is initiated.

If testing indicates that a combustion appliance needs repair, the repair shall be addressed and the appliance brought into compliance with all applicable standards. Pressure balancing is an allowable H&S expense if needed to mitigate unsafe operating conditions. Field Auditors/Inspectors must be trained in proper combustion testing protocol. If combustion hazards are identified, provide client with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of carbon monoxide (CO).

Field Auditor/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to perform combustion testing and vent inspection.

3. Fuel Leaks

Fuel lines must be tested for leaks as per the Oregon Weatherization Assistance Program Site Built and Manufactured Home Field Guide and Standards. Test lines from the utility coupling into, and throughout, the home. When a minor gas leak is found on the utility side of the service, the utility service must be contacted before work may proceed. Fuel leaks that are the responsibility of the client must be repaired before weatherizing a unit. Notify utilities and

temporarily halt work when leaks are discovered that are the responsibility of the utility to address. Notify clients if leaks are discovered.

Field Auditor/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to inspect and test fuel lines.

4. Gas Ovens/Stovetops/Ranges

Test gas ovens for CO and inspect burners and ovens for operability and flame quality. When testing indicates an issue, maintenance or repair may be performed. Replacement is not allowed. Inform client of the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.

Field Auditor/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to test and inspect appliances.

5. Fire Hazards

Correction of fire hazards is allowed when necessary to safely perform weatherization. Potential fire hazards **must** be identified and documented in the client file. The client **must** be informed of any potential fire hazards identified.

6. Smoke, Carbon Monoxide Alarms, and Fire Extinguishers

CO Alarms: In all homes, weatherization agencies **must** install CO alarms on each floor near the sleeping areas in dwelling units where these devices are nonexistent or inoperable. CO alarms must be UL listed and installed in accordance with the manufacturer's recommendations. A carbon monoxide release form **must** be signed by the owner/occupant and placed in the client file.

Smoke alarms: Installation of smoke alarms is allowed where alarms are nonexistent or are inoperable. Smoke alarms must be installed in accordance with the manufacturer's recommendations, listed in accordance with UL 217, comply with NFPA 72.

Local agencies **must** provide the occupant(s) of the dwelling unit with verbal and written information regarding the following:

- Dangers of CO and smoke.
- How to operate and reset the CO and smoke alarms.
- How to read the CO alarm.
- How to respond when the CO alarm sounds.
- How to change the batteries of CO and smoke alarms.

Fire extinguishers: Supplying fire extinguishers is an allowable cost **only** when the client uses a solid fuel in the home. Fire extinguishers must be installed, according to the manufacture's recommendations, be type ABC, UL listed, ≤ 10 lb and with a permanently affixed wall bracket to receive the extinguisher. The client **must** sign a written agreement to allow a fire extinguisher to be installed in the home within sight of the solid fuel burning heat system when

standing at the unit. The agency must discuss and provide information on the use and upkeep of the extinguisher to the client.

Field Auditors/Inspectors must complete the Oregon Health and Safety Training course. Training will cover the basic workings and function testing of CO alarms, Smoke alarms, and fire extinguishers.

7. Hazardous Materials Disposal

Hazardous Waste material generated in the course of weatherization work shall be disposed of according to local laws, regulations and/or Federal guidelines, as applicable. Responsible party for disposal will have appropriate documentation and/or specify the requirements in contract. Client must be informed in writing of hazardous materials being generated/handled in the home.

Field Auditors/Inspectors must complete the Oregon Health and Safety Training course to understand the proper disposal techniques and requirements.

a. Refrigerant

a1. The replacement of air conditioners (requires a medical certificate), heat pumps and refrigerators, require agencies to reclaim refrigerant per Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93.

a2. The appliance vendor, de-manufacturing center, or other entity recovering the refrigerant must possess EPA-approved section 608 Type I, or universal certification.

a3. Clients must be informed never to release refrigerant.

b. Mercury-based thermostats and fluorescent lighting must be removed safely and disposed of in accordance with EPA regulations.

c. All asbestos containing material shall be disposed of by a AHERA certified professional.

d. All Lead debris must be disposed of according to EPA LRRP guidelines.

8. Occupant Pre-existing or Potential Health Conditions

The occupants pre-existing health conditions may be worsened by installing weatherization measures. Subgrantees must have the client read, sign and date a health & safety assessment either at the time of the initial application for services or during the initial site visit. The health & safety assessment **must** be included in the project file.

See exhibit 3 for the health & safety assessment form.

9. Mold & Moisture

All homes shall be visually/tactilely checked for previous or existing moisture problems. See Exhibit 2 – Mold & Mildew Protocol for the Moisture Assessment Protocol.

Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures.

Mold testing & remediation is not an allowable expense. A visual assessment is required on all projects to identify mold & moisture issues. Identification of existing or potential moisture problems shall be documented in the client file. Any moisture problems found must be pointed out and discussed with the client. The mold and mildew checklist (*see exhibit 2*) **must** be filled out at the time of the audit, signed, and dated by the client.

A copy of the pamphlet, *A Brief Guide to Mold, Moisture, and Your Home*, must be given to the client and a signed confirmation of receipt **must** be present in the file.

Acceptable H&S expenditures to address moisture issues include:

- Minor roof repairs (≤ 100 sqft) to stop moisture intrusion.
- Repairing minor plumbing leaks. ($\leq \$500$)
- Venting clothes dryers to the exterior of the home.
- Venting Exhaust fans to the exterior of the home.
- Installing vapor diffusion retarders (ground cover) to cover soil crawlspaces.
- Installing additional mechanical ventilation to the home.

All Field Auditors/Inspectors must be trained in mold & moisture management by completing the Oregon Health and Safety Training course. If mold in the living space exceeds 10 sqft, then deferral may be required. Where severe Mold and Moisture issues exist anywhere in the structure and cannot be addressed, deferral is required. (*See Exhibit 2*)

10. Drainage

Drainage consists of gutters, downspouts, extensions, flashing, sump pumps, landscape, etc. Major drainage issues are beyond the scope of the program. Any drainage repair issues must be treated as an incidental repair and are not an allowable health & safety expense. If the cost of the repair exceeds the cost effective threshold, the project may be deferred. Clients should be informed of the importance of proper maintenance and cleaning of drainage systems. Agency staff should be aware of how to recognize drainage issues.

11. Code Compliance

Correction of preexisting code compliance issues is not an allowable cost other than where weatherization measures are being conducted. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condemned properties and properties where “red tagged” health and safety conditions exist that *cannot* be corrected under this guidance should be deferred.

When code compliance issues are identified and repaired utilizing WAP funds, the specific code that triggered the code compliance issue must be documented in the client file.

Common code compliance issues addressed under the WAP Include but not limited to:

- Water heater T&P discharge pipe.
- Unsafe wiring in areas to be weatherized.
- Plumbing issues in areas to be weatherized.

Field Auditors/Inspectors staff must receive BPI or REA certifications (See Appendix C-T&TA Plan) to be aware of code compliance that will be required for weatherization measures. If any code compliance issues are identified, the client **must** be informed in writing describing conditions that must be met in order for weatherization work to commence.

12. Pests

Pest removal is allowed only where infestation would prevent weatherization. Infestation of pests may be cause for deferral where it *cannot* be reasonably removed or poses health and safety concern for workers. Screening of windows and points of access, and incorporating pest exclusion into air sealing practices is allowed to prevent intrusion.

If pest hazards are identified, the client **must** be informed of observed condition and associated risks.

Field Auditors/Inspectors staff must complete the Oregon Health and Safety Training course.

13. Injury Prevention of Occupants and Weatherization Workers

Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Minor repairs (\leq \$500) and installation may be conducted only when necessary to effectively weatherize the home; includes measures such as repairing stairs and replacing handrails. Replacement of stairs is not allowed with DOE funds. If hazards are identified, the client **must** be notified of observed hazards and associated risks.

Field Auditors/Inspectors must be able to recognize potential injury sources by completing the Oregon Health and Safety Training course.

VI. Indoor Air Quality

1. Ventilation

2016 is required to be met to the fullest extent possible, when performing weatherization activity. Implementing ASHRAE 62.2 is not required where acceptable indoor air quality already exists as defined by ASHRAE 62.2. The specifics of ASHRAE 62.2-2016 are addressed in the Oregon Site Built and Manufactured Home Field Guide and Standards. All actions related to ASHRAE 62.2-2016, including ancillary requirements are acceptable health & safety expenses.

All agency Field Auditors/Inspectors must be proficient in the ASHRAE 62.2-2016 requirements and complete the Oregon ASHRAE 62.2 Training course.

Discuss and provide information to the client on function, use, and maintenance (including location of service switch and cleaning instructions) of ventilation system and components as applicable.

2. Asbestos

General asbestos removal is **not approved** as a health and safety weatherization cost. Encapsulation by an AHERA certified professional is allowed if the 15% H&S limit is not exceeded. If major asbestos problems are encountered, the client **must** be notified of the potential hazard and the project may be deferred.

The Oregon Department of Environmental Quality (DEQ) requires an asbestos survey be performed by an AHERA certified individual on residential buildings when there is suspected asbestos containing material (ACM) **and** the project involves demolition or renovation. Surveys are limited to surfaces that will be disturbed through the process of weatherization. DEQ rules and guidelines must be followed for surveys, testing, handling, and disposal.

If suspected asbestos containing material (ACM) is found, it must be assumed to be asbestos unless it is tested by an AHERA approved lab to ascertain the asbestos content. The cost of testing is an allowable H&S cost. The DEQ allows for program staff to obtain a sample of suspected ACM on residential projects limited to a single suspect material impacted by weatherization.

Care must be taken when sampling suspected ACM to prevent disturbing the asbestos fibers. When suspected ACM are blown or troweled in place, (i.e. vermiculite or ceiling texture) it is recommended to take at least three samples.

Follow the DEQ protocol listed below when sampling suspected ACM.

- a. Wearing the appropriate Personal Protective Equipment (PPE), wet down the material with a light water mist before taking the sample. This reduces the potential release of asbestos fibers.
- b. Do not disturb the material any more than is necessary to take a small sample.
- c. Place the sample in a clean, "air-tight" container such as a zip-lock bag or small glass jar.
- d. Seal the container tightly.
- e. Use a damp paper towel to clean up any material on the outside of the container or that might have spilled onto the floor.
- f. Clearly label the container, stating where and when the sample was taken.
- g. Send the sample to a laboratory for analysis. Make sure to take one sample for each different type of suspect material.

Any material that tests higher than 1% asbestos by weight is considered asbestos containing material.

In addition to taking care when sampling suspected ACM, care must be taken during the work and audit to prevent “friable” asbestos fibers from being disturbed. “Friable” is defined as material that can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand. Blower door and duct leakage testing should be avoided. If a blower door is required, pressurize the home when testing. If there is no friable asbestos in the home, blower door and duct leakage testing is allowable.

When vermiculite is present, unless testing determines otherwise, the measure containing the vermiculite is to be deferred. Encapsulation by an AHERA asbestos control professional is allowed. Removal is not allowed.

It is allowable but not required, to remove cement/asbestos siding to install wall insulation as long as precautions are taken to prevent damage to the siding. Drilling, cutting or sanding of the siding is not allowed. Cement/asbestos siding is not considered friable. If asbestos siding is going to be removed, inform the client that suspected asbestos siding is present and how precautions will be taken.

With regard to pipes, boilers/furnaces and other small covered surfaces, assume asbestos is present in the covering materials unless testing shows otherwise. Encapsulation is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing. It is allowable but not required, to contain existing or suspected ACM. If the material is structurally sound and in good repair a “critical barrier” must be created around the material in an effort to not disturb the ACM. This does not constitute encapsulation according to DEQ and is considered a precautionary step to protect workers and clients in order to accomplish the goals of weatherization. Examples of this include but are not limited to:

- Painting popcorn ceiling texture (limited to airless sprayer – brush or roller not permitted).
- Covering white tape found on ductwork and HVAC with mastic or spray bonding primer.

Workers removing siding must be trained in proper removal and replacement of siding.

Field Auditor/Inspectors must be trained in recognizing asbestos hazards by completing the Oregon Health and Safety Training course.

Clients **must** be informed if test results are positive or asbestos is assumed and what precautions will be taken. Clients will be instructed not to disturb suspected asbestos containing material. Clients **must** be provided information on asbestos safety and steps to correct deferral conditions (where applicable). The clients are required to sign a hazard notification form (See exhibit 3) if test results are positive or asbestos is assumed. If weatherization work is deferred due to ACM and then later approached for weatherization, documentation must be provided that a certified professional performed the removal/remediation.

3. Radon

Where there is a previously identified radon problem, work that would exacerbate this problem should be deferred. Radon testing is allowed with DOE funding. Client must be provided test results and documented in the client file. Radon mitigation is *not* an allowable activity under DOE WAP. However, costs associated with taking precautions in a dwelling are allowable DOE Health and Safety expenditures. These measures have been identified to be weatherization techniques that assist in radon mitigation.

Allowable precautions include, but are not limited to:

- Installation of ground barrier consisting of ≥ 6 mil polyethylene sheeting, lapped 6 – 12 inches and sealed at all seams, walls, and penetrations.
- Air sealing sumps (airtight sump cover) in such a way that water can drain from above and below the cover.
- Installation of airtight drain fittings (e.g., trap or flange system) in foundation floor drains.
- Seal and caulk penetrations, openings or cracks in below-grade walls and floors that contact the ground with a sealant that meets the requirements of ASTM C920.
- Air sealing floor and/or foundation penetrations
- Isolating the basement from the conditioned space
- Ensuring crawlspace venting is adequate

A copy of the EPA’s informational pamphlet, [“A Citizen’s Guide to Radon”](#) or the two page [“Basic Radon Facts”](#) **must** be provided to the client. An informed consent form (see exhibit 3) is required to be signed by client and maintained in the client file. Consent form must include the following information:

- IAQ Study (see exhibit 3) that details risk on increasing radon levels when building tightness is improved.
- A list of precautionary measures WAP may install based on the above-mentioned list.
- Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety.
- Confirmation that the client has received the EPA’s [“A Citizen’s Guide to Radon”](#) or [“Basic Radon Facts”](#) and radon related risks were discussed with the client.

Field Auditors/Inspectors must have a working knowledge of radon by completing the Oregon Health and Safety Training course. Major radon problems should be referred to the appropriate local environmental organization or agency for mitigation. In extreme cases deferral may be an option.

4. Formaldehyde and Volatile Organic Compounds (VOCs)

Formaldehyde, tobacco smoke, thinners, solvents, cleaners, and any other substances capable of negatively impacting indoor air quality are identified through the On-site inspection process. Basic strategies such as proper storage and ventilation are used to eliminate problems. However, this is primarily an occupant responsibility. In some cases,

deferral may be an option. Removal of pollutants is allowed and is required if they pose a risk to workers. If pollutants pose a risk to workers and removal *cannot* be performed or is not allowed by the client, the unit **must** be deferred.

Clients must be informed of observed conditions and associated risks. Where applicable, the client must be given written information and explanation on safety and proper disposal of household pollutants

Spray polyurethane foam (SPF) is an effective insulation and air sealant material; however, exposures to its key ingredient, isocyanates, and other SPF chemicals that may be found in vapors, aerosols, dust, or on surfaces during and for a period of time after installation can cause adverse health effects such as:

- Asthma, a potentially life-threatening disease
- Sensitization, which can lead to asthma attacks if exposed again
- Lung damage
- Other respiratory and breathing problems
- Skin and eye irritation

When installing SPF, follow these steps to control exposures:

- Review label and product information for ingredients, hazards, directions, safe work practices, and precautions
- Ensure safe work practices are followed to prevent eye, skin, and inhalation exposures during and after SPF installation
- When working outside the building envelope, check for pathways that will allow fumes to migrate into the conditioned space, isolate the area where foam will be applied, take precautions so that fumes will not transfer to the conditioned space. During use, perform a sensory inspection to ensure fumes do not enter the conditioned space. If fumes are detected, exhaust fumes to the outside of the home.
- When working inside the envelope, exercise caution when determining if occupancy of the dwelling is safe for unprotected occupants and workers based on the manufacturer's recommendation. Consider relocation of clients on a case by case basis.

Notify the client of plans to use two-part foam and the precautions that may be necessary. Installers must be trained in proper use of specific SPF products being used. SDS sheets are mandatory for any foam product used and a thorough understanding of the temperature sensitivity of the product in use is required.

Field Auditors/Inspectors must be able to recognize potential hazards by completing the Oregon Health and Safety Training course.

VII. Lead-Based Paint

1. Poisonous Lead Based Paint

- a. Lead is a poison, *most* dangerous in the form of dust and fumes. Childhood lead poisoning is linked to reduced intelligence, low attention span, reading and learning disabilities, juvenile delinquency, behavioral problems, and other adverse health effects. Nearly one million children have excessive levels of lead in their blood, making lead poisoning a leading childhood environmental disease. Lead-based paint, along with the contaminated dust and soil it generates in housing, is the major remaining source of exposure and is responsible for most cases of childhood lead poisoning today. Levels of lead dust created by typical weatherization work (specifically, windows and doors) in older housing with lead-based paint are likely to be above EPA clearance levels, and therefore pose a substantial risk to children.
2. Lead Renovation, Repair, and Painting Program
 - a. In April 2008, the Environmental Protection Agency (EPA) published the “Lead Renovation, Repair, and Painting Program” Final Rule (LRRP Final Rule) which was implemented on April 22, 2010. This rule specifically cites Weatherization in several places as an activity that falls under the rule, and thus, has a direct impact on how the Weatherization Program proceeds.
 - b. It is important to remember that the Weatherization Assistance Program legislated purpose is to install energy efficiency measures in Weatherization clients’ homes, in order to lessen their energy cost burden. WAP is **not** funded to do lead-based paint abatement work, or to do lead-based paint hazard control or stabilization.
 - c. In the process of weatherizing a home, workers sometimes encounter and have to disturb painted surfaces that are known or presumed to contain lead-based paint. When that happens:
 - c1. DOE funds may be used to minimize the potential hazard associated with the specific painted surfaces that workers are directly disturbing in the course of installing an energy efficiency measure.
 - c2. DOE funds may **not** otherwise be used for abatement, stabilization, or control of the lead-based paint hazard that is in the house.
 - c3. Work that is needed in conjunction with Weatherization activities that disturb surfaces having lead-based paint, to prevent the generation of lead-based paint dust and residues, is allowable as long as the work is associated with installing energy efficiency measures.
 - d. All state monitors, agency and contract auditors/Inspectors are required to be a certified LRRP renovator. At least one owner or employee of a contractor’s business is required to be a certified LRRP renovator. All renovators must complete the eight-hour Renovation, Repair and Painting (RRP) training from an accredited training provider for initial certification and subsequent four-hour refresher courses.

- e. Certified renovators must train workers to install measures in a lead-safe manner in accordance with the SWS and EPA protocols and the project must oversee the project for compliance with LRRP rules.
- f. Testing in a home for lead in a painted surface, when it is done, is limited to only those surfaces that will be disturbed. Testing for lead-based paint is **not** an allowable weatherization expense; except, when it is related to the installation of energy efficiency measures. LRRP must be applied to all pre-1978 housing, unless there is existing evidence that the home has been certified as being lead-free or no lead paint will be disturbed.

One of the following methods must be used to determine the paint to be disturbed is not lead-based paint:

- f1. Written determination by certified lead inspector or risk assessor; OR
- f2. Proper use of EPA-recognized test kit provided agencies (documenting manufacturer and model of test kit used, description and location of components tested, and test kit results)

Tests must be performed by a Certified Renovator, per EPA final rule. Approved kits will be posted at: <http://www.epa.gov/lead/>

- g. When Weatherization crews disturb surfaces that may have lead-based paint, they **must** exercise caution to keep any dust that is generated from becoming a hazard to the clients, to themselves, or to their families.

Client Notification

- a. For occupied homes, the Weatherization staff, crew, or contractor must have an adult tenant, homeowner, or homeowner's representative sign an acknowledgement after receiving the pamphlet.
- b. The pamphlet can also be sent by certified mail with receipt to be placed in the client file.
- c. In multi-unit housing, the sub-grantee must:
 - c1. Provide written notice to each affected unit (notice must describe: general nature and locations of the planned renovation activities; the expected starting and ending dates; statement of how occupant can get pamphlet at no charge); OR
 - c2. Post informational signs (signs must describe general nature and locations of the renovation and the anticipated completion date) and post the EPA pamphlet. (If pamphlet is not posted then agencies are required to provide information on how interested occupants can review a copy of the pamphlet or obtain a copy at no cost from the Weatherization Program).

- c3. Delivery to owner/occupant. Owner's and/or occupant's signature with acknowledgment or certificate of mailing. The owner/occupant must acknowledge receipt of the EPA pamphlet prior to start of renovation that contains the address of unit undergoing renovation, name and signature of owner or occupant, and the date of signature. It must be in same language as "contract for renovation" for an owner occupied (or the same language as the lease for occupant of non-owner occupied) target housing.
- d. If the Weatherization Program cannot get a signed acknowledgment (either the occupant is not home or refuses to sign the form), then the self-certification section of the form must be signed to prove delivery.
- e. The acknowledgement form must be filed and remain with the client file for three (3) years from date of signature.
- f. In addition to providing a copy of the pamphlet to owners and occupants, designated local agency staff (e.g., intake specialist, auditor, crew chief) must discuss the hazards associated with lead-based paint and lead dust, and describe how they will conduct LRRP in the home.

