

Oregon Housing and Community Services

SB 1149

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

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Introduction

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

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

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

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

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

Statutory Authority: ORS 456.515 - 456.725, 458.505 - 458.545

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

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

Statutory Implemented: ORS 458.505 - 458.515

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

OAR chapter 813, division 205

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

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

1.0 Part I – Annual File

1.01 Sub-grantees

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

1.02 Allocations

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

1.03 Fund Uses

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

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

1.04 Monitoring Activities

1.04.1 Introduction

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

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

1.04.2 Peer Exchange

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

1.04.3 Technical Assistance

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

2.0 Part II – Master File

2.01 Eligible Population

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

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

2.01.1 What is Income

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

2.01.2 Time Period for Income Verification

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

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

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

2. Applications older than one (1) year **must** have the household income re-verified.
- B. Sub-grantees are strongly encouraged to coordinate with the local Low-Income Home Energy Assistance Program provider to obtain eligible Energy Assistance applicants who have requested weatherization.

2.01.03 Priorities

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

- A. Elderly persons - 60 years of age and older.
- B. Persons with disabilities.
- C. Families with children 6 years of age and under.
- D. Priority can also be given to:
 1. High residential energy users (i.e. energy usage is above average as a result of household composition or unusual needs for energy).
 2. Households with a high energy burden (i.e. when 20 percent, or more, of the household income is going towards energy).
- E. Sub-grantees may choose to add additional factors to their priority list such as:
 1. Ability to leverage funds.
 2. Native Americans.
 3. Households with a member on active military duty, etc..
- F. The priority criteria used for determining applicant priority must be in writing and on file with the sub-grantee. The criteria must be used consistently for all applicants unless the sub-grantee is involved in an OHCS sanctioned special project.
 1. Sub-grantees must notify OHCS of changes and additions to their priority criteria.
- G. Sub-grantees must ensure that weatherization services are being provided to low-income persons that live in all types of housing (i.e. single family, rentals, manufactured housing units, and multi-family buildings). Housing type is not a recognized priority.

H. Agencies must submit a work plan to include:

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

2.01.4 Nondiscrimination

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

2.02 Weatherization Work

Activities included in the weatherization of qualified homes will include:

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

2.02.1 Prior to Audit

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

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

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

2.02.2 Historic Preservation Guidelines

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

2.03.3 Permission to Proceed

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

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

2.04 Energy Audit Procedure

REM/Design will be the official audit tool.

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

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

2.04.1 Use of the Computerized Audit Tool

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

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

2.04.2 Coordinator Override

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

2.04.3 Prioritization of Work

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

2.04.4 Audit Tool Training

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

2.05 Final Inspection

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

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

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

2.05.1 Self Declaration

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

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

2.05.2 Funding Summary Sheet

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

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

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

2.06 Analysis of Effectiveness

In order to calculate the most accurate energy savings:

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

2.07 Health & Safety Plan

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

Create and refer to append.

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

2.07.1 Mold and Mildew

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

2.07.2 Certification for Mold & Mildew Safe Work Practices

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

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

2.08 Health & Safety – Incidental Repairs

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

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

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

2.08.1 Reporting

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

2.09 Rental Procedures

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

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

2.10 Lien on Property

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

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

2.11 Documentation

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

2.12 Program Management

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

2.12.1 Spend Down Policy

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

2.12.2 Service Delivery System

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

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

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

2.12.3 Contract with Sub-grantees

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

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

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

2.12.4 Administrative Expenditure Limits

ECHO Weatherization Assistance Program Administration Fund Expenditures are as follows:

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

2.12.5 Funding Formula

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

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

2.12.6 Funding

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

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

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

2.15 Certification for Lead Safe Renovators

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

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

2.16 Monitoring - Productivity

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

2.17 Multi-Family

2.17.1 Eligibility

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

2.17.2 Landlord Contribution Clause

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

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

2.18 Standard Weatherization Procedures

2.18.1 Labor

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

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

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

2.18.2 Davis-Bacon Act-Compliance

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

2.18.3 Authorization

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

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

2.18.4 Operation of the Program

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

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

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

2.18.5 Mobile Home Definition

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

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

2.19 General Accounting Practices

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

2.19.1 Submit an Annual Audit

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

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

2.19.2 Inventory Control

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

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

2.19.3 Receive Authorization from OHCS for Purchases or Lease

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

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

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

2.19.5 Financial Operations Manual Have fiscal review

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

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

2.19.6 Prohibited Expenditures

Funds shall **not** be expended for:

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

2.19.7 Discretion of Procurement Fiscal

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

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

2.19.8 EPA Compliance

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

2.20 Reporting Requirements

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

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

2.20.1 Success Story Reports

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

2.20.2 Fuel Switching

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

2.20.3 Cook Stoves

Cook stove replacement is not allowed with ECHO funds.

