

E-mail MEMO:
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MEMO

TO: Agency Directors, Fiscal Officers, WAP Coordinators & ACE Members
FROM: Dan Elliott
RE: ARRA WAP State Plan 2009-12
DATE: March 2009

The Public Hearing date for the Oregon ARRA WAP State Plan for 2009-12 has been set for

Thursday, April 2nd, 2009
10:00 AM to 12:00 AM

The hearing will take place at OHCS offices at the:

North Mall Office Building
Room 124a ,
725 Summer Street NE, Salem, Oregon

A copy of the proposed state plan will be available to view on OHCS Web site after March 23, 2009. I encourage you to read the Plan and to make comments either in person, at the Public Hearing or in writing (e-mail is acceptable). Please also note that all associated exhibits and appendix will be made available on the web-site for convenience of reference. Part 1.01 Annual File budget allocation will be placed as a holder until final budget is awarded and new sub-grantees approved.

Written comments will be accepted if postmarked by April 10, 2009.

Please address all comments regarding the Plan to me at the address below.

Dan.Elliott@hcs.state.or.us

Oregon Housing & Community Services
725 Summer St NE, Suite B
Salem, Oregon 97301-1266
503-986-2016 or FAX 503-986-0996

**STATE OF OREGON
WEATHERIZATION ASSISTANCE PLAN
FOR THE UNITED STATES
DEPARTMENT OF ENERGY
American Recovery and Reinvestment Act**

April 15, 2009 – March 31, 2012

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

**Victor Merced, Director
Rick Crager, Deputy Director
Pegge McGuire, Community Resources Division Administrator
Dan Elliott, Weatherization Program Manager**

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DRAFT

Introduction

The ARRA Weatherization Assistance Program State Plan for Oregon is based on the rules contained within 10 CFR Part 440; 10 CFR Part 600; and all subsequent guidance contained in DOE ARRA 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.waptac.org

1.0 Part I – Annual File

1.01 Overall Main Budget with Allocations

| ARRA | AGENCY | TOTAL | ADMIN | PROGRAM |
|--------------------------------|--------|----------------------|---------------------|----------------------|
| ACCESS | | \$ 1,546,101 | \$ 77,305 | \$ 1,468,796 |
| CAO | | \$ 2,719,454 | \$ 135,972 | \$ 2,583,482 |
| CAPECO | | \$ 1,058,667 | \$ 52,933 | \$ 1,005,734 |
| Umatilla | | \$ 103,554 | \$ 10,355 | \$ 93,199 |
| CAT | | \$ 955,952 | \$ 47,797 | \$ 908,155 |
| Clackamas | | \$ 2,037,533 | \$ 101,876 | \$ 1,935,657 |
| Neighbor Impact | | \$ 1,484,782 | \$ 74,239 | \$ 1,410,553 |
| Warm Springs | | \$ 235,764 | \$ 23,576 | \$ 212,188 |
| Community Connections | | \$ 950,343 | \$ 47,516 | \$ 902,807 |
| CSC | | \$ 1,954,997 | \$ 97,748 | \$ 1,857,249 |
| Siletz | | \$ 113,725 | \$ 11,372 | \$ 102,353 |
| HMCAA | | \$ 1,134,226 | \$ 56,711 | \$ 1,077,525 |
| Burns-Pauite | | \$ 24,966 | \$ 2,496 | \$ 22,470 |
| Lane Co. | | \$ 2,751,507 | \$ 137,575 | \$ 2,613,932 |
| Klamath Tribe | | \$ 196,010 | \$ 19,601 | \$ 176,409 |
| Mid Columbia | | \$ 893,574 | \$ 44,678 | \$ 848,896 |
| Mid Willamette | | \$ 2,892,250 | \$ 144,612 | \$ 2,747,638 |
| Mid Willamette Native American | | \$ 144,240 | \$ 14,424 | \$ 129,816 |
| Multnomah Co. | | \$ 4,332,057 | \$ 216,602 | \$ 4,115,455 |
| OHDC | | \$ 1,064,498 | \$ 53,224 | \$ 1,011,274 |
| ORCAA | | \$ 894,889 | \$ 44,744 | \$ 850,145 |
| UCAN | | \$ 1,827,366 | \$ 91,368 | \$ 1,735,998 |
| Y-CAP | | \$ 730,406 | \$ 36,520 | \$ 693,886 |
| Y-CAP Native American | | \$ 106,354 | \$ 10,635 | \$ 95,719 |
| Sub-Total | | \$ 30,153,215 | \$ 1,553,879 | \$ 28,599,336 |
| OHCS Admin | | \$ 1,587,011 | | |
| SUBS Admin | | \$ 1,553,879 | | |
| Program 2008-09 | | \$ 28,599,336 | | |
| OHCS T&TA | | \$ 3,386,005 | | |
| Sub-Grantee T&TA | | \$ 3,386,005 | | |
| TOTAL | | \$ 38,512,236 | | |

1.02 Subgrantees

Oregon's low-income weatherization network is made up of 22 subgrantees each with their own service area. The subgrantees are comprised of 17 community action agencies; housing authorities; area agencies on aging; senior centers; a development corporation; and 5 tribes. Most of the weatherization subgrantees have over 20 years experience in delivering weatherization services.

The Oregon Energy Coordinators Association Inc. (OECA) is a statewide association made up of weatherization and energy assistance coordinators from a majority of the subgrantees. OECA serves as standing committee on energy issues for the Oregon Community Action Partnership of Oregon. OECA is also the primary training contractor for OHCS WAP and has been instrumental in helping to implement Oregon's energy deregulation legislation for the benefit of public purposes and low-income people.

The following is a list of Oregon's weatherization subgrantees. Note that DOE Native American funds shown below are if Option #2 is selected (see Section 2.12.6) and funds are not expended under Option #1.

| | | | |
|-----------------------------|-------------|----------|------------------------|
| Name: | ACCESS Inc. | Contact: | Joe Lorenz |
| Address: | PO Box 4666 | Phone: | 541-779-6691 |
| City: | Medford | FAX: | 541-779-8886 |
| State: | Oregon | e-mail: | jlorenz@access-inc.org |
| Zip: | 97501 | | |
| Congressional district(s): | | | 2 & 4 |
| % of subgrantee allocation: | | | 7.8% |
| Funding: New DOE | | | \$ Admin and \$Program |
| Units to be Weatherized: | | | |
| County(s) served: | | | Jackson and Josephine |

| | | | |
|-----------------------------|-----------------|----------|-----------------------------|
| Name: | Neighbor Impact | Contact: | Colleen Neel |
| Address: | 2303 SW First | Phone: | 541-548-2380 |
| City: | Redmond | FAX: | 541-548-6031 |
| State: | Oregon | e-mail: | colleenn@NeighborImpact.org |
| Zip: | 97756 | | |
| Congressional district(s): | | | 2 |
| % of subgrantee allocation: | | | 4.9% |
| Funding: New DOE | | | Units to be Weatherized: |
| New DOE-Native American | | | \$ |
| Units to be Weatherized: | | | TBA |
| County(s) served: | | | Deschutes, Jefferson, Crook |

Name: Community Action Organization
Address: 1001 SW Baseline Contact: Joan Ellen Jones
City: Hillsboro Phone: 503-693-3258
State: Oregon FAX: 503-648-4175
Zip: 97133 e-mail: jjoans@caowash.org
Congressional district(s): 1
% of subgrantee allocation: 9%
Funding: New DOE \$
Units to be Weatherized:
County(s) served: Washington

Name: Community Action Programs of East Central Oregon
Address: 721 SE 3rd Suite D Contact: Donna Kinnaman
City: Pendleton Phone: 541-278-5671
State: Oregon FAX: 541-276-7541
Zip: 97801 e-mail: dkinnaman@ucinet.com
Congressional district(s): 2
% of subgrantee allocation: 3.5%
Funding: New DOE
Units to be Weatherized:
New DOE-Native American
Units to be Weatherized: 3 (See section 2.12.6 (b) (1 – 3)
County(s) served: Gilliam, Morrow, Wheeler, Umatilla

Name: Community Action Team
Address: 125 N 3rd St Contact: Beverly Danner
City: St Helens Phone: 503-325-8098
State: Oregon FAX: 503-325-6738
Zip: 97051 e-mail: beverlyd@pacifier.com
Congressional district(s): 1
% of subgrantee allocation: 3.2%
Funding: New DOE
Units to be Weatherized:
County(s) served: Columbia, Clatsop, Tillamook

Name: Community Connections of Northwest Oregon
Address: 104 Elm Street Contact: Linda Roberts
City: LaGrande Phone: 541-963-3186
State: Oregon FAX: 541-963-3187
Zip: 97050 e-mail: Linda@ccno.org
Congressional district(s): 2
% of subgrantee allocation: 3.2%
Funding: New DOE Units to be Weatherized:
County(s) served: Grant, Wallowa, Baker

Name: Community Services Consortium
Address: 545 SW 2nd St Suite A Contact: Ron Haynes
City: Corvallis Phone: 541-752-1010
State: Oregon FAX: 541-752-6025
Zip: 97330 e-mail: rhaynes@csc.gen.or.us
Congressional district(s): 4 & 5
% of subgrantee allocation: 6.5%
Funding: New DOE
Units to be Weatherized:
New DOE-Native American
Units to be Weatherized: 3 (See section 2.12.6 (b) (1 – 3)
County(s) served: Linn, Benton, Lincoln

Name: Harney-Malheur Community Action Agency
Address: 17 South Alder Contact: Howard Weathers
City: Burns Phone: 541-573-6024
State: Oregon FAX: 541-573-6025
Zip: 97720 e-mail: hcscwx@centurytel.net
Congressional district(s): 2
% of subgrantee allocation: 1.3%
Funding: New DOE
Units to be Weatherized:
County(s) served: Harney, Malheur

Name: Oregon Human Development Corporation
Address: 9620 SW Barbur, Ste 110 Contact: Emerio Landeros
City: Portland Phone: 541-881-1491
State: Oregon FAX: 503-245-9602
Zip: 97219 e-mail: elanderos@ohdc.org
Congressional district(s): 2
% of subgrantee allocation: 3.5%
Funding: New DOE
Units to be Weatherized:
County(s) served: Klamath, Lake

Name: Burns-Paiute Tribe

Address: Contact: Jody Hill
City: Burns Phone:
State: OR. FAX:
Zip: 97720 e-mail:
Congressional district(s): 2
% of subgrantee allocation:
Funding: New DOE Units to be Weatherized: TBA
County(s) served: Harney,Burns-Paiute Reservation

Name: Mid-Columbia Community Action Agency
Address: PO Box 901 Contact: Bill Colmer
City: The Dalles Phone: 541-298-5131
State: Oregon FAX: 541-298-5141
Zip: 97058 e-mail: wx@mccac.com
Congressional district(s): 2
% of subgrantee allocation: 2.9%
Funding: New DOE
Units to be Weatherized:
County(s) served: Hood River, Wasco, Sherman

Name: Mid-Willamette Valley Community Action
Address: 2475 Center St NE Contact: Joan Cote
City: Salem Phone: 503-585-8491
State: Oregon FAX: 503-585-8462
Zip: 97301 e-mail: cotej@mwvcaa.org
Congressional district(s): 5
% of subgrantee allocation: 9.5%
Funding: New DOE
Units to be Weatherized:
New DOE-Native American
Units to be Weatherized: (See section 2.12.6 (b) (1 – 3)
County(s) served: Marion, Polk

Name: Oregon Coast Community Action
Address: 1955 Anderson #23 Contact: John Huntsman
City: Coos Bay Phone: 541-267-7117
State: Oregon FAX: 541-888-7027
Zip: 97420 e-mail: jhuntsman@uci.net
Congressional district(s): 4
% of subgrantee allocation: 3%
Funding: New DOE
Units to be Weatherized:
Funding: DOE-Rollover \$ 0 Admin and \$ 0 Program

Units to be Weatherized: 0
Funding: PVE \$ 0 Admin and \$ 0 Program
Units to be Weatherized: 0
County(s) served: Coos, Curry

Name: Yamhill County Community Action Programs
Address: PO Box 621 Contact: Kraig Ludwig
City: McMinnville Phone: 503-472-0457
State: Oregon FAX: 503-472-5555
Zip: 97801 e-mail: kludwig@onlinemac.com
Congressional district(s): 1
% of subgrantee allocation: 2.4%
Funding: New DOE
Units to be Weatherized:
New DOE-Native American
Units to be Weatherized: 3 (See section 2.12.6 (b) (1 – 3)
County(s) served: Yamhill

Name: Clackamas County Weatherization
Address: PO Box 2950 Contact: Jacque Meier
City: Oregon City Phone: 503-650-3339
State: Oregon FAX: 503-635-8946
Zip: 97045 e-mail: JacqueM@co.clackamas.or.us
Congressional district(s): 3 & 5
% of subgrantee allocation: 6.7%
Funding: New DOE
Units to be Weatherized:
County(s) served: Clackamas

Name: Housing Authority & Community Services of Lane Co.
Address: 177 Day Island Rd Contact: Craig Satein
City: Eugene Phone: 541-682-7473
State: Oregon FAX: 541-682-3411
Zip: 97401 e-mail: Csatein@HACSA.us
Congressional district(s): 4
% of subgrantee allocation: 9.1%
Funding: New DOE Units to be Weatherized:
Units to be Weatherized: 0
County(s) served: Lane

Name: Klamath Tribe
Address: PO Box 436 Contact: Roberta Sexton
City: Chiloquin Phone: 541-783-2219

State: Oregon
Zip: 97624
Congressional district(s):
% of subgrantee allocation:
Funding: New DOE
Units to be Weatherized:
County(s) served:

FAX: 541-783-2029
e-mail: roberta.sexton@klamathtribes.com
2
.06%
6
Parts of Klamath Co

Name: Multnomah County
Address: 421 SW 6th Suite 200
City: Portland
State: Oregon
Zip: 97204
e-mail: tom.a.brodbeck@co.multnomah.or.us
Congressional district(s):
% of subgrantee allocation:
Funding: New DOE
County(s) served:

Contact: Tom Brodbeck
Phone: 503-988-6295 ext 26057
FAX: 541-783-2029
1 & 3
14.3%
Units to be Weatherized:
Multnomah Co.

Name: Umpqua Community Action Network (UCAN)
Address: 2448 W. Harvard Blvd.
City: Roseburg
State: Oregon
Zip: 97470
Congressional district(s):
% of subgrantee allocation:
Funding: New DOE
Units to be Weatherized:
County(s) served:

Contact: Chris Schoopman
Phone: 541-672-3446
FAX: 541-672-8226
e-mail: chriss@ucancap.org
4
3.3%
Douglas Co

NOTE: These are estimates only.

1.03 Estimated Production Schedule

| | Annual Total |
|---|--------------|
| Weatherized Units (total)..... | 4969 |
| Units By Type | |
| Owner-Occupied Single Family..... | 1689 |
| Single-Family Rental..... | 685 |
| Multi-Family (5 or more units per building & Geographical-Multi)..... | 571 |
| Owner-Occupied Mobile Home..... | 1771 |
| Renter-Occupied Mobile Home..... | 198 |
| Shelter..... | 55 |
| Units by Occupancy | |
| Elderly-Occupied..... | 2086 |
| Persons with Disabilities-Occupied..... | 1639 |
| Native American-Occupied..... | 278 |
| Children-Occupied..... | 57 |
| Other Unit Types | |
| Reweatherized Units..... | TBD |
| Low-Cost / No-Cost..... | TBD |
| Total People Assisted | |
| Elderly..... | 3677 |
| Persons with Disabilities..... | 3279 |
| Native Americans..... | 457 |
| Children..... | 2444 |

1.04 Energy Savings

Historically Oregon had used an estimate of energy savings based on a Bonneville Power Administration study that says a weatherized home will save 8.5 MBTUs per year. Using this energy savings factor it would be expected that Oregon would achieve 42,236 MBTUs during the 2009-12 program.

DOE cites the 1996 Meta-evaluation that suggests a much higher rate of energy savings from weatherization. In this study a weatherized home saved an average of 31.7 MBTUs based on all fuel types. If we apply this average to Oregon's 4969 projected homes to be weatherized, the resulting energy savings climbs to 157,517 MBTUs.

1.05 Administrative

To meet the intent of the Recovery Act funding, it may be necessary to add additional subgrantees to this Program.

a) OHCS shall ensure that:

- (1) Each subgrantee is a CAA or other public or nonprofit entity;
- (2) Each subgrantee is selected on the basis of public comment received during a public hearing conducted pursuant to Section 440.14(a) and other appropriate findings regarding:

Weatherization Program Notice 09-1B13

- (i) The subgrantee's experience and performance in Weatherization or housing renovation activities;
 - (ii) The subgrantee's experience in assisting low-income persons in the area to be served; and
 - (iii) The subgrantee's capacity to undertake a timely and effective Weatherization Program.
- (3) In selecting a subgrantee, preference is given to any CAA or other public or nonprofit entity which has, or is currently administering, an effective program under this part or under title II of the Economic Opportunity Act of 1964, with program effectiveness evaluated by consideration of factors including, but not necessarily limited to, the following:
- (i) The extent to which the past or current program achieved or is achieving weatherization goals in a timely fashion;
 - (ii) The quality of work performed by the subgrantee;
 - (iii) The number, qualifications, and experience of the staff members of the subgrantee; and
 - (iv) The ability of the subgrantee to secure volunteers, training participants, public service employment workers, and other Federal or State training programs.

(b) OHCS shall ensure that the funds received under this part will be allocated to the entities selected in accordance with paragraph (a) of this section, such that funds will be allocated to areas on the basis of the relative need for a weatherization project by low income persons.

(c) If DOE finds that a subgrantee selected to undertake Weatherization activities under this part has failed to comply substantially with the provisions of the Recovery Act or this part and should be replaced, such finding shall be treated as a finding under Section 440.30(i) for purposes of 440.30.

(d) Any new or additional subgrantee shall be selected at a hearing in accordance with Section 440.14(a) and upon the basis of the criteria in paragraph (a) of this section.