Compliance with EPA's LRRP Rule Requirements

1. To comply with EPA's LRRP Rule requirements, specific verification inspection procedures are required as outlined in the April 22, 2008, rule.
 - a. Occupants' belongings **must** be protected from lead contamination. This can be done by removing them from the work area or covering them in protective bags and sealing it to prevent dust from getting on the items.
 - b. The work site **must** be set up to prevent the spread of leaded dust and debris.
 - c. Warning signs **must** be posted at entrances to the worksite when occupants are present; at the main and secondary entrances to the building; and at exterior work sites. The signs must be readable from 20 feet from the edge of the worksite. Signs should be in the occupants' primary language, when practical.
 - d. The work area **must** be contained. If containment cannot be achieved with occupants in the unit (e.g., work will take several days and involves the kitchen, bathrooms, or bedrooms that cannot be sealed off from use), occupants **must** move out of the unit or the work **must** be deferred until containment can be achieved.
 - e. A Certified Renovator **must** supervise and inspect Weatherization work of any type and scale to ensure it is being done properly.
 - f. Ensure containment does not interfere with occupant and worker egress in an emergency.
2. Prohibited Work Activities

The following are frequent questions related to prohibitions when working in pre-1978 homes:

- a. **NEVER** use reusable cloth or fabric, such as a painter's drop cloth, as protective containment sheeting. Polyethylene and in some cases when working on the exterior garden fabric are the only acceptable protective containment sheeting and **must** never be reused.
- b. **NEVER** use brooms and shop vacuums for cleanup. Wet cleaning and HEPA vacuums are the only acceptable methods for cleanup.
- c. **NEVER** use a conventional shop vacuum with HEPA filters – only HEPA-designed vacuums are acceptable for LRRP.
- d. **NEVER** turn leaded paint into leaded dust by dry scraping or sanding (unless needed around electrical outlets) or grinding, abrasive blasting or planing.
- e. **NEVER** use an open-flame torch or heat gun (above 1100°F) to remove paint or window glazing. Open flame/high heat methods to remove paint create fumes that are dangerous for workers to breathe. Small lead particles created by burning and heating also settle on surrounding surfaces and are very hard to clean up.

Containment

Containment is anything that stops any dust or debris from spreading beyond the work area to non-work areas. The level of containment **must** be determined by the auditor/inspector or supervisor before work is assigned to a crew or contractor.

1. To comply with EPA's LRRP Rule requirements, a Certified Renovator is required at the jobsite to assess and set up the containment site.
 - a. **NEVER** - allow residents and pets access to the work area while work is underway.
 - b. **NEVER** - open windows and doors allowing lead dust to float into other parts of the building or outside.
 - c. **NEVER** - allow furniture and other objects to remain in the Weatherization work area while Weatherization work is being performed unless they are covered and sealed in polyethylene sheeting or bags.
 - d. Every home and every specific weatherization measure is unique; therefore the level of containment required will be based on the hazards present, the age of the home, the scope of work activities, and any customer health issues.

2. Containment Requirements

Containment is required when weatherization activities will disturb *more than* 6 ft² of interior surface per room, **or** 20 ft² of exterior surfaces in homes built prior to 1978.

- a. Containment consists of methods that define a work area that will not allow any dust or debris from work area to spread.
- b. Containment requires the covering of all horizontal surfaces, constructing barrier walls, sealing doorways, covering HVAC registers with approved materials, and closing windows to prevent the spread of dust and debris.
- c. Measures requiring Containment *may* include:
 - c1. Drilling holes in interior walls.
 - c2. Drilling holes in exterior walls, removing painted siding.
 - c3. Cutting attic access into ceiling or knee walls.
 - c4. Planing a door in place.
 - c5. Replacing door jambs and thresholds.
 - c6. Repairing windows.
 - c7. Furnace replacements.
- d. Containment **must ALWAYS** be used where any of the following is conducted (even if the activities will disturb less than the hazard de Minimis levels):
 - d1. Window and door replacement.
 - d2. Demolition of painted surface areas.
 - d3. Using any of the following:
 - (1) Open-flame burning or torching;
 - (2) Machines to remove paint through high-speed operation without HEPA exhaust control; **or**
 - (3) Operating a heat gun at temperatures at or above 1100 degrees Fahrenheit.

3. Interior Cleaning Requirements

- a. Collect all paint chips and debris, and seal in heavy duty plastic bags.
- b. Mist, remove, fold (dirty side in) and tape or seal protective sheeting.
 - b1. Dispose of sheeting as waste.
- c. Plastic sheeting between non-contaminated rooms and work areas **must** remain in place until after cleaning and removal of other sheeting.

- d. HEPA vacuum or wet wipe walls from high to low, then HEPA vacuum remaining surfaces and wipe with a damp cloth.
 - e. Clean 2 feet beyond the contained work area.
 - f. Use disposable wipes or change cloths frequently.
 - g. For carpet or rug, use HEPA vacuum with beater bar.
 - h. HEPA vacuum and wet mop uncarpeted floors - two-bucket mopping method or wet mopping system.
4. Visual Inspection Procedure
- a. Conducted by Certified Renovator.
 - b. Put on disposable foot covers before entering the work area.
 - c. Make sure there is adequate lighting in the work area.
 - d. Turn-on all of the lights or use a bright, white-light flashlight.
 - e. Systematically look for dust and debris on every horizontal surface in the work area and 2 feet beyond.
 - f. Work from the farthest area from the entry to the entry.
 - g. Closely examine each surface.
 - h. If you find visible dust or debris, then re-clean the work area and repeat step 4.
 - i. Once you have carefully looked at all of the surfaces and found no dust or debris, proceed to the cleaning verification procedure, or clearance.
5. Cleaning Verification (CV) Procedure
- a. Wipe each window sill within the work area. Use a single wet disposable cleaning cloth per Window sill.
 - b. Wipe uncarpeted floors and all countertops with wet disposable cleaning cloths. Wipe up to a maximum of 40 ft² per cloth.
 - c. Compare each wipe to the CV card. If the cloth matches or is lighter than the CV card, the surface has passed cleaning verification and no further action is required.
 - d. If the cloth is darker than the CV card, re-clean and repeat the CV process.

- e. If the second wet cloth fails, wait 1 hour or until surfaces are dry, and then wipe with an electrostatically-charged white disposable cleaning cloth designed to be used for cleaning hard surfaces. This completes the cleaning verification.
6. Clearance Examination (Dust Clearance Testing) – Optional under the RRP Rule.
 - a. Dust clearance testing may be performed to check the effectiveness of the cleaning efforts.
 - b. Clearance is an option under the EPA Renovation, Repair, and Painting Rule and is required by the HUD Rule in many cases.
 - c. Dust clearance testing is performed to check the effectiveness of cleaning efforts.
 - d. In some cases, dust clearance testing may be required as part of “clearance” (a regulation defined process to ensure that a work area is not contaminated with leaded dust after work is completed). Cleaning verification need not be performed if dust clearance testing is required at the conclusion of a renovation. In such cases, dust clearance testing may only be performed by a Certified Lead Inspector, Risk Assessor, or Dust Sampling Technician. The Certified Renovation Firm is required to re-clean the work area until dust-lead levels in the work area meet the clearance standards. Some state, local, and tribal laws may require a clearance examination following renovation and remodeling work, to levels that differ from the Federal clearance standards. The selection of a CV or a clearance examination will be based on regulatory requirements or the renovation contract.
 7. Exterior Cleanup Requirements
 - a. Clean all surfaces in the work area until no visible dust, debris, or residue remains.
 - b. Remove all dust and debris without dispersal, and seal in heavy plastic bags.
 - c. Remove protective plastic sheeting and mist before folding it dirty side inward.
 - d. Check your work.
 - e. Focus on areas such as window sills, bare soil, and children’s play areas.
 - f. Look for dust, debris and paint chips.
 8. Exterior – Check Effectiveness of Cleaning
 - a. Visual inspection
 - b. A Certified Renovator conducts a visual inspection after any cleaning.
 - c. Determines if any visible dust and debris are present in and beyond the boundaries of the work area.
 - d. If visible dust or debris are found, collect and dispose of all paint chips, dust, and debris identified during the visual inspection.

- e. After re-cleaning, the Certified Renovator conducts another visual inspection.
- f. When all areas pass, warning signs may be removed.

9. Disposal

- a. Place waste in heavy duty plastic bag.
- b. “Gooseneck seal” the bag with duct tape.
- c. Carefully dispose of waste in accordance with Federal and other regulations.
- d. HEPA vacuum the exterior of the waste bag before removing it from the work area.
- e. Store waste in a secure area.
- f. Waste may be disposed of as household waste.

10. Deferral Policy Related to Lead-Based Paint

In determining whether to defer or postpone weatherization work on a home that has tested positive for lead-based paint or is assumed to have lead-based painted surfaces, agencies should assess the following:

- a. Is the agency prepared to work with lead-based paint? Have workers received the required training in LRRP protocols and, if the housing is also HUD financially assisted? Is the necessary equipment, such as HEPA vacuum cleaners, available? Does the agency's liability insurance cover work with lead-based paint?
- b. What is the condition of the painted surfaces in the house? Is it so seriously deteriorated that a work person's presence just walking around the house is enough to stir up lead-based paint dust that is a threat to the clients and workers?
- c. What is the extent to which the specific energy efficiency measures determined by the audit will disturb painted surfaces? Will the disturbance generate dust in excess of OSHA minimums?
- d. Will the cost of doing LRRP work represent a large portion of the total cost and exceed the amount allowed in the State's Health and Safety Plan?
- e. Using the above answers, the agency should conclude one of the following:
 - e1. Proceed with all the weatherization work, following LRRP work practices; **or**
 - e2. Defer all of the weatherization work.

Note: An individual measure may be deferred only if it has the lowest SIR in the prioritized list.

- f. Deferral means postponing work until the agency is prepared to work with lead-based paint, or until another agency has corrected the problem so that weatherization can be safely performed. Weatherization work should not be deferred solely because there is lead based paint in the home. Even in such a home, regular weatherization work that does not disturb painted surfaces and does not stir up lead-based paint dust can be done.

11. Funding for LRRP Weatherization

- a. DOE funds may be used to pay for weatherization activities that disturb lead-based painted surfaces while installing energy efficiency measures or for case-by-case testing.
- b. DOE funds shall not be used for abatement, stabilization or control of lead-based paint hazards, or routine entrance and clearance testing.
 - b1. However, U. S. Department of Housing and Urban Development (HUD) funds such as Community Development Block Grant (CDBG), lead hazard control programs and Home Repair and Rehabilitation Program funds may be used to do this work.
 - b2. Also, U. S. Department of Health and Human Services' (HHS) Low Income Home Energy Assistance Program (LIHEAP), may be used for certain expenses related to LRRP Weatherization.
- c. Specifically, for DOE funding, agencies should budget LRRP Weatherization costs under Health and Safety as a separate cost category, excluded from the calculation of average cost per home. LRRP Weatherization costs include labor and materials. LRRP costs must be itemized separately from measure costs.

12. Liability Insurance

In "Weatherization Program Notice 02-6," DOE recommends that agencies have sufficient insurance coverage before performing weatherization work that will disturb surfaces that may contain lead-based paint. OHCS recommends Pollution Occurrence Insurance (POI) for both agencies and subcontractors.

- a. POI is purchased for the lead hazard control work associated with weatherization and rehabilitation. It is likely that POI will need to be added to an agency or subcontractors general liability insurance coverage.
- b. If agencies or their subcontractors are performing Lead-based Paint Inspections or Risk Assessments; Errors and Omissions Insurance (EOI) is required. Errors and Omissions Insurance is purchased for lead-based paint inspections, risk assessments and clearance tests.
- c. Agencies can request a grace period of 6 months from OHCS for the insurance. However, agencies are required to either refer or defer weatherization work that will disturb surfaces that may contain lead-based paint, until they have insurance that will provide coverage for

Lead Safe Weatherization work (and, in some cases involving repair and rehabilitation, Lead-based Paint Hazard Control work).

- d. The cost of this insurance is an allowable DOE expense

13. LRRP Weatherization Training

OHCS will continue with the help of OTI to make training available for the Lead Based Paint Renovation, Repair and Painting Program (RRP).

- a. The Oregon Health Authority (OHA) and the Construction Contractors Board (CCB) are charged with operating the Renovation, Repair and Painting (RRP) program.
- b. For agencies and contractors with a CCB license, the program is a Certified Lead Based Paint Renovation (LBPR) Contractor License. CCB issues the annual license to contractors that have completed RRP training.
- c. Agencies that work on “target housing” and “child-occupied facilities” but are not required to have a CCB license should contact the Oregon Health Authority for information.
- d. **OHCS requires all Subgrantees, and their subcontractors to be certified firms.** Firms must apply to the appropriate state agency for certification to perform weatherization.
 - d1. To apply, a firm must submit to either the CCB or OHA depending on the type of entity, an application, signed by an authorized agent of the firm and pay the correct amount of fees.
- e. Firms performing weatherization must ensure that:
 - e1. All individuals performing activities that disturb painted surfaces on behalf of the firm are either certified renovators or have been trained by a certified renovator.
 - e2. A certified renovator is assigned to each weatherization project and performs all of the certified renovator responsibilities.
 - e3. All weatherization measures completed by the firm are performed in accordance with the work practice standard of the Lead-Based Paint Renovation, Repair, and Paint Program.
 - e4. Pre-weatherization education requirements of the Lead-Based Paint, Repair and Painting Program are performed.
 - e5. The programs recordkeeping requirements are met.
- f. To become a certified renovator an individual must successfully complete an eight (8) hour initial renovator training course by an accredited training provider(training providers are

accredited by EPA, or by an authorized state or tribal program). The course completion certificate serves as proof of certification.

- g. Certified renovators are responsible for ensuring overall compliance with the Lead-Based Paint Renovation, Repair, and Painting Program's for lead safe work practices at weatherization sites they are assigned. A certified renovator:
 - g1 **Must** use a test kit acceptable to EPA, when required by weatherization services, to determine whether components to be affected by the weatherization contain lead.
 - g2 **Must** provide on-the-job training to workers on the work practices they will be using in performing their assigned tasks.
 - g3 **Must** be physically present at the work site when warning signs are posted, while the work-area containment is being established, and while the work-area cleaning is performed.
 - g4 **Must** regularly direct work being performed by other individuals to ensure that the work practices are being followed, including maintaining the integrity of the containment barriers and ensuring that dust or debris does not spread beyond the work area.
 - g5 **Must** be available, either on-site or by telephone, at all times weatherization is being conducted.
 - g6 **Must** perform project cleaning verification.
 - g7 **Must** have with them at the work site copies of the initial course completion certificate and their most recent refresher course completion certificate.
 - g8 **Must** prepare required records.
- h. To maintain their certification, renovators and firms **must** be re-certified by the appropriate state agency as required.
 - h1. A firm **must** submit to the appropriate state agency, a completed application, signed by an authorized agent of the firm, and pay the correct amount of fees.
 - h2. Renovators **must** successfully complete a refresher training course provided by an accredited training provider.

14. Record Keeping Requirements

- a. All documents **must** be retained in the client file for three (3) years following the completion of the weatherization project.
- b. Records that **must** be retained include:

- b1. Reports certifying that lead-based paint is not present.
- b2. Records relating to the distribution of the lead pamphlet.
- b3. Any RRP training provided on-site.
- b4. Description of specific actions taken.
- b5. Lead testing and assessment documentation.
- b6. Photos of site and containment set up.
- b7. Documentation of compliance with the requirements of the Lead-Based Paint Renovation, Repair and Painting Program.

OHCS will verify certified firm and Renovator status at each monitoring visit. In the event OHCS identifies non-compliance issues appropriate sanctions may apply. If deficiencies are identified in Subgrantee program operations, including compliance with EPA LRRP requirements, OHCS will respond by working with the Subgrantee to provide training and technical assistance to correct deficiencies. Sanctions may include but not be limited to withholding of funds, disallowance of costs, suspension of contract, or termination of contract. OHCS shall inform the Subgrantee of any appeal rights and procedures to state and federal authorities in the sanction transmittal.

VIII. Building Structure

Building rehabilitation is beyond the scope of the Weatherization Assistance Program; however, program workers frequently encounter homes in poor structural condition. Dwellings whose structural integrity is in question should be referred to other funding sources such as HOME Investment Partnership program (HOME), Community Development Block Grant (CDBG), and U.S. Department of Agriculture, Rural Development (RD). Weatherization services may need to be delayed until the dwelling can be made safe for crews and occupants (see Section XIII. Deferral Standards).

1. Incidental Repairs

Incidental repairs necessary for the effective performance or preservation of weatherization materials are allowed. When a repair activity is a component of an energy efficiency measure that is being installed then the installation and materials are part of the efficiency measure and are classified as incidental repair. The cost of incidental repairs must be included in the cost of the package of measures. The entire package of measures installed on a project, including incidental repair costs, must be cost justified with an SIR of 1.0 or better.

Incidental repairs must be justified in the client file with an explanation for their need and a relationship to a specific energy conservation measure (ECM).

Ancillary items necessary for proper installation of weatherization materials are not considered incidental repairs. These items include small items such as nails/screws, other fasteners, adhesive,

sealant, etc. Ancillary items are items required by materials manufacturers; general construction and /or WAP field standards to achieve a finished product in a typical installation where no unusual or extensive repairs are needed. The costs of ancillary items and installation are to be included in the cost of an individual ECM when calculating the SIR for the individual ECM.

Examples of ancillary items include:

- a. **Ceilings:** Eave baffles, dams for heat producing fixtures, hatch dams and normal items needed to batt & weatherstrip accesses.
- b. **Floors:** Twine/lath, normal items needed to batt & weatherstrip interior accesses, Water pipe insulation.
- c. **Walls:** Sealing high and low openings in balloon framed homes, removing/replacing siding, Plugging, patching and priming access holes.

Examples of incidental repairs include:

- a. **Ceilings:** Adding attic vents, screening vents or openings to preserve the insulation, repairing damaged ceiling to allow for insulation to be installed, framing repairs necessary to properly weatherstrip accesses, roof membrane to protect insulation on a manufactured home or minor roof repairs on site built homes.
- b. **Floors:** Screening vents and accesses to preserve the insulation, repairing water-damaged flooring to allow for installation of floor insulation, repairing large holes in a manufactured home rodent barrier.
- c. **Walls:** Sealing large unusual openings such as voids between double ceilings or holes in walls.

2. Building Structure & Roofing

Building rehabilitation is beyond the scope of the Weatherization Assistance Program. Homes with conditions that require more than incidental repair should be deferred.

Field Auditors/Inspectors must perform a visual inspection and ensure that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection. Field Auditors/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to be aware of how to identify structural and roofing hazards. The client must be notified of any structurally compromised areas identified and steps that are necessary to correct the deficiencies.

3. Electrical Issues

- a. **Knob and Tube Wiring:** Electrical inspection by a licensed electrician is required for each building component (attic, walls, floor) containing knob-and-tube wiring for which insulation is proposed, prior to insulation being installed. Repairs, if necessary, are to be made before insulation work can proceed.

- a1. The electrician **must** certify the knob-and-tube wiring in each component is safe for insulation by the completion of the Knob-and-tube Inspection Form.
- a2. A Copy of the form **must** be placed in the client's file.
- a3. The cost of electrical inspection and minor electrical repairs must be charged to the Health and Safety category.
- b. Minor Repair: Minor electrical repairs (\leq \$750) are allowed where the health & safety of the occupant is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures.
- c. Serious electrical hazards exist when gross overloads are present. Should auditors and crews find such existing problems, they shall notify the owner. Weatherization measures that involve the installation of new equipment such as air conditioners, heat pumps, or electric water heaters can exacerbate previously marginal overload problems to hazardous levels.
 - c1. The problem shall also be noted in the client file.
 - c2. To the extent that these problems prevent adequate weatherization, the agency shall consider repairing them if other funding sources are available to offset costs in excess of the 15% of the ACPU H&S limit.
 - c3. If serious electrical hazards cannot be repaired, the project must be deferred. Client must receive information on over-current protection, overloading circuits, and basic electrical safety/risks.

Field Auditors/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to be aware of how to identify basic electrical hazards.

Where applicable, discuss and provide information to the client on the hazards of overloading circuits, basic electrical safety/risks and over current protection.

4. Windows & Doors

- a. WPN 11-6 made it clear that windows and doors **cannot** be completed as a health & safety measure using DOE funds. However, the memo indicates that windows & doors can be done as an incidental repair.
- b. In order to qualify for replacement as an incidental repair, the door/window must meet the following:

A window or door must be severely damaged and irreparable before it can be replaced as an incidental repair. Photo documentation **must** be included in the file showing clear evidence that **each** door and/or window being replaced could not be repaired.