2.20.4 Wood Stove Replacement

Wood stove replacement is not allowed with ECHO funds.

2.21 Quality Control

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

2.21.1 Fire Codes

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

2.21.2 Electrical Codes

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

2.21.3 Building Codes

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

2.21.4 Materials Installed Properly

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

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

APPENDICES

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

Appendix A – Health and Safety Plan

HEALTH AND SAFETY PLAN State of Oregon ECHO Weatherization Assistance Programs

I. Weatherization Program Health and Safety

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

1. Definitions

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

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

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

II. Crew and/or Contractor Health and Safety

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

III. Training and Monitoring

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

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

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

IV. General Work Practices

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

1. The Crew Leader/Foreman

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

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

2. Personal Protective Equipment

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

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

3. Hand and Power Tools

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

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

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

4. General Fall Protection

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

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

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

5. Housekeeping Activities

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

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

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

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

6. Attic/Crawl Space Areas

Before weatherization activities are conducted, the following is required:

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

7. Occupant & Worker Health and Safety

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

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

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

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

V. Potential Hazard Conditions

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

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

1. Biologicals

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

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

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

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

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

2. Combustion Appliances and Combustion Gases

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

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

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

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

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

3. Fire Hazards

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

4. Smoke, Carbon Monoxide Alarms, and Fire Extinguishers

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

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

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

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

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

5. Occupant Pre-existing or Potential Health Conditions

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

6. Mold & Moisture

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

Mold testing & remediation is not an allowable expense.

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

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

Acceptable H&S expenditures to address moisture issues include:

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

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

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

7. Drainage

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

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

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

8. Code Compliance

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

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

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

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

9. Pests

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

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

10. Injury Prevention of Occupants and Weatherization Workers

Measures such as repairing stairs and replacing handrails.

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

VI. Indoor Air Quality

1. Ventilation

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

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

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

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

A) .35 x V x H x C

60

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

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

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

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

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

2. Asbestos

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

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

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

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

Follow the DEQ protocol listed below when sampling suspected ACM.

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

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

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

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

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

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

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

Agency staff should be trained in recognizing asbestos hazards.

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

3. Radon

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

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

Allowable precautions include:

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

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

4. Formaldehyde and Volatile Organic Compounds (VOCs)

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

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

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

When installing SPF, follow these steps to control exposures:

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

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

VII. Lead-Based Paint

1. Poisonous Lead Based Paint

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

2. Lead Renovation, Repair, and Painting Program

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

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

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

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

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

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

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

3. DOE Weatherization Program Notice (WPN) Instructions

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

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

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

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

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

4. Minimum Standards for LSW

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

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

5. Requirements

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

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

- c2. Post informational signs (signs **must** describe general nature and locations of the renovation and the anticipated completion date) and post the EPA Renovate Right pamphlet. (If pamphlet is not posted then agencies are required to provide information on how interested occupants can review a copy of the pamphlet or obtain a copy at no cost from the Weatherization Program).
- c3. Delivery to owner/occupant. Owner's and/or occupant's signature with acknowledgment or certificate of mailing. The owner/occupant **must** acknowledge receipt of the EPA Renovate Right pamphlet prior to start of renovation that contains the address of unit undergoing renovation, name and signature of owner or occupant, and the date of signature. It **must** be in same language as "contract for renovation" for an owner occupied (or the same language as the lease for occupant of non-owner occupied) target housing.
- d. If the Weatherization Program cannot get a signed acknowledgment (either the occupant is not home or refuses to sign the form), then the self-certification section of the form **must** be signed to prove delivery.
- e. The acknowledgement form **must** be filed and remain with the client file for three (3) years from date of signature.
 - e1. In addition to providing a copy of the pamphlet to owners and occupants, designated local agency staff (e.g., intake specialist, auditor, crew chief) **must** discuss the hazards associated with lead-based paint and lead dust, and describe how they will conduct LSW in the home.