(e) OHCS may terminate financial assistance under a subgrant agreement for a grant period only in accordance with established State procedures that provide to the subgrantee appropriate notice of the State's reasons for termination and afford the subgrantee an adequate opportunity to be heard.

1.06 Monitoring Activities

1.06.1 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 will see to it 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.

The comprehensive monitoring must include review of client files and subgrantees records, as well as inspection of *at least* 5 percent of the completed units or units in the process of being weatherized.

If inspection reveals quality control or other problems, OHCS shall increase the number of units monitored and frequency of inspection until all issues are resolved. Detailed review of subgrantee records and inspections must be maintained by the sub-grantee and be available at the request of OHCS and DOE monitors.

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

1.06.2 Peer Exchange

Subgrantees will receive funds identified as "T&TA Peer Exchange." These funds are designed to cover the cost of time, travel, lodging and meals of those involved in Peer Exchange .

- a. The cost of Peer Exchange visits have 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 must submit a proposal plan in their CRD workplan with OHCS that identifies the agencies(s) they have made arrangements with to visit.
- d. Agencies will follow the Peer Exchange Protocol.(See Appendix A)

1.06.3 OHCS Monitoring of Sub-Grantees

- 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 will be sufficient reasons 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 HCS. The following items shall be reviewed at a minimum.
 - **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.
 - **Inventory System** - Including but not limited to purchasing system, controls, perpetual inventory, financial records and other records deemed necessary by the reviewer.
 - **Client Files** - For accuracy, completeness, demographic information and proper reflections of work needed/work completed, client eligibility and inspection of work.
 - **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.
- c. **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, signed by the subgrantee's inspector shall be placed in each job file.
- d. **Subgrantee Review** - If deficiencies in agency program operations indicate non-compliance with OHCS CRD Work Plans, Master Grant and/or federal rules and regulations, OHCS will respond by working with the deficient subgrantee to correct deficiencies.

- e. **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.

1.07 Training and Technical Assistance

T&TA activities are intended to maintain or increase the efficiency, quality and effectiveness of the Weatherization Program at all levels. Such activities should be designed to maximize energy savings, minimize production costs, improve program management and crew/contractor “quality of work,” and/or reduce the potential for waste, fraud, abuse and mismanagement. The local service providers should be the primary recipients of T&TA activities.

The T&TA funds may also be used to train contractors at the local agency level participating in the Program. In making the determination to pay for contractor training, DOE advises that OHCS and subgrantees secure a retention agreement in exchange for the training. DOE further advises that the contract agreement should stipulate that contractors will work in the Program, at a minimum, for a specific amount of time and should align with the cost of the T&TA provided.

A detailed Training & Technical Assistance (T&TA) Plan has been developed by OHCS and the Oregon Energy Coordinators Association Inc. (OECA). The T&TA Plan identifies the type of training that will be offered and when such trainings will be offered. Each training is tied into an overall certification program (Residential Energy Analyst Program or R.E.A.P.), which is designed to bring the skill and competence level of all weatherization subgrantee staff and contractors to a uniform standard. A detailed budget has been developed as part of the T&TA Plan.

1.07.1 Allocation of T&TA Funds

HCS will allocate T&TA training funds to subgrantees to be used 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. The purchase of specialized equipment or tools. No 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 “DOE Program” or other funds.
- d. Subscriptions to magazines, newsletters and memberships.
- e. Other energy related functions, activities or events not mentioned in a. - d. above.

1.07.2 Availability of T&TA funds

OHCS will determine the amount of T&TA Training funds to allocate to subgrantees based on availability of funding from DOE and the cost of planned trainings such as Energy Outwest and OECA REAP certifications. OHCS will hold back (not allocate all available T&TA Training funds) and use T&TA Training funds to pay for subgrantees to attend trainings, conferences and workshops as prescribed within the T&TA Plan.

1.07.3 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. 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. Specific problem solving techniques in areas of labor, transportation, administration, management and financial control.
- f. Information on new materials, procedures and processes for weatherization work.
- g. Coordination 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.

1.07.4 Contract Training

OHCS has contracted with the Oregon Energy Coordinators Association Inc. (OECA) for some of the required weatherization certification training activities. OECA has many years of experience in planning, logistical support and delivery of successful state and regional energy trainings. Trainings are coordinated per contract agreement with OHCS.

1.07.5 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.

1.08 Leveraging Activities

1.08.1 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 and SHOW funds are not administered by OHCS.

1.08.2 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, Oregon Low Income Energy Efficiency program (OLIEE), BPA, SHOW, REACH and the AVISTA program. DOE funds used in any part of a completed weatherization project (single family to multifamily and shelters) will be considered a DOE completion, regardless of the amount of DOE funds actually spent.

DOE funds are also considered a key element in a coordinated leveraging effort to weatherize geographical multi-family locations. DOE funds used in this way cannot exceed more than 50% of the total job cost and must receive prior approval as pilot projects from OHCS and DOE prior to beginning.

DOE funding must be utilized in every unit completion.

1.09 Policy Advisory Council

1.09.1 Make up and Meetings

Members of the Advisory Council on Energy (ACE) are appointed by the Director of Oregon Housing and Community Services. Members are drawn broadly from organizations and agencies that represent low-income persons, utilities, government agencies, and trade industries. Meetings have been held at a minimum of once a quarter.

1.09.2 ACE Membership List

| ACE MEMBERSHIP LIST 2009-2010 | |
|--|--|
| As of 12/1/08 | |
| <p>Lenore Bijan Elders in Action 5621 NE 48th Avenue Portland, OR 97218 Phone: 503-249-8432 Fax: No fax email: No email</p> | <p>Tom Brodbeck Energy Programs Coordinator Multnomah County OSCP 421 SW Sixth, Suite 200 Portland, OR 97204 Phone: 503-988-6295 X26057 Fax: 503-248-3332 e-mail: tom.a.brodbeck@co.multnomah.or.us</p> |
| <p>Margo Bryant Special Needs Policy Manager Portland General Electric 121 SW Salmon Street Portland, OR 97204 Phone: 503-464-7616 Fax: 503-464-2929 e-mail: margo.bryant@pgn.com</p> | <p>Joan Cote (Chair) Energy Programs Director Mid-Willamette Valley Community Action Agency 2585 State Street Salem, OR 97301 Phone: 503-585-8491 x315 Fax: 503-585-8462 e-mail: cotej@mwvcaa.org</p> |
| <p>Charles Dalton Customer Relations Manager Eugene Water & Electric Board 500 East Fourth Avenue Eugene, OR 97440-2148 Phone: 541-484-2411 Fax: 541-341-1889 e-mail: charles.dalton@eweb.eugene.or.us</p> | <p>Suzanne Dillard (Secretary) Conservation Services Manager Oregon Department of Energy 625 Marion St. NE Salem, OR 97301 Phone: 503-373-7565 Fax: 503-373-7806 e-mail: suzanne.c.dillard@state.or.us</p> |
| <p>Lois Douglass DSM Programs Manager NW Natural Gas 220 NW Second Avenue Portland, OR 97209 Phone: 503-226-4211 Fax: 503-721-2517 e-mail: ldd@gasco.com</p> | <p>Becky Eberle (Vice Chair) Residential Product Manager PacifiCorp 825 NE Multnomah Street, Suite 300 Portland, OR 97232 Phone: 503-813-5154 Fax: 503-813-5231 e-mail: rebecca.eberle@pacificorp.com</p> |
| <p>Diane Ferington Residential Sector Manager</p> | <p>Carina Kistler Ginter Executive Director</p> |

| | |
|--|--|
| <p>Energy Trust of Oregon 851 SW 6th Avenue, Suite 1200 Portland, OR 97204 Phone: 503-445-7621 Fax: 503-546-6862 email: diane@energytrust.org</p> | <p>Confederated Tribes of Grand Ronde 9615 Grand Ronde Road Grand Ronde, OR 97347 Phone: (503) 879-2403 Fax: (503) 879-5973 e-mail: carina.ginter@grandronde.org</p> |
| <p>Lee Girard Team Leader DHS, State Unit on Aging 500 Summer Street NE, E10 Salem, OR 97301 Phone: 503-947-1199 Fax: 503-373-7902 lee.a.girard@state.or.us</p> | <p>Rocky Johnson Executive Director Community Action Team 310 Columbia Boulevard St. Helens, OR 97051 Phone: 503-397-3511 Fax: 503-397-3290 e-mail: rockyc@cat-team.org</p> |
| <p>Tom O'Connor Executive Director Oregon Municipal Electric Utilities 1201 Court Street NE Salem, OR 97308 Phone: 503-371-6625 Fax: 503-371-3746 e-mail: toconnor@teleport.com</p> | <p>Lori Koho Economist Public Utility Commission 550 Capitol St. NE, Suite 215 Salem, OR 97301-2551 Phone: 503-378-6117 Fax: 503-373-7752 e-mail: srezvi@state.or.us</p> |
| <p>Roger Rees Executive Director Oregon Heat 7881 SW Mohawk Tualatin, OR 97062-9139 Phone: (503) 612-3790 Fax: (503) 879-5973 roger_rees@oregonheat.org</p> | <p>Jim Slusher Executive Director Mid-Columbia Community Action Council 312 East Fourth Street The Dalles, OR 97058 Phone: 541-298-5131 Fax: 541-298-5141 js@mccac.com</p> |
| <p>Dave Tooze Energy Programs Manager City of Portland Office of Sustainable Development 721 NW 9th #350 Portland, OR 97209 Phone: 503-823-7582 Fax: 503-823-5370 e-mail: dtooze@ci.portland.or.us</p> | <p>Steve Weiss (Legislative Chair) Senior Policy Associate NW Energy Coalition 4422 Oregon Trail Court NE Salem, OR 97305 Phone: 503-393-8859 Fax: 503-393-8859 (call before faxing) Cell: 503-851-4054 e-mail: steve@nwenergy.org</p> |
| <p>Terry Weygandt</p> | |

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545 SW Second, Suite A
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ACE Committee Membership

Executive: Becky Eberle, Suzanne Dillard, Joan Cote, Steve Weiss

Evaluation: Joan Cote, Becky Eberle, Steve Weiss, Margo Bryant

Energy Programs: Suzanne Dillard, Dave Tooze, Joan Cote, Tom Brodbeck, Steve Weiss,
Terry Weygandt, Margo Bryant

Legislative: Steve Weiss

Note: The above list reflects only ACE members. Others may serve on these committees if requested.

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Terry Weygandt, Margo Bryant

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Note: The above list reflects only ACE members--others may serve on these committees if requested by ACE.

1.09.3 Public Hearing

Oregon Housing and Community Services will be(OHCS) held a Public Hearing on December 16 2008 at OHCS Room 141 from 9:00am to 11:00am located at: 725 Summer Street NE, Salem, OR 97301. Contact John Rutledge at (503) 986.6706.

2.0 Part II – Master File

2.01 Eligible Population

The Energy Policy Act of 2005, Section 122(b) states “Eligibility” – Section 412(7) of the Energy Conservation and Production Act (42 U.S.C. 6862(7)) was amended by striking Section 412(7) of the Energy Conservation and Production Act (42 U.S.C. 6862(7)) and amended by striking "150 percent in both places it appears and inserting "200 percent". **The income eligibility level for the DOE Weatherization Program is 200% percent of the Poverty Income Guidelines.**

In determining the level of eligibility, the State shall use the DOE criteria of 200 percent of poverty. This must be applied throughout an agencies 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 also referred to as LIEAP) will also be eligible for DOE-WAP. The state of Oregon will use the current statewide LIEAP manual established for LIEAP, as established by the U.S. Office of Management and Budget in determining eligibility **with the exception of income requirements.** Eligibility under LIEAP or DOE-WAP is valid for a period of twelve months. Applicants whose most recent LIEAP DOE application is older than twelve months or who have not applied can qualify using the following criteria.

2.01.1 What is Income

Those households are eligible whose incomes are at or below the current criteria, which is 200% of poverty. “Income” refers to total cash receipts, before taxes, from all sources for all people living in the dwelling unit (defined as household). This includes wages and salaries before any deductions but do not include food or rent in lieu of wages. Receipts also include net receipt from non-farm or farm self-employed (e.g., receipts from own business or farm after deductions for business or farm expenses). Other such receipts would include: public assistance, social security or railroad retirement, unemployment and workers’ compensation, strike benefits from union funds, veterans’ benefits, training stipends, regular foster parent grants or payments, alimony, child support, and military family allocations or other regular support from an absent family member or someone not living in the household; private pensions, government employee pensions, and regular insurance or annuity payments; grants, scholarships and work study; and income from dividends, interest, rents, royalties, or periodic receipts from estates or trust and lottery earnings if paid monthly or annually.

2.01.2 What Is Not Considered Income

For eligibility purposes, income does not refer to the following money receipts: capital gains; any assets drawn down as withdrawals from a bank, sale of property, house, or car; tax refunds, gifts, lump-sum inheritances, one-time insurance payments, or compensation for injury. Also excluded are non-cash benefits, food or rent received in lieu of wages, energy grants, student loans, bank loans, the value of food and fuel produced and consumed on farms, and the imputed value of rent from owner occupied non-farm or farm housing. Households receiving funds from a private energy supplier’s assistance programs shall not have those funds counted as income.

2.01.3 Time Period for Income Verification

The period for determining income eligibility will be based on the same standards, protocols, and guidelines for LIEAP **with the exception of the income guidelines.** Verification of income must be reverified when the eligibility determination exceeds 12 months. In multi-family buildings and geographical multi-family, application must be made by each household in order to qualify for assistance. 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 strongly encouraged to coordinate

with the local Low-Income Energy Assistance Program provider to obtain eligible LIEAP/DOE applicants who have requested weatherization.

2.01.4 Priorities

An actual waiting list to determine who's next to receive weatherization services must be developed with priority given to: elderly (60 years of age and older), disabled, and households with children six (6) years of age and under. The criteria used for determining applicant priority must be in writing and on file with the subgrantee. The priority criteria must be used consistently for all applicants unless the subgrantee is involved in an OHCS sanctioned special project. Priority can also be given to households with "high residential energy use." High residential energy use is defined, as energy usage above average as a result of household composition or unusual needs for energy. Households with a "high energy burden" where 20% or more of the household income is going towards energy can also be a priority for weatherization. Subgrantees may choose to add additional factors to their priority list such as the ability to leverage funds, Native Americans and households with a member on active military duty, etc. Subgrantees must notify OHCS of changes and additions to their priority criteria.

2.01.5 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 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 Act of 1996, H.R. 3734, placed specific restrictions on the eligibility of aliens for "Federal means-tested public benefits" for a period of five years. As defined in a Federal Register notice dated August 26, 1997 (62 FR 45256) the 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 level for qualified aliens, the definition adopted by HHS will also apply to the 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 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 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 and, therefore, must conduct "status verification." Under the DOJ ruling, grantees subject to this ruling have 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 2/3 of the units are eligible for assistance (2 in the case of a 2 or 4 unit building). HHS has modified the provision concerning verifying citizenship in multi-family buildings. LIHEAP-IM-99-10 issued June 15, 1999, retracts any requirement that Weatherization 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 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: general heat waste, insulation, 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. (Appendix E). The actual installation of weatherization materials is specified in the above referenced documents.

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 and 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 the cost of the job. The Subgrantee **MUST HAVE A SIGNED STATEMENT FROM THE OWNER** (or owner's agent) that permission has been granted to perform weatherization and base-load measures on and at the dwelling. The statement **MUST** include a list of measures that are proposed to be installed. If walls are to be blown, the statement **MUST** indicate that the owner / owner's agent has seen pictures of what a wall blow includes and how it will look when completed. If windows are to be installed the state **MUST** indicate that the owner / owners agent is aware that the measure will not include cosmetic treatment of the window trim. **If refrigerator(s) are to be installed the statement MUST clearly indicate who owns the refrigerators only.** A copy of this statement with owner's / owner's agent signature clearly visible **MUST** be in the job file. A second copy **MUST** be given to the tenant and the original **MUST** be given to the owner / owner's agent.

Note: Refrigerators are the only appliance allowed under base load measures. Subgrantees must have an OHCS approved refrigerator replacement plan prior to replacing refrigerators.

2.04 Energy Audit Procedure

DOE approved REM-Rate for use in Oregon, in the year 2000. In 2009, REM/Rate was resubmitted as required by DOE along with the OASIS as approved for use by DOE. OASIS will be the preferred computerized audit tool for use in the weatherization assistance program in Oregon once approved by DOE. All subgrantees will use OASIS and only OASIS on each job being considered for weatherization. Until then OASIS will be the official audit tool until it is replaced by OHCS. OHCS will require two people from each subgrantee agency to be trained in the use of OASIS and REM/Rate. Subgrantees may request a waiver to the two certified requirement if the following apply:

- A. Subgrantee has limited staff

- B. Subgrantee has limited funds (less than \$80,000 in DOE funding per grant year).
- C. Subgrantee has fewer than 50 DOE completions per year.

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. Some of the proposals have embedded audit calculators built into their systems that are not REM/Rate. In order to fully test these systems OHCS may request permission from DOE to use a different audit tool on a pilot basis.

NOTE: Oregon Housing and Community Services database system (OASIS) will have a developed weatherization module active by April 1 2009. OHCS has submitted the energy audit tool developed for the database for DOE approval in February 2009. Upon federal approval all agencies will be required to use OASIS and sub-licensee tools for weatherization energy audit requirements and data reporting to the State of Oregon.

2.04.1 Use of the Computerized Audit Tool

Subgrantees **are required** to only provide weatherization services that have been identified as “*Cost Effective*” (a savings to investment ratio of 1.0 or greater) by a DOE approved computerized audit, or other computerized audit approved by DOE and adopted by OHCS. At this time and until replaced by OHCS OASIS, REM/Rate is that audit tool. No other method of establishing cost effectiveness/savings to investment ratios can be used by a subgrantee other than those approved by DOE and adopted by OHCS. The weatherization of mobile homes shall also follow these procedures.