A window or a door replaced as a repair **must** be attributed to a measure that replacement will be impacting such as air infiltration. There must be adequate proof (blower door test) showing excessive infiltration in the home.

If a window or door meets the above criteria, the costs associated with the window/door must be grouped in REM/*Design*TM following the incidental repair protocol. If the overall SIR is 1.0 or better, DOE funds may be used to replace the window/door.

Note: Broken glass that presents a hazard may be replaced under the H&S category.

Field Auditors/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan).

IX. Heating & Air Conditioning

Heating system repair or replacement shall be identified and charged as either a Health and Safety (H&S) measure OR a Cost Effective measure. It cannot be both.

Before a heating system can be paid for under H&S, it shall be run through REM/*Design*TM and proven to be not cost effective.

- Any heating system replaced **must** be justified as not cost effective before it can be attributed to H&S.
- The entire heating system cost shall be attributed to **either** H&S or as a cost effective measure.

A copy of the REM/*Design*TM report deeming the heating system cost effective or not must be included in the file as documentation

Heating system repair and replacement is an allowable health & safety cost. All of Oregon is a heating climate. Oregon, as a whole, averages 5250 HDD. An operable heating system is required in all areas of the state.

It is up to the Subgrantee to determine whether or not a repair to a heating system or if replacing is the best option. Factors such as overall condition of the system, age of the system, cost of any repairs, and efficiency of the system should be considered in making this decision. The following factors are acceptable reasons for a H&S repair or replacement:

- Inadequate heating capacity
- Non-existent heating system
- Red tagged or inoperable heating systems
- Heating systems that are operating in an un-safe manner

Replacement heating systems must meet the requirements of newly installed equipment as outlined in the Field Guide.

A properly operating heating system is important for the overall health and well-being of the household. Therefore, furnace tune-ups and routine maintenance are allowable health & safety expenses.

Although Oregon is predominately a heating climate, there are times during the year that all areas may require air conditioning for at risk clients. Air conditioning systems are not an allowable expense unless the client is determined to be at risk.

To be considered at risk, a client **must** have a signed and dated statement from their physician stating that either the clients' health will be jeopardized if they are exposed to extreme heat or that the clients' health is such that they cannot be exposed to outside pollutants without risk to their health. The signed statement from the clients' physician **must** be included in the file as documentation.

Documentation of the thought process and reasoning of repair/replacement of a heating system is required in the project file. Licensing and/or certification for HVAC installations as required by authority having jurisdiction (AHJ).

Client Education:

- Discuss with client and provide information on appropriate use and maintenance of heating systems.
- Provide all paperwork and manuals for any installed equipment.
- Discuss and provide information on proper disposal of bulk fuel tanks when not removed as part of the weatherization work.
- Where combustion equipment is present, provide safety information including how to recognize depressurization.

Field Auditors/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to evaluate heating systems.

Space Heaters

1. **Stand-alone Electric Space Heaters** – Replacement of electric space heaters using DOE funds is *not* allowed. OHCS will not preclude the use of other funding sources for the replacement or major repair of electric space heaters. Work on such systems may make local agencies liable for inadequate electric wiring and damages that may result. Removal is recommended whenever possible.

When electric space heaters are encountered, the agency should check circuitry to ensure an adequate power supply for existing space heaters. Clients must be informed of the hazards associated with electric space heaters and collect a signed waiver if removal is not allowed.

2. **Un-vented Combustion Space Heaters** – **Removal of un-vented combustion space heaters is required.** Inform client of dangers of unvented space heaters - CO, moisture, NO₂, CO can

be dangerous even if CO alarm does not sound. If clients will not allow for removal of un-vented combustion space heaters, deferral of the project is required.

3. **Vented Combustion Space Heaters** - Vented combustion space heaters should be treated the same as furnaces. All required combustion testing listed in section V – 2 of Appendix D must be performed. Field Auditors/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to evaluate vented combustion space heaters to evaluate.

Solid Fuel Heating (Woodstoves etc.)

Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary heating units is allowed. Visual inspection of chimney, flue and combustion appliance zone depressurization testing is required.

Clients should be made aware of safety hazards associated with solid fuel heating including depressurization issues that can potentially cause back drafting. Field Auditors/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to ensure proper techniques for testing worst case depressurization and inspection.

X. Water Heating & Appliances

Replacement of water heaters is allowed as a health & safety cost under the following conditions:

1. The water heater is leaking and not repairable.
2. The water heater is inoperable and repairs are not possible or the age of the tank makes repairs impractical.
3. Combustion water heaters that cause a health hazard. (i.e. - Excess CO, draft issues, CAZ issues that cannot be addressed etc.)
4. Electric water heaters that cause a health hazard. (i.e. – wiring issues, missing covers etc.)

Other types of equipment such as dryers, ranges/cook stoves, etc. may only be cleaned, tuned or repaired with DOE funds. If these types of appliances require replacement, other funding sources must be utilized.

All appropriate combustion safety testing listed in section V – 2 must be performed on all combustion appliances.

Discuss and provide information as necessary on appropriate use, maintenance, and disposal of appliances/water heaters.

Field Auditors/Inspectors must receive BPI or REA certifications (See Appendix C-T&TA Plan) to ensure proper combustion testing techniques.

XI. Deferral Standards

The decision to defer work on a dwelling without providing weatherization services is difficult, but necessary in some cases. Many problems encountered in low income housing are beyond the scope of the Weatherization Assistance Program. Deferring weatherization work does not mean that assistance will never be available, but that any work must be postponed until the problems can be resolved, and alternative sources of help be found as necessary.

1. Agencies (Subgrantees) should develop guidelines and a standardized form. The form should include:
 - a. Client's name and address.
 - b. Date of the audit\assessment.
 - c. Date the client was informed of deferring weatherization.
 - d. A clear description of the problem, conditions under which weatherization could continue, the responsibility of all parties involved, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options.
2. Deferral Conditions May Include:
 - a. The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
 - b. The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions *cannot* be resolved in a cost-effective manner.
 - c. The house has sewage or other sanitary problems that would further endanger the client and the weatherization installers if weatherization work were performed.
 - d. The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building official or utilities.
 - e. Moisture problems are so severe they cannot be resolved under existing health and safety measures and minor repairs.
 - f. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.
 - g. The client is uncooperative, abusive, or threatening to crew, subcontractors, auditors, inspectors, or others who must work on or visit the house.

- h. The extent and condition of lead-based paint in the house would potentially create further health and safety hazards.
- i. In the judgment of the energy auditor, any condition exists which may endanger the health and/or safety of the work crew or subcontractor, the work should not proceed until the condition is corrected.

Agencies (Subgrantees) are expected to actively pursue all alternative options on behalf of the client, including referrals, and use good judgment in dealing with difficult situations. Once the reasons for deferral have been addressed, the home can be reconsidered for the weatherization program. If the eligibility has not been determined within the last year, it must be updated to determine whether the home is still eligible and has the same priority for weatherization services.

Appendix E - Oregon Quality Control Inspector Policies and Procedures

Overview

Subgrantees are required to perform a quality control inspection (QCI) at the conclusion of each single family, manufactured home, and multi-family Weatherization project. This inspection must include measures designated to be installed, including mechanical work, on completed dwelling units. The QCI inspection must occur, and be documented, before reporting the project to OHCS as a “completed unit”. This process is to ensure that all work performed meets or exceeds the minimum specifications outlined in the SWS and in accordance with WPN 15-4. All supporting documentation including inspection and monitoring certifications will be maintained in the clients file and all required data will be entered into the OHCS OPUS database.

Oregon Currently has over 40 HEP QCI inspectors. The individuals holding the QCI certification include a combination of Subgrantee staff and independent contractors. All Subgrantees have a process in place to ensure that all USDOE completions receive a QCI inspection.

In the event that an agency loses access to their QCI, it is allowable to contract with another certified QCI or to make arrangements with a neighboring agency to complete inspections.

All QCIs performing inspections for the Oregon WAP must have all required certifications and trainings outlined in the Oregon Training & Technical Assistance plan. Training records for the required trainings and certifications are verified through a combination of reviewing certified individuals on the BPI website, accessing the Oregon Training Institute (OTI) database, and OHCS staff reviewing training records during monitoring visits. OHCS field representatives and analysts follow up with Subgrantees when the required training was not completed or other training discrepancies are identified.

QCI Inspection Policy

OHCS will allow two options for meeting the QCI inspection requirement. Subgrantees must state in their annual Low Income Weatherization Program Implementation Report their intended method of inspection.

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. If this method is utilized, OHCS will monitor a minimum of 5% of USDOE completions.

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. Because this model does not allow for an independent review of the audit on every home, OHCS will increase the percentage of quality assurance reviews to ensure that audits are being performed consistently and correctly. OHCS will monitor a minimum of 10% of USDOE completions.

Multi-Family Inspections

QCI inspectors that inspect multi-family projects (≥ 5 units) must complete successful evaluation based on the NREL Multi-Family Quality Control Inspector Job Task Analysis before completing inspections of USDOE funded multi-family projects.

QCI Compliance Policy

As part of the QCI program, OHCS QCI monitors will review a percentage of agency QCI inspections for compliance with program rules and field standards at minimum annually. When QCIs are found to be out of compliance, efforts will be made to discover the source of the non-compliance issue. Depending on the source of the non-compliance issue, remedial training may be required for the QCI and/or the installation contractor. Remedial training may be provided by OHCS staff at the time of the monitoring. Alternatively, OTI or OHCS staff may provide more comprehensive training at a later date. Repeated non-compliance issues after remedial training may result in the QCI being put on probation, possible disallowed costs, and an increased level of monitoring.

EXHIBITS

(On file with the State of Oregon)

- Exhibit 1** Approval to Include Wood Stoves as a Weatherization Assistance Program Measure
- Exhibit 2** Mold and Mildew Protocol
- Exhibit 3** Health & Safety Documents

Exhibit 1 - Approval to Include Wood Stoves as a Weatherization Assistance Program Measure

State of Oregon WAP

Wood Stoves Guidance

Under certain conditions wood stoves can be installed as an approved weatherization measure. Subgrantees need to assure the following when considering the installation of a wood stove:

- 1) Safety
- 2) Cost-Effectiveness
- 3) Technical Specifications
- 4) Environmental Factors
- 5) No wood stove is to be installed *without* first obtaining a wood stove permit from the local building official / permit office.
- 6) All wood stoves installed **must** be inspected by the appropriate authority.
- 7) A copy of the wood stove permit and approved and signed inspection form **must** be part of the job file.

Wood stoves are a unique measure. Therefore, an audit **must** be performed which addresses heating system replacements as part of the initial job audit. It is the energy audit which is the driving force for determining whether a wood stove should be replaced. Subgrantees that are considering installing a wood stove **must** comply with the following:

- 1) Ensure wood stove installations; maintenance and inspections are performed by qualified personnel only.
- 2) Ensure that only wood stoves which are certified and labeled by the National Fire Protection Association under 86M-1986 and 211-1984, the International Conference of Building Officials or other equivalent listing organization may be purchased with DOE funds and that electrical parts are certified and labeled by Underwriters Laboratory. These organizations require the manufacturer to test the heater and include detailed instructions for safe installation. After July 1990, stoves **must** be certified to meet the Environmental Protection Agency emission standards or local standards if they are stricter.
- 3) Ensure that local agencies / contractors obtain appropriate liability insurance.
- 4) Ensure that only a wood stove certified and labeled for manufactured homes may be installed in a manufactured home. The label should reference the Department of Housing and Urban Development's Manufactured Home Standards and name the independent testing laboratory. Installation **must** be done in accordance with the manufacturers recommendations.
- 5) Each Subgrantee performs client education for every recipient of a new stove, which outlines the safe operation, and proper maintenance of the unit.

Exhibit 2 – Mold & Mildew Protocol

The Oregon Low Income Weatherization Assistance Program does not encompass mold remediation. DOE funds are not to be used to test, abate, remediate, purchase insurance or alleviate existing mold conditions identified during the assessment, the work performance period or the quality control inspection. Where multiple funding sources are used, the performance of any of the aforementioned activities **must** be expensed to a non-DOE funding source. However, DOE funds may be used to correct energy-related conditions and/or to assure the immediate health of workers and clients.

Weatherization of a home and air-sealing in particular could potentially increase the risk of moisture and mold in a home, thereby causing structural damage and/or health risk to the inhabitants. As well, existing mold could pose a health risk to both the inhabitants and the weatherization crew.

I. Moisture Protocols

Moisture Assessment

All homes should be checked for previous or existing moisture problems.

- A. Mold in homes arises from conditions of excess moisture. During initial inspection, field coordinators are to assess the homes with special attention to the following signs:
 1. Evidence of condensation on windows and walls indicated by stains or mold;
 2. Standing water, open sumps, open wells, dirt floors, water stains, etc. in basements. Also, check to see if firewood is stored in the basement and whether laundry is hung there to dry during the winter months;
 3. Leaking supply or waste pipes;
 4. Attic roof sheathing shows signs of mold or mildew.
- B. Identification of existing or potential moisture problems shall be documented in the client file. Any moisture problems found **must** be pointed out and discussed with the client. The mold and mildew checklist **must** be filled out at the time of the audit, signed, and dated by the client.
- C. A copy of the pamphlet, *A Brief Guide to Mold, Moisture, and Your Home*, **must** be given to the client and a signed confirmation of receipt **must** be present in the file.
- D. If existing moisture problems are found, no air sealing should be done unless the source of the moisture can be substantially reduced or effective mechanical ventilation can be added to remove the moisture. In some cases, air sealing **must** be done in order to reduce the source of the moisture (i.e. sealing off crawlspace from the house, or sealing attic leakage to eliminate condensation on the roof deck).
- E. Because air tightening may cause an increase in relative humidity, client education should include information about moisture problems and possible solutions.
- F. In the course of weatherization, measures that help reduce the humidity levels in the house should be installed. Examples of these activities are venting dryers, venting existing bath or kitchen exhaust fans or installing moisture barriers on dirt floors.

Repair or Elimination of Moisture Problems

Repair of moisture problems that might A) result in health problems for the client B) damage the structure over the short- or long-term, or C) diminish the effectiveness of the weatherization measures, **must** be done before the weatherization job is completed.

- A. Moisture problems can be reduced or eliminated by controlling the source of the moisture. This can involve:
 1. Installing a plastic ground cover on a crawlspace floor;
 2. Venting dryers to the outside of the building;
 3. Sealing the foundation;
 4. Providing positive drainage away from foundation;
 5. Repairing the roof, flashing, gutter, and downspout;
 6. Providing sump pumps or dehumidifiers;
 7. Educate the client about the sources of moisture that they are able to control.
- B. Moisture problems can be reduced or eliminate by ventilating areas where excessive moisture is produced, such as bathrooms and kitchens. This should include installation of a high quality exhaust fan in the subject area and informing the client of the related moisture issues and the proper operation and use of the fan.
- C. Dryer Vents
 1. All dryers must be vented to the outdoors and terminated with an operable dryer vent hood. Outdoors does not include unconditioned spaces such as attics and crawlspaces that are ventilated with the outdoors. (SWS 6.6005.1a)
 2. The operable dryer vent hood must include a backdraft damper. The outlet must be sealed to prevent water and air intrusion. (SWS 6.6005.3c)
 3. Dryer vent ductwork must be smooth surfaced, rigid sheet metal, supported at each connection in the crawlspace and vented to daylight utilizing the shortest run possible. Use of elbows should be limited to the least possible number to ensure unobstructed venting. Plastic venting is not allowed. (SWS 6.6005.1a)
 4. All joints must be sealed using UL – 181 tape (metal tape). (SWS 6.0005.1a)
 5. Flexible metal vent pipe may be used between the dryer and the hard pipe connection if it does not exceed three feet in length. The connection at both ends of the flexible metal pipe must be secured with a clamp as well as sealed with UL 181 tape. (SWS 6.0005.1a)
 6. Dryer vent pipe must not be installed with sheet metal screws or other intrusive fasteners that will collect lint. (SWS 6.6005.1a)
 7. Whenever possible, the dryer vent must be installed with a downward slope to the outside to allow for condensation drainage.
 8. Any dryer ducting located in unconditioned spaces must be insulated to a minimum of an R-8. (SWS 6.6005.1a)
 9. Dryer vents exceeding 35 foot in duct length must have a dryer booster fan installed. (SWS 6.6005.1a)
 10. Occupant must be instructed to keep lint filter and termination fitting clean. If applicable, occupant must be instructed to keep dryer booster fan clean, if present. (SWS 6.6005.1e)

II. Mold Protocols

Mold Assessment/Clean-up

All homes should be checked for mold during the initial inspection. If a mold condition is discovered during the initial inspection of the home that cannot be adequately addressed by the weatherization crew, then the dwelling unit should be referred to the appropriate public or non-profit agency for remedial action. As well, clients **must** be notified and informed of the presence of mold in their homes. The client **must** sign and date the mold and mildew checklist as documentation. A copy of the pamphlet, *A Brief Guide to Mold, Moisture, and Your Home*, **must** be given to the client. A confirmation of receipt of pamphlet, signed by the client **must** be included in the file.

Note: If the moisture pamphlet is given at the same time as the mold and mildew inspection, one document can be used to confirm both. If given at separate times, there **must** be two separate documents of confirmation.

- A. If the moldy area is less than 10 square feet (about 3 ft. by 3 ft.). then the job can most likely be handled by the weatherization crew.
 1. Professional should be contacted when:
 - a. The mold covers more than 10 square feet.
 - b. There is evidence of extensive water damage;
 - c. It is suspected that the heating/ventilation/air conditioning (HVAC) system may be contaminated, i.e. there is mold near the intake of the system. The HVAC is not to be run, as it could spread mold throughout the house;
 - d. The water and/or mold damage was caused by sewage or other contaminated water;
 - e. There is a health concern.
 2. For instances when the moldy area is less than 10 square feet, the following steps may be taken:
 - a. Eliminate or repair all moisture problems using the aforementioned moisture protocols;
 - b. Scrub mold off hard surfaces with detergent and water and dry completely;
 - c. Absorbent materials, such as ceiling tiles and carpet, may have to be thrown away when they become moldy. Mold can grow on or fill in the empty spaces and crevices of porous materials, so the mold may be difficult or impossible to remove completely;
 - d. Avoid exposing yourself or others to mold;
 - e. Do not paint or caulk moldy surfaces. Clean up the mold and dry the surfaces before painting. Paint applied to the moldy surfaces is likely to peel;
 - f. When unsure about how to clean an item, or if the item is expensive or of sentimental value, a specialist should be consulted;

- g. Avoid breathing in mold or mold spores. In order to limit your exposure to airborne mold, N-95 respirators are recommended when working in moldy areas;
- h. Wear gloves. Long gloves that extend to the middle of the forearm are recommended;
- i. Wear goggles. Goggles that do not have ventilation holes are recommended;
- j. Revisit the site(s) shortly after clean-up to make sure that it shows signs of water damage or mold growth.

Sample

Dwelling Inspection: Moisture and Mold Checklist

Item for Inspection

Y/N Explanation, if necessary:

Are the air filters clean? _____

Is there any sign of water damage? _____

Are there any unique or objectionable odors (mold mildew)? _____

Is there any blockage/obstruction to the supply or exhaust vents? _____

Do the bathrooms lack exhaust fans? _____

Are there any signs of mold or mildew growth? _____

Do the combustion appliances lack flues? _____

Do all any drains lack traps? _____

Confirmation of Receipt of Mold and Moisture Pamphlet (Required if any inspection items are marked "yes")

I have received a copy of the pamphlet, *A Brief Guide to Mold, Moisture, and Your Home*, informing me of the potential risks, clean-up and prevention of mold problems in my dwelling unit. I received this pamphlet before the work began.

Signature of Recipient

Date

Printed Name of Recipient

Self-Certification Option (for tenant-occupied dwellings only)

If the mold pamphlet was delivered but a tenant signature was not obtainable, you may check the appropriate box below.

Refusal to sign - I certify that I have made a good faith effort to deliver the pamphlet, *A Brief Guide to Mold, Moisture, and Your Home*, to the rental dwelling unit listed below at the date and time indicated and that the occupant refused to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit with the occupant.

Unavailable for signature - I certify that I have made a good faith effort to deliver the pamphlet, *A Brief Guide to Mold, Moisture, and Your Home*, to the rental dwelling unit listed below and that the occupant was unavailable to sign the confirmation of receipt. I further certify that I have left a copy of the pamphlet at the unit by sliding it under the door.

Signature of person certifying mold pamphlet delivery

Attempted delivery date and time delivery

Printed name of person certifying mold pamphlet

Unit Address

Note Regarding Mailing Option - As an alternative to delivery in person, you may mail the mold pamphlet to the owner and/or tenant. Pamphlet **must** be mailed at least seven days before renovation. (Document the date with a certificate of mailing from the post office.)

