Weatherization Grantee Health and Safety 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.

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

Pursuant to 10 CFR 440.16(h), Grantees must set H&S expenditure limits for their Program, providing justification by explaining the basis for setting these limits and providing related historical experience.

Low percentages should include a statement of what other funding is being used to support H&S costs, while larger percentages will require greater justification and relevant historical support. It is possible that these limits may vary depending upon conditions found in different geographical areas. These limits must be expressed as a percentage of the ACPU. For example, if the ACPU is $5,000, then an average expenditure of $750 per dwelling would equal 15 percent expenditures for H&S.

15 percent is not a limit on H&S expenditures but exceeding this amount will require ample justification. These funds are to be expended by the Program in direct weatherization activities. While required as a percentage of the ACPU, if budgeted separately, the H&S costs are not calculated into the per-house limitation. DOE strongly encourages using the table below in developing justification for the requested H&S budget amount. Each H&S measure the Grantee anticipates addressing with H&S funds should be listed along with an associated cost for each measure, and by using historical data the estimated frequency that each measure is installed over the total production for the year.

It is also recommend reviewing recent budget requests, versus expenditures to see if previous budget estimates have been accurate. The resulting “Total Average H&S Cost per Unit” multiplied by the Grantee’s production estimate in the Annual File should correlate to the H&S budget amount listed in the Grantee’s state plan.

Should a Grantee request to have more than 15 percent of Program Operations used for health and safety purposes, DOE will conduct a secondary level of review. DOE strongly encourages use of this H&S template and matrix to help expedite this process.

Per-Unit Average Percent: 3.6%

4.0 – INCIDENTAL REPAIR MEASURES

If Grantees choose to identify any H&S measures as incidental repair measures (IRMs), they must be implemented as such under the Grantee’s weatherization program in all cases – meaning, they can never be applied to the H&S budget category. In order to be considered IRMs, the measure must fit the following definition and be cost justified along with the associated efficiency measure;

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”)
Incidental repairs necessary for installation of weatherization measures are NOT considered H&S, but will be added to the cost of the efficiency measure and included in the calculated saving to investment ration (SIR). Such repairs include, but are not limited to:

- Protective covering for exterior hot water tanks installed by DOE WAP
- Repair of walls or window frames for room A/C installation
- Minor roof repair for solar hot water collector installation
- Sealing and weather-stripping to prevent air leakage from conditioned rooms to unconditioned spaces

5.0 – DEFERRAL/REFERRAL POLICY

Deferral of services may be necessary if H&S issues cannot be adequately addressed according to WPN 17-07 guidance. The decision to defer work in a dwelling is difficult but necessary in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved and/or alternative sources of help are found. If, in the judgment of the auditor, any conditions exist which may endanger the health and/or safety of the workers or occupants, the unit should be deferred until the conditions are corrected. Deferral may also be necessary where occupants are uncooperative, abusive, or threatening. Grantees must be specific in their approach and provide the process for clients to be notified in writing of the deferral and what conditions must be met for weatherization to continue. Grantees must also provide a process for the client to appeal the deferral decision to a higher level in the organization.

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?

Agencies shall utilize the Weatherization Deferral/Referral Notice to provide written notice to clients in dwellings where problems exist that are outside the scope of Weatherization. Clients will be given 30 days as stated on the Deferral Notice to take corrective action. If the client is able to take corrective action within 30 days, work should resume as soon as possible after the subgrantee received notification from the client. If problems identified in the Deferral Notice are not corrected within 30 days, the subgrantee places the job in an inactive file. The client can reapply when and if the problems noted on the Deferral Notice have been corrected.