2.04.2 Coordinator Override

If in the opinion of the local weatherization coordinator (subgrantee level) a measure should be installed that has not been identified as cost effective, and the coordinator believes that such a measure will improve the overall energy savings and comfort and meets one of the criteria **a. - e.** below, the coordinator can over-ride the computerized audit. Such deviation in measures must be documented in writing and reported to OHCS:

- a. More cost-effective (highest savings to investment ratio), based on an energy audit procedure approved by DOE and accepted by OHCS;
- b. A measure more readily acceptable to the owner;
- c. A measure necessary due to structural defects of the dwelling; or,
- d. A measure necessary for health and safety reasons.
- e. The energy savings from other installed measures with an SIR of 1 or greater.
- f. Nothing in the above section 2.04.1 authorizes the subgrantee to forego the use of the approved computerized audit tool altogether.
- g. Written documentation explaining why a measure not identified as *cost effective* by the approved audit tool was installed and must be included in the job file.

2.04.3 Prioritization of Work

Work will be done with measures receiving the highest cost effectiveness (savings to investment ratio) installed first. The average unit cost for overall program expenditure is limited to \$2,885 as established by DOE. The per unit cost has been established for each dwelling, or until all measures are completed which ever happens first.

2.04.4 Audit Tool Training

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

Each dwelling unit (100% of jobs weatherized or where base load measures were installed) that is being reported as complete for the purpose of obtaining DOE funds must have in the job file an inspection form signed by a designated subgrantee staff person. The inspection form must have information that indicates that all measures designated to be installed were installed in a workman like manner. The signed inspection form certifies that measures installed should under reasonable conditions save energy and make the dwelling more comfortable for the inhabitants. If a designated measure is not installed then a written explanation must be included in the file and noted on the inspection form.

A DOE Weatherized unit is: A dwelling unit on which a DOE-approved energy audit or priority list has been applied. As funds allow, the DOE measures installed on this unit have an SIR of 1.0 or greater, but also may include any necessary energy-related health and safety measures. 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 provides the training and/or administration. Therefore, a dwelling unit that meets both the definition of a DOE weatherized unit and has DOE funds used directly on it must be counted as a DOE completed unit.

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 measure is not considered completed until it has passed final inspection (1 CFR, Part 440, 16 (g)).

2.05.2 Limited Staff Waiver

All weatherization work and materials are to be inspected by someone other than those who installed them. Small subgrantees who use crews of two people may request a waiver to this rule. If OHCS approves waiver, subgrantee must maintain a satisfactory peer monitoring report to keep the waiver.

2.06 Analysis of Effectiveness

In order to calculate the most accurate energy savings, subgrantees are strongly encouraged to obtain energy usage information from occupants/utilities of the dwellings weatherized. The most useful information would be energy usage records that cover the period for twelve months prior to weatherization and twelve months after weatherization. Usage information can be used to compare actual savings with projected savings. The results can be used to improve the program and identify T&TA needs.

2.07 Health and Safety Plan

DOE requires that all grantees 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 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. The related health and safety costs will be included in the calculation of the average cost per home and cost-justified through the audit.

2.07.1 Mold and Mildew

See Exhibit 6

2.07.2 Certification for Mold & Mildew Safe Work Practices

OHCS in conjunction with ACE, OECA and EPC has developed and instituted a certification/training program. The training program for weatherization workers included :

- 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.

Further classroom development has trained workers on certified and approved techniques for cleaning and removing mold and mildew.

2.08 Health and Safety – Minor Repair

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 weatherizers. All subgrantees have the equipment and skill to identify the major health and safety/minor repair problems found in dwellings. To support subgrantees in the identification and reduction of health and safety minor repair problems, a maximum of 15% of the Average Cost Per Home (ACPH) may be used to mitigate problems identified ($ACPH = \$6500 \times .25 = \1625). Funds dedicated for health and safety/minor repair cannot exceed 15% of a subgrantees allocated program dollars. OHCS will review requests to increase the availability of health and safety/minor repair funds on a job-by-job basis provided the subgrantee has not exceeded the 15% limit on Program funds.

Minor 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. A minor repair must follow the same cost formula identified in 2.08 above. If the cost of a minor repair is higher than that generated by the formula in 2.08 a request can be made to the state to increase the allowable funding. Such requests will be viewed on a case-by-case basis and will be based on availability of funds within the 15% allowed. Written approval must be placed in the job file. For additional information on Health and Safety see Appendix F.

2.08.1 Reporting requirements

The reporting requirements are set forth in Attachment B of Funding Opportunity Announcement DE-FOA-0000051. Financial and progress reports will be used to adhere to the transparency and oversight requirements per Master Grant Agreements.

Weatherization Program Notice 09-1B14 detailed in the Recovery Act and posted on <http://www.recovery.gov>. Please note that the due date of certain reports may change. DOE intends to modify the periodic Progress Report to include reporting on the following, at a minimum:

- Jobs created at the state agency level
- Jobs created using state contractors
- Jobs retained at the state agency level

- Jobs retained with state contractors
- Jobs created at the local agency level
- Jobs created using local agency contractors
- Jobs retained at the local agency level
- Jobs retained with local agency contractors
- State desk monitoring/oversight visits
- State on-site monitoring/oversight visits
- Hours trained at the state agency
- Hours trained at the local agency
- Equipment units purchased that are more than \$5,000.
- DOE may provide additional guidance regarding the calculation of jobs created
- DOE may provide additional guidance regarding the methodology for calculating energy savings.

OHCS shall continue to report progress of subgrantees in meeting the Production Schedule included in the DOE ARRA approved State Plan.

All ARRA reporting elements will be made available on OASIS/OPUS database. Agencies participating in ARRA must provide data to the OASIS/OPUS WAP database.

Subgrantees **MUST** report all 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. The following Health & Safety measures will be reported when appropriate on OPUS Weatherization.

2.09 Rental Procedures

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

- a. No rental dwelling unit shall be weatherized without first obtaining the written permission of the owner or the owners authorized agent.
- b. The subgrantee shall establish procedures to be approved by OHCS to issue that:
 - The benefits of weatherization assistance shall accrue primarily to the low-income tenants;
 - Rents shall not be raised because of the increased value of the dwelling unit(s) due solely to weatherization assistance provided under this part;
 - No undue or excessive enhancement shall occur to the value of the dwelling unit(s).
- c. Weatherization services will not be provided to eligible clients who pay their energy cost as part of their rent unless;
 - Landlord agrees to make reductions in rent to reflect in some equitable way the reductions achieved in fuel cost due to weatherization;
 - There are health or safety reasons, which justify weatherization.

2.10 Lien on Property

As stated in 10 CFR 440.22 part IV. C. “To secure the federal investment made under this pact and address the issue of eviction from and sale of property...landlord agreement may be sought to place a lien or to hold contractual restrictions.”

2.11 Documentation

All documentation shall remain the property of OHCS and in the event of program closure, either by OHCS or the subgrantee, 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 work plan as part of their Community Resources Division (CRD) planning process. OHCS shall review and approve all work plans. 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 CRD Work Plan.

2.12.5 Administrative Expenditure Limits

1.2 10 CFR Part 440.18 (d) clearly defines the amount of allowable Administration funds as up to 10%, 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. Sub-grantees receiving more the \$350,000 will receive no more than 5% 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% administration funding level under DOE rule. OHCS however is limited to 5% 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%, 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% which will be used in one of the following ways:
 - 1) Option 1: New DOE funds set aside for Native Americans are being proposed to be used in total for weatherization projects directed at Native Americans. These funds will be awarded April 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, CAPO and ACE. 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 March 1.

- 2) Option 2: If no proposals are received by March 1 all remaining Native American funds will be allocated in the traditional fashion to the six subgrantees with Tribal Reservation lands within their service areas.
 - 3) Burns-Pauite, Klamath Tribes, Siletz, Warm Springs, and Umatilla are not affected by Options 1 or 2. but are eligible to propose weatherization projects under Option 1.
- c. OHCS reserves the right to provide direct funding to Native American Tribes. A list of Tribes currently receiving funding through their local community agency is located in Appendix G.

2.12.7 Funding Formula

Funds remaining, after Administration, T&TA, Farm Worker and Native American allocations have been removed from the grant and 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% of the funds allocated to subgrantees.
- b. Heating degree-days squared, (averaged for subgrantees with multi-county service areas) will account for 15% 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, and 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 CRD grant process, shall negotiate with all subgrantees a contract to transfer to the subgrantees an amount not to exceed 10% of the subgrantees allocation. These funds shall be available within the first fifteen days after the approval of the agreement for delegation of funds.
- b. **Expenditure Reports** - On a quarterly basis, all subgrantees shall 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 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 expenditures 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 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 Review Monitoring is used as both a monitoring tool and as a training opportunity. Subgrantees are assigned another subgrantee to monitor.

2.13.1 Exemplary Agencies

OHCS will use the following criteria for designating a subgrantee as a “Exemplary Agency”. Subgrantees so designated will only receive Peer Monitoring every other year as long as they maintain the designation.

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:*
 - 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 guidelines. Peer monitoring completed on time.
 4. Production:
 - In general an agencies production is high relative to funding.
 5. Qualified staff:
 - Agency will receive higher credit for exemplary status with REAP(Residential Energy Analyst Program) qualified staff and contractors. Agency staff have received certification in three major training core certifications. Agency staff have conducted certification trainings or assisted in conducting OECA /OHCS certification trainings.
 6. 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.

A “High Performance or Exemplary” agency may select between annual monitoring that is reduced in scope and with a smaller sample, or a standard monitoring visit every 18 months.

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 Monitoring will 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:
 - Compliance with major program requirements, such as, lead-based paint procedures, cost allocation plan/indirect rate, required contractor information.
 - No program 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 use of program resources
 - Complete scopes of work
 - REM/Rate documentation is current and consistent with billing.
 - Staff proficient in its use
 - Evidence REM/Rate is used with actual and true pre-post data.(including costs)
 - Evidence REM/Rate 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) 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. 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 3 or more program policies, procedures and specifications.
3. The agency has 3 or more health and safety findings.
4. Agency staff members/crew have been unable to pass certification training.
5. The agency has deficient scopes of work.
6. The agency has 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 (CSBG, LIEAP, 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 Training – Audit Tool

OHCS currently requires training on OASIS and REM/Rate. Training of crew members is currently being addressed on a volunteer basis. Contractors are not required to be certified at this time.

2.15 Certification for Lead Safe Work Practices

OHCS will continue with the help of OECA to make training available for subgrantee agencies in Lead Safe Work Practices. All subgrantee crews, contractors and contractor's personnel **must** participate in this training prior to doing any weatherization related work that will disturb lead-based materials in homes built before 1978.

See attachment

2.16 Monitoring - Productivity

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

2.17 T&TA Scope of Work

A detailed T&TA SOW is available upon request.

2.18 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 positive 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.

2.19 Multi-Family and Geographical Multi-Family

2.19.1 Eligibility

Prior to weatherizing multi-family housing (five or more residential units per building), specific eligibility tests will be applied. Sixty-six percent (66%) of the units of a multi-family building or fifty percent (50%) of a duplex (2) or a quad-plex (4) must be occupied by income eligible households in order for the entire building to qualify for weatherization assistance.

2.19.2 Landlord Contribution Clause

Multi-family units can be weatherized when the percent of low income tenants is below 66%. If the multi-family low income occupancy falls below sixty-six percent (66%), but is no less than fifty percent (50%), then 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% of the total job cost to be eligible for reduced unit eligibility percentage.

2.19.3 Flexibility within the Multifamily Weatherization Provisions

OHCS will entertain proposals from agencies for pilot geographical multi-family to treat: mobile home parks; small, incorporated cities (population less than 500) and rural unincorporated counties as “multifamily residencies” where a proven savings in energy can be achieved. Prior to weatherization the agency must provide the following:

- a.) That 66% of the households are income eligible;
- b.) That there will be coordinated leveraging of funds from outside (DOE);
- c.) That energy savings can be documented and sustained as a result of weatherization;
- d.) That DOE funds will not constitute more than 50% of the total job cost;
- e.) Prior approval from OHCS and DOE is required.

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% may lead to disallowed costs. Local agencies which are uncertain on a given multi-family project should seek approval through OHCS Weatherization Program Manager.

2.20 Standard Weatherization Procedures

2.20.1 Labor

It is the subgrantees responsibility to assure that employees and contractors are qualified and properly supervised.

- All weatherization staff engaged in installing or inspecting of building shell retrofit upgrades (attic, wall, floor, windows, doors, duct sealing and general house sealing) must be able to pass a test for certification in the state of Oregon Residential Energy Analyst Program (REAP®) certification levels of Shell Tech 1
- All lead AGENCY STAFF persons and supervisors must be able to pass a test for certification to qualify with the designation of: Building Performance Specialist (this includes lead safe work practices and mold and mildew safe work practices awareness).
- All auditors, at the minimum, must be able to qualify for the designation of: Energy Analyst.
- All inspectors, at the minimum, must be able to qualify for the designation of: Inspector.

These are required certifications for agency staff through the REAP certification program

2.20.2 Davis-Bacon Act-Prevailing Wages

All laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5, shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code. With respect to the labor standards specified in this section, the Secretary of Labor shall have the authority and functions set forth in Reorganization Plan numbered 14 of 1950 (64 Stat. 1267, 5 U.S.C. App.) and section 3145 of title 40 United States Code. See U.S.

Department of Labor, Wage and Hour Division website at

<http://www.dol.gov/esa/whd/contracts/dbra.htm> . Wage determinations can be found at

<http://www.wdol.gov>.

2.20.3 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 the owners authorized agent and must include:

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

2.20.4 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 and 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 following 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.

2.20.5 Expansion of Mobile Home Definition

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

- a. Unit is a permanent residence;
- b. The unit has an 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.

2.20.6 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.

2.21 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:

2.21.1 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 the United States General Accounting Office publication entitled; **Standards for Audit of Government Organizations, Programs, Activities, and Functions** by the Comptroller General of the U.S.A. (1981), and the Office of Management and Budget circular A-87, A-110, A-122, and general accounting procedures as a guide. These audits will comply with 10 CFR Subpart D, which also includes OMB Circular A-128. For audits of subgrantees, provisions of 10 CFR 600.426 will apply.

2.21.2 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 2% 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.

2.21.3 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 in Seattle for final approval.

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

- Name of requesting local agency
- Where the vehicle will be used and how it will be used – Specify, full or part time use in Weatherization Program
- A statement of whether this is a replacement or an expansion for ramp-up. If this is a replacement, how is the trade-in being addressed?
- 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
- What the funding source(s) will be (e.g., DOE Weatherization Program)

Operations funds). **Subgrantee T&TA funds are not an allowable option**

- Copies of bid specs (vehicle description with options requested) and bids received.
- 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.

2.21.4 Travel Regulations

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

2.21.5 Financial Operations Manual

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

2.21.6 Prohibited Expenditures

Funds shall not be expended for the items or services 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.

2.21.7 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 as well as 10 CFR 600.119 and 600.436, OMB Circular A-110 and A-133.

2.21.8 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 Base-Load appliances whether subcontracted out or not.

2.22 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. **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 OASIS-Wx for the purpose of reporting weatherization activities. All weatherization subgrantees are required to use OASIS-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.

2.22.1 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 masses receiving assistance.

2.22.2 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, it is not permitted to spend DOE and Stripper Well funds on the same job.

2.22.3 Fuel Switching

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

2.22.4 Cook Stoves

DOE does not allow cook stoves to be replaced with DOE funds. If a subgrantee discovers a cook stove that is emitting dangerous levels of carbon monoxide (check ambient CO Levels) then other funds should be used to remedy the problem.

2.22.5 Disaster Relief

Upon request and approval from DOE, WAP funds may be used for energy-related items damaged or destroyed in a disaster. Such items could include replacement of water heaters in affected homes. Any measure not currently listed in 10 CFR Part 440 Appendix A, must be submitted as a part of a Disaster Relief Plan for DOE approval.

- a. Energy Crisis Plan: In an “Energy Crisis” that has been declared by the state or federal government, subgrantees may use DOE funds to address the short-term or immediate relief needs and long-term energy investment in homes of low-income person’s in effected areas.
- b. An Energy Crisis exists if any of the following happens:
 1. Release of LIEAP emergency funds;
 2. Sharp increase in energy prices; energy shortages/disruption of fuel supply;
 3. Other related causes both natural and manmade
- c. Households must meet current income guidelines.
- d. Subgrantees must track and report all “Energy Crisis” expenditures as a separate budget line item.
- e. Homes receiving assistance under “Energy Crisis” shall be placed on a waiting list for future weatherization after the crisis has been abated, unless previously weatherized.
- f. DOE funds used as “Energy Crisis” will not be counted as contributing towards the average unit cost of that unit/home.
- g. Homes weatherized **after** September 30, 1994 can receive additional assistance under “Energy Crisis”.
- h. Local weatherization coordinators are granted the authority to determine the best remedy to relieve the “Energy Crisis” until such time that OHCS with input from coordinators/agency directors, establishes guidelines for assistance.

2.22.6 Wood Stove Replacement

Allows replacement of wood stoves. See Exhibit #1(on state file) for detailed protocol.

2.23 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:

2.23.1 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.

2.23.2 *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.

2.23.3 *Building Codes*

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

2.23.4 *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). Exceptions for rural areas may be granted with prior written approval from OHCS.

2.23.5 *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 effect the energy usage. Holistic approach **does not** mean to spend as much funding from as many sources as possible on the dwelling.

APPENDICES

- Appendix A Peer Exchange Protocol
- Appendix B Peer Monitoring Protocol
- Appendix C Training and Technical Assistance (T&TA) Plan
- Appendix D Health and Safety
- Appendix E Native American Funding
- Appendix F At Risk Peer Monitoring Protocol

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Appendix A – Peer Exchange Protocol

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

I. 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.

II. Selecting Units to Visit

- a. At least three weeks prior to the peer exchange the host agency and visiting agency will communicate and discuss visiting agencies topics of interest.
- b. At least ten days prior to visit, monitoring agency will notify host agency of eight jobs that have been selected based on previous conversation concerning visiting agencies 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 and applications diagnostic testing techniques and use of testing equipment.
- b. Job site inspection (all 4 units)
 1. Discuss work and make notes with host agencies representative.
 2. Reviewing installation techniques, testing procedures, benefits of application and related benefits to home and occupant.

