Alaska Weatherization Assistance Program

Health and Safety Plan
for DOE Funding
2019

Weatherization Grantee Health and Safety Plan-Alaska

☐ **POLICY SUBMITTED WITH PLAN**

1.0 – GENERAL INFORMATION

Grantees are encouraged to enter additional information here that does not fit neatly in one of the other sections of this document.

Because of the condition of many of the homes that are lived in by DOE eligible clients, Health and Safety improvements crucial to the implementation of energy efficiency work often exceeds even 20% of the average cost per unit. Traditionally AHFC has covered this with other funds but is choosing to utilize DOE funds as well this year. Those costs that exceed 20% will be covered by other budgets. Requesting 20% H&S.

We have limited the H&S category for DOE to the following:

Ground Vapor Retarder to reduce pollutants, radon and moisture from the ground into the living area.
Sump pump and or coverings
Crawl space ventilation strategies
Ventilation-whole house and spot, range hood-ASHRAE compliant
Heating System clean and tune and repair or replacement
Heating system stack and pipe repair and replacement, high temp caulk
Hot water heater replacement for H&S reasons, including stack and venting
LEAD RRP compliance costs/Asbestos/Mold/Pollutants
Carbon Monoxide and Smoke Alarms
Dryer Ducting to Outside
Client Education for Health and Safety
Worker Protection and OSHA Compliance

2.0 – BUDGETING

Grantees are encouraged to budget Health & Safety (H&S) costs as a separate category and, thereby, exclude such costs from the average cost per unit cost (ACPU) limitation. This separate category also allows these costs to be isolated from energy efficiency costs in program evaluations. Grantees are reminded that, if H&S costs are budgeted and reported under the program operations category rather than the H&S category, the related H&S costs must be included in the calculation of the ACPU and cost-justified through the approved energy audit.

Select which option is used below.

Separate Health and Safety Budget ☑	Contained in Program Operations ☐

3.0 – HEALTH AND SAFETY EXPENDITURE LIMITS

H&S Measure Matrix - Optional			
Double Click To Open For Editing			
Cells this shade auto calculate			
Enter Measure ↓	**Enter** Cost ↓	**Enter** Frequency % ↓	Auto Calculates
GROUND VAPOR RETARDER	$900.00	44.0%	$396.00
CRAWL VENTILATION	$817.00	6.0%	$49.02
HEATING SYSTEM C&T	$367.00	42.0%	$154.14
HEATING SYSTEM REPAIR	$638.00	14.0%	$89.32
HEATING SYSTEM REPLACE-AVERAGE	$6,108.00	5.0%	$305.40
WOOD	$4,833.00	5.0%	$241.65
BOILER	$9,833.00	5.0%	$491.65
MH	$3,833.00	5.0%	$191.65
FURNACE	$5,833.00	0.0%	$0.00
HS STACK AND CHIMNEY REPLACE	$1,500.00	0.0%	$0.00
HOT WATER SYSTEM REPLACE	$2,667.00	4.0%	$106.68
RANGE HOOD REPLACE	$583.00	19.0%	$110.77
RANGE HOOD NEW INSTALL	$750.00	6.0%	$45.00
VENTILATION FAN REPLACE	$800.00	89.0%	$712.00
VENTILATION FAN NEW INSTALL	$800.00	3.0%	$24.00
		0.0%	$0.00
RRP COPLIANCE/PPE/ASBES/MOLD/TOX	$500.00	17.0%	$85.00
CO/SMOKE ALARMS	$260.00	94.0%	$244.40
DRYER DUCTING	$290.00	39.0%	$113.10
SUMP PUMP	$1,000.00	3.0%	$30.00
Total Average H&S Cost Per Unit			$3,389.78
Enter Estimated Production (Annual File: IV.2 WAP Production Schedule) ➔			
Enter Estimated Program Operations Budget ➔			
H&S Budget (Total Average H&S Cost Per Unit * Estimated Production)			$0.00
Requested H&S Percentage Per Unit (H&S Budget/Program Operations)			

4.0 – Incidental Repair Measures

Incidental Repairs means those repairs necessary for the effective performance or preservation of weatherization materials. Such repairs include, but are not limited to, framing or repairing windows and doors which could not otherwise be caulked or weather-stripped and providing protective materials, such as paint, used to seal materials installed under this program. (10 CFR 440 "Definitions")

No incidental repair measures will be assigned as an H&S measure.