Deferral conditions may include, but are not limited to:

- Building structure or its electrical system is in a state of disrepair and failure is imminent.
- Extensive moisture/mildew is severe and cannot be resolved under the existing health and safety measures.
- Improperly stored chemicals, combustible materials, or other fire hazards that present a danger to the occupants or the workers.
- Major remodeling is in progress, which limits the proper completion of major weatherization measures.
- Occupant has known health problems that prohibit the installation of weatherization materials.
- The extent of lead-based paint in the dwelling would potentially create further health and safety hazards.
- The presence of sewage or animal feces in the home will endanger the workers/crews and client if the weatherization work is performed.
- There is not adequate interior space to install hot water tank and exterior location is exposed to the elements. Cost of consuming an exterior shelter is beyond the scope of the program.
- Other
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.

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“Weatherization Deferral/Referral Notice” has been developed for use in the program (Attachment A). This form will include client’s name, address, date of audit/assessment, clear description of health and safety issues, when and under what conditions weatherization work could continue, client’s signature and date they were informed indicating they were informed of their rights and options. A “Client Health Survey” (Attachment B) will also be developed as part of the application package to identify any existing health concerns which could be affected by weatherization work.
7.0 – HEALTH AND SAFETY CATEGORIES

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

- Explain whether you concur with existing guidance from WPN 17-07 and how that guidance will be implemented in your Program, if you are proposing an alternative action/allowability, or if the identified category will not be addressed and will always result in deferral. Alternatives must be comprehensively explained and meet the intent of DOE guidance.
- Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 17-07, Grantees must concur, or choose to defer all units where the specific category is encountered.
- “Allowable” items under WPN 17-07 leave room for Grantees to determine if the category, or testing, will be addressed and in what circumstances.
- Declare whether DOE funds or alternate funding source(s) will be used to address the particular category.
- Describe the explicit methods to remedy the specific category.
- Describe what testing protocols (if any) will be used.
- Define minimum thresholds that determine minor and major repairs
- Identify minimum documentation requirements for at-risk occupants
- Discuss what explicit steps will be taken to educate the client, if any, on the specific category if this is not explained elsewhere in the Plan. Some categories, like mold and moisture, require client education.
- Discuss how training and certification requirements will be provided for the specific category. Some categories, like Lead Based Paint, require training.
- Describe how occupant health and safety concerns and conditions will be solicited and documented.

Grantees may include additional H&S categories for their particular Programs. Additional categories must include, at a minimum, all of the same data fields as the DOE-provided categories. Two additional tables have been created to utilize.

### 7.1 – Air Conditioning and Heating Systems

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How do you address unsafe or non-functioning primary heating/cooling systems?
There will be no heating system replacement, repair, or installation with DOE funds as there are no heating systems in grantee’s territory.

If unsafe or non-functioning primary cooling systems are identified, the unit will be deferred as central air conditioning systems will not be addressed as the climate does not warrant the need for central A/C. Room A/C replacement, repair, or installation must first be attempted through cost justification on the priority list before using H&S funding. If this is not possible, air conditioner installation will be allowed in homes of the at-risk occupants as defined as an occupant who has a documented medical need to have conditioned air. Room A/C units will be installed as specified in the grantee priority list and installation standards. If this is not possible, room A/C units that cannot be repaired/replaced through the priority list, and are being repaired/replaced for H&S, will be justified by being located in Climate Zone 1 and identifying at-risk occupants as defined by documented medical reasons for needing A/C. WAP crews will test any existing room air conditioner to determine if it is operable. If it is not and the client meets the at-risk criteria, a replacement room A/C unit that meets the criteria of the priority list will be installed. Replaced units will be disposed of according to the environmental standards in the Clean Air Act 1990, Section 608, as implemented by 40 CFR 82 (7/1/2006). Materials shall be disposed of by an EPA-approved section 608 type I or universal certified contractor/vendor, and so noted in the file. Disposed units will be recycled when possible.

If repair/replacement is beyond the project scope of DOE either for efficiency or health and safety reasons, the client will be notified in writing by the “Weatherization Deferral/Referral” form, and, if possible, referred to local agencies that could assist. When serious electrical hazards, gross overloads, or electrical wiring exposure are present, the energy auditor shall notify the owner and defer the proposed installation of weatherization measures in the unit until such hazards are remedied.