IV. Discuss observations

- a. Items of interest should be discussed at length while on site so 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:
 - 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 fifteen working days.

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State of Oregon Weatherization Assistance Program Performance Evaluation Tool



**What We Do
Matters!**

Oregon Housing & Community Services

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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 agency's 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 sub-grantees 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. Six weeks prior to the PE visit, OHCS will e-mail the agency to be performance evaluated to request via e-mail list of completed jobs from the prior (2) months.
2. The following information will be provided for each completed project:
 - Total funds, broken out by funding source
 - Fuel type
 - Housing type
 - Measures installed
3. OHCS will send an electronic copy of the pre-PE survey tool, self-assessment evaluation and time line chart to the agency for completion.
4. The agency will complete, and return by mail, the self-assessment evaluation and weatherization pre-PE questionnaire with-in (2) weeks before the visit.

5. OHCS and the agency to be performance evaluated will set a date for the visit.
6. Within (3) days of receipt of the above referenced information, OHCS will identify (4) projects from which the agency staff will schedule to be inspected.
7. With-in (1) week the agency will indicate if the (4) homes were scheduled for inspection. If any of the selected home were not available for inspection then OHCS will choose from the list the needed number of homes for inspection. This process will be completed within two weeks.
8. OHCS will select (1) file to be copied and retained in the agencies PE file.
9. The PE agency plan will be developed based upon the information submitted and all other documentation available OHCS.
10. The PE agency plan will be sent to the agency (1) week prior to the PE visit.
11. Final report sent to agency with-in 30 days of PE visit.

PE program outline:

1. Request completed jobs for prior (2) months.
2. Send a pre-visit questionnaire/self evaluation and list of items to the agency to be performance evaluated.
3. Review pre-visit questionnaire / self-evaluation/completed job list
4. Review prior years monitoring report.
5. Choose (4) completed jobs for field inspection / performance test.
6. Set PE dates and let agency know which jobs to schedule for inspection.
7. Travel to agency.
8. Meet and greet.
9. Review participant files with staff.
10. Discuss agency operations and mission.
11. Discuss community partners.
12. Discuss other resources.
13. Perform field inspection.
14. Performance test homes.
15. OHCS and agency representative will discuss any opportunities identified during the inspection and performance testing of the homes.
16. Interview participants.
17. Prepare exit interview report.
18. Discuss findings.
19. Incorporate mutually agreed upon comments into the final review.
20. Discuss new techniques, approaches or protocols.
21. Discuss training needs.
22. Schedule additional follow up(s) on technical assistance topics identified.
23. Review program improvements from prior year.
24. Draft final review.
25. Score agency based on PE score sheet.
26. Establish time for next monitoring depending on review score
27. Send copy to agency coordinator and executive director
28. File original at OHCS for three years.

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/RATE audit are checked to ensure they are current and accurate, that staff is proficient in the use of the REM/RATE 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 DOE State Plan.

At the conclusion of the monitor's visit, an exit conference will be conducted with the program manager and the executive director. 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 program manager within 30 days of the monitor visit. The agency will submit a written response providing assurance that identified problems are resolved in a timely manner 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 DOE State Plan / Weatherization Assistance Program.
6. Bonneville Power Administration Weatherization rules and Regulations.
7. Site Built Homes and Mobile Homes Specification 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 manometer
 - Air barrier pressure testing using a 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 carbon monoxide detector and manometer on a sample of completed jobs that have combustion appliances 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 sample 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.

PE Agency Plan

The T & TA Monitor will prepare, and make available to the local agency, a PE agency plan prior to each visit based on the information gathered from the following sources:

- Local Agency Pre-Monitoring Questionnaire, which will be distributed at least six weeks prior to scheduled visit, allowing two to three weeks to complete and return
- An agency's self assessment (A form distributed at least six weeks prior to scheduled visit)
- Past monitoring reports and resolution of corrective action requirements
- Resolution of corrective action requirements
- Agency identified needs
- MGA / DOE requirements

The local agency will supply a list of completed jobs from the prior (2) month to OHCS. OHCS randomly selects 4 units to be performance tested and inspected in the field.

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

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 the need for future training and technical assistance.

A preliminary PE report will be left with the agency whenever possible, especially any observations or findings for specific projects. We are striving to establish systems and tools that will permit a draft of the complete report to be left with the agency at the exit conference for review and comment. 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, is highly responsive and innovative. Overall program evaluation is scored exemplary in the Performance Evaluation Tool.

Stable: Meets program expectations. Accurate, effective, organized, sound, proficient, and proactive. Good administration systems. Files complete, organized and accurate. Overall program delivery is effective and sound. Proficient in diagnostics. 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. Inadequate, poor, substandard, incomplete, deficient documentation. Poor communication. Inadequate administrative systems. File incomplete, inaccurate or both. Overall program delivery is substandard. Deficient in diagnostics. Material / 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:

4. Program operations:

- No Health and Safety finding as identified in previous monitoring report.
- No procedural findings related to program rules, and policies and procedures

5. Fiscal:

- No annual program specific audit findings.

6. 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.

7. Production:

- In general an agencies production is high relative to funding.
- No rollovers.

8. Qualified staff:

- Agency will receive higher credit for exemplary status with REAP (Residential Energy Analyst Program) qualified staff and contractors.

9. Peer Monitoring

- Agency will participate annually in peer monitoring of “at-risk” agencies as requested once per year from OHCS.

10. 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 OHCS and Fiscal Monitor. The need for a second visit with in 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:

9. 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.

10. Evidence of prudent decision making as to the use of program resources:

- Complete scopes of work
- REM/Rate documentation is current and consistent with billing.
- Staff proficient in its use
- Evidence REM/Rate is used with actual and true pre-post data.(including costs)
- Evidence REM/Rate is used effectively and thoughtfully in determining cost-effective measures.

11. Staff and contractors have demonstrated proficiency in technical applications, including diagnostics.

12. 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.

13. Agency complies with OSHA/DHS/OHCS safety rules, as applicable.
14. The agency maintains a professional working relationship with OHCS.
15. Past corrections made and reported in a timely manner.
16. Participate in annual PEER exchange visits to other agencies.
17. Agency will report as outlined in the PEER exchange guidelines
18. 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. Has a 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. No evidence of prudent decision making as to use of program resources:
 - Complete scopes of work
 - REM/Rate documentation is current and consistent with billing.
 - Staff proficient in its use
 - Evidence REM/Rate is used with actual and true pre-post data (including costs).
 - Evidence REM/Rate 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:

11. The agency's probation. I.e. new agency / program.
12. 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.
13. The agency is not in compliance with program policies, procedures and specifications.
14. The agency has repeated health and safety findings.
15. Agency staff members/crew has deficient technical skills.
16. There has been a change in key staff.
17. There has been a change in key weatherization contractors.
18. The agency has deficient scopes of work (work plan is insufficient).
19. The agency has program specific audit findings.
20. The agency has fiscal specific audit findings
21. The agency files are incomplete or disorganized.
22. 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.
23. Agency production is low relative to funding.
24. Other OHCS programs (CSBG, LIEAP, Food, Homeless, etc.) have indicated problems with or concerns about the agency.
25. 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.
26. 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 when possible.

Performance Findings Correction Process

1. Each subgrantee shall be advised within 30 days after the monitoring's conclusion of 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, the 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.

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Appendix C – Training and Technical Assistance

RESIDENTIAL ENERGY ANALYST PROGRAM (R.E.A.P.)

| CERTIFICATION CORE REQUIREMENTS | | |
|---|---------------------------------------|-------------------------------|
| ANALYST I | DIAGNOSTIC TECH I | SHELL TECH I |
| Energy Auditing | Combustion Safety | Home Energy Principals |
| Baseload Energy Use | Venting Combustion Gases | Healthy Homes (IAQ) |
| House & Duct Diagnostics | Combustion Gases | Air Leakage |
| Sealing Air Leaks | Combustion Air | Insulation |
| Insulation | Hydrolic Specification | Window & Doors |
| Windows & Doors | Force-air Specifications | Avoiding Hazards |
| Mobile Homes | Cooling Systems | Mobile Home Weatherization |
| Health & Safety (IAQ) | Replacing Heating & Cooling Equipment | High-density Installation |
| Building Physics | Cooling Equipment | Duct Sealing |
| Heating & Cooling | Duct Testing & Sealing | Lead-safe Work Practices |
| Lighting & Appliances | Blower Door & Duct Blaster | Basic Installation Theory |
| Water Heating | Pressure Pan | Tools & Equipment |
| Blower Door Basic | Ventilation Strategies | OSHA Requirements |
| Oregon W.A.P. Specs | Oregon W.A.P. Specs | Oregon W.A.P. Specs |
| Evaluating Homes Efficiently | Consumer Education | Material Use |
| Selecting Energy Improvements | | Consumer Educations |
| Producing a Home Energy Analysis via REM/rate Certification | | |
| Curriculum | Curriculum | Curriculum |
| 1) Weatherization Field Guide | 1) Weatherization Field Guide | 1) Weatherization Field Guide |
| 2) Residential Energy | 2) Mechanical Systems Field Guide | |
| 3) REM/Rate Users Guide | 3) Oregon State Specs | |
| 4) Oregon State Specs | | |

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.

1. Definitions

- a. **Health and Safety Measures:** Those measures necessary to eliminate hazards within a structure, which by their remedy, allow for the installation of weatherization materials while ensuring that the structure is left in a safe condition.
- 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 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. Costs may not exceed 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. 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 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. This can be accomplished through contract language. Specific responsibilities may be delegated to adequately trained and competent personnel.

1. Employee Training - New employees shall not begin working in the field until training is provided. Training will include:
 - a. Conventional health and safety issues, including heavy lifting, safe ladder usage, electrical safety, power tools, other work practices, and conditions encountered in the weatherization program.
 - b. Use, maintenance, and importance of protective equipment such as eye and ear protection, respirator, and gloves.
 - 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.
2. Safety Meetings - Safety meetings shall be conducted monthly. 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. An announced, on-site inspection of each crew shall be conducted monthly by the subgrantee's Weatherization Coordinator or Analyst/Instructor. This inspection will include:
 - 1) 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.
 - 2) 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.
 - 3) Checking that each crew vehicle is supplied with a:
 - * Complete first aid kit designed to provide basic first aid.
 - * Adequately charged hand-operated fire extinguisher, designed for all three types of fire (electrical, wood, and liquid). Ensure service date has not expired.
 - * 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.

A. 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:

1. 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.
2. Ensure each crew member is reasonably protected when production activities are being conducted.
3. 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 a Lead Base Paint Hazard Permit and post lead hazard signs while working on the dwelling.

B. 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.)

C. 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.

D. 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.

E. 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 thoroughly vacuumed using a HEPA vacuum, and wash and wipe down the area with a detergent solution.

F. Attic/Crawl Space Areas

Before weatherization activities are conducted, the following is required:

1. Health and safety corrective action documented on the Job Order Sheet is to be completed.
2. Specific instructions are read and understood. Further clarification may be required from the Energy Analyst.
3. An adequate and safe means of access is provided.
4. Each individual has accessed the area and become familiar with existing conditions.
5. 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.
6. Precaution shall be taken when working in areas with low clearance. Work in areas with less than 24-inch clearance may be waived.

G. Client Health and Safety

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.

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

A. Biologicals

Removal of mold, odors, viruses, bacteria, unsanitary (including raw sewage) conditions, and rotting wood is not a Weatherization responsibility; however, program workers frequently encounter these conditions. DOE funds may be used if these conditions must be remedied to allow effective weatherization work or to assure the immediate or future health of workers and clients.

B. Combustion Appliances and Combustion Gases

Combustion appliances (furnaces, water heaters, cooking ranges, ovens and vented space heaters) are included in this measure. Testing for safety will be conducted in accordance with Hock's Combustion Safety Procedures, and is performed pre- and post weatherization. Each contractor has carbon monoxide detection equipment and has been trained in the performance of appropriate safety tests. Draft gauges are also used to verify that safe and effective chimney draft levels exist. If measured carbon monoxide exceeds safe levels as prescribed by EPA, ASHRAE, and gas utilities, corrective action is taken which may include cleaning of equipment including chimney or flue, tune-up, correcting pressure imbalances, repair or replacement of a furnace, and other measures as needed. Unvented space heaters will be removed and replaced. Carbon monoxide detectors should be installed as needed.

C. Fire Hazards

Combustion appliances and their associated venting systems can also present potential fire hazards. Refer to Oregon WAP Specs. Combustion Safety Procedures and Oregon Weatherization Field Guide for guidance on visual and diagnostic testing of combustion appliances before and following completion of weatherization work.

D. Existing Occupant Health Problems

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. Environmental Protection Agency rules regarding use of materials with the highest recycled content. As noted

previously, client health and safety work may be deferred until client's health problems have abated.

E. Mold & Mildew

Weatherization Subgrantees will follow the Mold & Mildew protocol as written once developed (see Section 2.07.1).

VI. INDOOR AIR QUALITY

Indoor air quality and minimum ventilation levels are addressed Oregon Weatherization Field Guide. Minimum acceptable levels for air changes are based on ASHRAE standards. When necessary, mitigation is provided by determining the source of the problem and implementing an effective mitigation strategy. To assure acceptable ventilation levels, a timed system of mechanical ventilation, with fresh make-up air may be appropriate. Repair of existing exhaust fans may be done by crew, but new or replacement installations, which involve rewiring, will require a licensed electrical contractor. For indoor air quality concerns related to bulk moisture problems, dehumidification may be in order. In homes with forced air systems, room-to-room pressure balancing is performed, as necessary.

- A. Asbestos - General asbestos removal is not approved as a health and safety weatherization cost. Major asbestos problems should be referred to the Environmental Protection Agency (EPA). Where local agencies work on large heating and distribution systems, including related piping, asbestos removal may be necessary. Removal is allowed to the extent that energy savings resulting from the measure will provide a cost-effective savings-to-investment ratio. This would normally be true with work done on large, multifamily heating systems. Where permitted by code or EPA regulations, less costly measures that fall short of asbestos removal, such as encapsulation, may be used when it is determined that the condition of the asbestos is in a friable state.
- B. Radon - Where there is a previously identified radon problem, work that would exacerbate this problem should be limited. Radon abatement is not an allowable activity under the weatherization program. However, those 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. While Grantees should establish sound radon-related strategies, major radon problems should be referred to the appropriate local environmental organization or agency for mitigation or abatement.
- C. Formaldehyde and Volatile Organic Compounds (VOCs) - Formaldehyde vapors may be slowly released by some new carpets, wafer board, plywood, etc. VOCs are also emitted by some household cleaning agents.

VII. LEAD-BASED PAINT

NOTE: The requirements for this section are taken from 5.13 of the "DOE Weatherization Program Notice 03-1" and "Program Notice 02-6." "Program Notice 08-06".

BACKGROUND: On September 22, 2008, DOE issued WPN 08-6, Interim Lead Safe Weatherization (LSW) Guidance to augment WPN 02-6 which provides background information on the various regulations impacting the treatment of pre-1978 homes that may have lead paint hazards when Weatherization work is being performed. Both of these pieces of guidance remain in place.

WPN 08-6 does not relieve any requirements established by 02-6, and in particular, all weatherization staff are required to continue to perform LSW accordingly.

In 2007, DOE commissioned a study conducted by the National Center for Healthy Housing (NCHH), "*Analysis of Lead-Safe Weatherization Practices and the Presence of Lead in Weatherized Homes.*" The results of the study indicated that levels of lead paint were sometimes higher than acceptable Environmental Protection Agency (EPA) standards following the completion of certain Weatherization measures, specifically, when work was done on doors and windows. In response, the DOE Weatherization Health and Safety Committee drafted recommendations to address the concerns raised by the study. DOE was poised to implement these recommendations when the EPA published a new Final Rule in April 2008: the "Lead; Renovation, Repair, and Painting Program" Final Rule (LRRPP Final Rule), to be fully implemented by April, 2010. This rule specifically cites Weatherization in several places as an activity that falls under the rule, and thus, the rule has a direct impact on how the Program proceeds, especially in implementing Lead Safe Weatherization. (For a full version of the EPA Rule see www.EPA.gov/fedrgstr/epa-tox/2008/April/Day-22/t8141.pdf.)

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 nationally 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 lead exposure and is responsible for most cases of childhood lead poisoning today.

The Housing and Community Development Act of 1992, which includes Title X, the "Residential Lead-Based Paint Hazard Reduction Act of 1992," directed EPA, HUD, and OSHA to develop lead-based paint regulations.

The Department of Energy is a member of two relevant interagency task forces: the President's Task Force on Environmental Health Risks and Safety Risks to Children, and the Federal Interagency Lead-Based Paint Task Force.

Lead-based paint dust and other residues are hazards that weatherization workers are likely to encounter in older homes. HUD estimates that within the national housing inventory twenty-six million homes have significant lead-based paint hazards. Furthermore, weatherization work may directly disturb lead-based paint, possibly creating hazardous conditions.

Policy: Weatherization workers must be aware of the hazard and conduct weatherization activities in a safe work manner to avoid contaminating homes with lead-based paint dust and debris and to avoid exposing the occupants, themselves, and their families to this hazard. The protocols used to safeguard people from lead-based paint hazards are called Lead Safe Weatherization (LSW).

A. Oregon's Lead Safe Weatherization Protocols

Oregon State requires the use of Lead Safe Weatherization protocols published in "Lead-Safe Weatherization: A Training and Reference Manual for Weatherization Managers and Crews" by Montana State University Extension Service.

Oregon State requires documentation that LSW was properly implemented (e.g., photos of the site, containment set up, etc.).