7. General LSW Work Practice Standards

- a. Crews and contractors **must** take steps to protect occupants from lead-based paint hazards while the work is in-progress using appropriate containment strategies.
- b. Occupants, especially young children or pregnant women, may not enter the work site. Occupants are allowed to return only after the work is done and the home has passed a visual inspection.

VIII. Compliance With EPA's LRRPP Rule Requirements

- 1. To comply with EPA's LRRPP Rule requirements, specific verification inspection procedures are required as outlined in the April 22, 2008, rule.
 - a. Occupants' belongings **must** be protected from lead contamination. This can be done by removing them from the work area or covering them in protective bags and sealing it to prevent dust from getting on the items.
 - b. The work site **must** be set up to prevent the spread of leaded dust and debris.

- c. Warning signs **must** be posted at entrances to the worksite when occupants are present; at the main and secondary entrances to the building; and at exterior work sites. The signs **must** be readable from 20 feet from the edge of the worksite. Signs should be in the occupants' primary language, when practical.
- d. The work area **must** be contained. If containment cannot be achieved with occupants in the unit (e.g., work will take several days and involves the kitchen, bathrooms, or bedrooms that cannot be sealed off from use), occupants **must** move out of the unit or the work **must** be deferred until containment can be achieved.
- e. A Certified Renovator **must** supervise and inspect Weatherization work of any type and scale to ensure it is being done properly.
- f. Ensure containment does not interfere with occupant and worker egress in an emergency.

2. Prohibited Work Activities

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

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

IX. Containment

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

1. For 2010, to comply with EPA's LRRPP Rule requirements, a Certified Renovator will be required at the jobsite to assess and set up the containment site.
 - a. NEVER - allow residents and pets access to the work area while work is underway.
 - b. NEVER - open windows and doors allowing lead dust to float into other parts of the building or outside.
 - c. NEVER - allow furniture and other objects to remain in the Weatherization work area while Weatherization work is being performed unless they are covered and sealed in polyethylene sheeting or bags.
 - d. Every home and every specific weatherization measure is unique, therefore the level of containment required will be based on the hazards present, the age of the home, the scope of work activities, and any customer health issues. Although weatherization jobs require individual assessments, LSW work generally falls into two (2) levels of containment and the related standards are outlined below.

2. Level 1 Containment

Level 1 Containment is required in pre-1978 homes when *less than* 6 ft² of interior painted surface per room or 20 ft² of exterior painted surface will be disturbed.

- a. Level 1 Containment consists of methods that prevent dust generation and contains all debris generated during the work process. The containment establishes the work area which **must** be kept secure. Measures that *may* fall within this guideline include:
 - a1. Installing or replacing a thermostat.
 - a2. Drilling and patching test holes.
 - a3. Replacing HEPA filters and cleaning HEPA vacuums.
 - a4. Changing Furnace Filter.
 - a5. Removing caulk or window putty (interior).
 - a6. Removing caulk or window putty (exterior).
 - a7. Removing weather-stripping.

3. Level 2 Containment

Level 2 Containment is required when weatherization activities will disturb *more than* 6 ft² of interior surface per room, *or* 20 ft² of exterior surfaces in homes built prior to 1978.

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

(3) Operating a heat gun at temperatures at or above 1100 degrees Fahrenheit.

4. Interior Cleaning Requirements

- a. Collect all paint chips and debris, and seal in heavy duty plastic bags.
- b. Mist, remove, fold (dirty side in) and tape or seal protective sheeting.
 - b1. Dispose of sheeting as waste.
- c. Plastic sheeting between non-contaminated rooms and work areas **must** remain in place until after cleaning and removal of other sheeting.
- d. HEPA vacuum or wet wipe walls from high to low, then HEPA vacuum remaining surfaces and wipe with a damp cloth.
- e. Clean 2 feet beyond the contained work area.
- f. Use disposable wipes or change cloths frequently.
- g. For carpet or rug, use HEPA vacuum with beater bar.
- h. HEPA vacuum and wet mop uncarpeted floors - two-bucket mopping method or wet mopping system.

5. Visual Inspection Procedure

- a. Conducted by Certified Renovator.
- b. Put on disposable foot covers before entering the work area.
- c. Make sure there is adequate lighting in the work area.
- d. Turn-on all of the lights or use a bright, white-light flashlight.
- e. Systematically look for dust and debris on every horizontal surface in the work area and 2 feet beyond.
- f. Work from the farthest area from the entry to the entry.
- g. Closely examine each surface.
- h. If you find visible dust or debris, then re-clean the work area and repeat step 4.
- i. Once you have carefully looked at all of the surfaces and found no dust or debris, proceed to the cleaning verification procedure, or clearance.