### How do you address unsafe or non-functioning secondary heating systems, Including unvented secondary space heaters?
Not applicable. There will be no central heating system replacement, repair, or installation with DOE funds as there are no central heating systems in grantee’s territory.

**Indicate Documentation Required for At-Risk Occupants**

WAP crews must also have the client sign a medical release form stating that the client agrees to share this medical information with the subgrantee, and ensure that this information will remain confidential. At-risk occupants are defined as occupants who have documented medical need to have conditioned air in the home. During application intake and home assessment, subgrantees will determine if a person’s health may be at-risk and/or if the work activities could constitute a health or safety hazard. The occupant at-risk will be required to take appropriate action based on severity of risk.

**Testing Protocols**

WAP crews will test any existing room air conditioner to determine if it is operable and performing. If it is not and the client meets the at-risk criteria, a replacement room A/C unit that meets the criteria of the priority list will be installed.

**Client Education**

Auditor/inspector will provide client education on appropriate operation and maintenance of A/C units. An operation manual and any warranty information will be left with the client.

**Training**

Training will not be needed, as room air conditioner repair/replacement will be performed by a Manufacture Representative or Vendor. WAP auditor/inspector would verify that installation is complete and adequately installed with no problems.

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

No DOE funding will be used for asbestos testing or removal, and as such no blower door testing will be conducted when asbestos containing material is identified. If asbestos containing material is identified in any area which will be disturbed during weatherization, the client must provide documentation that a certified professional removed asbestos before weatherization work can proceed.

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

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

Any surfaces to be altered in the weatherization process shall be inspected for asbestos prior to alteration. Crews and contractors must work around any asbestos-containing material. Testing or abatement of asbestos is not an allowable H&S expense. If asbestos is present in any area which will be disturbed during weatherization, the client must provide documentation that the asbestos removal or encapsulation was conducted by a certified professional before the home is eligible for weatherization. Client shall be instructed not to disturb any suspected surface and given the EPA pamphlet “Asbestos in the Home, a Homeowners Guide.”

Work will be deferred if crews are unable to perform weatherization due to the presence of asbestos. If possible, clients will be referred to other possible non-profit community agencies, referral services and private contracts who are licensed and have expertise to perform asbestos removal. No asbestos removal work will be performed.

#### Testing Protocols

All auditors must attend a formal asbestos awareness training to learn to identify asbestos-containing materials and when it may pose a hazard to clients or workers.

#### Client Education

If asbestos is identified by crew, client shall be instructed not to disturb any suspected surface and given the EPA pamphlet “Asbestos in the Home, a Homeowners Guide.”

#### Training and Certification Requirements

Subgrantee auditors/assessors will be required to take an Asbestos Hazard Emergency Response Act (AHERA) course to be able to identify asbestos.

### 7.2b – Asbestos - in vermiculite

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#### How do you address suspected ACM’s in vermiculite that will be disturbed through the course of weatherization work?
DOE funding will not be used for testing or removal of vermiculite. The presence of vermiculite in grantee territory is unlikely as we do not look into the attic. Grantee does not perform any insulation, air sealing, or blower door testing. All measures are baseloads. However, auditors/assessors will be trained to recognize vermiculite and notify client of its presence. If vermiculite is present in a dwelling and weatherization work would disturb it, the client will be notified and instructed not to disturb the material. The unit would be deferred until the vermiculite is removed and client is able to provide documentation that a certified professional performed the remediation before weatherization work continues. WAP crew will take precautionary measures, such as not disturbing the vermiculite and using proper respiratory protection while in areas containing vermiculite.

No weatherization work will occur which could possibly disturb the material. If possible, the client will be referred to local agencies if vermiculite is present.