Some local agencies are performing weatherization work and HUD's lead-based paint hazard control work at the same time, when using HUD funds or working in HUD program homes. In those instances, Oregon state requires the use of Lead-based Paint Safe Work Practices protocols as specified in the regulation and training materials:

1. HUD's Lead Safe Housing Rule, 24 CFR, Part 35;
2. "Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work," Department of Housing and Urban Development;
3. "Addressing Lead-Based Paint Hazards During Renovation, Remodeling, and Rehabilitation in Federally Owned and Assisted Housing," Department of Housing and Urban Development.

Copies to download are available at www.waptac.org and www.hud.gov/offices/lead.

Specific procedures will be developed in collaboration with the Building Performance Center and the Weatherization and Repair Work Group.

B. When Lead Safe Weatherization Protocols Should Be Used

Lead Safe Weatherization shall be performed when:

1. A dwelling was constructed prior to 1978 and it has not been determined to be free of lead-based paint.
2. One of the following conditions exists:

- a) The amount of disturbed lead-based painted surface exceeds (de minimis levels):
 - * Six square feet per room of interior surface;
 - * Twenty square feet of exterior surface; or
 - * Ten percent of a small component type, for example a window; or
- b) The amount of lead-based paint dust that will be generated by the weatherization work exceeds the airborne levels for lead of 30 $\mu\text{g}/\text{m}^3$; or
- c) The agency chooses to assume that the home has lead-based paint and the weatherization measures will disturb paint that exceeds de minimis levels.

Refer to the Attachment B of "Program Notice 02-6," "Decision Flow Chart for Applicability of Lead Safe Weatherization (LSW) Measures," to assist with the determination of the appropriate actions.

C. Other Federal Government Regulations

Attachment A, "Other Federal Government Regulations Pertaining to Lead-Based Paint," outlines what weatherization agencies need to know about other Federal agencies' requirements that apply to weatherization work in situations involving lead-based paint. HUD, and EPA requirements apply to weatherization work.

For example:

- * The HUD Rule, 24 CFR Part 35 titled: "Lead-Based Paint Poisoning Prevention in Certain Residential Structures," (issued under sections 1012 and 1013 of the Residential Lead-Based Paint Hazard Act of 1992, which is Title X of the Housing and Community Development Act of 1992) applies. The HUD Rule requires that weatherization agencies, when using HUD funds or working in HUD program homes, perform the work using Lead-based Paint Safe Work Practices, which are distinct from LSW. The HUD rule also sets "de minimis" levels (two square feet per room of interior surface and twenty square feet of exterior surface or ten percent of a small component type, for example a window) of disturbed painted surfaces, for adherence to the rule.
- * The OSHA Rule, 29 CFR Part 1926 (applies, in general, when painted surfaces are disturbed and lead paint is suspected, workers should perform the work in a way that will contain the generated lead dust. The OSHA Good Work Practices (Lead Safe Weatherization qualifies) are to be used when the worker lead exposure exceeds the action level of 30 $\mu\text{g}/\text{m}^3$ (an 8-hour Time Weighted Average). Exposure monitoring, medical surveillance, and training are also requirements. If the Permissible Exposure Level (PEL) of 50 $\mu\text{g}/\text{m}^3$ is exceeded, additional requirements must be observed.

* The EPA Rule, 40 CFR Part 745 titled: "Lead: Requirements for Hazard Education Before Renovation of Target Housing," (referred to as the Lead-Based Paint Pre-Renovation Education Rule or Lead PRE) applies. The State of Oregon requires adherence to the EPA requirements related to notification. **For homes weatherized before December 22, 2008**, owners and occupants of a dwelling built before 1978 must receive the pamphlet "*Protect Your Family from Lead in Your Home.*" **For homes weatherized after December 22, 2008**, EPA's new publication "*Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools*" must then be used. Under this regulation, agencies who do not give and document proper notification could incur large fines if found doing weatherization work in pre-1978 housing stock where more than two square feet of paint surfaces are disturbed.

* EPA's Office of Solid Waste memorandum to RCRA Senior Policy Advisors, EPA Regions 1-10, subject: "Regulatory Status of Waste Generated by Contractors and Residents from Lead-Based Paint Activities Conducted in Households, from July 2000," also applies. It allows disposal of everyday household hazardous materials - residue or debris containing lead-based paint like replaced windows, or discarded clothing - from homes as non-hazardous waste and thus not subject to toxic chemical disposal rules. Household lead-based paint debris, however, must be handled in a way that will not generate or discharge lead-based paint debris to the environment, either at the client's home or in transporting to a disposal site.

* The Department of Health and Human Services Health Care Financing Administration's policies require that all young children enrolled in Medicaid be screened with a blood lead test at ages 12 and 24 months. All children aged 36 - 72 months who have not previously been screened must also receive a blood lead test. See Exhibit 3(on file), an excerpt from "Recommendations for Blood Lead Screening of Young Children Enrolled in Medicaid: Targeting a Group at High Risk."

D. Guidelines Determining When Lead-Based Testing Should Be Done

Consider the following when determining whether testing is worth the time and money on a case-by-case basis:

1. Houses built from 1978 on may be assumed to be free of lead-based paint, without testing.
2. In houses built prior to 1930, it is reasonable to assume the presence of lead-based paint and save the cost of testing.
3. In homes built between 1930 and 1978, testing may not be warranted if the amount of paint to be disturbed is small, since it may be cheaper to perform LSW for a small area than to incur the expense of testing. However, where the amount of paint to be disturbed is relatively large, it may be worth the cost of testing, since a negative result would mean that the crews could dispense with having to perform the LSW protocols.

Testing shall be performed by an EPA-certified (or EPA-approved state certifying program) Lead Paint Inspector or Risk Assessor. (HUD and EPA are reviewing the efficacy of the commercial spot-test kits but have not completed their findings. Preliminary results indicate that these kits may be useful as a negative screen--an indication that no lead is present; however, agencies should exercise caution since not all spot-test kits are useful as a negative screen.)

Testing on a case-by-case basis where it is related to the installation of energy efficiency measures is an allowable DOE expenditure. The purchase and maintenance costs of an x-ray fluorescent (XRF), and the cost of training and certification of staff to operate the XRF must be funded from other sources, as they are not allowable DOE expenditures.

Clearance tests are not required for units receiving only weatherization (however, local agencies may elect to do clearance testing), but they are required if HUD funds are used or work is done in HUD program housing. Lead Paint Inspector or Risk Assessor may perform clearance tests. When EPA issues its certification requirements, a Technician may apply for EPA certification to perform this test independently. HUD-related work, including LSW and clearance testing, should be covered by HUD funds. If no HUD funds are available, DOE funds may be used for clearance testing in this instance.

E. 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:

1. 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?
2. 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?
3. 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?
4. 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?

Using the above answers, the agency should conclude one of the following:

- 1) Proceed with all the weatherization work, following Lead Safe Weatherization work practices; or
- 2) Do some of the weatherization tasks and defer others; or
- 3) Defer all of the weatherization work.

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.

F. Funding of Lead Safe Weatherization

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.

DOE funds shall not be used for abatement, stabilization or control of lead-based paint hazards, or routine entrance and clearance testing. 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. 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.

Specifically, for DOE 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, material, insurance, training in Lead Safe Weatherization practices, and equipment.

G. 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. 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 subcontractor's general liability insurance coverage.

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.

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).

The cost of this insurance is an allowable DOE expense

H. Lead Safe Weatherization Training

OHCS requires Lead Safe Work Practices or Lead Safe Weatherization training or an EPA certification, including hands-on training in the field, for direct hire and contractor weatherization workers, supervisors and coordinators who work on homes with lead paint. Training will be offered on location in local agencies across the state in collaboration with OHCS/OECA and DHS.

I. Lead-based Paint Hazard Reduction Training Programs

1. Module 1 - Objective for Lead Safe Weatherization Training

- a. To understand why it is important to minimize and control the generation of lead dust when doing weatherization work.
- b. To understand the Department of Energy and State Of Oregon expectations for and boundaries of working with lead-based paint specific to weatherization.
- c. To gain a working knowledge of the regulations governing worker protection from hazards created by disturbance of lead-based painted surfaces.
- d. To gain a working knowledge of tools, techniques and resources required to achieve the objectives listed above.

Upon completion of this course, participants will be able to perform Weatherization in a manner that minimizes creation and dispersal of lead contaminated dust and protects residents, especially children, from possible lead exposure. This course will show participants how to perform their work in a manner that creates the least amount of dust possible, and how to contain and clean up dust that they do create so that it does not spread throughout the house or to neighboring properties.

2. Module 2 - Objectives for Lead Safe Work Practices Training

- a. To understand why it is important to minimize and control the generation of lead dust when doing Renovation, Remodeling, Rehabilitation and Maintenance work.
- b. To gain a working knowledge of tools and techniques required to achieve those objectives.

- c. To understand the U.S. Department of Housing and Urban Development and Oregon WAP and DHS rules and regulations regarding the disturbance of lead-based painted surfaces during renovation, remodeling, and rehabilitation in federally owned and assisted housing.
- d. To gain a working knowledge of the regulations governing worker protection from hazards created by the disturbance of lead-based painted surfaces.

Upon completion of this course, participants will be able to perform renovation, remodeling, and rehabilitation in a manner that minimizes creation and dispersal of lead contaminated dust and protects residents, especially children, from possible lead exposure. This course will show contractors how to perform their work in a manner that creates the least amount of dust possible, and how to contain and clean up dust that they do create so that it does not spread throughout the house or to neighboring properties. The techniques discussed in this course apply to work performed by a variety of contractors and employees, including plumbers, electricians, residential renovators, remodelers, and painters.

3. Module 3 - Objectives for Lead Containment and Cleanup Training

- a. To gain experience in the use of tools needed to minimize the generation of lead dust when doing work that disturbs lead-based painted surfaces.
- b. To learn and practice the techniques required in lead safe work practices to contain dust and debris within a work area where lead-based painted surfaces are being disturbed.
- c. To become familiar with the tools and supplies necessary as well as practice the methods used to cleanup an area where hazardous amounts of lead contaminated dust have been identified or where work has been done that disturbed a lead-based painted surface.
- d. To become familiar with the use, bag replacement, and proper maintenance of a high efficiency particulate air (HEPA) vacuum. Upon completion of this course, participants will be able to perform renovation, remodeling, rehabilitation and Weatherization in a manner that minimizes creation and dispersal of lead contaminated dust and protects residents, especially children, from possible lead exposure. This course will show participants how to perform their work in a manner that creates the least amount of dust possible, and how to contain and clean up dust that they do create so that it does not spread throughout the house or to neighboring properties.

4. Module 4 - Objectives for Lead Safe Worker Protection Module

- a. To gain a thorough understanding of the OSHA standards and requirements for protecting workers from harmful levels of lead in construction.
- b. To gain familiarity with the use of equipment used to monitor and protect workers from exposure to harmful levels of lead in construction.
- c. To understand what is needed to implement a worker protection program that complies with OSHA.

Upon completion of this course, participants will have been provided with the information necessary to able to implement a Lead Safe Worker program that complies with the OSHA standards and requirements to prevent lead exposure in construction.

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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, CDBG, and Rural Resources. Weatherization services may need to be delayed until the dwelling can be made safe for crews and occupants (see Section IX. Deferral Standards). Incidental repairs necessary for the effective performance or preservation of weatherization materials are allowed. Examples of these limited repairs include sealing minor roof leaks to preserve new attic insulation and repairing water-damaged flooring as part of replacing a water heater.

A. Electrical Issues

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. The electrician must certify the knob-and-tube wiring in each component is safe for insulation by the completion of the CTED Knob-and-tube Inspection Form. Copies of the form must be posted at the residence and placed in the client's file. The cost of electrical inspection and minor electrical repairs may be charged to the Health and Safety category.

In 1987, Section 324 (article 324-4) of the National Electrical Code (NEC) was revised to prohibit the use of concealed knob-and-tube wiring “in the hollow spaces of walls, ceilings and attics when such spaces are insulated by loose or rolled insulating material.” Since 1987, NEC added a prohibition against “foamed in-place” insulation as well. While the NEC is a national code, it is not administered and enforced nationally. Building codes are administered on the state, county, or local level but are usually based on one of the national model codes (e.g., BOCA, CABO, UBC), which reference the NEC for electrical requirements. State or local jurisdictions can amend the model code they have adopted to meet specific local concerns. For example, Washington, Oregon, and two local jurisdictions in Ohio amended NEC 324-4 to allow loose or rolled thermal insulation in spaces containing knob-and-tube wiring providing specific conditions are met. (For more on DOE’s Knob-and-Tube guidance, see Exhibit 2 and 3, both on file)

Serious electrical hazards exist when gross overloads are present. Should auditors and crews find such existing problems, they should 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. The problem should also be noted in the client file. To the extent that these problems prevent adequate weatherization, the agency should consider repairing them on a case-by-case basis.

B. Refrigerant Issues

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.

The appliance vendor, demanufacturing center, or other entity recovering the refrigerant must possess EPA-approved section 608 type I, or universal certification.

C. Other Code Compliance Issues

Local agencies must ensure that weatherization-related work conforms with applicable codes in jurisdictions where the work is being performed.

IX. 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. Agencies (subgrantees) should develop guidelines and a standardized form. The form should include the client's name and address; dates of the audit/assessment; and date when the client was informed. 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.

Deferral conditions may include:

1. The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
2. 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.
3. The house has sewage or other sanitary problems that would further endanger the client and the weatherization installers if weatherization work were performed.
4. The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building official or utilities.
5. Moisture problems are so severe they cannot be resolved under existing health and safety measures and minor repairs.
6. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.

7. The client is uncooperative, abusive, or threatening to crew, subcontractors, auditors, inspectors, or others who must work on or visit the house.
8. The extent and condition of lead-based paint in the house would potentially create further health and safety hazards.
9. 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.

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Appendix E Native American Funding

Projected Native American Allocation PY-2009-11

| Agency | Admin | Program | Total | Tribal Benefit |
|--------------------|----------------|-----------------|-----------------|-----------------------|
| Y-CAP | \$ 1723 | \$ 15510 | \$ 17234 | Grand Ronde |
| Mid-Willamette CAC | \$ 2338 | \$ 21039 | \$ 23377 | Grand Ronde / Siletz |
| TOTAL | \$ 4061 | \$ 36549 | \$ 40611 | |

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EXHIBITS(on file with State of Oregon)

- Exhibit 1 Approval to Include Wood Stoves as a Weatherization Assistance Program Measure
- Exhibit 2 Knob and Tube Wiring: Revised Policy Superseding Guidance of 7/25/83 and 7/13/88
- Exhibit 3 Excerpts from a June 5, 2000 Study on Insulating Homes Containing Knob and Tube Wiring
- Exhibit 4 Weatherization Assistance Program (WAP) Space Heater Policy
- Exhibit 5 Weatherization Program Notice 02-6, July 12, 2002; “Activities and Federal Lead Based Paint Regulations
- Exhibit 6 Mold and Mildew Protocol
- Exhibit 7 Local Agency Monitoring Plan
- Exhibit 8 Agency Weatherization Self Assessment
- Exhibit 9 Performance Evaluation

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 mobile homes may be installed in a mobile home. The label should reference the Department of Housing and Urban Development's Mobile 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 – Knob and Tube Wiring: Revised Policy Superseding Guidance of 7/25/83 and 7/13/88

Department of Energy

MEMORANDUM

Date: October 21, 1988

Subject: Knob-and-Tube Wiring: Revised Policy Superseding Guidance of 7/25/83 and 7/13/88

To: Support Office Directors

This correspondence is a follow-up to my September 7, 1988, memorandum which requested input from the support offices on the subject of insulating in homes which contain knob-and-tube wiring (KTW). The input received has been most useful and has provided practical information that may enable State grantees to continue to safely install thermal insulation in situations where KTW exists. In light of the responses from the Support Offices and the further review we conducted, two important points need to be emphasized: (1) the National Electrical Code (NEC) and changes to it do not apply until adopted by State and/or local electrical code authorities; and (2) these bodies incorporate NEC guidance or changes to it into their electrical codes on a highly individual basis. In practice, this means that the NEC can be adopted exactly as promulgated or modified by State and/or local electrical code authorities. In the KTW matter with which we are now concerned a number of States including Massachusetts, Nebraska and Washington, have looked at the issue and decided not to adopt the specific recommendations of the NEC on KTW. Instead, these States have adopted modified approaches, which permit the continued installation of thermal insulation over KTW when certain inspection and safety procedures are followed. In both the States of Washington and Massachusetts, for example, those procedures include an initial survey of the wiring system by a licensed electrician, repair as required, the use of Class I thermal insulation only and overcurrent protection in compliance with the ampacity tables developed by the NEC. These examples are cited because the approach taken by these States conforms to the general WAP policy that jurisdiction in health and safety matters related to program-funded work resides with State and/or local authorities. Attached, for informational purposes, is Washington State electrical code material dealing with KTW that was sent by the Richland Support Office (RSO). That material consists of the following: (1) the August 15, 1988, Richland response to DOE-WAP on KTW issues and (2) an August 4, 1988, letter from the Washington State Department of Community Development to the RSO which describes the recently-revised Washington State electrical code procedures that must be followed in the installation of thermal insulation in structures containing KTW. In light of the above, the revised DOE-WAP policy on installation of thermal insulation around KTW is that it is the State's responsibility to ensure that such work be in conformance with the applicable codes in the jurisdiction where the work is being performed. Therefore, the KTW guidance issued on July 25, 1983, and on July 13, 1988, is superseded by this memo. Please convey to your WAP grantees: (1) the revised DOE-WAP policy on installing thermal insulation around KTW, as stated in the

previous paragraph; (2) the attached information on the 1987 National Electrical Code change related to KTW; (3) the Washington State material if you think it will be helpful in understanding how other States are handling KTW; (4) that those homes which were completed without insulation since July 13, 1988, may now be insulated under the revised policy. The prohibition against re-weatherization found in Section 440- 13(e)(2)(i) will not apply to such insulation work and those homes may not be reported as new completions. In addition, each grantee should be advised to check with the appropriate electrical code authorities in its State to determine whether the NEC KTW change has been adopted as is, has been adopted with modifications, or has not been adopted and, therefore, whether any modification in KTW work performed under the WAP is required within the State. Thank you for your assistance in this matter. Mary E. Fowler, Chief Weatherization Assistance Programs Branch Office of State and Local Assistance Programs Conservation and Renewable Energy.