6. Cleaning Verification (CV) Procedure

- a. Wipe each window sill within the work area. Use a single wet disposable cleaning cloth per window sill.
- b. Wipe uncarpeted floors and all countertops with wet disposable cleaning cloths. Wipe up to a maximum of 40 ft² per cloth.
- c. Compare each wipe to the CV card. If the cloth matches or is lighter than the CV card, the surface has passed cleaning verification and no further action is required.
- d. If the cloth is darker than the CV card, re-clean and repeat the CV process.
- e. If the second wet cloth fails, wait 1 hour or until surfaces are dry, and then wipe with an electrostatically-charged white disposable cleaning cloth designed to be used for cleaning hard surfaces. This completes the cleaning verification.

7. Clearance Examination (Dust Clearance Testing) – Optional under the RRP Rule.

- a. Dust clearance testing may be performed to check the effectiveness of the cleaning efforts.
- b. Clearance is an option under the EPA Renovation, Repair, and Painting Rule and is required by the HUD Rule in many cases.
- c. Dust clearance testing is performed to check the effectiveness of cleaning efforts.
- d. In some cases, dust clearance testing may be required as part of “clearance” (a regulation defined process to ensure that a work area is not contaminated with leaded dust after work is completed). Cleaning verification need not be performed if dust clearance testing is required at the conclusion of a renovation. In such cases, dust clearance testing may only be performed by a Certified Lead Inspector, Risk Assessor, or Dust Sampling Technician. The Certified Renovation Firm is required to re-clean the work area until dust-lead levels in the work area meet the clearance standards. Some state, local, and tribal laws may require a clearance examination following renovation and remodeling work, to levels that differ from the Federal clearance standards. The selection of a CV or a clearance examination will be based on regulatory requirements or the renovation contract.

8. Exterior Cleanup Requirements

- a. Clean all surfaces in the work area until no visible dust, debris, or residue remains.
- b. Remove all dust and debris without dispersal, and seal in heavy plastic bags.
- c. Remove protective plastic sheeting and mist before folding it dirty side inward.
- d. Check your work.
- e. Focus on areas such as window sills, bare soil, and children's play areas.
- f. Look for dust, debris and paint chips.

9. Exterior – Check Effectiveness of Cleaning

- a. Visual inspection
- b. A Certified Renovator conducts a visual inspection after any cleaning.
- c. Determines if any visible dust and debris are present in and beyond the boundaries of the work area.
- d. If visible dust or debris is found, collect and dispose of all paint chips, dust, and debris identified during the visual inspection.
- e. After re-cleaning, the Certified Renovator conducts another visual inspection.
- f. When all areas pass, warning signs may be removed.

10. Disposal

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

11. Deferral Policy Related to Lead-Based Paint

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

- a. Is the agency prepared to work with lead-based paint? Have workers received the required training in Lead Safe Weatherization protocols and, if the housing is also HUD financially assisted, Lead-based Paint Safe Work Practices? Is the necessary equipment, such as HEPA vacuum cleaners, available? Does the agency's liability insurance cover work with lead-based paint?
- b. What is the condition of the painted surfaces in the house? Is it so seriously deteriorated that a work person's presence just walking around the house is enough to stir up lead-based paint dust that is a threat to the clients and workers?
- c. What is the extent to which the specific energy efficiency measures determined by the audit will disturb painted surfaces? Will the disturbance generate dust in excess of OSHA minimums?
- d. Will the cost of doing Lead Safe Weatherization work represent a large portion of the total cost and exceed the amount allowed in the State's Health and Safety Plan?
- e. Using the above answers, the agency should conclude one of the following:
 - e1. Proceed with all the weatherization work, following Lead Safe Weatherization work practices; *or*
 - e2. Do some of the weatherization tasks and defer others; *or*
 - e3. Defer all of the weatherization work.
- f. Deferral means postponing work until the agency is prepared to work with lead-based paint, or until another agency has corrected the problem so that weatherization can be safely performed. Weatherization work should not be deferred solely because there is lead based paint in the home. Even in such a home, regular weatherization work that does not disturb painted surfaces and does not stir up lead-based paint dust can be done.