**Testing Protocols**
No weatherization work will occur which could possibly disturb vermiculite.

**Client Education**
Clients will be notified of potential hazard and provided with the EPA pamphlet on asbestos in the home.

**Training and Certification Requirements**
Subgrantee auditors/assessors will be required to take an AHERA course to be able to identify asbestos in vermiculite.

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

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**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?**

There are no furnaces in grantee territory. If any asbestos is found, grantee will not be removing or disposing of any asbestos.

**Testing Protocols**
Not applicable. This measure will not be done.

**Client Education**
Since there are no furnaces, it is unlikely that there will be asbestos covering on any pipes. However, if it is identified, client will be notified of asbestos hazard. Client will be deferred until they can provide documentation that asbestos removal or encapsulation was conducted by a certified professional before the home is eligible for weatherization.

**Training and Certification Requirements**
Not applicable. Auditors/assessors will have AHERA training to identify any potential asbestos.

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### 7.5 – Biologica\ls and Unsanitary Conditions

*(odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.)*

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**Unallowable Measure ☐**

**Funding**

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2021 Grantee Health And Safety Plan Draft 03172021
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 a known agent is present in the home that may create a serious risk to occupants or weatherization workers. DOE funds may be used to remediate conditions that may lead to or promote biological concerns or unsanitary conditions. This would typically be a plumbing leak or water drainage under a home. Minor plumbing leaks or drainage problems could be remedied with DOE funds. Disposal of all moisture damaged materials must be in accordance with DOE mold guidance. If the issue is beyond the scope of DOE WAP, client will be asked to correct problem or will be deferred to other agencies who may be able to assist. 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.

Testing Protocols

Sensory inspection.
Minor plumbing leaks or drainage problems could be remedied with DOE funds.

Client Education

In homes where mold and moisture has been identified as a problem, clients will be given a copy of “A Brief Guide to Mold, Moisture and Your Home” and given an explanation of conditions that cause deferral.

Training

Training for sensory recognition of moisture problems is part of the DOE Mold Awareness training. All auditors/assessors will be required to take basic mold/moisture awareness training.

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. Minor roof repairs and construction of enclosures to protect and preserve DOE WAP installed hot water tanks will be allowed, but this will be included in the installation cost of the measure and must meet the SIR. If the repairs and installation cost cannot meet the SIR for the weatherization measure, the unit will be deferred. Homes with building structure, major roofing repairs, or require more than minor repairs are not allowable with DOE funds and must be deferred. WAP crews will ensure that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection. Building structure and major roofing repairs are not allowable. There will be no removal or disposal of structural or roofing materials.

How do you define “minor” or allowable structure and roofing repairs, and at what point are repairs considered beyond the scope of weatherization?

Minor roof repairs and construction of enclosures to protect and preserve DOE WAP installed hot water tanks will be allowed, but this will be included in the installation cost of the measures and must meet the SIR. If the repairs and installation cost cannot meet the SIR for the weatherization measure, the unit will be deferred until that work is complete.
Client Education
Client will be notified that structure is unsafe and referred to housing repair agencies if known.

Training
Auditor/assessors will be trained to identify if building structure and roofing is not safe.

### 7.7 – Code Compliance

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

DOE funds will be used to comply with local codes in the installation of weatherization materials. Correction of preexisting code violations in a dwelling is not allowed unless the code corrective action is required due to the installation of a weatherization measure. When correction of pre-existing code compliance issues is triggered and paid for with DOE funds, cite specific code requirements in the client file. Local building code requirements must be followed at all times. This is particularly important when installing solar hot water systems and hybrid hot water heat pump units. If the cost of meeting code compliance is excessive and beyond the allowable average cost for the efficiency measure according to the SIR, the unit should be deferred until alternative sources of funds are identified to correct the problems. Clients will be referred to other programs or agencies if necessary to bring the unit up to code. Work must meet current applicable code requirements. Work will include obtaining permits and inspection from the local building departments when required. Condemned properties and properties where “red tagged” H&S conditions exist that cannot be corrected under this guidance must be deferred.