5.0 – Deferral/Referral Policy

Grantee has developed a comprehensive written deferral/referral policy that covers both H&S, and other deferral reasons.

Yes ☑ No ☐
Where can this deferral/referral policy be accessed?
WOM 2018 Section 1 (https://www.ahfc.us/files/6015/2270/5139/wom2018s1.pdf).

6.0 – HAZARD IDENTIFICATION AND NOTIFICATION FORM(S)

Documentation forms must. be developed that include at a minimum: the client's name and address, dates of the audit/assessment and when the client was informed of a potential H&S issue, a clear description of the problem, a statement indicating if, or when weatherization could continue, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options.

DOCUMENTATION FORMS HAVE BEEN DEVELOPED AND COMPLY WITH GUIDANCE?
Yes ☑ No ☐

7.0 – HEALTH AND SAFETY CATEGORIES

For each of the following H&S categories identified by DOE:

7.1 –Heating Systems

Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐	Alternative Guidance ☑	Results in Deferral ☐		
Air Conditioning Unallowable Measure ☑	Heating Unallowable Measure ☐			
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐

How do you address unsafe or non-functioning primary heating systems?

When a space conditioning system does not qualify as an ECM, the following conditions must be met before the unit can be replaced or repaired with Health and Safety funds. "Red tagged," inoperable, or nonexistent primary heating system may be replaced, repaired, or installed consistent with this guidance.
Use proper sizing protocols (Heat loss calculation in AkWarm Software that is used to determine HS sizing.
Unsafe primary units must be repaired or replaced, or deferral is required. There must be an identified and documented imminent H&S hazard (e.g. cracked heat exchanger) that necessitates the system replacement.

Much of our heating system work and replacements are completed using LIHEAP funds, and some use state funds, before utilizing DOE H&S funds.

How do you address unsafe or non-functioning secondary heating systems, Including unvented secondary space heaters?

Replacement or installation of secondary units is not allowed with DOE funds. Unsafe secondary units, including space heaters, must be repaired, or deferral is required.

Both LIHEAP and State funds can be used to replace critical secondary units. Much of our state is subject to power outages so secondary units are critical for winter outages. In addition, we have many dual primary systems (used in tandem to provide distributed heat) and utilize these funds for those systems.

Indicate Documentation Required for At-Risk Occupants

N/A no cooling systems allowed in the AK Weatherization program.

Testing Protocols

Make sure primary systems are present, operable, and performing correctly. • Check DOE-approved audit to determine if the system can be installed as an energy conservation measure (ECM) prior to replacement as an H&S measure. • On combustion equipment, inspect chimney and flue and test for Combustion Appliance Zone (CAZ) depressurization. See the AK Combustion Safety Form. For solid fuel appliances look for visual evidence of soot on the walls, mantel or ceiling or creosote staining near the flue pipe.

Client Education

When deferral is necessary, provide information to the client, in writing, describing conditions that must be met in order for weatherization to commence. A copy of this notification must also be placed in the client file. Discuss appropriate use and maintenance of units, in addition to education about combustion safety and signs of depressurization. Provide all paperwork and manuals for any installed equipment. Discuss and provide information on proper disposal of bulk fuel tanks when not removed as part of the weatherization work.

Training

WAP H&S policy training is an allowable activity. CAZ depressurization test and inspection training. Heating system training for installers also allowed. Crews are trained in the installation and maintenance of systems where they do most of the work in rural Alaska.

7.2 - Asbestos - All

What is the blower door testing policy when suspected Asbestos Containing Material (ACM) is identified?

Blower door testing is allowed where suspected friable ACM is present unless the suspected ACM is in such condition that it cannot be contained and may be introduced into the living space of the home. Vermiculite in attics is not a reason to not do blower door testing. Workers should use PPE and access should be from outside when working in attics with vermiculite. Air sealing should be completed before doing a blower door test. Seal the attic thoroughly and proceed with blower door testing. If the ACM is in such a condition that blower door testing cannot be done, the home may be deferred.