Exhibit 3 Health & Safety Documents

Sample Release of Liability Release of Liability and Waiver of Claims

Health and Safety Assessment

In addition to the energy audit we will complete on your home, we will also complete a limited health and safety assessment of the home. The health and safety assessment will consist of a visual inspection for potential health and safety issues. You will be notified of any health and safety issues that are identified, including mold. However, the evaluator is not a qualified mold professional. Mold may be present in areas not accessible or observed during the visual inspection or during the actual work on your home. Work on your home will be performed in a manner to prevent future mold growth. However, if there are existing conditions that are unseen or if, after the work is completed, situations within your home result in mold growth, we shall not be held responsible or liable.

Weatherization Activities

Notice: During weatherization activities, particularly when insulation is being blown into wall cavities and attics, insulation dust, other types of dust, and other particles may become airborne. Additionally, unforeseen circumstances may result in some insulation leaking through cracks into the home's living space. In these circumstances where insulation leaks into the living space, we will be responsible for clean-up (repairing damage and cleaning up the living area). Minor construction dust is inevitable at the end of any remodeling work. Construction dust clean-up will be the responsibility of the homeowner/occupant.

Recommendation: It is recommended that people with the following health conditions be out of the house when insulation is being blown into the house: Asthma, emphysema, allergies and other respiratory conditions, pregnancy and any other serious health conditions such as decreased immune functions which might be aggravated by dust and other dust-like particles in the air. Furthermore, it is also recommended that infants less than 12 months old should be out of the house when insulation is being blown. Persons who leave the house during the insulation process should remain away from the house until at least 30 minutes after completion of insulation activities.

Release and Waiver of Claims: I acknowledge by my signature below receipt of the information and recommendations set out above. Additionally, I agree on behalf of myself and any minor children or others for whom I am responsible, to hold the agency and its agents harmless from any claims, medical problems or personal injuries that may occur, develop or worsen in response to the weatherization activities. This waiver is for all damages, direct or indirect, that may relate to weatherization activities, including money lost by not being able to work, healthcare costs and pain or suffering.

I am aware the weatherization process may cause airborne particles, including dust, to be released in my home and that such airborne particles can aggravate health conditions in some people. I have chosen to go forward with the weatherization process, accepting any and all risks of injury or damages.

I have carefully read this release and waiver and fully understand its contents. I am aware that this is a release of liability and I have signed it of my own free will.

Client Name: _____

Phone: _____

Address: _____

City, Zip: _____

File Number: _____

Client Signature: _____ Date: _____

Agency Name: _____

Phone: _____

Agency Representative Signature: _____ Date: _____

Sample Health & Safety Hazard Notification

Client Name: _____ Project ID Number: _____

Project Address: _____ City: _____ Audit Date: _____

Based on information obtained during the energy audit, the following health & safety hazards have been identified: _____

The project will have to be deferred until needed repairs are completed. Once the following repairs are completed, the project can proceed: _____

Agency staff: check one of the following:

_____ Informational only. Work may proceed without hazards being mitigated.

_____ It is the client's responsibility to repair the following health & safety hazards and notify this agency for weatherization to proceed. _____

_____ It is landlords responsibility to repair the following health & safety hazards and notify This agency for weatherization to proceed. _____

_____ (Agency) takes responsibility for repair of the following health & safety hazards.

Based on our initial review of this building, (Agency) has identified the above potential health or safety problems. This is a limited visual inspection. These are the existing conditions as of the date below. By signing below, I acknowledge that I have been informed of the conditions and may have to address some of the items prior to any weatherization work.

Clients Signature _____

Printed Name: _____

Sample Radon Informed Consent Language

Weatherization achieves energy and cost savings and improved comfort, health and safety of homes through a variety of home retrofit measures, including some which improve the airtightness of the building. According to the Department of Energy (DOE) sponsored study, "[Weatherization and Indoor Air Quality: Measured Impacts in Single-family Homes under the Weatherization Assistance Program](#)," there is a small risk of increased radon levels in homes when the building air tightness levels are improved. These increases are smaller in manufactured housing everywhere, and all homes in low-radon potential counties, and higher in site built homes in high-radon-potential counties. There is some evidence that the installation of continuous mechanical ventilation reduces radon levels in homes, and counteracts any radon increases that are due to improved building air tightness levels.

Zones 1 and 2 Only:

Precautionary Measures: Since your house is located in a county identified as having moderate- to high-potential-radon levels¹, precautionary measures indicated below may be installed as part of weatherization:

- Exposed dirt floors covered and sealed
- Floor/foundation penetrations sealed
- Open sump pit capped
- Crawl space venting inspected and/or improved
- Basement isolated (air sealed) from living space
- Other: _____

I am aware that weatherization may result in increased levels of radon, and that mechanical ventilation may counteract those increases. I have received the Environmental Protection Agency's (EPA's) "A Citizen's Guide to Radon," and radon-related risks were discussed. I have chosen to go forward with weatherization, and accept all risks of injury or damages.

I have carefully read this informed consent form and have signed it of my own free will.

Client Name: _____

Client Signature: _____ Date: _____

¹ Defined as counties with predicted indoor radon screening levels at or above 2 pico Curies per liter of air (pCi/L). Link to EPA interactive zonal radon map: <https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information#radonmap>

Oregon Housing and Community Services

SB 1149

Energy Conservation Helping Oregonians (ECHO) **Low-Income Weatherization Program** **Guidelines**

July 1, 2012 – June 30, 2013

Margaret S. Van Vliet, Director

Chris Shoopman, Weatherization Program Coordinator



Oregon Housing and Community Services
North Mall Office Building
725 Summer Street NE, Suite B
Salem, OR 97301-1266

<http://www.ohcs.state.or.us>



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Introduction

The following guidelines are established based on recommendations from the Advisory Committee on Energy (ACE). Agencies are to follow the guidelines when delivering weatherization, baseload and energy-education services using Energy Conservation Helping Oregonians (ECHO) Funds.

ECHO funds are provided as a part of the surcharge on PGE and Pacific Power customer monthly utility bills. The funds are meant to decrease electricity usage in income eligible households served by these two utilities.

The guidelines are designed to provide clear and precise program direction for program administrators, coordinators, crews and contractors.

Beginning in May 2012, an annual review of the guidelines, and their effectiveness will be conducted in order to improve the administration of the ECHO Low-Income Weatherization Program. In addition, meter counts will be reviewed annually and the formula updated to reflect the count. Changes to the guidelines will be reviewed by ACE prior to implementation. Agencies will be notified in writing of any change to the guidelines.

Oregon Housing and Community Services are the designated administrator of the Energy Conservation Helping Oregonians (ECHO) program and implement the programs under the following:

Statutory Authority: ORS 456.515 - 456.725, 458.505 - 458.545

<http://www.leg.state.or.us/ors/456.html>

<http://www.leg.state.or.us/ors/458.html>

Statutory Implemented: ORS 458.505 - 458.515

<http://www.leg.state.or.us/ors/458.html>

OAR chapter 813, division 205

Oregon Administrative Rules: OAR 813-205-0051-7(ECHO funds)

http://arcweb.sos.state.or.us/pages/rules/oars_800/oar_813/813_205.html

1.0 Part I – Annual File

1.01 Sub-grantees

Only weatherization agencies within Portland General Electric (PGE) and or Pacific Power service areas are eligible to receive ECHO Low-Income Weatherization Funds, or those delivering service to PGE and/or Pacific Power services areas. This is due to the fact that ECHO funds are collected on the monthly bills of these two utilities.

1.02 Allocations

Oregon Housing and Community Services (OHCS) will allocate ECHO “Program” Funds to agencies based on the percent of PGE and/or Pacific Power, residential meters within their service area in relation to the total number of residential meters of the utility in the State of Oregon. Allocations broken down by county are available for agencies with multiple counties within their service area. Agencies are responsible for tracking expenditures by utility, by county. **Funds from one utility cannot be spent in another electric utility’s service area.**

1.03 Fund Uses

All available federal low-income weatherization grant funds **EXCEPT Bonneville Power Administration (BPA)** can be used with, or in conjunction with, ECHO Funds. ECHO Funds may be used to:

- A. Re-weatherize homes if a measure was not installed when the home was originally weatherized.
- B. Or for callbacks due to failure of previously installed measures installed with funding provided by United States Department of Energy (DOE), or other funds that do not allow for re-weatherization.
- C. A home may be weatherized two (2) times with ECHO funds, but a single measure can only be completed once.
- D. Callbacks due to warranty issues do not constitute a re-weatherization.

1.04 Monitoring Activities

1.04.1 Introduction

Monitoring is the principle method by which OHCS can identify areas within the sub-grantee’s program operation and administration where assistance may be required. OHCS ensures that

each sub-grantee is monitored during the each grant year. The monitoring visit will consist of a review of all financial records, inventory system, client files and work completed. The results of these reviews and individual sub-grantee requirements will determine the need for Training and Technical Assistance (T&TA) and/or additional monitoring. The comprehensive OHCS Monitoring Plan can be found on the OHCS website:
http://www.ohcs.oregon.gov/OHCS/CRD/SOS/docs/Oregon_State_Performance_Evaluation_Tool_Document.pdf

1.04.2 Peer Exchange

Agencies will follow the Peer Exchange Protocol as outlined in Appendix B.

1.04.3 Technical Assistance

OHCS staff will provide technical assistance on ECHO related matters to all weatherization programs receiving ECHO Funds. Technical assistance shall include, but not be limited to, the following assistance as outlined in Appendix B.

2.0 Part II – Master File

2.01 Eligible Population

The income eligibility level for the ECHO Weatherization Program shall meet OHCS Weatherization income guidelines. This **must** be applied throughout an agency’s entire service territory.

- A. Only households that use electricity as their primary heat source are eligible to receive weatherization, baseload and educational services. Households that heat with other fuels may receive baseload measures and energy-education services only
- B. If a water heater measure is to be addressed ECHO funds shall only be used on electric water heater measures including pipe wrap, aerators, and water conservation measures.
- C. Persons who have applied for, and have been found eligible for, the Low-Income Home Energy Assistance Program Act of 1981 (LIHEAP) will also be eligible for services funded with ECHO. The State of Oregon will use the current statewide LIHEAP manual established for LIHEAP, as established by the United States Office of Management and Budget (OMB) in determining eligibility **with the exception of income requirements.**
 1. Eligibility under LIHEAP or ECHO is valid for a period of 12 months.
 2. Applicants whose most recent LIHEAP and/or ECHO application is older than 12 months, or those who have not applied, may qualify using the following criteria in **2.01.1 What is Income.**

2.01.1 What is Income

- A. **Refer to LIHEAP Guidelines.**

2.01.2 Time Period for Income Verification

The period for determining income eligibility will be based on the same standards, protocols and guidelines, for LIHEAP; **with the exception of the income guidelines.**

- A. Verification of income **must** be re-verified when the eligibility determination exceeds 12 months.
 1. In multi-family buildings, subgrantees **shall make every effort possible to receive an application** for each household in an effort to gather demographic information.

Both renters and homeowners will be eligible, and those households in similar circumstances will receive similar benefits.

2. Applications older than one (1) year **must** have the household income re-verified.

B. Sub-grantees are strongly encouraged to coordinate with the local Low-Income Home Energy Assistance Program provider to obtain eligible Energy Assistance applicants who have requested weatherization.

2.01.03 Priorities

An actual waiting list to determine who is next to receive weatherization services must be developed with priority given to:

A. Elderly persons - 60 years of age and older.

B. Persons with disabilities.

C. Families with children 6 years of age and under.

D. Priority can also be given to:

1. High residential energy users (i.e. energy usage is above average as a result of household composition or unusual needs for energy).

2. Households with a high energy burden (i.e. when 20 percent, or more, of the household income is going towards energy).

E. Sub-grantees may choose to add additional factors to their priority list such as:

1. Ability to leverage funds.

2. Native Americans.

3. Households with a member on active military duty, etc..

F. The priority criteria used for determining applicant priority must be in writing and on file with the sub-grantee. The criteria must be used consistently for all applicants unless the sub-grantee is involved in an OHCS sanctioned special project.

1. Sub-grantees must notify OHCS of changes and additions to their priority criteria.

G. Sub-grantees must ensure that weatherization services are being provided to low-income persons that live in all types of housing (i.e. single family, rentals, manufactured housing units, and multi-family buildings). Housing type is not a recognized priority.

H. Agencies must submit a work plan to include:

1. Projecting the number of units to be weatherized and the number of units that will only receive baseload measures and / or education (based on projected funding).
2. Priority system used to determine order of service.
3. Details of the education services and delivery method.
4. How and what type of other funds will be mixed with ECHO Funds, and why.

2.01.4 Nondiscrimination

No person shall, on the grounds of race; color; national origin; or sex; be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole, or part, with ECHO Funds. Any prohibition against discrimination on the basis of age under the Age Discrimination Act of 1975; or, with respect to an otherwise qualified disabled individual as provided in section 504 of the Rehabilitation Act of 1973, also applies to this weatherization program.

2.02 Weatherization Work

Activities included in the weatherization of qualified homes will include:

- A. General heat waste.
- B. Insulation.
- C. Health and safety inspections and remediation.
- D. Baseload measure installation
- E. These activities (2.02 Weatherization Work, A. – D.) will be guided by an OHCS approved computerized audit and in accordance with the provisions of the Oregon Housing and Community Services Department's Site Built & Mobile/Manufactured Homes Weatherization Specifications, or amendments to it. The actual installation of weatherization materials is specified in the above referenced documents.

2.02.1 Prior to Audit

Prior to an audit of a prospective dwelling, the sub-grantee **must** have a completed application and all necessary paper work, including:

- A. Proof of income eligibility.
- B. Owner's name and address/contact information.

- C. As well as utility supplier(s).

2.02.2 Historic Preservation Guidelines

Weatherization activities on structures 50 years of age, or more, must comply with Historic Preservation Guidelines.

2.03.3 Permission to Proceed

Prior to any work being done on a dwelling (including baseload measures), and prior to a subcontractor visiting the dwelling for purposes of evaluating job costs, the sub-grantee must have a signed statement from the owner, or the owner's agent, that permission has been granted to perform weatherization and baseload measures on and at the dwelling and provision for utilities to release data to OHCS, its contractors, and its subgrantees. At a minimum, the statement must include:

- A. A list of possible measures that may be installed.
- B. If walls are to be blown with insulation, it must indicate the owner, or the owner's agent, has seen pictures of what a wall blown with insulation includes, and how the dwelling will look when completed.
- C. If windows are replaced, or repaired, the form must indicate that the owner, or the owner's agent, is aware the measure will not include the cosmetic treatment of the window trim.
- D. If a refrigerator(s) is to be installed, the statement **must** clearly indicate:
 - 1. Who owns the refrigerator.
 - 2. A copy of this statement with owner's (**or** owner's agent) signature, printed/typed name of each signatory, and date signed, **must** be clearly visible in the job file.
 - 3. A second copy of the signed refrigerator owner statement **must** be given to the tenant; and the original signed statement **must** be given to the owner (or owner's agent).
 - 4. Old refrigerator must be disposed of in accordance with EPA and DEQ guidelines.

2.04 Energy Audit Procedure

REM/Design will be the official audit tool.

- A. OHCS will require two (2) people from each sub-grantee agency to be trained in the use of OHCS approved auditing tool.
 - 1. The computerized audit in the file must include the name of the person completing the computerized audit.
 - 2. OHCS may authorize the use of other tools for the purposes of baseload measure installation, or for special projects in which the use of such tool would prove administratively burdensome with no benefit to the project.
- B. Sub-grantees may request a waiver of this requirement if the subgrantee has limited staff

This waiver will be good for the biennium contract time it was authorized within. OHCS is currently reviewing options for a data collection and reporting tool.

2.04.1 Use of the Computerized Audit Tool

Sub-grantees **are required** to only provide weatherization services with ECHO funds that have been identified as “*cost effective*” (a Savings to Investment Ratio of 1.0 or greater) by an OHCS approved computerized audit, or other computerized audit approved and adopted by OHCS. The weatherization of mobile homes must also follow these procedures.

Baseload measures must identify cost effectiveness or energy savings. New appliances must meet or exceed “Energy Star” certification to be eligible for installation. **Only electrical appliances are to be addressed with ECHO funds.**

2.04.2 Coordinator Override

Coordinator Override is **not** allowed under the ECHO Low-Income Weatherization Program Guidelines. Through the use of a computerized audit, if a measure is deemed not cost effective, it must be omitted or the non-cost effective portion “bought down” or paid for completely utilizing appropriate funding sources. All measure buy down activity must be documented on a Funding Summary Report included in the file.

2.04.3 Prioritization of Work

Work will be prioritized and completed in descending order with measures receiving the highest cost effectiveness (or SIR) to lowest cost effectiveness.

2.04.4 Audit Tool Training

Training is available for any sub-grantee that is having difficulties using the approved computerized audit tool. Agencies should contact OHCS for assistance.

2.05 Final Inspection

All dwelling units (100 percent of jobs weatherized or where baseload measures were installed) being reported as completed for the purpose of obtaining ECHO Funds, the job file **must** have:

- A. A Final Inspection Certification Form must be completed by a designated sub-grantee staff person with printed name and signature.(staff person other than those that performed the installation).
- B. The Final Inspection Certification Form **must** have information that indicates all measures designated to be installed, including mechanical work, were installed in a workman like manner and in compliance with weatherization specifications.
- C. If a designated measure is **not** installed, then a written explanation **must** be included in the file and noted on the inspection form.
- D. An ECHO Weatherized unit is:
 1. A dwelling unit on which an OHCS-approved energy audit, or priority list, has been applied. As funds allow, the ECHO measures installed on this unit have a Savings to Investment Ratio (SIR) of 1.0 or greater; but also may include any necessary energy-related and Health & Safety repairs. The use of ECHO Funds on this unit may include, but are not limited to:
 - a. Auditing.
 - b. Testing.
 - c. Measure installation.
 - d. Inspection.
 - e. Use of ECHO equipment.
 - f. Use of ECHO vehicles.
 - g. Use of ECHO OHCS provided training and/or administration.

2. Therefore, a dwelling unit that meets both the definition of an ECHO weatherized unit, and has ECHO funds used directly, must be counted as an ECHO completed unit.
- E. Furthermore, a signed copy of a Final Inspection Certification form **must** remain with the owner/occupant. This inspection form **must** indicate:
1. All of the measures were installed in a workman like manner and according to specifications.
 2. The measures installed should under reasonable conditions save energy and make the dwelling more comfortable for the inhabitants.
 3. All of the weatherization measures installed are guaranteed for material and workmanship defect for a period of one (1) year (365 days) from the date signed.

2.05.1 Self Declaration

Sub-grantees may use an OHCS approved form (such as a post card mailed by owner) for declaration of receipt and installation of refrigerator.

- A. If sub-grantee does **not** receive the self-declaration form within two (2) weeks of delivery, sub-grantee **must** explore other ways of verifying inspection.
- B. A measure is **not** considered completed until it has passed final inspection.
- C. If it is not possible due to circumstances to perform a final inspection it shall be clearly noted in the file the reason the inspection could not be completed including copies of any correspondence with the client regarding scheduling of inspection.

2.05.2 Funding Summary Sheet

All weatherization projects are required to include a Funding Summary Sheet (FSS) in the file. The FSS must, at minimum, include:

- A. Actual costs of each measure completed.
- B. Funding source(s) utilized for each measure.
- C. If a non-cost effective measure is “bought down” using appropriate funding, the amount of the “buy down” must be indicated, funding source identified and explained on the FSS.

- D. If a non-cost effective measure is completed and paid for completely using appropriate funding, the funding must be identified and explained on the FSS.
- E. Health & Safety (H&S) repair costs must indicate which funding source(s) were utilized and an explanation of what the H&S repairs included.
- F. Incidental Repair (ERR) costs must indicate funding source(s) utilized and an explanation of what the ERR repairs included.
- G. A total of each individual funding source, as well a combined total of all funding sources, must be identified.

2.06 Analysis of Effectiveness

In order to calculate the most accurate energy savings:

- A. Sub-grantees are required to obtain 12 months (when available) prior energy usage for each dwelling scheduled to be weatherized; to, as much as possible, “true up” the computerized weatherization audit tool.
- B. Additionally, obtaining the energy usage records of each dwelling for the 12 months (when available) following weatherization would be useful information to compare actual savings with projected savings.
- C. The results can be used to improve the program and identify T&TA needs.

2.07 Health & Safety Plan

OHCS is required to develop a Health & Safety Plan (H&SP). OHCS will work with ACE, OECA and the EPC to consistently review and maintain the Oregon Health & Safety Plan as an updated, useful and meaningful tool for all sub-grantees and contractors.

Create and refer to append.

The primary goal of the ECHO Low-Income Weatherization Assistance Program is energy efficiency. Therefore, a maximum of 15 percent of the subgrantees total allocation is allowed for the purposes of making Health & Safety Repairs. Health and Safety amounts do not need to be included in the overall project cost when determining the total project cost in relation to SIR.

2.07.1 Mold and Mildew

See **Exhibit 6 – Mold & Mildew Protocol**.