**Client Education**
Clients will be informed of changes to their homes as a result of code compliance. They will also be notified by the deferral/referral form if their home cannot be weatherized due to not meeting code compliance.

**Training**
Grantee and subgrantees will become familiar with code requirements for installation of weatherization materials by meeting with local code officials. Field personnel are strongly encouraged to attend “building/construction code” instructional classes. The intent of training is not to learn all codes for all trades, but to be aware of codes in the areas that weatherization auditors and crews/contractors commonly encounter. Domestic hot water installation is performed by contractors. Training for code compliance is the responsibility of the installation contractor.

### 7.8 – Combustion Gases

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**Testing Protocols**
Combustion safety testing is required when combustion appliances are present. This will include gas water heaters, gas cook stoves, and any other gas appliance located inside the home. Appliances will be tested for carbon monoxide and gas leaks. If air sealing is conducted due to air conditioning or heating, natural draft appliances will be tested for draft and spillage under worst case conditions before and after air sealing. This will be done before leaving the home on any day when work has been done that could affect draft (i.e., tightening the home, adding exhaust). Gas ovens will be tested for CO. Cooking burners will be inspected for operability, CO, and flame quality. All combustion appliances located in the unit must be properly vented to the outdoors. When combustion appliances, such as gas water heaters, gas cook stoves, and any other gas appliances, are located inside the home, present appliances will be tested for carbon monoxide and gas leaks.

### Solid Fuel Heating (Wood Stoves, etc.)

There are very few wood stoves in grantee’s territory due to the mild climate. These would only be found at very high elevations. It is not anticipated that any will be found in client homes. However, 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. DOE funds can be used for this measure, but very few, if any, are expected. A licensed contractor will be hired to inspect the wood stove for safety, proper installation and venting. If the unit is found defective, it will be repaired or replaced with a safe, energy efficient unit.

### Space Heaters, Stand Alone Electric

DOE funds will not be used for space heaters due to the grantee’s mild climate. DOE funds will not be used to repair, replace, or install space heaters.

### Space Heaters, Unvented Combustion

If any space heaters are found, DOE funds may be used for testing for air-free carbon monoxide and checking for ANSI labeling. If they any space heaters are found, removal is required, except if unit conforms to ANSI Z21.11.2, prior to any weatherization.

### Space Heaters, Vented Combustion

If vented space heaters are discovered, venting will be tested consistent with furnaces. Draft and carbon monoxide testing will be conducted, and for steady state efficiency, if possible. DOE funds can be used to test vented space heater.

**How are crews instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response?**
If a problem exists affecting the immediate safety of the occupant, the client is immediately notified, and if necessary, the appliance is disconnected. If problems are found during combustion gas testing, appliances may be repaired or replaced if allowable under DOE rules. Gas water heaters may be repaired or replaced if repair is not possible. Cook stoves can be cleaned and repaired, but cannot be replaced with DOE funds. Gas dryers can be repaired, but not replaced. Correction of venting and gas line leaks is allowed when testing indicates a problem. If problems affecting the immediate safety of the occupants are discovered, the client is immediately notified, and the appliance disconnected. Gas ovens will be tested for CO. Cooking burners will be inspected for operability, CO, and flame quality. Maintain documentation justifying the replacement with a cost comparison between replacement and repair in the client file. Replacement units must meet safety guidelines as determined in the technical Field Guide.

Whenever possible, clients will be referred to local agencies if repair/replacement is beyond the project scope. Problems found with combustion appliances cannot be corrected with DOE funds and will be deferred. If a problem exists affecting the immediate safety of the occupant, the client is immediately notified, and if necessary, the appliance is disconnected.