12. Funding of Lead Safe Weatherization

- a. ECHO funds may be used to pay for weatherization activities that disturb lead-based painted surfaces while installing energy efficiency measures or for case-by-case testing.
- b. ECHO funds shall not be used for abatement, stabilization or control of lead-based paint hazards, or routine entrance and clearance testing.

- b1. However, U. S. Department of Housing and Urban Development (HUD) funds such as Community Development Block Grant (CDBG), lead hazard control programs and Home Repair and Rehabilitation Program funds may be used to do this work.
- b2. Also, U. S. Department of Health and Human Services' (HHS) Low Income Home Energy Assistance Program (LIHEAP), may be used for certain expenses related to Lead Safe Weatherization.
- c. Specifically, for ECHO funding, agencies should budget Lead Safe Weatherization costs under Health and Safety as a separate cost category, excluded from the calculation of average cost per home. Lead Safe Weatherization costs include labor and materials. LSW costs must be itemized separately from measure costs.

13. Liability Insurance

OHCS recommends Pollution Occurrence Insurance (POI) for both agencies and subcontractors.

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

14. Lead Safe Weatherization Training

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

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

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

15. Record Keeping Requirements

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

- b1. Reports certifying that lead-based paint is not present.
- b2. Records relating to the distribution of the lead pamphlet.
- b3. Documentation of compliance with the requirements of the Lead-Based Paint Renovation, Repair and Painting Program.

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

X. Building Structure

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

1. Incidental Repairs

Incidental repairs necessary for the effective performance or preservation of weatherization materials are allowed. When a repair activity is a component of an energy efficiency measure that is being installed then the installation and materials are part of the efficiency measure and are classified as incidental repair. The cost of incidental repairs must be included in the cost of the package of measures.

Examples of these limited repairs include:

- a. Replacing windows or doors that cannot be repaired or replaced cost effectively and must be replaced in order to ensure the effectiveness of the weatherization.
- b. Repairing water-damaged flooring as part of replacing a water heater.

2. Building Structure & Roofing

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

Agency staff must perform a visual inspection and ensure that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection.

The client must be notified of any structurally compromised areas identified and steps that are necessary to correct the deficiencies.

3. Electrical Issues

- a. Knob and Tube Wiring: Electrical inspection by a licensed electrician is required for each building component (attic, walls, floor) containing knob-and-tube wiring for which insulation is proposed, prior to insulation being installed. Repairs, if necessary, are to be made before insulation work can proceed.
 - a1. The electrician **must** certify the knob-and-tube wiring in each component is safe for insulation by the completion of the Knob-and-tube Inspection Form.
 - a2. A Copy of the form **must** be placed in the client's file.
 - a3. The cost of electrical inspection and minor electrical repairs must be charged to the Health and Safety category.
- b. Minor Repair: Minor electrical repairs are allowed where the health & safety of the occupant is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures.
- c. Serious electrical hazards exist when gross overloads are present. Should auditors and crews find such existing problems, they shall notify the owner. Weatherization measures that involve the installation of new equipment such as air conditioners, heat pumps, or electric water heaters can exacerbate previously marginal overload problems to hazardous levels.
 - c1. The problem shall also be noted in the client file.
 - c2. To the extent that these problems prevent adequate weatherization, the agency shall consider repairing them on a case-by-case basis.

Agency staff must be aware of how to identify basic electrical hazards.

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

4. Refrigerant Issues

- a. The replacement of air conditioners, approved since 1992, and the recently approved refrigerator replacements (Weatherization Program Notice 00-05), requires agencies to reclaim refrigerant per Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93.
 - a1. The appliance vendor, de-manufacturing center, or other entity recovering the refrigerant **must** possess EPA-approved section 608 Type I, or universal certification.
 - a2. Clients must be informed never to disturb refrigerant.

5. Windows & Doors

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

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

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

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

XI. Heating and Air Conditioning

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

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

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

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

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

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

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

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

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

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

Documentation of the thought process and reasoning of repair/replacement of a heating system is required in the project file.

Discuss with client and provide information on appropriate use and maintenance of heating systems.

XII. Space Heats

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

When electric space heaters are encountered, the agency should check circuitry to ensure an adequate power supply for existing space heaters.

Clients must be informed of the hazards associated with electric space heaters and collect a signed waiver if removal is not allowed.