2.07.2 Certification for Mold & Mildew Safe Work Practices

OHCS in conjunction with OECA,, has developed and instituted a training program. The training program for weatherization workers includes:

- A. How to identify molds and mildew.
- B. How to understand and eliminate the conditions responsible for the growth of mold and mildew.
- C. How to protect occupants and workers from the harmful effects of mold and mildew.
- D. Further classroom development has trained workers on certified and approved techniques for cleaning and removing mold and mildew.

2.08 Health & Safety – Incidental Repairs

This is an issue that concerns everyone involved in the delivery of weatherization services. As our understanding of the systems within a house expands, attention needs to be given to the Health & Safety of the occupants and workers. All sub-grantees have the equipment and skill to identify the major Health & Safety and incidental repair problems found in dwellings. To support sub-grantees in the identification and reduction of Health & Safety and incidental repair problems:

- A. Health & Safety is defined as any measure necessary to assure the health and well-being of a client.
 - 1. It is necessary for Health & Safety **to be included in the overall job cost.**
 - 2. **Incidental repair costs must be included in the job cost and SIR calculations.** However, Health & Safety **does not** have to be included in SIR calculations.
- B. Health & Safety **cannot** exceed 15 percent of a sub-grantees allocated ECHO Program Dollars.
 - 1. OHCS will review requests to increase the availability of Health & Safety incidental r funds on a job-by-job basis, provided the sub-grantee has not yet exceeded the 15 percent limit on Program Funds.
- C. Incidental repair is defined as a non-energy efficiency action that is necessary in order to protect the energy efficiency measure being installed, or to make it possible to install the energy efficiency measure.

For additional information on Health & Safety, see **Appendix A**.

2.08.1 Reporting

Sub-grantees **must** report all ECHO expenditures related to Health & Safety on their Quarterly Financial Status Reports. The number of units that received Health & Safety funds **must** also appear on the Quarterly Production Report. When appropriate, the Health & Safety measures will be reported on OHCS approved database(s).

2.09 Rental Procedures

The following guidelines are to be followed when rental units are to be weatherized. The sub-grantee must establish procedures to be approved by OHCS to ensure that:

- A. No rental dwelling unit shall be weatherized without first obtaining the written permission of the owner, or the owner's authorized agent.
- B. The benefits of weatherization assistance shall accrue primarily to the low-income tenants.
- C. Rents must not be raised because of the increased value of the dwelling unit(s) due solely to weatherization assistance provided under this part.
- D. No undue or excessive enhancement shall occur to the value of the dwelling unit(s).
- E. Weatherization services will not be provided to eligible clients who pay their energy cost as part of their rent unless:
- F. Landlord agrees to make reductions in rent to reflect, in some equitable way, the reductions achieved in fuel cost due to weatherization.
- G. There are health or safety reasons which justify weatherization.

2.10 Lien on Property

In order to secure the public investment made under this part and address the issues of eviction from and sale of property receiving weatherization materials, agencies may seek landlord agreement to placement of a lien, or to other contractual restrictions.

OHCS does **not** require any agency to include lien or contractual restrictions on property owners; however, it is encouraged.

2.11 Documentation

All documentation will remain the property of OHCS. In the event of program closure, such files shall revert to OHCS.

2.12 Program Management

Under Oregon Revised Statute 757.612, funds are made available to Oregon Housing & Community Services for weatherization assistance for low-income persons. As outlined in OAR 813-205-0051, OHCS shall allocate funds received to the sub-grantee agencies.

2.12.1 Spend Down Policy

- A. OHCS will use spend down policy (see **Appendix C**) to track and monitor agencies spending.
- B. Beginning June 2013, a review of **Appendix C** shall take place annually.

2.12.2 Service Delivery System

OHCS intends to utilize the existing network of service provider agencies including:

- A. Community Action Agencies (CAAs).
- B. Community Based Organizations (CBOs).
- C. Area Agencies on Aging (AAAs).
- D. Special Population Organizations (SPOs).

For the purpose of this plan, there will not be a distinction as to type of agency, but rather all agencies shall be identified as “Sub-grantees.”

2.12.3 Contract with Sub-grantees

Sub-grantees identified for weatherization funds must prepare, and submit to OHCS, a Work Plan as part of their Community Resources Division (CRD) planning process. OHCS shall review and approve all Work Plans. Funding to sub-grantees shall be formula based and sub-grantee status shall be protected except for the following reasons:

- A. Funding from SB 1149 ceases, or is rescinded. ORS 757.612
- B. Sub-grantee elects to close out their grant and return funds.

- C. Sub-grantee is determined to be consistently below program standards by public hearing process.
- D. Sub-grantee does **not** comply with the terms of negotiated contract, or CRD Work Plan.

2.12.4 Administrative Expenditure Limits

ECHO Weatherization Assistance Program Administration Fund Expenditures are as follows:

- A. The amount of allowable Administration Funds allocated to each agency is up to 10 percent of their allocation.
- B. Also note, OHCS is limited to 5 percent of OHCS Administration Costs for OHCS's administration management in the ECHO Weatherization Assistance Program.

2.12.5 Funding Formula

Funds remaining, after OHCS administration and T&TA, allocations have been removed from the grant will be allocated to sub-grantees using the following formula:

- A. OHCS will allocate ECHO "Program" Funds to agencies based on the percent of PGE and/or Pacific Power residential meters within the agencies service area.
 - 1. Allocations broken down by county are available for agencies with multiple counties within their service area.
 - 2. Agencies are responsible for tracking expenditures by utility and by county. OHCS will allocate funds indicating how many meters are in each county and the percentage of allocation to be spent in each county
 - 3. **Funds from one utility cannot be spent in another electric utility's service area.**

2.12.6 Funding

- A. **Initial Funding/Start-Up Funds** – OHCS, as a part of the CRD grant process, shall negotiate with all sub-grantees a contract to transfer to the sub-grantees an amount not to exceed 10 percent of the sub-grantees allocation. These funds shall be available within the first 15 days after the approval of the agreement for delegation of funds.
- B. **Expenditure Reports** – On a quarterly basis, all sub-grantees must submit to OHCS reports of expenditures and completions towards program goals. These quarterly reports

shall be considered amendable allowing for revisions. Any revisions or amendments to submitted reports must be noted in the following quarter.

- C. **Expenditure Reimbursements** – All reimbursements are subject to approval by OHCS and may be denied on the basis of lack of funds; improper documentation; improper expenditures; or other reasons deemed necessary by OHCS. It is the responsibility of the sub-grantee to reimburse OHCS for any expenditures determined improper by OHCS.
- D. **Cash Requests** – Sub-grantees are encouraged to request cash as needed upon completion of weatherization work. Only funds sufficient to cover all costs of the work should be requested. Funds requested in advance of completed jobs (except as stated in 2.12.8(a) above) are not permitted.

2.15 Certification for Lead Safe Renovators

OHCS will continue, with the help of OECA, to make training available for the Lead Safe Renovation and Repair and Lead Safe Weatherization (LSW). All individuals performing lead safe weatherization must be either certified renovators, or have been trained by a certified renovator.

- A. Training is required prior to performing any weatherization work that will disturb lead based materials in homes built before 1978.
- B. All Sub-grantees and contractors must be a certified firm. See **Appendix A**.

2.16 Monitoring - Productivity

OHCS monitors sub-grantee productivity through information provided on Quarterly Reports, Peer Exchange, and Fiscal/Program Monitoring Reports. If a sub-grantee falls consistently and considerably below their projections, OHCS reserves the right to redistribute their unexpended funds.

2.17 Multi-Family

2.17.1 Eligibility

Prior to weatherizing multi-family housing units, not less than 66 percent (50 percent for duplexes and fourplexes) must be occupied by income eligible households in order for the entire building to qualify for weatherization assistance.

2.17.2 Landlord Contribution Clause

Multi-family units can be weatherized when the percent of low-income tenants is below 66 percent. If the multi-family low-income occupancy falls below 66 percent, but is no less than 50 percent, then the building can qualify for weatherization if:

- A. Additional funds are leveraged from landlords, utilities, or other sources; **and**
- B. Leveraged funds **must** equal at least 10 percent of the total job cost to be eligible for reduced unit eligibility percentage; **and**
- C. Authorization from OHCS has been granted to proceed.

2.18 Standard Weatherization Procedures

2.18.1 Labor

It is the sub-grantees responsibility to ensure that employees and contractors are qualified and properly supervised.

- A. All direct agency weatherization staff engaged in installing building shell retrofit upgrades (attic, wall, floor, windows, doors, duct sealing and general house sealing), must be:
 - 1. REAP certified as Shell Technician; **or**
 - 2. An equivalent course utilizing the three (3) installer modules of the Weatherization Assistance Program Standardized Curricula.
 - a. **OHCS will determine equivalency of the alternative courses.**
- B. All Crew Leaders must be:
 - 1. REAP certified as Shell Technician and Diagnostic Technician. **or**
 - 2. Building Performance Institute (BPI) certified as Building Analyst Professional and Shell Technician; **or**
 - 3. An equivalent course utilizing the three (3) installer modules of the Weatherization Assistance Program Standardized Curricula.
 - a. **OHCS will determine equivalency.**
- C. All Auditors and Inspectors must be:

1. REAP certified as an Energy Analyst, Diagnostic Technician and Shell Technician;
or
2. BPI certified as Building Analyst Professional, Envelope Professional and Shell Technician; **or**
3. An equivalent course utilizing the three (3) installer modules of the Weatherization Assistance Program Standardized Curricula.
 - a. **OHCS will determine equivalency.**

2.18.2 Davis-Bacon Act-Compliance

Weatherization activities under the ECHO Low-Income Weatherization Program are not considered public works projects under **ORS 137-30-015(3)(a)**; and, are therefore exempt from prevailing wage.

2.18.3 Authorization

Prior to weatherizing residential units, the following procedures must be followed.

- A. The owner, or authorized agent, **must** give written permission for the weatherization assistance. Such written authorization **must** be signed by the owner, or owner's authorized agent, and **must** include:
 1. Location of dwelling (physical street address).
 2. Name of eligible tenant.
 3. Specific work to be done.
- B. See 2.03.2 for additional requirements and baseload measure requirements.

2.18.4 Operation of the Program

It is the sub-grantee's responsibility to identify and procure the local resources necessary to operate this program. Such resources are to be identified by the sub-grantees in their grant proposals to OHCS. These would include, but not be limited to:

- A. Local and Federal funds.
- B. Donated materials.

- C. Space.
- D. Support.
- E. Any resources not provided for by ECHO Funds.
- F. Contractor Procurement:
 1. All sub-grantees that employ private licensed contractors to provide weatherization, repairs, or inspections where the cumulative one (1) year compensation is \$25,000, or more, **must** have a policy in place, and use said policy to procure contractors.

2.18.5 Mobile Home Definition

The definition of mobile homes is to include travel trailers and motor homes under the following conditions:

- A. Unit is a permanent residence.
- B. The unit has a physical address.
- C. The occupant has a legal lease or contract to live in the unit and park the unit at said location; **and**
- D. Improvements are only related to weatherization; and do **not** address mechanical, other than heating or HVAC.

2.19 General Accounting Practices

To insure accurate reporting, proper documentation and compliance with federal and state guidelines for fiscal procedures, all sub-grantees **must** at a minimum:

2.19.1 Submit an Annual Audit

- A. Submit an annual audit of weatherization funds, which must be conducted by a Certified Public Accountant, using the audit standards contained in the United States General Accounting Office publication entitled:
 1. **Standards for Audit of Government Organizations, Programs, Activities, and Functions** by the Comptroller General of the U.S.A. (1981); **and**
 2. The Office of Management and Budget Circular A-87, A-110, A-122; **and**

3. General accounting procedures as a guide.
4. These audits will comply with 10 CFR Subpart D, which also includes OMB Circular A-128. For audits of sub-grantees, provisions of 10 CFR 600.426 will apply.

2.19.2 Inventory Control

Sub-grantees will have in place a weatherization inventory control system that outlines, in writing:

- A. Purchasing authority; access to inventory; quarterly inventory verifications; procedures for fall down (shake or waste); **and**
- B. Ability to track purchases to specific jobs and materials installed back to the point of purchase.
- C. Fall down shall not exceed two (2) percent of the total materials budgeted annually.
- D. All material used in weatherization that are purchased in bulk, or by piece, for the weatherization program are considered inventory. Weatherization inventory does **not** include supplies or materials purchased with Weatherization Administrative Funds.

2.19.3 Receive Authorization from OHCS for Purchases or Lease

Receive authorization from OHCS for purchases, or lease, of acquisitions in excess of **\$5,000**. All capital property and vehicle purchases for approval of Vehicle & Capital Equipment Purchases, the minimum information needed by OHCS is:

- A. Name of requesting local agency.
- B. Where the vehicle will be used and how it will be used – Specify, full or part time use in Weatherization Program.
- C. Statement of whether this is a replacement or an expansion for ramp-up. If this is a replacement, describe how is the trade-in being addressed.
- D. Brief description of how the procurement will be done, and confirmation that agency, state and federal procurement guidelines will be met 2 CFR 225 (former OMB Circular A-87) – Cost Principles for state, Local, and Indian Tribal Governments 2 CFR 230 (former OMB Circular A-122) – Cost Principles for Non-Profit Organizations.
- E. Check with Fiscal what the funding source(s) will be (e.g., ECHO Program funds). Sub-grantee T&TA funds are **not** an allowable option.

- F. Copies of bid specs (vehicle description with options requested) and bids received.
- G. Statement that lowest bid will be selected; or a sufficient justification of the “best value selection” if lowest bid is not recommended for OHCS approval.

2.19.5 Financial Operations Manual Have fiscal review

Each sub-grantee must have in place a financial operations manual those details:

- A. Accounting standards.
- B. Segregation of duties.
- C. Procurement procedures.
- D. Program income application.
- E. Program rebates.

2.19.6 Prohibited Expenditures

Funds shall **not** be expended for:

- A. The items or services listed in 10 CFR part 440, Weatherization Assistance for Low-Income Persons, Final Rule, 440.18 (e).
- B. T&TA Funds cannot be used to purchase equipment used in the day-to-day installation of weatherization measures.
 - 1. Where a need exists to purchase tools and equipment sub-grantees should use Program Funds.

2.19.7 Discretion of Procurement Fiscal

OHCS gives sub-grantees discretion in the procurement of materials. All supplies, equipment, materials and services **must** be procured in accordance with:

- A. Applicable state law and procedures.
- B. As well as 10 CFR 600.119, **and** 600.436; **and**
- C. OMB Circular A-110, **and** A-133.

2.19.8 EPA Compliance

Sub-grantees **must** comply with the Environmental Protection Agency (EPA) regulations as set forth in 40 CFR Part 248 - Guidelines for Procurement of Building Materials, which encourages the use of recyclable materials. Sub-grantees shall use recyclable materials whenever possible. Compliance with EPA regulations also applies to the decommissioning of replaced baseload appliances whether subcontracted out or not.

2.20 Reporting Requirements

Each sub-grantee must submit certified and timely reports to OHCS detailing the progress made towards the program objective(s), and all administrative and program expenditures. The report **must** agree with the sub-grantee's accounting records, and be certified by the sub-grantee's chief executive officer. **Quarterly reports are to be reviewed by OHCS on, or before, the 20th working day of the month following the last day of the quarter being reported:**

- A. Reporting Format – OHCS has provided all sub-grantees with online access to OPUS-Weatherization for the purpose of reporting weatherization activities. All weatherization sub-grantees are required to use OHCS approved database(s).
- B. OHCS will work with ACE to improve and develop a reporting method that meets the needs of the funding source; is **not** a burden; and provides useful information to sub-grantees, state and funding source.

2.20.1 Success Story Reports

Sub-grantees receiving “Thank You Letters” from, or about, people whose homes were weatherized, should submit selected letters as requested by OHCS.

2.20.2 Fuel Switching

Fuel switching will **not** be allowed when using ECHO funds.

2.20.3 Cook Stoves

Cook stove replacement is not allowed with ECHO funds.

2.20.4 Wood Stove Replacement

Wood stove replacement is not allowed with ECHO funds.

2.21 Quality Control

It shall be the responsibility of the sub-grantee to establish measures to ensure the quality of work completed and address the following areas:

2.21.1 Fire Codes

Each sub-grantee shall ensure that all Fire Codes are observed. The sole purpose for this requirement is to protect the client and limit the liability of the sub-grantee.

2.21.2 Electrical Codes

Each sub-grantee shall ensure that all Electrical Codes are observed. Any and all electrical work **must** be performed by a licensed electrical contractor.

2.21.3 Building Codes

Each Sub-grantee shall ensure that all Building Codes are observed.

2.21.4 Materials Installed Properly

It is the sub-grantee's responsibility to ensure all materials are installed to required specifications to achieve maximum benefit from the materials.

- A. **All units require post installation inspection.**
- B. Inspections of weatherized units **must** be completed by someone other than the installer(s).
- C. A copy of the final inspection sheet will be provided to the property owner.

APPENDICES

- Appendix A Health and Safety Plan
- Appendix B Training and Technical Assistance (T&TA) Plan
- Appendix C Spend Down Policy
- Appendix D Measure Lives

Appendix A – Health and Safety Plan

HEALTH AND SAFETY PLAN State of Oregon ECHO Weatherization Assistance Programs

I. Weatherization Program Health and Safety

A portion of funds provided are to remedy health and safety hazards, which are necessary before, or because of, the installation of weatherization materials. ECHO funds may only be used to mitigate health & safety issues listed under this guidance. In the event that issues are identified that do not fall under the scope of the ECHO Weatherization Program, other, more flexible, funding sources may be utilized to complete H&S measures that do not fall under the ECHO criteria. If neither of these options is possible, every effort must be made to refer the client to sources that may be able to mitigate the issue. If after all of these options are exhausted and documented, then deferral may be required until the problems are resolved.

1. Definitions

- a. Health and Safety Measures: Those actions necessary to maintain the physical well-being of both the occupants and/or weatherization workers where:
 - Costs are reasonable and do not exceed 15% of the sub-grantees total allocated program dollars; **AND**
 - The actions must be taken to effectively perform weatherization work; **OR**
 - The actions are necessary as a result of weatherization work.
- b. Weatherization Measures: Building shell and equipment measures determined to be cost-effective by OHCS approved standards.
- c. Weatherization Materials: Materials for incidental repairs should be at least equal to or better than industry standard practices.
- d. Incidental Repairs: Repairs necessary for the effective performance or preservation of weatherization materials.
- e. Lead Safe Weatherization (LSW): LSW is a set of protocols to be used when disturbing surfaces that may have lead-based paint that will reduce and control the amount of lead dust and paint chips that are generated.

2. Expenditure Limits and Reporting - Health and Safety Measures:

- a. Health & Safety expenditures must be no more than 15 percent of the total program budget for ECHO. These costs **must** be recorded and tracked separately in the accounts and on the house audit/assessment form and reported as a separate line item on the Invoice Voucher.

II. Crew and/or Contractor Health and Safety

The standards included here provide only general guidelines for health and safety concerns. Detailed specifications regarding worker health and safety are found in OSHA Safety and Health Standards (29 CFR 1926\1910) published by the U.S. Department of Labor. These standards are applicable to all workers providing services using funding under the ECHO Weatherization program.

III. Training and Monitoring

The subgrantee's Weatherization Coordinator is responsible for ensuring that the crew or contractor(s) has a health and safety program in place. Documentation of all required training, for either crew or contractor based programs, is required and must be available for inspection.

1. Employee Training - New employees shall not begin working in the field until training is provided. Training will include:
 - a. All **weatherization** crew leaders, crew and contractor based, are required to complete the OSHA 30 hour training course.
 - b. All **weatherization** workers, crew and contractor based, are required to complete the OSHA 10 hour training course.
 - c. Proper usage of hazardous chemicals and substances such as foams, sealants, and cleaners in the weatherization work environment.
 - d. The Material Safety Data Sheets (MSDS) provided by suppliers that describe the method to properly handle potentially hazardous materials. Inform employees where the MSDS are located, how to understand their content, and how to obtain and use appropriate hazard information.
 - e. It is strongly encouraged that all field staff (auditors, inspectors, and crew) shall have current First Aid and CPR proficiency cards.
 - f. Every jobsite where paint is being disturbed must have an EPA certified renovator on site.

- g. All weatherization crews working on pre 1978 homes must be trained in LSW using the updated curriculum.

- 2. Safety Meetings - Safety meetings shall be conducted quarterly. The content of meetings should focus primarily on issues of current importance, for example, OSHA requirements, new information on safety procedures, or product related information (MSDS). During the meeting, employees should be encouraged to ask questions. The main purpose will be the ability of the employee to retain and understand information covered during the meeting. Limit the amount of information covered to just one issue, when possible, such as lifting, tool maintenance, electrical equipment, or understanding of Material Safety Data Sheets. Posters relating to such matters are available and should be displayed during the month that particular issue is discussed. Minutes of each meeting (listing topics discussed and concerns) shall be recorded and kept on file. A list of employee attendance will be included.