Note - Attachments unavailable at this time

DRAFT

Exhibit 3 – Excerpts from 6/5/00 Study - Insulating Homes Containing Knob and Tube Wiring

Retrofitting Insulation in Cavities with Knob-and- Tube Wiring An Investigation into Codes, Safety, and Current Practices

Submitted to:

Illinois Department of Commerce and Community Affairs

June 5, 2000

Prepared by:

Building Research Council

School of Architecture

University of Illinois at Urbana/Champaign Principal Investigator: Jeffrey R. Gordon

Model Development: William B. Rose

A. Introduction

In 1987, an amendment to the National Electric Code (NEC) prohibited the placement of insulation in contact with knob-and-tube wiring. This amendment had significant ramifications for low-income weatherization programs around the country. By their nature, these programs deal with older homes where retrofitting sidewalls and attics with insulation often provide the most return in energy savings for dollars spent. In the twelve years since the amendment, weatherization agencies have adopted numerous approaches and protocols for dealing with this issue.

This report examines the code change, the safety issues that prompted the code change, and the range of actions taken by state code bodies and weatherization agencies in response to the code change. In an attempt to ease the narrative flow of the report, it was determined to place the most technical discussion in the appendix. The first two appendices are of critical importance and are referenced at several points in the main text. Appendix 1 examines the issues of voltage drop, resistance, heat generation, and circuit analysis. Appendix 2 contains spreadsheets showing the calculations of a simplified model whose results are reported in Section D.

B. Overview of Knob-and-Tube Wiring

- Knob-and-Tube wiring was the predominant wiring system through the 1920 s and 1930 s; some installations of knob-and-tube wiring continued in houses up until 1950. There are several distinguishing characteristics of knob-and-tube wiring in comparison to current wiring methods:
- When running perpendicular to structural components (such as floor joists), modern wiring runs directly through holes in the components. Knob and tube wiring used protective ceramic tubes placed in the holes to prevent the wire from chafing against the structure.

- Modern wiring uses staples to hold the wiring against structural components when the wire is running parallel to the component. Knob-and-tube wiring used ceramic knobs to clamp the wire to the structural member.
- Connections between modern wires are completed within enclosed electrical junction boxes. Knob-and-tube wiring had visible connections. The wires were spliced and soldered together and then wrapped with electrical tape. These connections are called pig-tail connections because one wire is wrapped several times around the other wire before the two are soldered together. Ceramic knobs were strategically placed to protect the splice ensuring that inadvertent tugging on the wire would not stress the electrical connection.
- In modern wiring, the hot wire (black) and neutral wire (white), along with a ground wire, are insulated separately and bundled in a single plastic sheathing. In knob-and-tube wiring, the hot and neutral were insulated and run through a house separately, usually several inches apart. (3 inches is the minimum separation prescribed by the NEC). Knob-and-tube wiring did not include a ground wire.
- In a modern system, many branch circuits use 14 gauge conductors protected by a 15amp circuit breaker. Larger, 12 gauge conductors are required for 20 amp circuits. Knob-and-tube wiring typically consists of 12 gauge conductors.
- While the differences are considerable, there is nothing inherent in knob-and-tube wiring that makes it dangerous. Knob-and-tube wire, properly installed, is not inherently a problem. While opinions regarding the safety of knob-and-tube wiring vary widely, the concerns are not with the original wiring, but rather with what has happened after the fact.
- Older homes with knob-and-tube wiring were often supplied with 60-amp service at the main electrical panel. They were also subject to limited distribution in two forms: (1) limited number of circuits, and (2) limited number of electrical outlets per room. Both of these factors opened knob-and-tube wiring to potential abuses of the electrical system after the initial installation.
- Over the years, the demand for household electrical capacity has grown dramatically. Most knob-and-tube systems predate television, computers, and dozens of other appliances that are today taken for granted. As the need for electrical capacity grew, older wiring systems were modified for the convenience of the occupants. In some cases, these modifications put undue stress on the wiring system.
- In response to the limited number of outlets per room, additional outlets were added on to the existing circuits. In many cases, the quality of the connections was not up to the standards of the original system. For instance, a portion of an existing wire conductor would be stripped of its insulation, and new wire taped on to service a new outlet. The connection may not have been soldered, and the new wire may have been of a lighter gauge. Stress protection for the new connection was rarely considered.

- With additional outlets and increased electrical consumption, problems also arose with circuit protection. If circuits became overtaxed and 15 amp fuses were constantly blowing, some ill-informed homeowners would put in 25 or 30 amp fuses to rid themselves of the annoyance. Allowing excessive current to flow through the conductors could lead to overheating, which, in turn, could lead to degradation and embrittlement of the wire insulation and the wire itself. The problem of overfusing can be difficult to determine. A home that has been upgraded to 100-amp service, and is currently properly fused, may have experienced a decade of past overfusing on the knob-and-tube circuitry that is still in use.
- Finally, the wiring could suffer from physical abuse over time. Rather than hugging structural components, knob-and-tube wiring was suspended (a minimum of one inch prescribed by the NEC) away from surrounding surfaces. Bumping the wiring could place stresses and cause resultant damage on a portion of the wire. This could be particularly true in accessible attics.
- The conditions outlined above can be categorized as an abuse of a home's electrical system. These abuses (improperly added connections, overfusing and wire embrittlement, physical damage) can result in point sources of high resistance. It is at these points that fire potential is greatest (See Appendix 1). Ultimately, it is wiring that has been abused that is potentially dangerous.

C. Building Code Issues History

1. National Electric Code (NFPA 70): 1987 amendment Section 324 of the NEC deals with Concealed Knob-And-Tube Wiring. Prior to 1987, article 324-4 stated:

Concealed knob-and-tube wiring shall not be used in commercial garages, theaters and similar locations, motion picture studios, hazardous (classified) locations.

In 1987 article 324-4 was amended to read (additional wording in Italics):

Concealed knob-and-tube wiring shall not be used in commercial garages, theaters and similar locations, motion picture studios, hazardous (classified) locations or in the hollow spaces of walls, ceilings and attics when such spaces are insulated by loose or rolled insulating material.

The amendment was submitted to Panel No.7 by Jarrell B. Blair, Building Inspector from the City of Augusta, Kansas, at the May, 1986 NFPA annual meeting in Atlanta Georgia. The substantiation for the additional wording was as follows:

SUBSTANTIATION:

- a. Concealed knob-and-tube wiring is designed for the hollow spaces of walls, ceilings and attics, utilizing the free air in such spaces for the dissipation of heat.
- b. Weatherization of the hollow spaces by blown-in insulation or roll insulation prevents the dissipation of heat into the free air space; resulting in higher (dangerous) conductor heat buildup, conductor insulation breakdown resulting in a probable or possible fire situation.

Clearly, heat dissipation, overheating, and fire potential were the sole concern that prompted the amendment.

There was some public comment on the amendment at the meeting. Mr. David C. Roberts, a panel member representing the American Electric Power Service Corp., stated for the record:

The substantiation to support this proposal does not contain the necessary factual data to support this restriction on concealed knob and tube wiring. There are a large number of installations of concealed knob and tube wiring. I have neither heard of any problems with this wiring method nor have I seen any studies on actual in-service installations that will support this restriction on concealed knob and tube wiring.

Larry Seekon of the Minneapolis Electrical Inspections Department submitted a public comment (7-16):

No factual substantiation of dangerous overheating has been submitted to justify prohibiting loose or rolled insulation material in contact with concealed knob and tube wiring. I am not aware of fires due ONLY to insulation touching knob and tube wiring. However fires do occur because of overfusing and improper splicing or tapping of these circuits. These hazardous conditions are already Code violations.

In the colder regions of the United States there are many thousands of homes now existing with loose or rolled insulation in contact with concealed knob and tube wiring. Most current building codes require the insulation to be fire retardant.

To comply with such a restriction would result in a substantial increase in the cost of rewiring existing homes. New wiring would have to be fished in or surface raceway would have to be installed to replace existing knob and tube wiring. Both of these methods are very labor extensive and would substantially increase the cost of rewiring. Many people also object to the installation of surface raceway in the nicely decorated homes.

In many circumstances, it would be very difficult if not impossible without damaging the walls or ceilings, for an electrical inspector to determine if insulation material had been installed.

I am very apprehensive of what a judge would think about an inspector issuing an elderly widow on Social Security an order to eliminate all concealed knob and tube wiring in contact with loose or rolled insulation, especially when the home was reinsulated ten years ago and there have been no electrical problems.

The panel rejected this comment and informed the submitter that it was not the intent to make this change retroactive.

In response to the rejection of comment 7-16, panel member Roberts went on record:

The Panel Action to reject this comment will require that concealed knob and tube wiring installations in older homes be replaced if, in the process of insulating the home, the wiring becomes embedded in insulation. The Panel has no substantiating evidence to reject this comment. The substantiation stated in Comment 7-16 is correct. Concealed knob and tube wiring

systems in thousands of residences are now embedded in insulation and no overheating problems have been reported.

The panel approved the amendment by a vote of ten to one, with panel member Roberts the lone dissenting vote.

Thomas Guida, of Underwriters Laboratory, was a member of Panel No. 7 at the time of the 324-4 amendment, and is the only panel member who is still serving. In a telephone interview, Mr. Guida did not recall that the code change caused much controversy on the panel. He described the change as an obvious fire safety improvement. When asked about substantiating evidence, Mr. Guida recalled UL reports on the issue, but thought that these were unpublished.

During the course of this study, the amendment was discussed with Jeff Sargent of the electrical engineering section of the National Fire Protection Agency (NFPA). NFPA is the sponsoring agency of the NEC. Mr. Sargent had no knowledge of fire loss data pertaining to this amendment, and suggested that the code change may have been a preemptive move based on the original design of knob-and-tube wiring. In this view, knob-and-tube wiring was designed to function in free air, and thus encasement in an insulating material represents a practice contrary to the original design.

There is no evidence that there is any sentiment to rescind the amendment. Since the adoption of the amendment in 1987, only one minor change has been made to article 324-4 of the NEC. The recent NEC versions include a prohibition of foamed-in-place insulation in addition to loose or rolled insulating materials.

2. Local/State Amendments to NEC - While the NEC is a national code, it is not administered and enforced nationally. Building codes are administered on the state, county or local level. Some states have developed statewide building codes, while in other states it is up to local jurisdictions to adopt and enforce a building code. In most cases, one of the national model codes (BOCA, CABO, UBC) forms the basis of the state or local code. Since the national model codes reference the NEC for electrical requirements, it is almost certain that the NEC applies wherever a building code is in use. For instance, in Illinois, the BOCA National Building Code is the most prevalent model code. The first article in Chapter 27 Electrical Wiring, states, ...installations shall conform to the provision of NFPA 70 (NEC) listed in Chapter 35.

State or local jurisdictions can amend or augment the model code they have adopted to meet specific local concerns. In the course of the investigation, two Ohio cities were identified that developed specific rewiring codes. For instance, the City of Massillon, Ohio rewiring code states:

(10) Knob and tube wiring. All original knob and tube branch circuit wiring shall be reconnected on fifteen-ampere circuits, and any tampered wire shall have its original insulation integrity replaced. (11) Fuse. If Edison-Base fuse holders are used they shall be fitted with type S fuse adapters and fuse stats.

Wadsworth City, Ohio adapted similar language. This language does not appear in the NEC.

Given the potential impact of NEC 324-4 on weatherization activities, successful campaigns were initiated in several states to amend 324-4 locally, and allow for insulation around knob-and-

tube wiring under certain conditions. These campaigns were possible in states that operated statewide building codes as compared to home rule states where building code administration was scattered throughout numerous local jurisdictions.

On 10/11/90, the State of Washington amended NEC 324-4 as follows:

The provision of Section 324-4 of the National Electrical Code shall not be construed to prohibit the installation of loose or rolled thermal insulating material in spaces containing existing knob-and-tube wiring provided that all the following conditions are met:

- (1) The wiring shall be surveyed by an appropriately licensed electrical contractor who shall certify that the wiring is in good condition with no evidence of improper overcurrent protection, conductor insulation failure or deterioration, and with no improper connections or splices. Repairs, alterations, or extensions of or to the electrical system shall be inspected by an electrical inspector as defined in RCW 19.28.070.
- (2) The insulation shall meet class I specifications as identified in the Uniform Building Code, with a flame spread factor of twenty-five or less as tested using ASTM E84-81a. Foam insulation shall not be used with knob-and-tube wiring.
- (3) All knob-and-tube circuits shall have overcurrent protection in compliance with the 60 degree C column of Table 310-16 of the National Electrical Code. Overcurrent protection shall be either circuit breakers or Type S fuses. The Type S fuse adapters shall not accept a fuse of an ampacity greater than that permitted in this chapter.

Following on the heels of Washington State's success, the State of Oregon amended the state code in a similar manner:

The provisions of Section 324-4 shall not be construed to prohibit the installation of loose or rolled thermal insulating material in spaces containing existing knob-and-tube wiring provided that all the following conditions are met:

- (1) The visible wiring shall be inspected by a certified electrical inspector;
- (2) All defects found during the inspection shall be repaired prior to the installation of insulation.
- (3) Repairs, alterations or extensions of or to the electrical systems shall be inspected by a certified electrical inspector.
- (4) The insulation shall have a flame spread rating not to exceed 25 and a smoke density not to exceed 450 when tested in accordance with ASTM E84-87. Foamed in place insulation shall not be used with knob-and-tube wiring.
- (5) Exposed splices or connections shall be protected from insulation by installing flame resistant, non-conducting, open top enclosures which provide at least 3 inches, but not more than 4 inches side clearance, and a vertical clearance of at least 4 inches above the final level of the insulation

(6) All knob-and-tube circuits shall have overcurrent protection in compliance with the 60 degree C column of Table 310-16 of NFPA 70-1990. Overcurrent protection shall be either circuit breakers or Type S fuses. The Type S fuse adapters shall not accept a fuse of an ampacity greater than that permitted in this chapter.

The States of Nebraska, Massachusetts, and California also amended state codes to allow for insulation around knob-and-tube wiring under specific protocols. With these amendments in hand, it was possible for state weatherization agencies to develop insulation programs that did not violate ruling building codes, and that provided specific documentation of safety procedures when insulating older homes. Home rule states (such as Illinois) did not have this course of action available. In these states, ensuring compliance with building codes would require amendments to all local building codes served by weatherization programs, implying dozens, if not hundreds, of local code amendment campaigns.

3. Department Of Energy Policy - Prior to the NEC code change in 1987, The U.S. Department of Energy (DOE) policy on the knob-and-tube issue was stated in a memorandum from Joseph Flynn, Director of the Weatherization Assistance Programs. The memorandum, date July 25, 1983, stated:

It is believed that insulation can be safely placed over knob-and-tube wiring provided that:

- The wiring is in good condition; and
- The circuits do not carry an amperage greater than the rated current for that size wiring.

In all cases, before insulating over knob-and-tube wiring is approved, personnel authorizing work orders or contracts will conduct a thorough inspection of the areas to be insulated and ensure that:

- (1) All wiring to be covered is examined and pronounced safe and in good condition;
- (2) The electrical system has protective devices matched to the wire sizes which discontinue the flow of electrical current when the circuits are overloaded

The inspector should check to determine if there is evidence of cracked or frayed electrical insulation or exposed conductors. Installers of the insulation should be cautioned to use care not to damage the old wiring as the new insulation is applied.

Installation of type S fuses is required in fuse boxes in homes where knob-and-tube wiring systems are used. Type S fuses ensure against overloading by making it impossible to put in a larger rated fuse. Permission must be obtained from the client to modify the fuse box. If the client does not consent, the insulation cannot be installed.

Subgrantee personnel who authorize work should be aware that in some cases, when older homes have been re-wired, the knob-and-tube system has been left in place. An inspector may see only the abandoned wiring and take appropriate action. Inspectors will verify that knob and tube systems are, in fact, in service before disqualifying homes.

A word of caution: Since this condition is potentially dangerous, States and their subgrantees must continue to exercise uncompromising caution when insulating homes with knob-and-tube wiring. The responsibility for safety and the use of good judgment rests with the person authorizing performance of the work. When in doubt, they should ask a local building inspector or fire marshal to inspect the wiring and issue a certification. Advise the subgrantees not to insulate over knob-and-tube wiring unless they are satisfied that it is safe and has met the above conditions.

While expressing clear concern and emphasizing caution, DOE gave the ultimate responsibility to the states and subgrantees for determining the safety of insulation retrofits on a case-by-case basis. Visual inspection and type S fuses were required.

In 1988, following the NEC code change, DOE went through a period of reconsideration of this policy. The policy was formally changed in a memorandum dated July 13, 1988 from Andre W. Van Rest, Chief of the Weatherization Assistance Programs Branch. Following acknowledgement of the NEC code change regarding knob-and-tube wiring (KTB), the memorandum states:

DOE has allowed installation of insulation over KTB as a weatherization measure only when precautions outlined in our attached memorandum dated July 25, 1983, are taken. These precautions included an examination of the condition of the wiring and the installation of proper electrical protective devices (typically, properly sized type S fuses). Although the application of insulation over KTB may raise the operating temperature of the wire, we are unaware of any problems with homes that contain KTB and have been insulated under the Weatherization Assistance Program.

However, we feel that the most prudent course of action is to comply with the requirements of the 1987 NEC. Therefore, effective immediately, all Support Offices should notify their States that installation of thermal insulation over KTB is no longer permitted. This action does not affect homes already weatherized.

The memorandum placed a clear ban on the installation of insulation around knob-and-tube wiring. The policy, however, was short-lived. Prior to September 1988, Mary E. Fowler became the Chief of the Weatherization Assistance Programs Branch. In a memorandum of September 7, 1988, she requested input from the Support Offices regarding this question. In the responses to this request, DOE became aware of the states that were preparing building code modifications to NEC 324-4. In a memorandum of October 21, 1988, examples of these modifications were distributed. As stated in this memorandum:

These examples are cited because the approach taken by these States conforms to the general WAP policy that jurisdiction in health and safety matters related to program-funded work resides with State and/or local authorities.