7.2a – Asbestos - in siding, walls, ceilings, etc.

Concurrence, Alternative, or Deferral

Concurrence with Guidance ☐ Alternative Guidance ☑ Results in Deferral ☐

Funding

DOE ☑ LIHEAP ☑ State ☑ Utility ☐ Other ☐

How do you address suspected ACM's in siding, walls, or ceilings that will be disturbed through the course of weatherization work?

The existence of asbestos siding that is in good condition does not prevent installing dense-pack insulation from the exterior. Siding may be removed and reinstalled in order to perform the ECM, and the associated costs may be charged as part of the ECM. General abatement of asbestos siding or replacement with new siding is not an allowable H&S cost.

Testing Protocols

Visually inspect exterior wall surface and subsurface, floors, walls, and ceilings for suspected ACM prior to drilling or cutting. Use applicable work safe practice. Asbestos testing is not allowed using DOE funds.

Client Education

Inform the client in writing that suspected ACMs are present and what precautions will be taken to ensure the occupants' and workers' safety during weatherization. Formally notify client in writing of results if testing was performed.

Training and Certification Requirements

Training focus needs to be on identification of possible vermiculite in all scenarios, the appropriate work safe practice for the situation, the AHJ in the area, and when deferral and possible abatement is needed. Abatement is not eligible under DOE funding. Also included in training is effective client education techniques addressing asbestos.

7.2b – Asbestos - in vermiculite

Concurrence, Alternative, or Deferral

Concurrence with Guidance ☐ Alternative Guidance ☑ Results in Deferral ☐

Funding

DOE ☑ LIHEAP ☐ State ☐ Utility ☐ Other ☐

How do you address suspected ACM's in vermiculite that will be disturbed through the course of weatherization work?

When vermiculite is present, assume it contains asbestos unless testing determines otherwise. Use proper respiratory protection while in areas containing vermiculite. Removal is not allowed. If identified seal attic space from inside the house and do not disturb, blower door test (positive pressure testing preferred), proceed with other weatherization measures. When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.

Testing Protocols

AHERA sample collection and testing must be conducted by a certified tester. Baseline environmental asbestos sampling is an allowable cost.

Client Education

Instruct clients in writing not to disturb suspected ACM. Provide asbestos safety information to the client.
Formally notify client in writing of results if testing was performed. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

Training and Certification Requirements

Training focus needs to be on identification of possible vermiculite in all scenarios, the appropriate work safe practice for the situation, the AHJ in the area, and when deferral and possible abatement is needed. Abatement is not eligible under DOE funding. Also included in training is effective client education techniques addressing asbestos.

7.2c – Asbestos - on pipes, furnaces, other small covered surfaces

Concurrence, Alternative, or Deferral

Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐

Funding

DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐

How do you address suspected ACM's (e.g., pipes, furnaces, other small surfaces) that will be disturbed through the course of weatherization work?

Assume asbestos is present in suspect covering materials. When suspected friable ACM is present, take precautionary measures as if it is asbestos unless testing determines otherwise. Grantee may allow removal or encapsulation by an appropriately trained professional on a case-by- case basis. Grantees will look at the savings that would be lost by deferring the home compared to the cost of the removal. Charge only those costs directly associated with the testing, encapsulation, or removal to the H&S budget category. When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.

Testing Protocols

Assess whether suspected ACMs are present. Proceed with work-safe practices. Testing is not an eligible expense.

Client Education

Instruct clients in writing not to disturb suspected ACM. Provide asbestos safety information to the client. Formally notify client in writing of results if testing was performed. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

Training and Certification Requirements

Training focus needs to be on identification of possible asbestos in all scenarios, the appropriate work safe practice for the situation, the AHJ in the area, and when deferral and possible abatement is needed. Abatement is not eligible under DOE funding. Also included in training is effective client education techniques addressing asbestos.

7.5 – Biologicals and Unsanitary Conditions
(odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.)