**Solid Fuel Heating (Wood Stoves, etc.)**

A licensed contractor would be hired to inspect the wood stove for safety, proper installation and venting. If the unit is found defective, it will be repaired or replaced with a safe, energy efficient unit. If the cost of repair/replacement is beyond the scope of WAP, the unit will be deferred. If solid fuel heating units are beyond the scope of WAP, the unit will be deferred. Client may be referred to other local social service agencies for assistance. Disposal of any old units will be done by the vendor.

**Space Heaters, Stand Alone Electric**

WAP crews will check circuitry to ensure adequate power supply for existing space heaters, but no work will be done on space heaters. Space heaters will be disposed of per local regulations. Clients may be referred to other agencies if units are unsafe.

**Space Heaters, Unvented Combustion**

Unsafe units will be removed from home. Testing for air-free carbon monoxide is allowed. Old units will be disposed of per local regulations. If a space heater is determined to not meet the ANSI standard and client refuses removal, then weatherization work will be deferred and the client will be referred to other agencies for heating assistance.

**Space Heaters, Vented Combustion**

Repair or replacement is allowed if the climate warrants as defined by grantee’s map of cool alpine climates (Koppen Climate Zone 7 and above, generally 1600 feet elevation such as Waimea or Volcano on Hawaii Island). Repair or replacement of a faulty space heater will be completed by a licensed contractor. Work will be deferred if the cost of repair or replacement is beyond DOE’s allowable cost per unit. Client will be referred to other agencies for heating assistance. Disposal of any heaters removed will be according to local codes.

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**Client Education**
Clients with combustion appliances in the home will be provided information and explanation of 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.

**Solid Fuel Heating (Wood Stoves, etc.)**
Client will be educated as to the dangers of an improperly burning combustion appliance in the home.

**Space Heaters, Stand Along Electric**
WAP crews will inform clients of the hazards and collect a signed waiver if client does not permit removal of unit.

**Space Heaters, Unvented Combustion**
WAP crew will inform client of dangers of unvented space heaters, carbon monoxide, moisture, and nitrogen dioxide.

**Space Heaters, Vented Combustion**
Clients will be educated as to the dangers of carbon monoxide from space heaters that are not properly vented.

### Training

Subgrantee staff and/or contractors shall be trained in CAS testing using proper instruments. Results of testing will be documented in the client files.

**Solid Fuel Heating (Wood Stoves, etc.)**
No training will be provided to WAP crews. Only a licensed contractor will be hired to perform this work.

**Space Heaters, Stand Alone Electric**
WAP crews will be trained on basic electrical safety.

**Space Heaters, Unvented Combustion**
WAP crew will be trained to understand the dangers of unvented space heaters and to perform air-free carbon monoxide testing (or hire a licensed contractor to do so).

**Space Heaters, Vented Combustion**
WAP crew will be trained to recognize and test vented combustion space heaters.

### 7.9 – Electrical

#### Concurrence, Alternative, or Deferral

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#### Funding

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**What guidance do you provide Subgrantees for dealing with electrical hazards, including knob & tube wiring, in homes slated for weatherization?**
Minor electrical repairs are allowed where health and safety of the occupant/worker is at-risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures. Typical repairs may be installing switch plate or outlet protectors, replace ceramic light bulb fixtures, or other means to eliminate exposed wiring. Repair or replacement of faulty electrical outlets for A/C, solar thermal DHW, water heater, or refrigerators is also allowable. Upgrades and repairs for weatherization measures are allowable such as relocation of electrical outlet to allow a gas dryer to be relocated for proper ventilation or proper connection of an existing water heater. Visual inspection will be performed. WAP crews will check for alterations that may create an electrical hazard. Voltage drop and voltage detection testing are allowed.

Since no attic insulation will be installed in grantee’s service territory, there will be no inspection for knob-and-tube wiring. If knob-and-tube wiring is discovered, the client will be referred to other programs as this is beyond the project scope. Any electrical materials removed from homes will be disposed of per EPA guidelines.