2. Un-vented Combustion Space Heaters – Removal of un-vented combustion space heaters is required. Inform client of dangers of unvented space heaters - CO, moisture, NO₂, CO can be dangerous even if CO alarm does not sound. If clients will not allow for removal of un-vented combustion space heaters, deferral of the project is required.

3. Vented Combustion Space Heaters - Vented combustion space heaters should be treated the same as furnaces. All required combustion testing listed in section V – 2 must be performed.

Agency staff must be trained in proper testing protocol.

XIII. Solid Fuel Heating (woodstoves, etc.)

Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary heating units is allowed.

Visual inspection of chimney, flue and combustion appliance zone depressurization testing is required.

Clients should be made aware of safety hazards associated with solid fuel heating including depressurization issues that can potentially cause back drafting.

Agency staff must be trained in proper techniques for testing worst case depressurization and inspection.

XV. Deferral Standards

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

1. Agencies (subgrantees) should develop guidelines and a standardized form. The form should include:
 - a. Client's name and address.
 - b. Date of the audit\assessment.
 - c. Date the client was informed of deferring weatherization.

- d. A clear description of the problem, conditions under which weatherization could continue, the responsibility of all parties involved, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options.
2. Deferral Conditions May Include:
- a. The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
 - b. The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved in a cost-effective manner.
 - c. The house has sewage or other sanitary problems that would further endanger the client and the weatherization installers if weatherization work were performed.
 - d. The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building official or utilities.
 - e. Moisture problems are so severe they cannot be resolved under existing health and safety measures and minor repairs.
 - f. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.
 - g. The client is uncooperative, abusive, or threatening to crew, subcontractors, auditors, inspectors, or others who **must** work on or visit the house.
 - h. The extent and condition of lead-based paint in the house would potentially create further health and safety hazards.
 - i. In the judgment of the energy auditor, any condition exists which may endanger the health and/or safety of the work crew or subcontractor, the work should not proceed until the condition is corrected.

Agencies (subgrantees) are expected to actively pursue all alternative options on behalf of the client, including referrals, and use good judgment in dealing with difficult situations.

Appendix B – Training and Technical Assistance Plan

1.00 Training and Technical Assistance

Training must be tied into an overall certification program such as, Residential Energy Analyst Program (REAP) or Building Performance Institute (BPI) Certification Program; which is designed to bring the skill and competence level of all weatherization sub-grantee staff and contractors to a uniform standard or other trainings deemed to have an overall benefit to the program which include but are not limited to Mold and Mildew Training, Lead Renovation and Repair Training, OSHA Training, CPR/First Aid Training

1.01.1 Allocation of T&TA Funds

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

- A. Registration costs for conferences, meetings, workshops and other related energy functions.
- B. Travel, lodging, meals and parking, to attend activities identified in **1.05.1 Allocation of T&TA Funds, A.** above.
- C. Salary and fringe costs for direct agency staff while attending approved training functions.
- D. The purchase of specialized equipment or tools. Not to include equipment or tools used in normal day-to-day weatherization activities are to be purchased with T&TA funds. Such items should be purchased with “Program” or other funds.
- E. Subscriptions to magazines, newsletters and memberships.
- F. Other incidental functions, activities or events not mentioned in 1.05.1 Allocation of T&TA Funds, A. – D. above.

1.01.2 Travel Regulations

Each sub-grantee will have in place, travel regulations that include:

- A. Travel authorization.
- B. Reimbursement.
- C. Advances.
- D. Per diem rates.

1.01.3 Availability of T&TA funds

OHCS will allocate no more than five percent (5%) of ECHO Funds to agencies for the purpose of Training and Technical Assistance.

1.02.0 Peer Exchange Protocols

The following protocol will be used by agencies when participating in peer exchange.

Stable agency's can and Vulnerable agencies will participate in an annual peer exchange

- a. Agencies can visit another agency of their choice. It is encouraged that they seek an agency that has a new or interesting aspect to their program such as a new weatherization measure, technique or technical application.
- b. Agencies may not visit the same agency as prior year without OHCS permission.

Selecting Units to Visit

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

Elements of Exchange Visits

- a. Discuss new and innovative techniques and applications; administrative procedures' equipment use; applications diagnostic testing techniques; and use of testing equipment.
- b. Job site inspection (all four (4) units):
 1. Discuss work and make notes with host agencies representative.

2. Review installation techniques; testing procedures; benefits of application; as well as related benefits to home and occupant.