- 3. On-Site Inspection
 - a. Appropriate subgrantee staff shall conduct an announced, on-site inspection of each crew periodically. This inspection will include:
 - a1. Ascertaining the extent of the client's understanding of weatherization activities being performed. If health and safety issues are documented, this information shall also be included in the discussion.
 - a2. Inspecting condition of personal safety equipment and confirming that all crew members are adequately supplied. Crew members must wear prescribed equipment if warranted by the activities being conducted.
 - a3. Checking that each crew vehicle is supplied with a:
 - a3.1 Complete first aid kit designed to provide basic first aid.
 - a3.2 adequately charged hand-operated fire extinguisher, designed for all three types of fire (electrical, wood, and liquid). Ensure service date has not expired.
 - a3.3 Binder containing list of hazardous chemicals (common and chemical name), location where they are used, usage and hazardous information (signs/symptoms of exposure and required first aid), and list of Material Safety Data Sheets. (Note: Copies of MSDS are not required if master files are accessible by all crew members.)

- b. Inspect hand and power tools and similar equipment. Any found to be defective should be tagged and removed from service. Equipment not in use shall be properly stored. Inspect work area to ensure activities are conducted in a safe manner, including provision of adequate light, proper disposal of debris, connection of power equipment to a ground fault circuit interrupter, and resolution of health and safety issues.

IV. General Work Practices

The prevention of occupationally induced injuries and illnesses will be given precedence over production activities. To the greatest degree possible, the Weatherization Coordinator/Contractor will ensure that all equipment and facilities are in compliance. Weatherization personnel are required to exhibit caution and care during the course of the workday.

1. The Crew Leader/Foreman

The Crew Leader/Foreman is responsible for being in compliance with any instructions pertaining to health or safety as they apply to crew production activities:

- a. Contact client before performing work. Provide the opportunity for discussing crew activities that will occur and occupant safety while work is in progress. When subcontractors are used, the Program Manager will be responsible for client contact.
- b. Ensure each crew member is reasonably protected when production activities are being conducted.
- c. For pre-1978 buildings: Lead-Based Paint Hazard Control. Inform the client of the nature of the work to be done, and encourage that children be off-site while the work is taking place. Obtain and post lead hazard signs while working on the dwelling.

2. Personal Protective Equipment

The use of personal protective equipment will be strictly enforced. Hearing and ear protection are required for individuals working around high decibel equipment. Each crew person will wear a respirator, protective eyewear, and protective clothing when necessary. Respiratory protection is required for individuals working in high dust environments, including when using loose fill insulation blowing equipment, installing materials in attic and floor areas, and during prolonged use of grinding or power saw equipment. When working in an environment in which lead based paint dust will be generated, each employee within the work area may be required to wear a properly fitted National Institute of Occupational Safety and Health (NIOSH)-approved HEPA respirator and protective clothing which will be removed upon

vacating the work area. (See OSHA rules, Section L.3, Other Federal Government Regulations.)

3. Hand and Power Tools

All hand and power tools and similar equipment shall be maintained in a safe condition. This equipment will be inspected daily, and any equipment found defective shall be tagged and removed from service until it has been repaired or replaced. Protective guards are to be in place and functioning properly while a power tool is in use.

All electrical equipment, tools, and extension cords shall be grounded properly. All electrical power for 120-volt or greater will be protected by a ground fault circuit interrupter (GFCI). Any extension cords found defective (insulation worn or cut, or frayed wires) are to be removed from the job site and disposed of.

It is recommended that, when using power tools on surfaces that contain lead-based paint, a HEPA dust collection attachment be used. Tools shall be cleaned after use.

4. General Fall Protection

Portable ladders shall be placed on a substantial base at a four-to-one pitch. Extension ladders are to be extended a minimum of 36 inches above the landing (i.e., where roof access occurs), or where not practical, be provided with grab rails and be secured against movement while in use. Portable metal ladders shall not be used where they may contact electrical conductors.

The use of ladders with broken or missing rungs or steps, broken or split side rails, or with other faulty or defective construction is prohibited. When ladders with such defects are discovered, they shall immediately be withdrawn from service.

Extra precaution is required while weatherization activities are conducted on the roof area. When an individual is above 10 feet or adequate stability cannot be maintained, safety gear, such as harness or safety straps, is required.

5. Housekeeping Activities

All scrap lumber, waste material, and debris shall be removed from the immediate area as work progresses. An area outside the home should be designated for storing such material, which should be removed from the premises at the end of each workday or when the job is completed. Agency crew/Contractors are encouraged to recycle materials whenever possible.

Equipment shall be removed from the immediate work area and properly stored when no longer required or when each phase of the weatherization process is completed.

Individuals shall be equipped with a tool belt or vest, in which hand tools not in use are then properly stored and readily accessible when required.

When lead-based paint dust is generated during the course of work, the area **must** be cleaned no later than the end of each workday. All materials used in the debris collection system removed in a lead-safe manner, the area is thoroughly vacuumed using a HEPA vacuum, and wash and wipe down the area with a detergent solution.

6. Attic/Crawl Space Areas

Before weatherization activities are conducted, the following is required:

- a. Health and safety corrective action documented on the Job Order Sheet is to be completed.
- b. Specific instructions are read and understood. Further clarification may be required from the Energy Analyst.
- c. An adequate and safe means of access is provided.
- d. Each individual has accessed the area and become familiar with existing conditions.
- e. When possible, cut out holes required for venting before work is started, installing vents after weatherization activities are completed. This procedure provides both additional ventilation and light.
- f. Precaution shall be taken when working in areas with low clearance. Work in areas with less than 24-inch clearance may be waived.

7. Occupant & Worker Health and Safety

Agency crews and contractors will be aware that some individuals' health problems could be exacerbated by weatherization activities. For example, some clients can be sensitive to dust generated from the installation of cellulose insulation.

All reasonable precautions must be taken against performing work on homes that will subject workers or clients to health and safety risks. Before beginning work on the residence, the agency must take into consideration the health concerns of each occupant, the condition of the dwelling, and the possible effect of work to be performed on any particular health or medical condition of the occupants. When a person's health is fragile or the work activities would constitute a health or safety hazard, the occupants at risk will/can be required to leave the home is completed, or the work may be deferred until such time that the conditions or circumstances are more favorable. Costs associated with temporary relocation of at-risk occupants may

be allowed on a case by case basis with OHCS approval.

Weatherization services can be provided in a manner that minimizes risk to workers and clients. Although the Weatherization Assistance Program does not provide all the solutions, awareness of potential hazards is essential to providing quality services. Other energy-related hazards should be considered on a case-by-case basis.

V. Potential Hazard Conditions

During the weatherization process, often health & safety hazards are identified. When health and safety hazards are identified, the client must be notified in writing and the document, signed by the client, must be included in the file. The document must include the following:*

- Name and address
- Date of audit
- Date when client was informed of the hazard
- A clear description of the problem(s)
- The conditions under which the weatherization could proceed.
- The responsibilities of all parties involved. (Agency, Client, Landlord etc.)
- The clients' signature indicating they have been informed of all of their rights and options.

1. Biologicals

Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. Addressing bacteria and viruses is not an allowable cost. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers.

A sensory inspection is required. Clients must be informed of observed conditions.

If biological hazards are identified, inform the client of observed conditions. Complete a hazard notification form and what steps are necessary to correct deferral conditions.

Agency staff must be able to recognize conditions and when to defer.

Workers must be aware of safety requirements when coming in contact these conditions.

2. Combustion Appliances and Combustion Gases

Combustion appliances produce potentially hazardous carbon monoxide as a byproduct of incomplete combustion. Any appliance that burns a fuel is a combustion appliance: furnaces, water heaters, cooking ranges and ovens, fireplaces, woodstoves and pellet stoves, and some space heaters. Appropriate **combustion testing shall be performed both pre and post weatherization of**

any dwelling containing a combustion appliance as detailed in the Site Built Housing and Mobile Home Weatherization Specifications for the State of Oregon Weatherization Assistance Program Appendixes:

- a. Conduct worst case depressurization testing for all vented combustion appliances (excludes ranges and ovens).
- b. Measure draft in the furnace or water heater exhaust flue in worst case conditions (Excludes sealed combustion appliances).
- c. Measure carbon monoxide levels in the combustion appliance's exhaust flue or exhaust port(s) and also measure the ambient carbon monoxide level in the house.
- d. Diagnostic testing may reveal inefficient operation of a combustion appliance or potentially unsafe operating conditions which require corrective actions such as the cleaning, repair, or replacement of equipment. See section X and XIV for allowability of replacement/repair etc.
- e. Any home containing a combustion appliance shall have a carbon monoxide alarm installed on each floor of the house and have a carbon monoxide release form signed by the owner/occupant and placed in their file. Installation shall be in compliance with manufacturer's instructions. Consider installing a carbon monoxide detector in any home with an attached garage.
- f. Proper venting to the outside for combustion appliances, including gas dryers, is required. Correction of venting is allowed when testing indicates an existing problem.
- g. Unvented combustion space heaters must be removed from the home before any weatherization work is initiated.

If testing indicates that a combustion appliance needs repair, the repair shall be addressed And the appliance brought into compliance with all applicable standards. Pressure Balancing is an allowable H&S expense if needed to mitigate unsafe operating conditions.

Agency field staff must be trained in proper combustion testing protocol. If combustion hazards are identified, provide client with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.

3. Fire Hazards

Correction of fire hazards is allowed when necessary to safely perform weatherization. Potential fire hazards must be identified and documented in the client file. The client must be informed of any potential fire hazards identified.

4. Smoke, Carbon Monoxide Alarms, and Fire Extinguishers

CO Alarms: In homes with combustion appliances, weatherization agencies must install carbon monoxide (CO) alarms on each floor in dwelling units where these devices are nonexistent or inoperable. CO alarms must be, UL listed and installed in accordance with the manufacturer's recommendations. A carbon monoxide release form must be signed by the owner/occupant and placed in their file

Smoke alarms: Installation of smoke alarms is allowed where alarms are nonexistent or are inoperable. Smoke alarms must be, installed in accordance with the manufacturer's recommendations, listed in accordance with UL 217, comply with NFPA 72

Local agencies must provide the occupant(s) of the dwelling unit with verbal and written information regarding the following:

- Dangers of CO and smoke.
- How to operate and reset the CO and smoke alarms.
- How to read the CO alarm.
- How to respond when the CO alarm sounds.
- How to change the batteries of CO and smoke alarms.

Fire extinguishers: Supplying fire extinguishers is an allowable cost only when the client uses a solid fuel in the home. Fire extinguishers must be installed, according to the manufactures recommendations, be type ABC, UL listed, ≤ 10 lb and with a permanently affixed wall bracket to receive the extinguisher. The client must sign a written agreement to allow a fire extinguisher to be installed in the home within sight of the solid fuel burning heat system when standing at the unit. The agency must discuss and provide information on the use and upkeep of the extinguisher to the client.

5. Occupant Pre-existing or Potential Health Conditions

The occupants pre-existing health conditions may be worsened by installing weatherization measures. Sub-grantees must have the client read, sign and date a health & safety assessment either at the time of the initial application for services or during the initial site visit. The health & safety assessment must be included in the project file.

6. Mold & Moisture

Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures.

Mold testing & remediation is not an allowable expense.

A visual assessment is required on all projects to identify mold & moisture issues. Identification of existing or potential moisture problems shall be documented in the client file. Any moisture problems found **must** be pointed out and discussed with the client. The mold and mildew checklist must be filled out at the time of the audit, signed, and dated by the client.

A copy of the pamphlet, *A Brief Guide to Mold, Moisture, and Your Home*, **must** be given to the client and a signed confirmation of receipt **must** be present in the file.

Acceptable H&S expenditures to address moisture issues include:

- Minor roof repairs to stop moisture intrusion.
- Repairing minor plumbing leaks.
- Venting clothes dryers to the exterior of the home.
- Venting Exhaust fans to the exterior of the home.
- Installing vapor diffusion retarders (ground cover) to cover soil crawlspaces.
- Installing additional mechanical ventilation to the home.

All agency field staff must be trained in mold & moisture management.

Where severe Mold and Moisture issues cannot be addressed, deferral is required.

7. Drainage

Drainage consists of gutters, downspouts, extensions, flashing, sump pumps, landscape, etc. Major drainage issues are beyond the scope of the program. Any drainage repair issues must be treated as an incidental repair and are not an allowable health & safety expense. If the cost of the repair exceeds the cost effective threshold, then the project must be deferred.

Clients should be informed of the importance of proper maintenance and cleaning of drainage systems.

Agency staff should be aware of how to recognize drainage issues.

8. Code Compliance

Correction of preexisting code compliance issues is not an allowable cost other than where weatherization measures are being conducted. State and local (or jurisdiction having authority) codes must be followed while installing

weatherization measures. Condemned properties and properties where “red tagged” health and safety conditions exist that cannot be corrected under this guidance should be deferred.

Agency staff must be aware of code compliance that will be required for weatherization measures.

If any code compliance issues are identified, the client must be informed.

9. Pests

Pest removal is allowed only where infestation would prevent weatherization. Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses health and safety concern for workers. Screening of windows and points of access is allowed to prevent intrusion.

If pest hazards are identified, the client must be informed of observed condition and associated risks.

10. Injury Prevention of Occupants and Weatherization Workers

Measures such as repairing stairs and replacing handrails.

Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise these measures are not allowed. If hazards are identified, the client must be notified of observed hazards and associated risks.

VI. Indoor Air Quality

1. Ventilation

ASHRAE 62.2-2010 (or the most current) is required to be met to the fullest extent possible, when performing weatherization activity. Existing fans and blower systems should be updated if not adequate. The specifics of ASHRAE 62.2-2010 are addressed in the Oregon Site Built Weatherization Specifications. All actions related to ASHRAE 62.2-2010, including ancillary requirements are acceptable health & safety expenses.

When only baseload and/or client education are completed, ASHRAE 62.2-2010 requirements do not have to be met as long as the home has existing mechanical ventilation **OR**

the tested blower door number is above the minimum ventilation level for the structure.

The minimum ventilation level is the largest of the following calculations:

A) .35 x V x H x C

60

B) [(15 x # of bedrooms) + 15] x H x C

C) (15 x # Occupants) x H x C

V= Heated volume of the residence.					
H = # of stories:	1	1.5	2.0	2.5	3.0
H factor	1	.9	.8	.75	.7
C= 23					

All agency field staff must be proficient in the ASHRAE 62.2-2010 requirements.

Discuss and provide information to the client on function, use, and maintenance of ventilation system and components as applicable.

2. Asbestos

General asbestos removal is not approved as a health and safety weatherization cost. Encapsulation by an AHERA certified professional is allowed if the 15% H&S limit is not exceeded. If major asbestos problems are encountered, the client must be notified of the potential hazard and the project may be deferred.

If suspected asbestos containing material (ACM) is found, it must be assumed to be asbestos unless it is tested by an AHERA approved lab to ascertain the asbestos content. The cost of testing is an allowable H&S cost.

The Oregon Department of Environmental Quality (DEQ) allows for program staff obtain a sample of suspected ACM on residential projects that are 4 units or smaller. The DEQ requires an asbestos survey be performed by an AHERA certified individual on residential buildings that are 5 units or larger **and** the project involves demolition or renovation.

Care must be taken when sampling suspected ACM to prevent disturbing the asbestos fibers. When suspected ACM are blown or troweled in place, (i.e. vermiculite or ceiling texture) it is recommended to take more than one sample.

Follow the DEQ protocol listed below when sampling suspected ACM.

1. Wet down the material with a light water mist before taking the sample. This reduces the potential release of asbestos fibers.
2. Do not disturb the material any more than is necessary to take a small sample.
3. Place the sample in a clean, "air-tight" container such as a zip-lock bag or small glass jar.
4. Seal the container tightly.
5. Use a damp paper towel to clean up any material on the outside of the container or that might have spilled onto the floor.

6. Clearly label the container, stating where and when the sample was taken.
7. Send the sample to a laboratory for analyses. Make sure to take one sample for each different type of suspect material.

Any material that tests higher than 1% asbestos by weight is considered asbestos containing material.

In addition to taking care when sampling suspected ACM, care must be taken during the work and audit to prevent friable asbestos fibers from being disturbed. Blower door and duct leakage testing should be avoided. If a blower door is required, pressurize the home when testing. If there is no friable asbestos in the home, blower door and duct leakage testing is allowable.

When vermiculite is present, unless testing determines otherwise, the measure containing the vermiculite is to be deferred. Encapsulation by an AHERA asbestos control professional is allowed. However asbestos encapsulation costs are not reimbursable by the Oregon WAP. Removal is not allowed.

With regard to pipes, furnaces and other small covered surfaces, assume asbestos is present in the covering materials unless testing shows otherwise. Encapsulation is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing. Asbestos encapsulation is not a reimbursable cost within the Oregon WAP.

It is allowable, but not required, to remove cement/asbestos siding to install wall insulation as long as precautions are taken to prevent damage to the siding. Drilling, cutting or sanding of the siding is not allowed. Cement/asbestos siding is not considered friable. If asbestos siding is going to be removed, inform the client that suspected asbestos siding is present and how precautions will be taken. Workers removing siding must be trained in proper removal and replacement of siding.

Agency staff should be trained in recognizing asbestos hazards.

Clients must be informed that suspected asbestos is present and what precautions will be taken. Clients will be instructed not to disturb suspected asbestos containing material. Clients must be provided information and explanation on asbestos safety information and steps to correct deferral conditions (where applicable). The clients are required to sign a hazard notification form if test results are positive or asbestos is assumed.

3. Radon

Where there is a previously identified radon problem, work that would exacerbate this problem should be deferred. Radon testing or abatement is not an allowable

activity under Oregon’s weatherization program. However, costs associated with taking precautions in a dwelling known to have radon problems are allowable weatherization expenditures. These costs are allowable if an energy audit indicates that weatherization techniques would help in radon remediation.

Allowable precautions include:

- Where site conditions allow, installing a radon diffusion retarder (ground cover) over exposed soil is required in site built homes.
- Air sealing all crawlspace/conditioned space penetrations.
- Air sealing foundation cracks in homes with basements.
- Pressure balancing of the home.

If presence of radon is identified, a copy of the EPA’s informational pamphlet, “A Citizen’s Guide to Radon” must be provided to the client. Agency field staff must review the EPA’s informational pamphlets, “A Citizen’s Guide to Radon” and “Consumers Guide to Radon Reduction” to understand what radon is it, how it occurs and what factors may exacerbate the problem. Major radon problems should be referred to the appropriate local environmental organization or agency for mitigation or abatement. In extreme cases deferral may be an option.

4. Formaldehyde and Volatile Organic Compounds (VOCs)

Formaldehyde, tobacco smoke, thinners, solvents, cleaners, and any other substances capable of negatively impacting indoor air quality are identified through the On-site inspection process. Basic strategies such as proper storage and ventilation are used to eliminate problems. However, this is primarily an occupant responsibility. In some cases, deferral may be an option. Removal of pollutants is allowed and is required if they pose a risk to workers. If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred.

Agency staff must be able to recognize potential hazards and when removal is necessary. Clients must be informed of observed conditions and associated risks. Where applicable, the client must be given written information and explanation on safety and proper disposal of household pollutants

5. Spray polyurethane foam (SPF) is an effective insulation and air sealant material; however, exposures to its key ingredient, isocyanates, and other SPF chemicals that may be found in vapors, aerosols, dust, or on surfaces during and for a period of time after installation can cause adverse health effects such as:
 - Asthma, a potentially life-threatening disease
 - Sensitization, which can lead to asthma attacks if exposed again
 - Lung damage
 - Other respiratory and breathing problems
 - Skin and eye irritation

When installing SPF, follow these steps to control exposures:

- Review label and product information for ingredients, hazards, directions, safe work practices, and precautions
- Ensure safe work practices are followed to prevent eye, skin, and inhalation exposures during and after SPF installation
- When working outside the building envelope, check for pathways that will allow fumes to migrate into the conditioned space, isolate the area where foam will be applied, take precautions so that fumes will not transfer to the conditioned space. During use, perform a sensory inspection to ensure fumes do not enter the conditioned space. If fumes are detected, exhaust fumes to the outside of the home.
- When working inside the envelope, exercise caution when determining if occupancy of the dwelling is safe for unprotected occupants and workers based on the manufacturer's recommendation. Consider relocation of clients on a case by case basis.

Notify the client of plans to use two part foam and the precautions that may be necessary. Installers must be trained in proper use of specific SPF products being used. MSDS sheets are mandatory for any foam product used and a thorough understanding of the temperature sensitivity of the product in use is required.

VII. Lead-Based Paint

1. Poisonous Lead Based Paint

- a. Lead is a poison, most dangerous in the form of dust and fumes. Childhood lead poisoning is linked to reduced intelligence, low attention span, reading and learning disabilities, juvenile delinquency, behavioral problems, and other adverse health effects. Nearly one million children have excessive levels of lead in their blood, making lead poisoning a leading childhood environmental disease. Lead-based paint, along with the contaminated dust and soil it generates in housing, is the major remaining source of exposure and is responsible for most cases of childhood lead poisoning today. Levels of lead dust created by typical weatherization work (specifically, windows and doors) in older housing with lead-based paint are likely to be above EPA clearance levels, and therefore pose a substantial risk to children.