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<tr>
<th>How do you define “minor” or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?</th>
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<tr>
<td>“Minor” or allowable electrical repairs are defined as upgrades or repair necessary for weatherization measures and where the health and safety of the occupant is at-risk.</td>
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When serious electrical hazards, gross overloads, or electrical wiring exposure are present, the energy auditor(s) and crews shall notify the owner and document in the client’s file. In such condition, the client shall be deferred to resolve such major problems prior to the installation of weatherization services, ensuring electrical baseload is within the electrical safety standards. Weatherization measures that effect electric load, including air conditioner(s), refrigerator, and hot water tank replacement. Electrical work beyond minor repairs are beyond the scope of WAP.

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<td>Clients will be provided with information and explanation of the hazards of overloading circuits, basic electrical safety/risks and over current protection (where applicable).</td>
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<tr>
<td>WAP crews will be trained in basic electrical safety, how to identify electrical hazards, and local code compliance. Installation contractors are responsible for proper electrical installation of appliances.</td>
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### 7.10 – Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and other Air Pollutants

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<tr>
<th>What guidance do you provide Subgrantees for dealing with formaldehyde, VOCs, flammable liquids, and other air pollutants identified in homes slated for weatherization?</th>
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<tr>
<td>Air pollutants will be identified by auditor/assessors prior to any work on the job. Removal of pollutants is allowed and is required if they pose a risk to workers. Removal of pollutants that are not dangerous or necessary to perform weatherization work (old paint cans, oil in garages, etc.) is not allowed. Removal of pollutants not related to weatherization work is not allowable. Dangerous air pollutants will be removed prior to any work. If pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the work will be deferred until the situation is remedied. Clients will be referred to other programs/agencies if pollutants are beyond the scope of this project. Pollutants will be disposed of following EPA procedures.</td>
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### Testing Protocols

**Sensory inspection.**

### Client Education

Clients will be informed in writing of observed conditions and associated risks. Client will be given written information and explanation on safety and proper disposal of household pollutants.

### Training

Weatherization auditor/assessors will be trained to recognize common household pollutants including formaldehyde, tobacco smoke, thinners, solvents, cleaners, and any other substances capable of negatively impacting indoor air quality.

#### 7.11 – Fuel Leaks

*(please indicate specific fuel type if policy differs by type)*

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### Remediation Protocols

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

**How do you define allowable fuel leak repairs, and at what point are repairs considered beyond the scope of weatherization?**

When a minor gas leak is found on the utility side of service, the utility service must be contracted before work may proceed. Fuel leaks that are the responsibility of the client (versus the utility) must be repaired before weatherizing a unit.

### Client Education

Clients will be informed of observed conditions and associated risks. Client will be given written information and explanation on how to resolve the issue before weatherization work can proceed.

### Training

WAP crews should be trained on fuel leak testing.

#### 7.12 – Gas Ovens / Stovetops / Ranges

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**What guidance do you provide Subgrantees for addressing unsafe gas ovens/stoves/ranges in homes slated for weatherization?**

Not applicable as this is not a measure on approved priority list.

### Testing Protocols

Not applicable as this is not a measure on approved priority list.

### Client Education

Not applicable as this is not a measure on approved priority list.

### Training
Not applicable as this is not a measure on approved priority list.

### 7.13 – Hazardous Materials Disposal

**[Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.]**

*please indicate material where policy differs by material*

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**Asbestos**

DOE funds will not be used to test or remove asbestos.

**Formaldehyde, Volatile Organic Compounds (VOCs), and other Air Pollutants**

DOE funds may be used to remove pollutants that are of danger to weatherization workers. Pollutants will be disposed of following EPA procedures.

**Lead**

DOE funds will be used for lead paint testing, site set up, clean up, and verification on all pre-1978 homes. Proper disposal of lead-paint debris must be in accordance with EPA LRRP protocols.