Concurrence, Alternative, or Deferral

Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐
	Unallowable Measure ☐	

Funding

DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐

What guidance do you provide Subgrantees for dealing with biological and/or unsanitary conditions in homes slated for weatherization?
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 conditions in the home pose a health risk to occupants and/or weatherization workers. See Mold and Moisture section for more information.
Testing Protocols
Visual inspection, sensory inspection.
Client Education
Inform client in writing of observed conditions. Provide information on how to maintain a sanitary home. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.
Training
Training focus needs to be on identification of biologicals and contaminants and solutions to remediation and prevention. Client education training in this area is also appropriate. All assessors and crew leads are trained to recognize contaminants that are threats to workers and occupants through OSHA training primarily.

7.6 – Building Structure and Roofing				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☐	State ☐	Utility ☐	Other ☐
What guidance do you provide Subgrantees for dealing with structural issues (e.g., roofing, wall, foundation) in homes slated for weatherization?				
Building rehabilitation is beyond the scope of the Weatherization Assistance Program. Homes that require more than minor repairs must be deferred. See Mold and Moisture, Code Compliance, and Pests sections for more information.				
Testing Protocol				
Visual inspection. Ensure that access to the portions of the home where weatherization will occur are safe for entry and performance of assessments, work, and inspections.				
How do you define "minor" or allowable structure and roofing repairs, and at what point are repairs considered beyond the scope of weatherization?				
Minor or allowable structure and roofing repairs must be tied to a measure being done during weatherization work or to protect existing insulation and other energy related parts of the home. The cost must not go above $1000 DOE funds per home. State and LIHEAP funds can be used to address more major repair. Grantees will look at the savings that would be lost by deferring the home compared to the cost of the repair.				
If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?				
All homes have a site-specific audit.				
Client Education				
Notify client in writing of structurally compromised areas. When deferral is necessary, provide information in writing describing conditions that must be met for weatherization to commence.				
Training				
How to identify structural and roofing issues. AK assessors are well trained in identifying structural deficiencies. We encourage peer exchange between agencies to help expand the knowledge on the existing housing stock. General classes on building structure and integrity and well as building science are allowable and encouraged.				

7.7 – Code Compliance				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☐
Funding				

DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐

What guidance do you provide Subgrantees for dealing with code compliance issues in homes receiving weatherization measures?

Correction of preexisting code compliance issues is not an allowable cost unless triggered by weatherization measures being installed in a specific room or area of the home. When correction of preexisting code compliance issues is triggered and paid for with WAP funds, cite specific code requirements with reference to the weatherization measure(s) that triggered the code compliance issue in the client file. Follow State and local or AHJ codes while installing weatherization measures, including H&S measures. Condemned properties and properties where "red tagged" H&S conditions exist that cannot be corrected under this guidance must be deferred.

Testing Protocol

Visual Inspection.

What specific situations commonly trigger code compliance work requirements for your network? How are they addressed?

Mechanical work in HVAC systems. Egress is another but not allowed using DOE funds.

Client Education

Inform client in writing of observed code compliance issues when it results in a deferral.
When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

Training

AHFC takes the lead within the state on codes. Adoption of the 2018 IRC is pending and over the next two years various training courses will be offered regarding that code. Subgrantee agencies as well as AHFC personnel will be taking classes. Some of our jurisdictions require permits and inspections for the work that we do also. Training in codes is an eligible TTA expense.

7.8 – Combustion Gases

Concurrence, Alternative, or Deferral

Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐

Funding

DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐

CO alarm is required to be installed at the assessment in every home. Proper venting to the outside for combustion appliances, including gas dryers and refrigerators, furnaces, vented space heaters and water heaters is required.
Correct venting when testing indicates a problem. If unsafe conditions whose remediation is necessary to perform weatherization cannot be remedied by repair or tuning, replacement is an allowable H&S measure unless prevented by other guidance herein. Follow Standards in the AK WOM regarding Heating system replacement.
Use combustion safety and diagnostics form on every job regardless of funding.
Use recommended test out procedures.

Testing Protocols

Combustion safety testing is required when combustion appliances are present.
Test naturally drafting appliances for spillage and CO during CAZ depressurization testing pre- and post-weatherization and before leaving the home on any day when work has been done that could affect draft (e.g., tightening the home, adding exhaust). Utilize BPI 1200 Protocols.
Inspect venting of combustion appliances and confirm adequate clearances.
Check AkWarm to determine if the appliance can be justified as an ECM prior to replacement as an H&S measure.