Discuss Observations

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

Exit Interview

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

Report to OHCS

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

2.00 Evaluation

OHCS continually evaluates the effective utilization of T&TA Funds through:

- A. The monitoring process.
- B. Sub-grantee input.
- C. Quality of work.

Information from these sources above have shown that OHCS T&TA activities have had a beneficial effect on statewide weatherization services provided to low-income consumers. OHCS will continue to evaluate T&TA activities and expenditures in an effort to ensure that the level of technical expertise necessary to provide efficient, effective service to low-income consumers is maintained.

Appendix C – Spend Down Policy

- At 25% percent of the expenditure period an agency should have 25% of their budget spent or committed (in progress).
 - If the agency is not within 80 percent of plan (i.e. has spent or committed less than 20 percent of their available funds) at six months then OHCS will contact the agency coordinator, fiscal representative, and Executive Director in writing. OHCS will be seeking, at this point, some “low level” explanation of the situation. Possibly the agency is doing fine; possibly there are some problems beginning to emerge.
- At 50% percent of the expenditure period an agency should have 50% of their budget spent or committed.
 - If, at this time, the agency is not within 80 percent of plan (i.e. has spent or committed less than 40 percent of their available funds) at one year then OHCS will contact the agency coordinator, fiscal representative, and Executive Director in writing. OHCS will be seeking, at this point, some “low level” explanation of the situation. Possibly the agency is doing fine; possibly there are some problems beginning to emerge.
- At 75% percent of the expenditure period an agency should have 75% of their budget spent or committed.
 - If, at this time, the agency is not within 80 percent of plan (i.e. has spent or committed less than 60 percent of their available funds) then OHCS will contact the agency coordinator, fiscal representative, and Executive Director in writing requesting that a detailed plan outlining the correction of this under-spending be submitted to OHCS within two weeks. If this plan is either not submitted, or is deemed by OHCS to be insufficient to correct the problem, then OHCS will be authorized to reallocate “X” percent (percentage to be determined) of that agency’s plan budget to other agencies via an agreed upon reallocation process.
- At 90% percent of the expenditure period an agency should have 90% of their budget spent or committed.
 - If, at this time, the agency is not within 90 percent of plan (i.e. has spent or committed less than 81 percent of their available funds) then OHCS will contact the agency coordinator, fiscal representative, and Executive Director in writing requesting that a detailed plan outlining the correction of this under-spending be submitted to OHCS within two weeks. If this plan is either not submitted, or is deemed by OHCS to be insufficient to correct the problem, then OHCS will be authorized to reallocate “X” percent (percentage to be determined) of that agency’s plan budget to other agencies via an agreed upon reallocation process.

Appendix D – Measure Lives

Effective immediately, effective useful lives (EUL) of measures for all ECHO funded projects will be aligned with the Regional Technical Forum EUL. **Any project that utilizes USDOE funds in any amount are required to utilize the DOE EUL for all measures regardless of the funding source on individual measures.**

Below are the new EUL's separated by DOE and Non-DOE funds. Measure lives are now split between Mobile homes and site built. Although DOE measure lives are identical for both, the RTF assigns different measure lives for mobile homes as opposed to site built.

Measure	Effective Useful Lives			
	Non- DOE Funds		DOE Funds	
	Mobile Homes	Site Built	Mobile Homes	Site Built
Ceiling Insulation	25	45	25	25
Floor Insulation	25	45	25	25
Wall Insulation	25	45	25	25
Rigid Insulation	25	45	25	25
Steel Doors	20	20	20	20
Mobile Home Doors	15	NA	15	NA
Rim Joist Insulation	NA	45	NA	25
Windows	25	25	25	25
Storm Windows	20	20	20	20
Lighting	7	7	7	7
Water Heaters	15	15	10	10
Duct Sealing	20	20	20	20
Duct Insulation	20	20	15	15
Refrigerators	20	20	15	15
Infiltration	20	20	18	18
Furnace Replacement	20	20	18	18
Ductless Heat Pump	20	20	18	18
Ducted Heat Pump	20	20	18	18

With this change, it will be vital that coordinators make sure that projects funding source aligns with the appropriate EUL. If funding sources are changed on a project, all requirements of the new grant funding must be met. The REM/Design improvement analysis must include the proper EUL for the funding source and all SIR requirements must be met. This will also apply to any spreadsheet calculator being utilized to replace refrigerators.

The mortgage discount rate of 3.0 will remain unchanged for all grants.