2. Lead Renovation, Repair, and Painting Program

- a. In April 2008, the Environmental Protection Agency (EPA) published the "Lead Renovation, Repair, and Painting Program" Final Rule (LRRPP Final Rule) which was implemented on April 22, 2010. This rule specifically cites Weatherization in

several places as an activity that falls under the rule, and thus, has a direct impact on how the Weatherization Program proceeds, especially in implementing Lead Safe Weatherization (LSW).

- b. It is important to remember that the Weatherization Assistance Program legislated purpose is to install energy efficiency measures in Weatherization clients homes, in order to lessen their energy cost burden. WAP is **not** funded to do lead-based paint abatement work, or to do lead-based paint hazard control or stabilization [1].
- c. In the process of weatherizing a home, workers sometimes encounter and have to disturb painted surfaces that are known or presumed to contain lead-based paint. When that happens:

Certified Renovator courses are generally created for renovation/ remodeling contractors and do not include all aspects of Lead Safe Weatherization (LSW) – the methods and techniques that reduce the spread of dust specific to typical Weatherization activities. Because Certified Renovator courses do not cover all LSW practices, OHCS requires ALL Certified Renovators be trained in LSW prior to working on pre-78 housing. Further, since OHCS requires LSW in all pre-78 housing, all crew workers must also be trained in LSW before working in pre-78 housing. Subgrantees must document in their files LSW was properly implemented (e.g., photos of the site, containment set up, etc.).

Note: subgrantees are reminded that all completed units must receive a final inspection to insure compliance with all regulations , which includes LSW procedures.

- c1. ECHO funds may be used to minimize the potential hazard associated with the specific painted surfaces that workers are directly disturbing in the course of installing an energy efficiency measure.
- c2. ECHO funds may **not** otherwise be used for abatement, stabilization, or control of the lead-based paint hazard that is in the house.
- c3. Work that is needed in conjunction with Weatherization activities that disturb surfaces having lead-based paint, to prevent the generation of lead-based paint dust and residues, is allowable as long as the work is associated with installing energy efficiency measures.
- d. Testing in a home for lead in a painted surface, when it is done, is limited to only those surfaces that will be disturbed. Testing for lead-based paint is **not** an allowable weatherization expense; except, when it is related to the installation of energy efficiency measures.
- e. When Weatherization crews disturb surfaces that may have lead-based paint, they **must** exercise caution to keep any dust that is generated from becoming a hazard to the clients, to themselves, or to their families.

- e1. They do this (safeguarding people from lead-based paint hazards) through a set of safe work protocols hereafter referred to as Lead Safe Weatherization (LSW). In the course of applying the principles of LSW to the installation of energy efficiency measures, Weatherization crews may perform some of the same procedures which are used in the control or stabilization of lead-based painted surfaces, but that will be only incidental to following LSW practices while accomplishing the weatherization of the home.
- f. Lead Safe Weatherization (LSW) is a set of protocols to be used when disturbing surfaces that may have lead-based paint, that will reduce and control the amount of lead dust and paint chips that are generated. The protocols, when designed and followed properly, address compliance with applicable regulations, including state and local regulations, and may reduce the risk of liability associated with the work.
 - f1. The protocols require training to gain an understanding of lead-based paint hazards and their harmful effects and to acquire skills in reducing the lead dust generated when painted surfaces are disturbed in the course of installing energy efficiency measures. The protocols involve setup and cleanup practices that contain the spread of the lead dust and debris (generated from the weatherization activities) when the work is finished.

3. DOE Weatherization Program Notice (WPN) Instructions

NOTE: The requirements for this section are taken from the "DOE Weatherization Program Notice 03-1"; "Program Notice 02-6."; "Weatherization Program Notice (WPN) 08-6" with Attachments 1 and 2; and "Weatherization Program Notice 09-6"

PURPOSE: To provide clarification and additional information to grantees as they implement WPN 08-6, Interim Lead-Safe Weatherization (LSW) Guidance. This guidance augments, but does not replace, WPN 08-6, and builds on the foundation provided in Weatherization Program Notice (WPN) 02-6, Weatherization Activities and Federal Lead Based Paint Regulations.

LSW must be applied to all pre-1978 housing, unless the house meets EPA's Final Rule Exemptions.

- a. **No Lead-Based Paint will be Disturbed.** LSW **must** be applied to all pre-1978 housing, unless there is existing evidence that the home has been certified as being lead-free or below the lead threshold limit (e.g., for paint containing lead below the regulated level, 1.0 mg/cm² or 0.5 percent by weight).
- b. One of the following methods must be used to determine the paint to be disturbed is not lead-based paint:
 - b1. Written determination by certified lead inspector or risk assessor; **OR**

- b2. Proper use of EPA-recognized test kit provided agencies (documenting manufacturer and model of test kit used, description and location of components tested, and test kit results)
 - (1) Tests must be performed by a Certified Renovator, per EPA final rule. Approved kits will be posted at: <http://www.epa.gov/lead/>
 - (2) A State-approved lead-based paint test protocol (e.g., XRF scans verifying absence of lead paint).
- c. Mobile Homes. Often, interiors of mobile homes were not painted but rather, paneling was applied to the surfaces. Therefore, pre-1978 mobile homes that were not painted by the manufacturer, occupant, landlord, or past owner of the unit before 1978, may be exempt from LSW.
 - c1. Weatherization Programs **must** verify the areas receiving weatherization services have never been painted, or were painted for the first time after 1978. If this is not verifiable, then LSW protocols **must** be followed.
 - c2. Painted exterior surfaces on pre-1978 units should not be drilled, scraped, sanded, or receive any other work that disturbs the paint.

4. Minimum Standards for LSW

Safe Work Practices **must** be implemented to minimize exposure to hazards for the customer and the workers, while allowing Weatherization to occur in a cost-effective manner and to not hinder production. The effort required will be based on the hazard, the work specifications, and customer health issues.

- a. CHECK: Federal, state, and local regulations.
 - a1. OSHA has rules for worker safety.
 - a2. States and local communities may have rules for waste disposal.
- b. To meet the LSW minimum standards, crews and contractors **must** follow the general principles of working clean and working wet. Best practices for working clean and working wet are available in the benchmark LSW procedures and curriculum and should be reviewed and consistently enforced on LSW jobs.

5. Requirements

- a. Weatherization Worker Protection LSW includes these procedures and safety precautions:

- a1. Wear personal protective gear specifically suited for the particular LSW measure. Use the National Institute for Occupational Safety and Health (NIOSH) approved respirators (at least ½ face) with HEPA filters.
 - a2. Use disposable overalls (with hood or a disposable painter’s cap), gloves (cloth, plastic, or rubber as appropriate), goggles, and disposable shoe/boot covers.
 - a3. Keep dust to a minimum and confine dust and paint chips to the work area.
 - a4. Clean up area during and after work.
 - b. Specific clean up procedures are required as outlined in the April 22, 2008, rule.
 - b1. During Weatherization, wash your hands and face frequently, particularly when leaving the work area and especially before leaving the area for the purpose of eating, drinking, or smoking.
 - b2. Before leaving a confined work area, remove your protective clothing and protective shoe/boot covers to avoid exposing others.
 - b3. Before leaving a confined work area, and before returning tools and equipment to vehicles, clean all tools to avoid exposing others and creating a lead-hazard to the next Weatherization job.
 - b4. Get annual medical exams to check blood lead levels. Do non-lead-related work if your blood lead level gets too high.
 - b5. Inform your employer if you develop signs of lead poisoning.
6. Client Notification
- a. For occupied homes, the Weatherization staff, crew, or contractor **must** have an adult tenant, homeowner, or homeowner’s representative sign an acknowledgement after receiving the EPA Renovate Right pamphlet.
 - b. The EPA Renovate Right pamphlet can also be sent by certified mail with receipt to be placed in the client file.
 - c. In multi-unit housing, the sub-grantee must:
 - c1. Provide written notice to each affected unit (notice **must** describe: general nature and locations of the planned renovation activities; the expected starting and ending dates; statement of how occupant can get the EPA Renovate Right pamphlet at no charge); **OR**

- c2. Post informational signs (signs **must** describe general nature and locations of the renovation and the anticipated completion date) and post the EPA Renovate Right pamphlet. (If pamphlet is not posted then agencies are required to provide information on how interested occupants can review a copy of the pamphlet or obtain a copy at no cost from the Weatherization Program).
 - c3. Delivery to owner/occupant. Owner's and/or occupant's signature with acknowledgment or certificate of mailing. The owner/occupant **must** acknowledge receipt of the EPA Renovate Right pamphlet prior to start of renovation that contains the address of unit undergoing renovation, name and signature of owner or occupant, and the date of signature. It **must** be in same language as "contract for renovation" for an owner occupied (or the same language as the lease for occupant of non-owner occupied) target housing.
 - d. If the Weatherization Program cannot get a signed acknowledgment (either the occupant is not home or refuses to sign the form), then the self-certification section of the form **must** be signed to prove delivery.
 - e. The acknowledgement form **must** be filed and remain with the client file for three (3) years from date of signature.
 - e1. In addition to providing a copy of the pamphlet to owners and occupants, designated local agency staff (e.g., intake specialist, auditor, crew chief) **must** discuss the hazards associated with lead-based paint and lead dust, and describe how they will conduct LSW in the home.
7. General LSW Work Practice Standards
- a. Crews and contractors **must** take steps to protect occupants from lead-based paint hazards while the work is in-progress using appropriate containment strategies.
 - b. Occupants, especially young children or pregnant women, may not enter the work site. Occupants are allowed to return only after the work is done and the home has passed a visual inspection.

VIII. Compliance With EPA's LRRPP Rule Requirements

- 1. To comply with EPA's LRRPP Rule requirements, specific verification inspection procedures are required as outlined in the April 22, 2008, rule.
 - a. Occupants' belongings **must** be protected from lead contamination. This can be done by removing them from the work area or covering them in protective bags and sealing it to prevent dust from getting on the items.
 - b. The work site **must** be set up to prevent the spread of leaded dust and debris.

- c. Warning signs **must** be posted at entrances to the worksite when occupants are present; at the main and secondary entrances to the building; and at exterior work sites. The signs **must** be readable from 20 feet from the edge of the worksite. Signs should be in the occupants' primary language, when practical.
- d. The work area **must** be contained. If containment cannot be achieved with occupants in the unit (e.g., work will take several days and involves the kitchen, bathrooms, or bedrooms that cannot be sealed off from use), occupants **must** move out of the unit or the work **must** be deferred until containment can be achieved.
- e. A Certified Renovator **must** supervise and inspect Weatherization work of any type and scale to ensure it is being done properly.
- f. Ensure containment does not interfere with occupant and worker egress in an emergency.

2. Prohibited Work Activities

The following are frequent questions related to prohibitions when working in pre-1978 homes:

- a. NEVER - use reusable cloth or fabric, such as a painter's drop cloth, as protective containment sheeting. Polyethylene and in some cases when working on the exterior garden fabric are the only acceptable protective containment sheeting and **must** never be reused.
- b. NEVER - use brooms and shop vacuums for cleanup. Wet cleaning and HEPA vacuums are the only acceptable methods for cleanup.
- c. NEVER – use a conventional shop vacuum with HEPA filters – only HEPA-designed vacuums are acceptable for LSW.
- d. NEVER - turn leaded paint into leaded dust by dry scraping or sanding (unless needed around electrical outlets) or grinding, abrasive blasting or planing.
- e. NEVER - use an open-flame torch or heat gun (above 1100°F) to remove paint or window glazing. Open flame/high heat methods to remove paint create fumes that are dangerous for workers to breathe. Small lead particles created by burning and heating also settle on surrounding surfaces and are very hard to clean up.

IX. Containment

Containment is anything that stops any dust or debris from spreading beyond the work area to non-work areas. The level of containment **must** be determined by the auditor/inspector or supervisor before work is assigned to a crew or contractor.

1. For 2010, to comply with EPA's LRRPP Rule requirements, a Certified Renovator will be required at the jobsite to assess and set up the containment site.
 - a. NEVER - allow residents and pets access to the work area while work is underway.
 - b. NEVER - open windows and doors allowing lead dust to float into other parts of the building or outside.
 - c. NEVER - allow furniture and other objects to remain in the Weatherization work area while Weatherization work is being performed unless they are covered and sealed in polyethylene sheeting or bags.
 - d. Every home and every specific weatherization measure is unique, therefore the level of containment required will be based on the hazards present, the age of the home, the scope of work activities, and any customer health issues. Although weatherization jobs require individual assessments, LSW work generally falls into two (2) levels of containment and the related standards are outlined below.

2. Level 1 Containment

Level 1 Containment is required in pre-1978 homes when *less than* 6 ft² of interior painted surface per room or 20 ft² of exterior painted surface will be disturbed.

- a. Level 1 Containment consists of methods that prevent dust generation and contains all debris generated during the work process. The containment establishes the work area which **must** be kept secure. Measures that *may* fall within this guideline include:
 - a1. Installing or replacing a thermostat.
 - a2. Drilling and patching test holes.
 - a3. Replacing HEPA filters and cleaning HEPA vacuums.
 - a4. Changing Furnace Filter.
 - a5. Removing caulk or window putty (interior).
 - a6. Removing caulk or window putty (exterior).
 - a7. Removing weather-stripping.

3. Level 2 Containment

Level 2 Containment is required when weatherization activities will disturb *more than* 6 ft² of interior surface per room, *or* 20 ft² of exterior surfaces in homes built prior to 1978.

- a. Level 2 Containment consists of methods that define a work area that will not allow any dust or debris from work area to spread.
- b. Level 2 Containment requires the covering of all horizontal surfaces, constructing barrier walls, sealing doorways, covering HVAC registers with approved materials, and closing windows to prevent the spread of dust and debris.
- c. Measures requiring Level 2 Containment *may* include:
 - c1. Drilling holes in interior walls.
 - c2. Drilling holes in exterior walls, removing painted siding.
 - c3. Cutting attic access into ceiling or knee walls.
 - c4. Planning a door in place.
 - c5. Replacing door jambs and thresholds.
 - c6. Replacing windows or doors.
 - c7. Furnace replacements.
- d. Level 2 Containment **must ALWAYS** be used where any of the following is conducted (even if the activities will disturb less than the hazard de minimis levels within the Level 1 Category):
 - d1. Window replacement.
 - d2. Demolition of painted surface areas.
 - d3. Using any of the following:
 - (1) Open-flame burning or torching;
 - (2) Machines to remove paint through high-speed operation without HEPA exhaust control; *or*

(3) Operating a heat gun at temperatures at or above 1100 degrees Fahrenheit.

4. Interior Cleaning Requirements

- a. Collect all paint chips and debris, and seal in heavy duty plastic bags.
- b. Mist, remove, fold (dirty side in) and tape or seal protective sheeting.
 - b1. Dispose of sheeting as waste.
- c. Plastic sheeting between non-contaminated rooms and work areas **must** remain in place until after cleaning and removal of other sheeting.
- d. HEPA vacuum or wet wipe walls from high to low, then HEPA vacuum remaining surfaces and wipe with a damp cloth.
- e. Clean 2 feet beyond the contained work area.
- f. Use disposable wipes or change cloths frequently.
- g. For carpet or rug, use HEPA vacuum with beater bar.
- h. HEPA vacuum and wet mop uncarpeted floors - two-bucket mopping method or wet mopping system.

5. Visual Inspection Procedure

- a. Conducted by Certified Renovator.
- b. Put on disposable foot covers before entering the work area.
- c. Make sure there is adequate lighting in the work area.
- d. Turn-on all of the lights or use a bright, white-light flashlight.
- e. Systematically look for dust and debris on every horizontal surface in the work area and 2 feet beyond.
- f. Work from the farthest area from the entry to the entry.
- g. Closely examine each surface.
- h. If you find visible dust or debris, then re-clean the work area and repeat step 4.
- i. Once you have carefully looked at all of the surfaces and found no dust or debris, proceed to the cleaning verification procedure, or clearance.

6. Cleaning Verification (CV) Procedure

- a. Wipe each window sill within the work area. Use a single wet disposable cleaning cloth per window sill.
- b. Wipe uncarpeted floors and all countertops with wet disposable cleaning cloths. Wipe up to a maximum of 40 ft² per cloth.
- c. Compare each wipe to the CV card. If the cloth matches or is lighter than the CV card, the surface has passed cleaning verification and no further action is required.
- d. If the cloth is darker than the CV card, re-clean and repeat the CV process.
- e. If the second wet cloth fails, wait 1 hour or until surfaces are dry, and then wipe with an electrostatically-charged white disposable cleaning cloth designed to be used for cleaning hard surfaces. This completes the cleaning verification.

7. Clearance Examination (Dust Clearance Testing) – Optional under the RRP Rule.

- a. Dust clearance testing may be performed to check the effectiveness of the cleaning efforts.
- b. Clearance is an option under the EPA Renovation, Repair, and Painting Rule and is required by the HUD Rule in many cases.
- c. Dust clearance testing is performed to check the effectiveness of cleaning efforts.
- d. In some cases, dust clearance testing may be required as part of “clearance” (a regulation defined process to ensure that a work area is not contaminated with leaded dust after work is completed). Cleaning verification need not be performed if dust clearance testing is required at the conclusion of a renovation. In such cases, dust clearance testing may only be performed by a Certified Lead Inspector, Risk Assessor, or Dust Sampling Technician. The Certified Renovation Firm is required to re-clean the work area until dust-lead levels in the work area meet the clearance standards. Some state, local, and tribal laws may require a clearance examination following renovation and remodeling work, to levels that differ from the Federal clearance standards. The selection of a CV or a clearance examination will be based on regulatory requirements or the renovation contract.

8. Exterior Cleanup Requirements

- a. Clean all surfaces in the work area until no visible dust, debris, or residue remains.
- b. Remove all dust and debris without dispersal, and seal in heavy plastic bags.
- c. Remove protective plastic sheeting and mist before folding it dirty side inward.
- d. Check your work.
- e. Focus on areas such as window sills, bare soil, and children's play areas.
- f. Look for dust, debris and paint chips.

9. Exterior – Check Effectiveness of Cleaning

- a. Visual inspection
- b. A Certified Renovator conducts a visual inspection after any cleaning.
- c. Determines if any visible dust and debris are present in and beyond the boundaries of the work area.
- d. If visible dust or debris is found, collect and dispose of all paint chips, dust, and debris identified during the visual inspection.
- e. After re-cleaning, the Certified Renovator conducts another visual inspection.
- f. When all areas pass, warning signs may be removed.

10. Disposal

- a. Place waste in heavy duty plastic bag.
- b. “Gooseneck seal” the bag with duct tape.
- c. Carefully dispose of waste in accordance with Federal and other regulations.
- d. HEPA vacuum the exterior of the waste bag before removing it from the work area.
- e. Store waste in a secure area.
- f. Waste may be disposed of as household waste.

11. Deferral Policy Related to Lead-Based Paint

In determining whether to defer or postpone weatherization work on a home that has tested positive for lead-based paint or is assumed to have lead-based painted surfaces, agencies should assess the following:

- a. Is the agency prepared to work with lead-based paint? Have workers received the required training in Lead Safe Weatherization protocols and, if the housing is also HUD financially assisted, Lead-based Paint Safe Work Practices? Is the necessary equipment, such as HEPA vacuum cleaners, available? Does the agency's liability insurance cover work with lead-based paint?
- b. What is the condition of the painted surfaces in the house? Is it so seriously deteriorated that a work person's presence just walking around the house is enough to stir up lead-based paint dust that is a threat to the clients and workers?
- c. What is the extent to which the specific energy efficiency measures determined by the audit will disturb painted surfaces? Will the disturbance generate dust in excess of OSHA minimums?
- d. Will the cost of doing Lead Safe Weatherization work represent a large portion of the total cost and exceed the amount allowed in the State's Health and Safety Plan?
- e. Using the above answers, the agency should conclude one of the following:
 - e1. Proceed with all the weatherization work, following Lead Safe Weatherization work practices; *or*
 - e2. Do some of the weatherization tasks and defer others; *or*
 - e3. Defer all of the weatherization work.
- f. Deferral means postponing work until the agency is prepared to work with lead-based paint, or until another agency has corrected the problem so that weatherization can be safely performed. Weatherization work should not be deferred solely because there is lead based paint in the home. Even in such a home, regular weatherization work that does not disturb painted surfaces and does not stir up lead-based paint dust can be done.

12. Funding of Lead Safe Weatherization

- a. ECHO funds may be used to pay for weatherization activities that disturb lead-based painted surfaces while installing energy efficiency measures or for case-by-case testing.
- b. ECHO funds shall not be used for abatement, stabilization or control of lead-based paint hazards, or routine entrance and clearance testing.

- b1. However, U. S. Department of Housing and Urban Development (HUD) funds such as Community Development Block Grant (CDBG), lead hazard control programs and Home Repair and Rehabilitation Program funds may be used to do this work.
- b2. Also, U. S. Department of Health and Human Services' (HHS) Low Income Home Energy Assistance Program (LIHEAP), may be used for certain expenses related to Lead Safe Weatherization.
- c. Specifically, for ECHO funding, agencies should budget Lead Safe Weatherization costs under Health and Safety as a separate cost category, excluded from the calculation of average cost per home. Lead Safe Weatherization costs include labor and materials. LSW costs must be itemized separately from measure costs.