The memorandum acknowledged the state and local administration of the NEC, and went on to officially change DOE policy once more:

In light of the above, the revised DOE-WAP policy on installation of thermal insulation around KTB is that it is the State's responsibility to ensure that such work be in conformance with the

applicable codes in the jurisdiction where the work is being performed. Therefore, the KTW guidance issued on July 25, 1983, and on July 13, 1988, is superseded by this memo.

Please convey to your WAP grantees: (1) the revised DOE-WAP policy on installing thermal insulation around KTW, as stated in the previous paragraph; (2) the attached information on the 1987 National Electrical Code change related to KTW; (3) the Washington State material if you think it will be helpful in understanding how other States are handling KTW; (4) that those homes which were completed without insulation since July 13, 1988, may now be insulated under the revised policy. The prohibition against reweatherization found in section 440.18 (e) (2) (i) will not apply to such insulation work and those homes may not be reported as new completions. In addition, each grantee should be advised to check with the appropriate electrical code authorities in its State to determine whether the NEC KTW change has been adopted as is, has been adopted with modifications, or has not been adopted and, therefore, whether any modification in KTW work performed under the WAP is required within the State.

According to DOE's Greg Reamy, this memorandum of October 21, 1988 remains the stated policy of DOE. Once again, responsibility is placed on the State programs rather than a DOE mandate. The State's responsibility, however, is redirected specifically toward code compliance as the assurance of safety. To reiterate, ...it is the State's responsibility to ensure that such work be in conformance with the applicable codes in the jurisdiction where the work is being performed. In states with local home rule building codes, this would require each subgrantee to examine the local code to identify whether NEC 324-4 has been adopted as is, has been adopted with modifications, or has not.

Exhibit 4 – Space Heater Policy

Department of Energy

MEMORANDUM

Date: March 18, 1992

Subject: Weatherization Assistance Program (WAP) Space Heater Policy

To: Support Office Directors, WAP Program Managers

BACKGROUND

An estimated three million low-income households in the United States rely on space heaters as their primary method of heating their homes. An additional two million low-income households use space heaters as a secondary method of heating. Many States have requested that they be allowed to repair or replace space heaters on an as needed basis, the same treatment for furnaces are given. Potential health and safety risks associated with the use of space heaters, especially portable and unvented devices, coupled with the limited base of technical knowledge on space heaters, made it imperative that space heater operation be carefully understood prior to the development of Department of Energy (DOE) policy. Therefore, the Weatherization Assistance Programs Division commissioned a study, a copy of which was previously distributed, to provide us with information on the issue of whether to include space heaters as an allowable measure in the WAP and under what conditions and circumstances. The WAP also conducted a survey of States to collect additional information on space heater programs that already exist, which was previously provided as well.

INTRODUCTION

A draft space heater policy was transmitted to the Support Offices and the States for comment on October 18, 1991. We received many comments for which we thank everyone. These comments were taken into consideration, where possible, in determining the policy contained herein. The major concerns from States that weatherize space heater homes fall into two categories: (1) That there may be some homes occupied by WAP eligible clients where unsafe conditions exist prior to weatherization work, and (2) that weatherization air tightening techniques have improved to the point that they can create indoor air quality concerns if used in homes with space heaters when replacement or repair of such equipment is not allowed. The space heater report that was completed for WAP pointed out a variety of areas of concern but was not able to obtain air quality data or standards that could be used to formulate a final space heater policy. The North Carolina IAQ testing, admittedly limited, provides further concerns and actual readings in the 120 homes measured in the study. The resulting policy, therefore, attempts to take a common sense approach to the treatment of space heaters, taking into consideration the limited information and experience we have to date.

APPLICABILITY

This policy applies to gas and liquid fueled space heaters only. Wood burning stoves were treated earlier; coal burning stoves are still under consideration. This policy applies to gas and liquid fueled space heaters whether the appliance is the primary or secondary heat source.

INCIDENTAL REPAIRS

Incidental repairs under the WAP are not affected by the policy contained herein. Agencies may continue making incidental repairs necessary to allow weatherization work to proceed safely, including to space heaters.

SPACE HEATER POLICY

Any space heater replacement or repair procedure should include inspection to ensure that a working smoke detector is installed on the same floor as the space heater. In instances where a smoke detector is not present or is not operating properly you may purchase and install one with DOE funds. The cost of the purchase and installation of the smoke and carbon monoxide (CO) detector is a material cost. Client education, including information on the proper operation of the equipment, should be provided. Checks should be made to insure that auxiliary considerations, such as electrical wiring or chimneys, are in good condition; and, that no obvious building code violations or other safety hazards related to the space heater are evident. Installation of space heaters requires knowledge of appropriate industry standards and adherence to all aspects of the applicable building code(s) in the municipality where installation is taking place. Building permits should be secured, where required, (this is a materials cost as well) for all space heater work and final inspection by competent professionals should take place before any heater is put into operation. We have referenced a number of documents that may be useful to the grantees in adding this component to their program. These documents found in this guidance under the heading of "Related Materials and Documents," and have either already been distributed to you and the grantees; or, as in the case of the Consumer Product Safety Commission pamphlets, being sent under separate cover.

1. Vented Space Heaters Oil-fired space heaters (which are always vented), vented kerosene space heaters and vented gas space heaters should be treated as if they are furnaces. DOE is taking this approach because of the similarities with other furnaces: tune-ups are possible; the fuels burn relatively clean and free of sediment; they are relatively low in viscosity and free of ash; and, there are vents and perhaps ducts that can be cleaned. This policy is one that the States have recommended since furnace replacement was first allowed.

2. Unvented Space Heaters Operation of unvented gas and liquid fueled space heaters can negatively impact indoor air quality through indoor air pollution. Indoor pollutant concentrations resulting from the use of unvented space heaters can vary significantly from house to house depending on the operation of the space heater and the air infiltration/ventilation rates of the residential structure in which it is placed. Poorly adjusted heaters produce substantially greater quantities of carbon monoxide (CO), aldehydes and particulates than properly adjusted units, while inadequate ventilation may result in a rapid buildup of all pollutants including harmful quantities of CO. Even with the IAQ testing done by North Carolina as a guide for our policy, it is still difficult to accurately predict the impact of unvented space heaters on indoor air quality. It is very important to exercise caution in the use of unvented space heaters, since the potential for accumulation of harmful pollutants is clearly evident. In addition to the production of toxic by-products, unvented space heaters release water vapor equivalent to 8 to 11 gallons of liquid water into the heated space for each million Btu of energy delivered. Water vapor condenses upon cooling to room temperature, creating a source for mold growth and contributing to premature rotting of interior building materials unless adequate ventilation is maintained. The DOE policy

on treatment of unvented space heaters is as follows. In cases where weatherization work takes place on homes with unvented space heaters, local agencies should check to see if a vented space heater can be installed to carry the major heating load. Otherwise the local agency should consider either replacing all the unvented heaters or not weatherizing the house. In cases where replacement is indicated, States should carefully analyze existing conditions to best determine whether to require replacement with the same fuel items. The decision to change fuel types should be on a limited, case-by-case basis. Current WAP regulations governing weatherization activities require that measures installed in a dwelling unit be selected on the basis of cost-effectiveness, with the most cost-effective installed first. Unvented space heaters have very high efficiency ratings because they discharge their exhaust gases directly into the space being heated rather than outside, allowing the energy embodied in the hot exhaust gases to be released into the heated space. Vented space heaters exhaust combustion products, and considerable amounts of energy, out of the residence, and therefore, are far less energy efficient. The current WAP regulations are undergoing several changes. One of these changes includes a heightened emphasis on health and safety. The replacement of an unvented space heater with a vented one may not be justified through cost-effective methods in and of itself. However, the potential does exist to combine other weatherization measures and health and safety considerations with vented space heaters as replacements for unvented space heaters. In such instances the heat energy demanded by the structure can be lowered so that total energy costs are less or the same, while the indoor air quality resulting from the use of a vented space heater is greatly improved. The above considerations must be taken into account in justifying replacement of an unvented space heater with a vented one.

a. Electric Space Heaters

DOE will not permit any WAP-funded weatherization work other than incidental repair on electric space heaters with DOE funds. (If funds from another source are available, DOE will not preclude use of such a source, but we do not encourage it.) This is because of the high cost of electricity as compared to fossil fuels; the lower output ratings (size); the risk of fire hazards - especially in older homes; and, the inadequate electrical systems in older homes frequently cannot safely carry the power required to operate an electric heater. Work on such systems may make local agencies liable for inadequate electric wiring and damages that may result.

b. Gas Space Heaters

ANSI Z223.1 contains the following prohibition against installation of unvented gas space heaters: "Unvented space heaters shall not be installed in bedrooms or bathrooms, nor shall they be installed in institutions such as homes for the aged, sanitariums, convalescent homes or orphanages." This prohibition, coupled with the potential for serious indoor air quality and moisture problems, leads DOE to permit replacement of gas space heaters only when the existing ones are in poor mechanical condition or pose health and safety risks for other reasons. (We understand that repair is not generally an option with unvented gas space heaters.) Such replacement should be with another gas space heater. We would expect that such replacements would be with vented systems but are not requiring vents in this interim policy.

c. Kerosene Space Heaters

Because of the potential for serious indoor air quality and moisture problems, the potential fire hazards, and that the user must select the proper grade of kerosene, the DOE position on

unvented kerosene space heaters is that local agencies may replace or repair unvented kerosene space heaters only if an acceptable plan is submitted to the applicable State. This plan should consider among other things: The cost-effectiveness, health and safety concerns; the code considerations, if applicable; and, a client education component. Also, such replacements or repairs should be considered only when the kerosene heaters are the only source of heat and no reasonable alternative exists.

IMPLEMENTATION

The information contained in the section entitled, "Weatherization Considerations," and found on pages 35-38 of the space heater report should be understood and addressed by local programs that get involved in space heater repair and replacement. Grantee health and safety policy, especially as it relates to space heater repair and replacement, in compliance with the above guidance, must be explained in the applicable State plan or appropriate amendment in order to permit Support Office review and approval. Funds to address these items as part of weatherization work will be allowable WAP costs. It is especially important to insure that adequate inspection, safety, liability and insurance procedures exist and be followed. In all cases, an education component for clients should be a part of the space heater work. Further, testing for indoor air quality, especially carbon monoxide levels in homes with unvented space heaters, should be performed. The cost of purchase of the testing device, the mechanical tools necessary to check for indoor air quality and the training of personnel to do the testing are allowable program expenses. These charges may be made to the program support cost category.

RELATED MATERIALS AND DOCUMENTS

August 1, 1991, transmittal of the results of the Indoor Air Quality test component of the North Carolina Audit Field Test.

Analysis of Space Heaters as a Possible Allowable Weatherization Measure (a report).

Space Heater Analysis for WAP

CONSUMER PRODUCT SAFETY COMMISSION PAMPHLETS (CPSC):

Smoke Detectors Can Save Your Life (English and Spanish versions)

What You Should Know About Space Heaters

On the Side of Safety ... CAUTION Choosing and Using Your Gas Space Heater

Product Safety Fact Sheet - No. 98: Electric Space Heaters

Product Safety Fact Sheet - No. 44: Fireplaces

Product Safety Fact Sheet - No. 79: Furnaces

Product Safety Fact Sheet - No. 99: Ground-Fault Circuit Interrupter (GFCI)

Product Safety Fact Sheet - No. 9: Ranges and Ovens

Your Home Fire Safety Checklist

What You Should Know About Combustion Appliances and Indoor Air Pollution

POLICY TRANSMITTAL TO GRANTEES

Support Offices are requested to provide copies of this interim space heater policy to their grantees and to request that grantees, in turn, provide it to subgrantees. James Gardner, Jr., Acting Director Weatherization Assistance Programs Division Office of Grants Management Conservation and Renewable Energy.

Exhibit 5 – Activities and Federal Lead-based Paint Regulations

Weatherization Program Notice 02-6

Effective Date - July 12, 2002

SUBJECT: WEATHERIZATION ACTIVITIES AND FEDERAL LEAD-BASED PAINT REGULATIONS (Replaces WPN 01-10 Issued 5/10/01)

PURPOSE: The primary purpose is to provide guidance to Regional Offices and States relative to Weatherization health and safety matters associated with lead-based paint in homes. The secondary purpose is to provide information about other Federal lead-based paint rules that apply to Weatherization work.

SCOPE: The provisions of this guidance apply to all grantees applying for financial assistance under the Department of Energy's Weatherization Assistance Program.

PLEASE NOTE: Some of this guidance DOES NOT apply when Weatherization work is done in HUD program housing or when HUD funds are used. The requirements are somewhat different under the HUD's Lead Paint Rule, and agencies who do work in HUD program housing must become familiar with the differences and follow the HUD Rule when weatherizing under those circumstances. See **Attachment A** for a discussion about the HUD rule.

BACKGROUND: This Program Notice replaces Weatherization Program Notice 01-10, Weatherization Activities and Federal Lead-based Paint Regulations of May 10, 2001.

Childhood lead poisoning is linked to reduced intelligence, low attention span, reading and learning disabilities, juvenile delinquency, behavioral problems, and other adverse health effects. Over the past 20 years, the removal of lead from gasoline, food canning, and other sources have been successful in reducing population blood lead levels by more than 80 percent.

However, 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.

Congress and Federal agencies responsible for the environment and disease control have become increasingly aware of the lead-based paint hazard. In 1992, Congress passed and President Bush signed into law the Housing and Community Development Act, which included Title X, the "Residential Lead-Based Paint Hazard Reduction Act of 1992. Title X authorized EPA, HUD, and OSHA to develop lead-based paint regulations. This Act is the basis for the EPA, HUD, and OSHA regulations discussed in this Program Notice.

The Department of Energy (DOE) is a member of two relevant interagency task forces: the President's Task Force on Environmental Health Risks and Safety Risks to Children and the Federal Interagency Lead-Based Paint Task Force.

POLICY: Lead-based paint dust and other residues are hazards that Weatherization workers are likely to encounter in older homes. HUD estimates that within the national housing inventory, twenty-six million homes have significant lead-based paint hazards (estimates of the National Survey of Lead and Allergens in Housing at: www.hud.gov/lea/HUD_NSLAH_Vol1.pdf). Furthermore, Weatherization work may directly disturb lead-based paint, possibly creating hazardous conditions. While the authorizing legislation for DOE's Weatherization Assistance Program (WAP) does not specifically address lead-based paint hazard reduction, DOE's policy is that Weatherization workers must be aware of the hazard and conduct Weatherization activities in a safe manner to avoid contaminating homes with lead-based paint dust and debris, and to avoid exposing the clients, themselves, and their families to this hazard.

It is important to remember that the WAP's 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, nor to do lead-based paint hazard control or stabilization [1]. 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, 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, but DOE funds may not otherwise be used for abatement, stabilization, or control of the lead-based paint hazard that is in the house.

Weatherization agencies are encouraged to apply for HUD Lead Hazard Control Grants and become certified to do lead-based paint hazard control work. Some agencies are doing this work now as an additional business line, and in at least one state some local agencies are performing Weatherization work and HUD's lead-based paint hazard control work at the same time.

[1] HUD is funded for the general control or stabilization of lead-painted surfaces in low-income homes, and HUD has programs that provide funding for lead hazard control in many communities

Weatherization is an energy efficiency program, not a renovation or remodeling or rehabilitation program, and thus may not be subject to other agencies' rules governing renovation, remodeling, or rehabilitation work. However, there are certain instances in which particular Federal rules relating to lead-based paint hazard do apply to Weatherization work. **Attachment A** is a summary discussion, for your reference, of the other Federal agency regulations that pertain to lead-based paint hazards and the circumstances under which we believe these regulations apply to Weatherization work. **Attachment B** is a Flow Chart to assist with determination of the appropriate actions, described below, and applicability of the various Federal rules.

DOE GRANT GUIDANCE: Processes known as "lead-based paint abatement," "lead-based paint hazard control," or "lead-based paint stabilization" are not allowable activities using Weatherization Program funds. However, 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.

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. 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.

1. **State Application.** The WAP's Program Year 2002 Annual Grant Guidance, Weatherization Program Notice 02-1, October 29, 2001, requires states to identify and implement Lead Safe Weatherization. As a part of their health and safety plan, States must identify the procedures for local agencies to follow to address lead-based paint issues. These procedures, at a minimum, were specified to include the following:

- A description of the LSW practices to be followed by Weatherization crews;
- The timetable for completing any necessary lead-based paint training for local agency Weatherization crews - see paragraph 8 below, for deadlines in getting all LSW training completed;
- The proper disposal of all materials containing lead-based paint; and
- The description of a "deferral policy" for dwellings where DOE funding or crew training/readiness is insufficient to perform the appropriate LSW practices.

2. **What is LSW?** 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. 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. 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. 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.

LSW practices/protocols are described in two documents, either of which could be adapted by a state as a model in developing their own set of LSW protocols. These documents are the Montana State University developed LSW curriculum and the State of California WAP booklet titled “Lead-Safe Weatherization.” Both the curriculum and the booklet are available for review on the WAPTAC website www.waptac.org.

- a. **When is LSW Necessary?** In order to be as compatible as possible with pertinent requirements imposed by other agencies’ regulations, DOE recommends that States include in their health and safety plan the following set of criteria for determining when LSW would be performed by local Weatherization agencies:

The dwelling was constructed pre-1978, and
The dwelling has not been determined to be lead-based paint free, and
Either, the amount of disturbed lead-based painted surface exceeds two square feet per room of interior surface, twenty square feet of exterior surface, or 10 percent of a small component type, e.g., window; or the amount of lead-based paint dust that will be generated by the Weatherization work exceeds the OSHA-defined airborne levels for lead.