How are crews instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response?

Install CO alarm in the home at assessment. Utilize the CO specs in the Alaska standard that includes a display so that everyone can see current and peak levels. See WOM Chapter 5. Check for ambient CO continually when in the home and follow BPI 1200 protocols if CO exceeds actionable levels. If CO exceeds 70 ppm ambient advise the client and leave the house. Arrange to have the source of the CO disabled or repaired immediately. Do not re-enter until the situation has been corrected.

Client Education
Provide client with combustion safety and hazards information. Train the client to set, utilize and understand the operation of the CO alarm.
Training
How to perform appropriate testing, determine when a building is excessively depressurized, and the difference between air free and as-measured CO. CO action levels. BPI 1200. DOE Wx providers will receive BPI 1200 training in November 2018.

7.9 – Electrical				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☐
Funding				
DOE ☐	LIHEAP ☑	State ☑	Utility ☐	Other ☐
What guidance do you provide Subgrantees for dealing with electrical hazards, including knob & tube wiring, in homes slated for weatherization?				
When the H&S of the occupant/worker(s) is at risk, minor repairs, as defined by the Grantee, are allowed when necessary for weatherization measures. Evaluate and if necessary provide sufficient over-current protection and damming (if required) prior to insulating building components containing knob and tube wiring, as required by the AHJ.				
Testing Protocol				
Visual inspection for presence and condition of damaged or dangerous wiring and knob-and-tube wiring. Check for alterations that may create an electrical hazard. Voltage drop and voltage detection testing are allowed. Very little knob and tube wiring in Alaska. We do have electrical repairs that come up. The use of state or LIHEAP funds is required.				
How do you define "minor" or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?				
Minor electrical repairs must be tied to a measure being done during the weatherization or to protect the health and safety of the occupants or crews. Minor repairs are defined as under $1000. State and LIHEAP funds only. No DOE funds.				
If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?				
N/A				
Client Education				
When electrical issues are the cause of a deferral, provide information to client on over-current protection, overloading circuits, and basic electrical safety/risks. If there are other questionable areas of electrical safety issue and H&S notice to the client and keep a signed copy in the file.				
Training				
How to identify electrical hazards. Local (or AHJ) code compliance. This will be covered somewhat in the code compliance training. But most agencies can access basic training in electrical safety on line. This is an eligible TTA expense.				

7.10 – Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and other Air Pollutants				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
What guidance do you provide Subgrantees for dealing with formaldehyde, VOCs, flammable liquids, and other air pollutants identified in homes slated for weatherization?				

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.
Testing Protocols
Sensory/visual inspection.
Client Education
Inform client in writing of observed hazardous condition and associated risks. Issue a H&S notice regarding pollutants. When deferral is necessary, provide information in writing describing conditions that must be met for weatherization to commence.
Training
Informational training and guidance as needed

7.11 – Fuel Leaks *(please indicate specific fuel type if policy differs by type)*				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☐
Funding				
DOE ☐	LIHEAP ☑	State ☑	Utility ☐	Other ☐
Remediation Protocols				
When a minor gas leak is found on the utility side of service, the utility service must be contacted before work may proceed. Fuel leaks that are the responsibility of the client (vs. the utility) must be repaired before weatherizing a unit. Use State or LIHEAP funds.				
Testing Protocol				
Test exposed gas lines for fuel leaks from utility coupling into, and throughout, the home. Conduct sensory inspection on bulk fuels to determine if leaks exist. Gas leaks must be tested with a leak detection fluid (soapy solution) for confirmation if a leak is suspected with initial testing.				
How do you define allowable fuel leak repairs, and at what point are repairs considered beyond the scope of weatherization?				
This is an allowable H&S measure using State and/or LIHEAP funds. Normally repairs should be under $1000 but the Subgrantee can make a decision to spend more on repairing leaks is need. Note to file the condition.				
Client Education				
Inform clients in writing if fuel leaks are detected. Issue H&S notice.				
Training				
Fuel leak testing is a part of QCI and EA protocol for certification. This is part of any general weatherization training and eligible for DOE TTA funds.				