13. Liability Insurance

OHCS recommends Pollution Occurrence Insurance (POI) for both agencies and subcontractors.

- a. POI is purchased for the lead hazard control work associated with weatherization and rehabilitation. It is likely that POI will need to be added to an agency or subcontractors general liability insurance coverage.
- b. If agencies or their subcontractors are performing Lead-based Paint Inspections or Risk Assessments; Errors and Omissions Insurance (EOI) is required. Errors and Omissions Insurance is purchased for lead-based paint inspections, risk assessments and clearance tests.
- c. Agencies can request a grace period of 6 months from OHCS for the insurance. However, agencies are required to either refer or defer weatherization work that will disturb surfaces that may contain lead-based paint, until they have insurance that will provide coverage for Lead Safe Weatherization work (and, in some cases involving repair and rehabilitation, Lead-based Paint Hazard Control work).
- d. The cost of this insurance is an allowable ECHO expense

14. Lead Safe Weatherization Training

OHCS will continue with the help of OECA to make training available for the Lead Based Paint Renovation, Repair and Painting Program (RRP).

- a. The Department of Human Services (DHS) and the Construction Contractors Board (CCB) are charged with operating the Renovation, Repair and Painting (RRP) program.
- b. For agencies and contractors with a CCB license, the program is a Certified Lead Based Paint Renovation (LBPR) Contractor License. CCB issues the annual license to contractors that have completed RRP training.
- c. Agencies that work on “target housing” and “child-occupied facilities” but are not required to have a CCB license should contact the Department of Human Services for information.
- d. OHCS requires all subgrantees, and their subcontractors to be certified firms. Firms **must apply** to the appropriate state agency for certification to perform weatherization.
 - d1. To apply, a firm **must** submit to either the CCB or DHS depending on the type of entity, an application, signed by an authorized agent of the firm and pay the correct amount of fees.
- e. Firms performing weatherization **must** ensure that:
 - e1. All individuals performing activities that disturb painted surfaces on behalf of the firm are either certified renovators or have been trained by a certified renovator.
 - e2. A certified renovator is assigned to each weatherization project and performs all of the certified renovator responsibilities.
 - e3. All weatherization measures completed by the firm are performed in accordance with the work practice standard of the Lead-Based Paint Renovation, Repair, and Paint Program.
 - e4. Pre-weatherization education requirements of the Lead-Based Paint, Repair and Painting Program are performed.
 - e5. The programs recordkeeping requirements are met.
- f. To become a certified renovator an individual **must** successfully complete an eight (8) hour initial renovator training course by an accredited training provider (training providers are accredited by EPA, or by an authorized state or tribal program). The course completion certificate serves as proof of certification.

- g. Certified renovators are responsible for ensuring overall compliance with the Lead-Based Paint Renovation, Repair, and Painting Program's for lead safe work practices at weatherization sites they are assigned. A certified renovator:
 - g1. **Must** use a test kit acceptable to EPA, when required by weatherization services, to determine whether components to be affected by the weatherization contain lead.
 - g2. **Must** provide on-the-job training to workers on the work practices they will be using in performing their assigned tasks.
 - g3. **Must** be physically present at the work site when warning signs are posted, while the work-area containment is being established, and while the work-area cleaning is performed.
 - g4. **Must** regularly direct work being performed by other individuals to ensure that the work practices are being followed, including maintaining the integrity of the containment barriers and ensuring that dust or debris does not spread beyond the work area.
 - g5. **Must** be available, either on-site or by telephone, at all times weatherization is being conducted.
 - g6. **Must** perform project cleaning verification.
 - g7. **Must** have with them at the work site copies of the initial course completion certificate and their most recent refresher course completion certificate.
 - g8. **Must** prepare required records.
- h. To maintain their certification, renovators and firms **must** be re-certified by the appropriate state agency as required.
 - h1. A firm **must** submit to the appropriate state agency, a completed application, signed by an authorized agent of the firm, and pay the correct amount of fees.
 - h2. Renovators **must** successfully complete a refresher training course provided by an accredited training provider.

15. Record Keeping Requirements

- a. All documents **must** be retained for three (3) years following the completion of the weatherization project.
- b. Records that **must** be retained include:

- b1. Reports certifying that lead-based paint is not present.
- b2. Records relating to the distribution of the lead pamphlet.
- b3. Documentation of compliance with the requirements of the Lead-Based Paint Renovation, Repair and Painting Program.

In the event OHCS identifies non-compliance issues appropriate sanctions may apply. If deficiencies are identified in subgrantee program operations, including compliance with LSW and EPA LRRPP requirements, OHCS will respond by working with the subgrantee to provide training and technical assistance to correct deficiencies. Sanctions may include but not be limited to withholding of funds, disallowance of costs, suspension of contract, or termination of contract. OHCS shall inform the subgrantee of any appeal rights and procedures to state and federal authorities in the sanction transmittal.

X. Building Structure

Building rehabilitation is beyond the scope of the Weatherization Assistance Program; however, program workers frequently encounter homes in poor structural condition. Dwellings whose structural integrity is in question should be referred to other funding sources such as HOME Investment Partnership program (HOME), Community Development Block Grant (CDBG), and U.S. Department of Agriculture, Rural Development (RD). Weatherization services may need to be delayed until the dwelling can be made safe for crews and occupants (see Section XV. Deferral Standards).

1. Incidental Repairs

Incidental repairs necessary for the effective performance or preservation of weatherization materials are allowed. When a repair activity is a component of an energy efficiency measure that is being installed then the installation and materials are part of the efficiency measure and are classified as incidental repair. The cost of incidental repairs must be included in the cost of the package of measures.

Examples of these limited repairs include:

- a. Replacing windows or doors that cannot be repaired or replaced cost effectively and must be replaced in order to ensure the effectiveness of the weatherization.
- b. Repairing water-damaged flooring as part of replacing a water heater.

2. Building Structure & Roofing

Building rehabilitation is beyond the scope of the Weatherization Assistance Program. Homes with conditions that require more than incidental repair should be deferred.

Agency staff must perform a visual inspection and ensure that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection.

The client must be notified of any structurally compromised areas identified and steps that are necessary to correct the deficiencies.

3. Electrical Issues

- a. Knob and Tube Wiring: Electrical inspection by a licensed electrician is required for each building component (attic, walls, floor) containing knob-and-tube wiring for which insulation is proposed, prior to insulation being installed. Repairs, if necessary, are to be made before insulation work can proceed.
 - a1. The electrician **must** certify the knob-and-tube wiring in each component is safe for insulation by the completion of the Knob-and-tube Inspection Form.
 - a2. A Copy of the form **must** be placed in the client's file.
 - a3. The cost of electrical inspection and minor electrical repairs must be charged to the Health and Safety category.
- b. Minor Repair: Minor electrical repairs are allowed where the health & safety of the occupant is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures.
- c. Serious electrical hazards exist when gross overloads are present. Should auditors and crews find such existing problems, they shall notify the owner. Weatherization measures that involve the installation of new equipment such as air conditioners, heat pumps, or electric water heaters can exacerbate previously marginal overload problems to hazardous levels.
 - c1. The problem shall also be noted in the client file.
 - c2. To the extent that these problems prevent adequate weatherization, the agency shall consider repairing them on a case-by-case basis.

Agency staff must be aware of how to identify basic electrical hazards.

Where applicable, discuss and provide information to the client on the hazards of overloading circuits, basic electrical safety/risks and over current protection.

4. Refrigerant Issues

- a. The replacement of air conditioners, approved since 1992, and the recently approved refrigerator replacements (Weatherization Program Notice 00-05), requires agencies to reclaim refrigerant per Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93.
 - a1. The appliance vendor, de-manufacturing center, or other entity recovering the refrigerant **must** possess EPA-approved section 608 Type I, or universal certification.
 - a2. Clients must be informed never to disturb refrigerant.

5. Windows & Doors

- a. Windows and doors **cannot** be completed as a health & safety measure using ECHO funds. However, the memo indicates that windows & doors can be done as an incidental repair.
- b. In order to qualify for replacement as an incidental repair, the door/window must meet the following:

A window or door must be severely damaged and irreparable before it can be replaced as an incidental repair. Photo documentation must be included in the file showing clear evidence that the door or window could not be repaired.

A window or a door replaced as a repair must be attributed to a measure that replacement will be impacting such as air infiltration. There must be adequate proof (blower door test) showing excessive infiltration in the home.

If a window or door meets the above criteria, the costs associated with the window/door must be grouped in REM/*Design*TM following the incidental repair protocol. If the overall SIR is 1.0 or better, ECHO funds may be used to replace the window/door.

XI. Heating and Air Conditioning

Heating system repair or replacement shall be identified and charged as either a Health and Safety (H&S) measure OR a Cost Effective measure. It cannot be both.

Before a heating system can be paid for under H&S, it shall be run through REM/*Design*TM and proven to be not cost effective.

- Any heating system replaced must be justified as not cost effective before it can be attributed to H&S.
- The entire heating system cost shall be attributed to **either** H&S or as a cost effective measure.

A copy of the REM/*Design*TM report deeming the heating system cost effective or not must be included in the file as documentation

Heating system repair and replacement is an allowable health & safety cost. All of Oregon is a heating climate. Oregon, as a whole, averages 5250 HDD. An operable heating system is required in all areas of the state.

It is up to the sub-grantee to determine whether or not a repair to a heating system or if replacing is the best option. Factors such as overall condition of the system, age of the system and efficiency of the system should be considered in making this decision. The following factors are acceptable reasons for a H&S repair or replacement:

- Inadequate heating capacity
- Non-existent heating system
- Red tagged or inoperable heating systems
- Heating systems that are operating in an un-safe manner

A properly operating heating system is important for the overall health and well-being of the household. Therefore, furnace tune-ups and routine maintenance are allowable health & safety expenses.

Although Oregon is predominately a heating climate, there are times during the year that all areas may require air conditioning for at risk clients. Air conditioning systems are not an allowable expense unless the client is determined to be at risk.

To be considered at risk, a client must have a signed and dated statement from their physician stating that either the clients' health will be jeopardized if they are exposed to extreme heat or that the clients' health is such that they cannot be exposed to outside pollutants without risk to their health. The signed statement from the clients' physician must be included in the file as documentation.

Documentation of the thought process and reasoning of repair/replacement of a heating system is required in the project file.

Discuss with client and provide information on appropriate use and maintenance of heating systems.

XII. Space Heats

1. Stand-alone Electric Space Heaters – Replacement of electric space heaters using ECHO funds is not allowed. OHCS will not preclude the use of other funding sources for the replacement or major repair of electric space heaters. Work on such systems may make local agencies liable for inadequate electric wiring and damages that may result. Removal is recommended whenever possible.

When electric space heaters are encountered, the agency should check circuitry to ensure an

adequate power supply for existing space heaters.

Clients must be informed of the hazards associated with electric space heaters and collect a signed waiver if removal is not allowed.

2. Un-vented Combustion Space Heaters – Removal of un-vented combustion space heaters is required. Inform client of dangers of unvented space heaters - CO, moisture, NO₂, CO can be dangerous even if CO alarm does not sound. If clients will not allow for removal of un-vented combustion space heaters, deferral of the project is required.

3. Vented Combustion Space Heaters - Vented combustion space heaters should be treated the same as furnaces. All required combustion testing listed in section V – 2 must be performed.

Agency staff must be trained in proper testing protocol.

XIII. Solid Fuel Heating (woodstoves, etc.)

Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary heating units is allowed.

Visual inspection of chimney, flue and combustion appliance zone depressurization testing is required.

Clients should be made aware of safety hazards associated with solid fuel heating including depressurization issues that can potentially cause back drafting.

Agency staff must be trained in proper techniques for testing worst case depressurization and inspection.

XV. Deferral Standards

The decision to defer work on a dwelling without providing weatherization services is difficult, but necessary in some cases. Many problems encountered in low income housing are beyond the scope of the Weatherization Assistance Program. Deferring weatherization work does not mean that assistance will never be available, but that any work **must** be postponed until the problems can be resolved, and alternative sources of help be found as necessary.

1. Agencies (subgrantees) should develop guidelines and a standardized form. The form should include:
 - a. Client's name and address.
 - b. Date of the audit\assessment.
 - c. Date the client was informed of deferring weatherization.

- d. A clear description of the problem, conditions under which weatherization could continue, the responsibility of all parties involved, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options.
2. Deferral Conditions May Include:
- a. The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
 - b. The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved in a cost-effective manner.
 - c. The house has sewage or other sanitary problems that would further endanger the client and the weatherization installers if weatherization work were performed.
 - d. The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building official or utilities.
 - e. Moisture problems are so severe they cannot be resolved under existing health and safety measures and minor repairs.
 - f. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.
 - g. The client is uncooperative, abusive, or threatening to crew, subcontractors, auditors, inspectors, or others who **must** work on or visit the house.
 - h. The extent and condition of lead-based paint in the house would potentially create further health and safety hazards.
 - i. In the judgment of the energy auditor, any condition exists which may endanger the health and/or safety of the work crew or subcontractor, the work should not proceed until the condition is corrected.

Agencies (subgrantees) are expected to actively pursue all alternative options on behalf of the client, including referrals, and use good judgment in dealing with difficult situations.

Appendix B – Training and Technical Assistance Plan

1.00 Training and Technical Assistance

Training must be tied into an overall certification program such as, Residential Energy Analyst Program (REAP) or Building Performance Institute (BPI) Certification Program; which is designed to bring the skill and competence level of all weatherization sub-grantee staff and contractors to a uniform standard or other trainings deemed to have an overall benefit to the program which include but are not limited to Mold and Mildew Training, Lead Renovation and Repair Training, OSHA Training, CPR/First Aid Training

1.01.1 Allocation of T&TA Funds

OHCS will allocate T&TA Training Funds to sub-grantees to meet their training and technical assistance needs. Sub-grantees need not notify OHCS when they spend T&TA “Training” Funds as long as they are spent on the following:

- A. Registration costs for conferences, meetings, workshops and other related energy functions.
- B. Travel, lodging, meals and parking, to attend activities identified in **1.05.1 Allocation of T&TA Funds, A.** above.
- C. Salary and fringe costs for direct agency staff while attending approved training functions.
- D. The purchase of specialized equipment or tools. Not to include equipment or tools used in normal day-to-day weatherization activities are to be purchased with T&TA funds. Such items should be purchased with “Program” or other funds.
- E. Subscriptions to magazines, newsletters and memberships.
- F. Other incidental functions, activities or events not mentioned in 1.05.1 Allocation of T&TA Funds, A. – D. above.

1.01.2 Travel Regulations

Each sub-grantee will have in place, travel regulations that include:

- A. Travel authorization.
- B. Reimbursement.
- C. Advances.
- D. Per diem rates.

1.01.3 Availability of T&TA funds

OHCS will allocate no more than five percent (5%) of ECHO Funds to agencies for the purpose of Training and Technical Assistance.

1.02.0 Peer Exchange Protocols

The following protocol will be used by agencies when participating in peer exchange.

Stable agency's can and Vulnerable agencies will participate in an annual peer exchange

- a. Agencies can visit another agency of their choice. It is encouraged that they seek an agency that has a new or interesting aspect to their program such as a new weatherization measure, technique or technical application.
- b. Agencies may not visit the same agency as prior year without OHCS permission.

Selecting Units to Visit

- a. At least three (3) weeks prior to the peer exchange, the host agency and visiting agency will communicate and discuss visiting agencies topics of interest.
- b. At least 10 days prior to the visit, monitoring agency will notify host agency of four (4) jobs. Jobs selected based upon a previous conversation(s) concerning visiting agency's topic of interest.
- c. Host and visiting agency will schedule a mutual and convenient time for the peer exchange.
- d. Host agency will schedule any field visits.

Elements of Exchange Visits

- a. Discuss new and innovative techniques and applications; administrative procedures' equipment use; applications diagnostic testing techniques; and use of testing equipment.
- b. Job site inspection (all four (4) units):
 1. Discuss work and make notes with host agencies representative.

2. Review installation techniques; testing procedures; benefits of application; as well as related benefits to home and occupant.

Discuss Observations

- a. Items of interest should be discussed at length while on site; therefore, both agencies have a clear understanding of the issue, techniques, tools used, and methods.

Exit Interview

- a. Staff and program coordinator to discuss visit, roundtable applications, techniques, testing protocol, ideas and improvements.

Report to OHCS

- a. Visiting agency to draft summary report of visit.
- b. The report will include:
 1. Topics and discussion.
 2. A narrative letter discussing observations, ideas, what they learned, and any differences they plan to implement into their program.
- c. Visiting agency will submit a report to OHCS within 15 working days.

2.00 Evaluation

OHCS continually evaluates the effective utilization of T&TA Funds through:

- A. The monitoring process.
- B. Sub-grantee input.
- C. Quality of work.

Information from these sources above have shown that OHCS T&TA activities have had a beneficial effect on statewide weatherization services provided to low-income consumers. OHCS will continue to evaluate T&TA activities and expenditures in an effort to ensure that the level of technical expertise necessary to provide efficient, effective service to low-income consumers is maintained.

Appendix C – Spend Down Policy

- At 25% percent of the expenditure period an agency should have 25% of their budget spent or committed (in progress).
 - If the agency is not within 80 percent of plan (i.e. has spent or committed less than 20 percent of their available funds) at six months then OHCS will contact the agency coordinator, fiscal representative, and Executive Director in writing. OHCS will be seeking, at this point, some “low level” explanation of the situation. Possibly the agency is doing fine; possibly there are some problems beginning to emerge.
- At 50% percent of the expenditure period an agency should have 50% of their budget spent or committed.
 - If, at this time, the agency is not within 80 percent of plan (i.e. has spent or committed less than 40 percent of their available funds) at one year then OHCS will contact the agency coordinator, fiscal representative, and Executive Director in writing. OHCS will be seeking, at this point, some “low level” explanation of the situation. Possibly the agency is doing fine; possibly there are some problems beginning to emerge.
- At 75% percent of the expenditure period an agency should have 75% of their budget spent or committed.
 - If, at this time, the agency is not within 80 percent of plan (i.e. has spent or committed less than 60 percent of their available funds) then OHCS will contact the agency coordinator, fiscal representative, and Executive Director in writing requesting that a detailed plan outlining the correction of this under-spending be submitted to OHCS within two weeks. If this plan is either not submitted, or is deemed by OHCS to be insufficient to correct the problem, then OHCS will be authorized to reallocate “X” percent (percentage to be determined) of that agency’s plan budget to other agencies via an agreed upon reallocation process.
- At 90% percent of the expenditure period an agency should have 90% of their budget spent or committed.
 - If, at this time, the agency is not within 90 percent of plan (i.e. has spent or committed less than 81 percent of their available funds) then OHCS will contact the agency coordinator, fiscal representative, and Executive Director in writing requesting that a detailed plan outlining the correction of this under-spending be submitted to OHCS within two weeks. If this plan is either not submitted, or is deemed by OHCS to be insufficient to correct the problem, then OHCS will be authorized to reallocate “X” percent (percentage to be determined) of that agency’s plan budget to other agencies via an agreed upon reallocation process.

Appendix D – Measure Lives

Effective immediately, effective useful lives (EUL) of measures for all ECHO funded projects will be aligned with the Regional Technical Forum EUL. **Any project that utilizes USDOE funds in any amount are required to utilize the DOE EUL for all measures regardless of the funding source on individual measures.**

Below are the new EUL's separated by DOE and Non-DOE funds. Measure lives are now split between Mobile homes and site built. Although DOE measure lives are identical for both, the RTF assigns different measure lives for mobile homes as opposed to site built.

Measure	Effective Useful Lives			
	Non- DOE Funds		DOE Funds	
	Mobile Homes	Site Built	Mobile Homes	Site Built
Ceiling Insulation	25	45	25	25
Floor Insulation	25	45	25	25
Wall Insulation	25	45	25	25
Rigid Insulation	25	45	25	25
Steel Doors	20	20	20	20
Mobile Home Doors	15	NA	15	NA
Rim Joist Insulation	NA	45	NA	25
Windows	25	25	25	25
Storm Windows	20	20	20	20
Lighting	7	7	7	7
Water Heaters	15	15	10	10
Duct Sealing	20	20	20	20
Duct Insulation	20	20	15	15
Refrigerators	20	20	15	15
Infiltration	20	20	18	18
Furnace Replacement	20	20	18	18
Ductless Heat Pump	20	20	18	18
Ducted Heat Pump	20	20	18	18

With this change, it will be vital that coordinators make sure that projects funding source aligns with the appropriate EUL. If funding sources are changed on a project, all requirements of the new grant funding must be met. The REM/Design improvement analysis must include the proper EUL for the funding source and all SIR requirements must be met. This will also apply to any spreadsheet calculator being utilized to replace refrigerators.

The mortgage discount rate of 3.0 will remain unchanged for all grants.