4. **Testing for Lead-Based Paint and Lead-Based Paint Residues.** Testing for lead-based paint is not an allowable weatherization expense; except, when it is related to the installation of energy efficiency measures. These expenditures must be within the limits set by the state in its Weatherization health and safety plan. In pre-1978 houses where the presence or absence of lead-based paint has not been determined, testing for lead-based paint could be worthwhile as an economy step. If the anticipated weatherization/energy efficiency work involves disturbing more than a small amount of painted surfaces, then ruling out the presence of lead in the paint would save extra time and costs associated with doing LSW practices. 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 can be expensive and may take time. To have any standing in liability suits, testing requires the employment of a person who is a certified Lead Paint Inspector or Risk Assessor and has been trained and is knowledgeable in sampling techniques. The fastest test results are with a XRF (X-RAY Fluorescence) diagnostic tool. It gives an almost instantaneous result, but it is expensive and requires that the operator be certified. Purchases, the cost of training and certification, and maintenance of XRF machines must be funded from other sources, as they are NOT allowable expenditures of DOE Weatherization funds.

Low cost spot-test kits are available that provide a colorimetric (color change) indication of the presence or absence of lead. HUD and EPA are reviewing the efficacy of the commercial kits available, but have not yet completed their findings. Preliminary results indicate that these kits may be useful as a negative screen (an indication that no lead is present); however, agencies should exercise caution since not all spot-test kits are useful as a negative screen.

The following considerations are offered as a guide to determining whether testing is worth the time and money on a case-by-case basis:

- Houses built from 1978 on may be assumed to be free of lead-based paint, without testing.
- In houses built prior to 1930 [2], it is logical to simply assume the presence of lead-based paint and save the cost of testing.
- In homes built between 1930 and 1978, testing may not be warranted if the amount of paint to be disturbed is small, since it may be cheaper to perform LSW for a small area than to incur the expense of testing. However, where the amount of paint to be disturbed is relatively large, it may be worth the cost of testing, since a negative result would mean that the crews could dispense with having to perform the LSW protocols.

Routine testing of every house for lead paint levels before the start of work (testing of painted surfaces to be disturbed and/or risk assessment) and at the end (clearance testing) is a standard practice associated with lead paint hazard control or abatement work [3] and is not an allowable use of DOE Weatherization funds, except as required when weatherization work is being done on HUD homes or with HUD funds. If a state establishes a regimen of routine risk assessment and clearance testing for all cases where the presence of lead paint is a possibility, the state must use other sources of funding to implement such a policy.

[2] Although WAP Notice 01-10 suggested that 1940 was the cut-off year for prevalence of lead-based paint in housing, newer surveys (see reference to the national Survey of Lead and Allergens in Housing) suggest 1930. One reason for this was the apparent lack of housing construction during the Depression. By the time WWII arrived, metals like lead were diverted for the war effort and when the building boom of the late 1940s hit, lead was already being removed from paint. Generally, it is more likely to find lead in trim and door and window paint, than in wall paint.

[3] Please note that routine clearance testing is not only used for hazard control, but is required in HUD regulations for maintenance and rehabilitation activities in assisted housing.

NOTE: HUD's guidance to its properties has been to test all properties for the presence of lead-based paint, so, the HUD program housing in your area may already have been tested for lead-based paint.

About Clearance Testing - Clearance testing (as required by the HUD Rule) is not a requirement for Weatherization work per se. As such, clearance testing is not an allowable expenditure of DOE funds. However, under some circumstances clearance testing may be required if you are doing Weatherization work in HUD program housing or you are using HUD funds. In these instances, your first course of action should be to ask the HUD program to fund the additional cost for LSW and clearance testing. If no HUD funds are available, DOE funds may be used for clearance testing since it is a requirement in this instance.

5. **Deferrals.** States should develop a lead-based paint "deferral policy" to provide guidance to their subgrantees as to when it is prudent to defer certain Weatherization work in homes that have either tested positive or are assumed to have lead-based painted surfaces. The following steps are recommended:

■ First, the subgrantee should assess the following factors:

- 1) Is the agency prepared to work with lead-based paint? (i.e., have workers received training in LSW work practices - PLEASE NOTE THE TRAINING REQUIREMENT IN PARAGRAPH 8, BELOW; is the necessary equipment, such as HEPA vacuum cleaners, available; and does the agency's liability insurance cover work with lead-based paint);
- 2) What is the condition of the painted surfaces in the house? (i.e., are they seriously deteriorated);
- 3) What is the extent to which the specific energy efficiency measures determined by the audit will disturb painted surfaces? (i.e., will the disturbance likely generate dust in excess of OSHA minimums); and,
- 4) Will the cost of doing LSW work represent a large portion of the total cost, such as to exceed the amount allowed by the state's health and safety plan (which could be the case if large amounts of lead-based paint surfaces will be disturbed)?

■ Second, the grantee should determine, based on consideration of the above factors, whether to:

- 1) Proceed with all the weatherization work, following LSW work practices, or
- 2) Do some of the weatherization tasks, defer others, or
- 3) Defer all of the weatherization work.

Deferral would mean postponing the work either until the Weatherization agency is prepared to work with lead-based paint, or until another agency has corrected the problem such that weatherization can be safely performed. In cases where extensive LSW would be necessary, agencies are encouraged to arrange with other organizations, which are funded to do lead-based paint hazard control, to perform some of the more costly activities, such as risk assessment or clearance testing. In areas where there are no organizations performing such work, Weatherization agencies may choose to develop their capabilities for lead-based paint hazard control work, but they may not use DOE Weatherization funds for this purpose. The state's lead-based paint deferral policy should not call for deferring the Weatherization work solely because there is lead-based paint in the home. In such a home, regular Weatherization work that does not disturb painted surfaces can be done.

6. **Funding of Lead Safe Weatherization.** While the WAP Final Rule of 2000 (Federal Register, December 8, 2000) does not mandate a separate cost category for health and safety, it does allow states to budget health and safety costs as a separate category and, thereby, to exclude such costs from the calculation of average cost per home. States are reminded that, if they continue to budget and report health and safety costs under the program operations category, these costs would be included in the calculation of the average cost per home.

States should carefully consider the approach to be taken when they draft their health and safety accounting procedures. While ease of accounting is an important consideration, states should keep in mind that activities assigned to the health and safety budget category do not have to be cost-justified by the energy audit. When the same items are assigned to incidental repair, weatherization material, or installation cost categories, they must be cost-justified.

Some Weatherization agencies have successfully applied for funding from programs such as HUD's Lead Hazard Control and Healthy Homes to augment their Weatherization efforts when working in homes with lead paint. In some states, the Legislatures have appropriated separate funding to cover the additional costs to train and certify workers for work in homes with lead paint. Another potential source of funding, subject to each State's approval, is the HHS Low-Income Home Energy Assistance Program (LIHEAP). For your reference, **Attachment C** is LIHEAP Information Memorandum #2001-15, February 1, 2001, advising States that they may allow expenditure of LIHEAP funds, allocated for Weatherization of homes, to be appropriately used for certain expenses related to LSW.

- Liability Issues.** Unless an agency has specifically purchased additional insurance to cover pollution occurrences, they probably do not have sufficient insurance for their work as required by the WAP's Program Year 2002 Annual Guidance, **Weatherization Program Notice 02-1.** It is likely that their general liability insurance has a pollution occurrence exclusion. The WAP Annual Guidance requires that agencies have sufficient insurance coverage. When there is a gap in the coverage due to an exclusion, the agency has insufficient insurance. Therefore, WAP subgrantees are recommended to acquire Pollution Occurrence Insurance (POI).

DOE strongly advises agencies 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 LSW work situations involving lead-based paint.

The cost of such insurance is an allowable DOE expense, and we urge agencies to seek ways to obtain the coverage at reasonable rates

For insurance shopping: there are features about Weatherization work that state and local agencies should use in making the case for the lower risk associated with the nature of Weatherization work, especially when compared to lead-based paint abatement and lead hazard control work:

Weatherization is different from lead hazard control work and involves lesser levels of work associated with painted surfaces. In fact, the disturbance of painted surfaces, by comparison, is minimal and when it happens, is incidental to the purpose of the work - the installation of energy conserving measures. In addition, not all weatherization work involves disturbing painted surfaces and some homes are lead free, and so the risk basis for insurance rates, unlike insurance for lead hazard control work, should not be based on one hundred percent operations in a lead paint environment for every home weatherized.

DOE is involved with EPA and HUD in continuing discussions with the insurance industry about ways to qualify Weatherization agencies for more favorable rates. We also welcome suggestions from state and local agencies with experience in obtaining reasonable rates for this kind of work, which we will share with the network.

- Training.** WE CANNOT EMPHASIZE TOO MUCH: LSW training for Weatherization workers, both in-house and contractor, is critical to the protection of Weatherization clients and the workers themselves. Also, it may be helpful or even necessary in getting reasonable Pollution Occurrence Insurance (liability insurance for emissions from lead-based paint and

other sources). DOE requires that when the disturbance of painted surfaces is significant (more than the de minimis levels stipulated in the EPA rule or exceeds the emissions levels under the OSHA Rule), Weatherization workers be trained in LSW. If workers have not had sufficient training, states must provide training for them before they work on homes with lead paint where painted surfaces will be disturbed in the course of doing the weatherization measures.

To help states who didn't have a lead paint training program, DOE developed a LSW training course that became available in October, 2001. The course has an easily exportable reference tool illustrating LSW practices. This is not the only training curriculum that is available to states. There are several courses offered by EPA and HUD, that would serve as sufficient training for Weatherization workers to enable them to do LSW. Although the EPA and HUD lead paint training courses acquaint trainees with the proper work protocols, the DOE LSW training addresses work practices for specific weatherization measures. For workers who will have or have had the HUD or EPA training, states may want to augment that training with DOE's LSW reference tool.

The WAPTAC website has information about the above training courses and can be either downloaded or linked to a site where the course can be accessed. All are available to the states for use in crafting a training program. Any of these courses will provide sufficient orientation regarding the lead paint hazard to allow agencies to safely do Weatherization work that disturbs painted surfaces, providing that the agencies follow the state's protocols for LSW activities.

In order to be an allowable use of DOE grant funds, training in the mitigation of lead paint hazards when disturbing painted surfaces must be related to the installation of energy efficiency measures and LSW work practices. Establishing a routine requirement for every Weatherization worker to be an EPA (or the state equivalent) certified lead paint worker is a practice used in lead paint abatement work and is not an allowable use of DOE Weatherization funds. If a state chooses to implement a training policy requiring Weatherization workers to have EPA training and be certified, they must use alternate sources of funding.

An important deadline and training requirement for States:

Within 60 days of the date of this Program Notice revision, all states must have submitted a LSW Training Plan that is a part of the WAP State Plan's Annual File. This plan must have a schedule for the completion of LSW training for direct hire and contractor weatherization workers who work on homes with lead paint where painted surfaces will be disturbed in the course of doing the weatherization measures. This training must be completed as soon as possible, but within nine months of the date of this program notice. States not able to complete this training within the time frame must submit a justification to the Regional Office explaining why. If the request is reasonable, the Regional Offices will grant an extension to the state.

SUMMARY: We appreciate the continued constructive input of many people in attempting to define and resolve issues surrounding the lead-based paint hazard. We understand that many state and local Weatherization agencies find the incorporation of this guidance into their operations difficult and challenging.

Because of the complexity of these issues, there may be elements that will require still further clarification. The WAPTAC website will soon have a compilation of frequently encountered questions and answers for them. Please let us know your questions and issues, so we can work together on dealing with this important health and safety matter.

DRAFT

Exhibit 6 – 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.
- C. 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 cost-effectively 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).
- D. Because air tightening may cause an increase in relative humidity, client education should include information about moisture problems and possible solutions.
- E. In the course of weatherization, any low-cost 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.
- F. A dwelling that has a CFM50 greater than the Building Tightness Limit (BTL) is not guarantee that moisture will not be a problem in that home.

Repair or Elimination of Moisture Problems

Repair of moisture problems that might 1) result in health problems for the client 2) damage the structure over the short- or long-term, or 3) 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. Education 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.

3. Dryer Vents

- A. Electric dryers must be vented to the outdoors of the building whenever feasible; gas dryer vents must always be vented to the outdoors.
- B. Mobile home dryer vents must be extended through the skirting to the outdoors.
- C. Dryer vent ductwork should be smooth surfaced and, whenever possible, not exceed fourteen feet. No more than two 90° elbows may be used in the vent system. Relocation of dryers may need to be considered to meet this vent pipe-length limitation.
- D. Flexible metal vent pipe may be used if it does not exceed six feet in length.
- E. Gas dryer vent pipe should not be installed with sheet metal screws or other intrusive fasteners that will collect lint (according to NFPA 54).

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, and are to be given a copy of the pamphlet *A Brief Guide to Mold, Moisture and Your Home*.

- 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.

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, <i>A Brief Guide to Mold, Moisture, and Your Home</i> , 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. | | |
| Printed name of recipient | _____ | Date _____ |
| Signature of recipient _____ | | |
| Self-Certification Option (for tenant-occupied dwellings only) | | |
| <i>If the mold pamphlet was delivered but a tenant signature was not obtainable, you may check the appropriate box below.</i> | | |
| <input type="checkbox"/> Refusal to sign --I certify that I have made a good faith effort to deliver the pamphlet, <i>A Brief Guide to Mold, Moisture, and Your Home</i> , 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. | | |
| <input type="checkbox"/> Unavailable for signature --I certify that I have made a good faith effort to deliver the pamphlet, <i>A Brief Guide to Mold, Moisture, and Your Home</i> , 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. | | |
| Printed name of person certifying mold pamphlet | _____ | Attempted delivery date and time delivery _____ |
| Signature of person certifying mold pamphlet delivery _____ | | |
| _____ | | |
| _____ | | |
| 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 7 – Local Agency Monitoring Plan

Performance Evaluation (PE) Agency Plan

This PE Agency Plan has been developed for the upcoming monitoring visit to your agency scheduled for _____ to _____

The PE agency plan was developed based upon a review of the following information:

- Review of the Pre-Monitoring Questionnaire (as completed by your agency)
- Review of the files provided by your agency
- The Weatherization General Work Plan
- Your agency’s self assessment
- Review of your most recent fiscal audit
- Past PE concerns
- Agency requests
- Known technical assistance needs
- Standard annual performance evaluation visit

Based upon consideration of the above items, the following areas (denoted by an X in the center column) have been selected for review:

| Area of Review | X | Comments or reasons for identifying the focus area |
|---|---|--|
| Pre-monitoring questionnaire | | |
| File Documentation | | |
| Organization | | |
| Completeness & Accuracy | | |
| Compliance w/OHCS Program Rules | | |
| Agencies self assessment | | |
| Most recent fiscal audit | | |
| Past monitoring concerns | | |
| Agency request | | |
| Known technical assistance needs | | |
| Standard annual PE visit | | |

Exhibit 8 – Agency Weatherization Self Assessment

Agency Weatherization Self-Assessment



How do you rate your agency's performance/knowledge in the following categories:

| | | Poor/Fair | Good | Excellent | Additional Comments |
|---|-------------------------|-----------|------|-----------|---------------------|
| Technical | Blower Door Diagnostics | | | | |
| | Lead | | | | |
| | Combustion Safety | | | | |
| Documentation | Job costs | | | | |
| | Eligibility | | | | |
| | Pre-condition of home | | | | |
| File Organization | | | | | |
| Pre Work Audit | Job Costing/Bidding | | | | |
| | Other | | | | |
| Inspections | Quality | | | | |
| | Need for call-back | | | | |
| Outreach | | | | | |
| Client Satisfaction/Relationship | | | | | |
| T/A & Training Requests | | | | | |

In light of your above self-assessment, please identify what kind of assistance OHCS can provide through your field representative at his/her next onsite visit or by some other means.

| | |
|---------|--------------------------|
| Agency: | Person filling out form: |
|---------|--------------------------|

Exhibit 9 – Performance Evaluation

|   | | Oregon Housing and Community Services Agency Performance Evaluation | |
|---|------------|---|--|
| General Program | | | |
| Rating | Comments: | Recommendations | |
| General Administration | | | |
| Procurement | Exemplary | | |
| Contractor Outreach | Exemplary | | |
| Contractor Insurance | Exemplary | | |
| Funding Leveraging | Stable | | |
| Financial Management | Stable | | |
| CRD | Exemplary | | |
| Client Services | Exemplary | | |
| MSDS | Stable | | |
| Monthly safety Meetings | Stable | | |
| Fiscal | Stable | | |
| Client Files | | | |
| Complete and Accurate | At-Risk | | |
| Organization | Stable | | |
| Scopes of Work | At-Risk | | |
| Job Costing | Exemplary | | |
| Overhead cost | Stable | | |
| Client Eligibility | At-Risk | | |
| Mold | Stable | | |
| Lead | Stable | | |
| Inspections | At-Risk | | |
| REM/rate | Stable | | |
| Minimum Ventilation Ratio | Stable | | |
| Program Delivery | | | |
| Production | Stable | | |
| Cost-Effective Practices | Stable | | |
| Change in Subs | Stable | | |
| Change in Staff | Stable | | |
| Material Inventory | Stable | | |
| Training | Stable | | |
| PEER Exchange | Stable | | |
| Client Education | Stable | | |
| Client Satisfaction | Stable | | |
| Work Quality | | | |
| Rating | Comments: | Recommendations | |
| Field Performance Testing / Health and Safety | | | |
| Moisture | Stable | | |
| Air leakage Reduction | Stable | | |
| Indoor Air Quality | Stable | | |
| Blower Door | Stable | | |
| Insulation Blower | Stable | | |
| Combustion Testing | Stable | | |
| CAZ Testing | N/A | | |
| CO Testing | Stable | | |
| Heating Systems | Stable | | |
| Diagnostic Tool Calibration | Stable | | |
| Material Installation and General Workmanship | | | |
| Attic Insulation | Stable | | |
| Wall Insulation | Stable | | |
| Floor Insulation | Vulnerable | | |
| Window Installation | Stable | | |
| Weather-stripping | Stable | | |
| Duct Sealing | Stable | | |
| Misc. Measures Installed | At-Risk | | |
| General Base load | At-Risk | | |
| Health and Safety | Stable | | |
| Refrigerators | Stable | | |

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