7.12 – Gas Ovens / Stovetops / Ranges				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
What guidance do you provide Subgrantees for addressing unsafe gas ovens/stoves/ranges in homes slated for weatherization?				
Install CO alarm at assessment. Ensure operational range hood with gas ranges. When testing indicates a problem, entities may perform standard maintenance on or repair gas cooktops and ovens using State or LIHEAP funds. If repairs are not done, the client must be informed in writing about the problem. Follow BPI 1200 action levels.				
Testing Protocols				

Test gas ovens for CO. Inspect cooking burners and ovens for operability and flame quality.
Client Education
Inform clients of the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO. Clients must be trained on the operation of the CO alarm so they can diagnose ongoing CO problems. The cook stove is perhaps the most likely source of CO in a home where people are standing right over it. This should be a part of client ed.
Training
Testing techniques. CO action levels, Per BPI 1200. All agencies will receive this training.

7.13 – Hazardous Materials Disposal **[Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.]** *(please indicate material where policy differs by material)*				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☐
What guidance do you provide				
See disposal procedures.				
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
Client Education				
Inform client in writing of hazards associated with hazardous waste materials being generated/handled in the home.				
Training				
Appropriate Personal Protective Equipment (PPE) for working with hazardous waste materials. Disposal requirements and locations. Health and environmental risks related to hazardous materials. OSHA training are eligible for TTA funds.				
Disposal Procedures and Documentation Requirements				
Hazardous Waste Materials generated during weatherization work shall be disposed of according to all local laws, regulations and/or Federal guidelines, as applicable. Document proper disposal requirements in contract language with responsible party. Refer to *Lead* and *Asbestos* sections for more information on those topics.				

7.14 – Injury Prevention of Occupants and Weatherization Workers (Measures such as repairing stairs and replacing handrails)				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☐
Funding				
DOE ☐	LIHEAP ☑	State ☑	Utility ☐	Other ☐
What guidance do you provide Subgrantees regarding allowable injury-related repairs (e.g., stairs, handrails, porch deck board)?				
This is allowable under State/LIHEAP funds. If it is incidental to a measure it is included in the ECM or H&S item.				
How do you define "minor" or allowable injury prevention measures, and at what point are repairs considered beyond the scope of weatherization? Quantify "minor" or allowable injury prevention measures.				
Defining minor as under $1000 generally. This category or repair is only allowed under State and LIHEAP funds. Follow guidance in the WOM. If not repaired issue a H&S notice to the client. If the repair is beyond the scope of weatherization resources, defer the job until corrected by the client.				
Training				
Hazard identification. OSHA Training and other Injury Prevention Training is an allowable TTA expenditure. We also allow for training with Learn to Return and similar agencies for remote and rural workers in Wilderness Medicine, Survival Skills, and Delayed Care and other curriculum pertaining to keeping workers safe under all the travel and job site situations they encounter.				

7.15 – Lead Based Paint				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
Safe Work Protocols				
Crews must follow EPA's Lead; Renovation, Repair and Painting Program (RRP) when working in pre-1978 housing unless testing confirms the work area to be lead free. Deferral is required when the extent and condition of lead-based paint in the house would potentially create further H&S hazards. Only those costs directly associated with the testing and lead safe practices for surfaces directly disturbed during weatherization activities are allowable.				
Testing Protocols				
Testing to determine the presence of lead in paint that will be disturbed by WAP measure installation is allowed with EPA-approved testing methods. Testing methods must be economically feasible and justified. Job site set up and cleaning verification by a Certified Renovator is required. Follow RRP.				
Client Education				
Follow pre-renovation education provisions for RRP. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.				
Training and Certification Requirements				
RRP training and certification is required. Subgrantee agencies must have certified personnel on site at each pre 1978 job site. RRP protocols must be followed. It is recommended that all assessors and inspectors be RRP certified. This is an eligible expense for TTA funds.				
Documentation Requirements				
RRP requirements for field file documentation must be followed. Documentation in the client file must include Certified Renovator certification; any training provided on-site; description of specific actions taken; lead testing and assessment documentation; and, photos of site and containment set up. Include the location of photos referenced if not in file.				

7.16 – Mold and Moisture (Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, etc.)				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
What guidance do you provide Subgrantees for dealing with moisture related issues (e.g., drainage, gutters, down spouts, moisture barriers, dehumidifiers, vapor barrier on bare earth floors) in homes slated for weatherization?				
Limited water damage repairs that can be addressed by weatherization workers are allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures. Source control (i.e. correction of moisture and mold creating conditions) is allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures. Source control is independent of latent damage and related repairs. Where severe Mold and Moisture issues cannot be addressed, deferral is required. Mold testing or cleanup is not an allowable H&S cost. Surface preparation where weatherization measures are being installed (e.g., cleaning mold off window trim in order to apply caulk) must be charged as part of the ECM, not to the H&S budget category				
How do you define "minor" or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?				
We are defining minor as under $1000 generally. If the mold exceeds allowable amounts per DOE and EPA, the home must be deferred until corrected.				
Client Education				

Provide client written notification and disclaimer on mold and moisture awareness.
Provide information on importance of cleaning and maintaining drainage systems.
Provide information on proper landscape design and how this impacts site drainage and moisture control. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

Training

National curriculum on mold and moisture or equivalent. How to recognize drainage issues.
All providers have been trained but the training is available on line for those that have not or for refresher.

7.17 – Pests				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☐
Funding				
DOE ☐	LIHEAP ☑	State ☑	Utility ☐	Other ☐

What guidance do you provide Subgrantees for dealing with pests and pest intrusion prevention in homes slated for weatherization?

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 H&S concern for workers. Incorporating pest exclusion into air sealing practices to prevent intrusion is allowed.

Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred

State and LIHEAP funds can be used to eliminate pest infestations but anything over $1000 must be approved prior to going forward.

Testing Protocols

Assessment of presence and degree of infestation and risk to worker.

Client Education

Inform client in writing of observed condition and associated risks. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

Training

How to assess presence and degree of infestation and associated risks. All relevant training is an eligible TTA expense. Most agencies received training in bed bug infestation within the past several years.

7.18 – Radon				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐

What guidance do you provide Subgrantees around radon?

Radon mitigation is not an allowable H&S cost. Clients must sign an informed consent form prior to receiving weatherization services. This form must be kept in the client file. In homes where radon may be present, work scope should include precautionary measures based on EPA Healthy Indoor Environment Protocols for Home Energy Upgrades, to reduce the possibility of making radon issues worse. Whenever site conditions permit, cover exposed dirt floors within the pressure/thermal boundary with 6 mil (or greater) polyethylene sheeting as described in the Field Guide. Other precautions may include, but are not limited to, sealing any observed floor and/or foundation penetrations, including open sump pits, isolating the basement from the conditioned space, and compliance with ASHRAE 62.2 2016.

Testing Protocols

Testing is not an eligible expense.

Client Education
Provide all clients EPA's *A Citizen's Guide to Radon* and inform them of radon related risks. Informed consent form must include: Information from the results of the IAQ Study that there is a small risk of increasing radon levels when building tightness is improved A list of precautionary measures WAP will install based on EPA Healthy Indoor Environment Protocols. Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety
Training and Certification Requirements
Auditors, assessors and inspectors must have knowledge of radon, what it is and how it occurs, including what factors may make radon worse, and precautionary measures that may be helpful. This is an eligible TTA expense. Workers are trained in proper vapor retarder installation.
Documentation Requirements
Written confirmation that EPA's *A Citizen's Guide to Radon* was received and radon related risks discussed with the client.

7.19 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☐		Alternative Guidance ☑		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
What is your policy for installation or replacement of the following:				
Smoke Alarms: Smoke alarms must be installed where alarms are not present or are inoperable using DOE funds. If you are replacing alarms not yet expired use State funds. Currently supplied by AHFC				
CO Alarms: CO alarms must be installed where alarms are not present or are inoperable using DOE funds. If you are replacing alarms not yet expired use State funds. Currently supplied by AHFC.				
Fire Extinguishers: Fire extinguishers may be provided utilizing state or LIHEAP funds.				
Testing Protocols				
Check existing alarms for operation. Verify operation of installed alarms. Follow WOM protocols.				
Client Education				
Provide client with verbal and written information on use of devices installed.				
Training				
Training is provided in house at the Subgrantee agencies and by AHFC at monitoring if anyone is not compliant with the location and code requirements of alarm installs.				

7.20 – Occupant Health and Safety Concerns and Conditions				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
What guidance do you provide Subgrantees for soliciting the occupants' health and safety concerns related to components of their homes?				
When a person's health may be at risk and/or WAP work activities could constitute an H&S hazard, the occupant will be required to take appropriate action based on severity of risk. Failure or the inability to take appropriate actions must result in deferral.				
What guidance do you provide Subgrantees for determining whether occupants suffer from health conditions that may be negatively affected by the act of weatherizing their home?				
Screen occupants to reveal known or suspected health concerns either as part of initial application for weatherization, during the audit, or both.				

What guidance do you provide Subgrantees for dealing with potential health concerns when they are identified?
Follow required safety protocols when performing WAP work activities.
Client Education
Inform client in writing of any known risks. Provide client with Subgrantee point of contact information in writing so client can inform of any issues. When deferral is necessary, provide information in writing describing conditions that must be met for weatherization to commence.
Documentation Form(s) have been developed and comply with guidance? Yes ☑ No ☐

7.21 – Ventilation and Indoor Air Quality				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐		
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
Identify the Most Recent Version of ASHRAE 62.2 Implemented (optional: identify Addenda used)				
ASHRAE 62.2 2016. All ventilation items installed are to be categorized as H&S measures.				
Testing and Final Verification Protocols				
Install ventilation as required by ASHRAE 62.2 – 2016. Measure fan flow of existing fans and of installed equipment to verify performance. Use the blower door testing to use the Infiltration Credit.				
Client Education				
Educate the client in the use of the ventilation system, helping them understand that proper ventilation creates good indoor air quality and material longevity against household pollutants, moisture, and mold.				
Training				
ASHRAE 62.2 training, including proper sizing, evaluation of existing and new systems. Staff have had training at State Conferences, HPC, Energy OutWest, and webinars put on by the state. They will be trained on any addenda adopted. BPC Bellingham is providing a training specifically on ASHRAE 62.2 2016 in Nov. 2018.				

7.22 – Window and Door Replacement, Window Guards				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐		
Funding				
DOE ☐	LIHEAP ☑	State ☑	Utility ☐	Other ☐
What guidance do you provide to Subgrantees regarding window and door replacement and window guards?				
Utilize state and LIHEAP funds in the replacement of windows and doors. And follow protocols in the WOM to replace as a H&S measure.				
Testing Protocols				
N/A except for general Blower Door testing to ensure a good seal.				
Client Education				
Provide written information on lead risks wherever issues are identified.				
Training				
Awareness of guidance. General ongoing best practice training on site and at EOW, etc.				

7.23 – Worker Safety (OSHA, etc.)		
Concurrence, Alternative, or Deferral		
Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐
Funding		

DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
Workers must follow OSHA standards where required and take precautions to ensure the H&S of themselves and other workers. All Subgrantees and contractors must maintain compliance with the current OSHA Hazard Communication Standard, including on-site organized Safety Data Sheets (SDS).				
How do you verify safe work practices? What is your policy for in-progress monitoring?				
Safe work practices are verified during in-progress monitoring, using photo documentation in the file, and client interviews when monitoring. We ensure at least one in progress inspection per year.				
Training and Certification Requirements				
Use and importance of PPE. OSHA 10 hour training is recommended for all crew members, crew foreman, auditors, and inspectors. OSHA 30 is recommended for Field Supervisors. Ongoing training as required in Hazard Communication Program. All OSHA training is eligible under DOE TTA.				

7.24 – <Add in Topic>				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑		Alternative Guidance ☐		Results in Deferral ☐
Funding				
DOE ☑	LIHEAP ☑	State ☑	Utility ☐	Other ☐
Remediation Protocols				
Testing Protocols				
Client Education				
Training				