**Refrigerant**

H&S funds will not be used to pay for removal and disposal of old refrigerator and room A/C units. This cost will be included in the cost of the energy efficiency measure. Refrigerant will be disposed of as per Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93. Refrigerator and room A/C vendors will provide documentation to the subgrantee regarding proper disposal of old units. Subgrantee will maintain records in client files. Every attempt will be made to recycle old appliances.

**Client Education**

Clients will be informed in writing of hazards associated with hazardous waste materials being generated/handled in the home.

**Asbestos**

If asbestos is identified by crew, client shall be instructed not to disturb any suspected surface and given the EPA pamphlet “Asbestos in the Home, a Homeowners Guide.”

**Formaldehyde, Volatile Organic Compounds (VOCs), and other Air Pollutants**

Clients will be informed of observed conditions and associated risks. Clients will also be given written information and explanation on safety and proper disposal of household pollutants.

**Lead**

Where lead paint is present, clients must receive and acknowledge with signature, the most current EPA “Renovate Right” pamphlet.

**Refrigerant**

Clients will be informed why and how refrigerant must be disposed of safely.
Training

WAP crews should be trained on appropriate personal protective equipment (PPE) for working with hazardous waste materials, disposal requirements and locations, and health and environmental risks related to hazardous materials.

Asbestos
Subgrantee auditors/assessors will be required to take an Asbestos Hazard Emergency Response Act (AHERA) course to be able to identify asbestos.

Formaldehyde, Volatile Organic Compounds (VOCs), and other Air Pollutants
Weatherization auditors/assessors will be trained to recognize common household pollutants including formaldehyde, tobacco smoke, thinners, solvents, cleaners, and any other substances capable of negatively impacting indoor air quality.

Lead
All workers must be trained in LSW and Certified Renovators must attend EPA training.

Refrigerant
Assessors/inspectors will provide assurance that contractors/vendors are following the above regulations. State will monitor local agencies and local agencies will monitor contractors/vendors to assure compliance.

Disposal Procedures and Documentation Requirements

Hazardous waste materials generated in the course of weatherization work shall be disposed of according to all local laws, regulations and/or Federal guidelines, as applicable. When hazardous materials (refrigerant, lead paint dust/chips, etc.) are generated in the course of weatherization work, proper disposal is required, and removal/disposal costs must be included in the weatherization cost for the unit.

Asbestos
Grantee will not be removing or disposing of any asbestos. If asbestos is present in any area which will be disturbed during weatherization, the client will be notified of potential hazard and instructed not to disturb any suspected surface. In order for weatherization work to continue, the client must provide documentation that a certified professional removed asbestos.

Formaldehyde, Volatile Organic Compounds (VOCs), and other Air Pollutants
Pollutants will be disposed of following EPA procedures.

Lead
Proper disposal of lead-paint debris must be in accordance with EPA LRRP protocols.

Refrigerant
Refrigerant will be disposed of as per Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93. Refrigerator and room A/C vendors will provide documentation to subgrantee regarding proper disposal of old units. Subgrantee will maintain records in client files. Every attempt will be made to recycle old appliances.

7.14 – Injury Prevention of Occupants and Weatherization Workers
(Measures such as repairing stairs and replacing handrails)

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What guidance do you provide Subgrantees regarding allowable injury-related repairs (e.g., stairs, handrails, porch deck board)?

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. WAP crew will inform client of dangerous and unsafe condition of the home, and will be referred to other local social service agencies if repair/replacement is beyond the project scope.

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.

DOE funds will not be used to make general home repairs. Stairs, handrails, and other general repairs will not be made with DOE funds. Client will be referred to other local social service agencies if repair/replacement is beyond the project scope. If worksite is not safe, weatherization work will be deferred until a safe work environment can be provided by the client.

Training
Assessors will be made aware of general hazards which could prevent weatherization.

7.15 – Lead Based Paint
Concurrence, Alternative, or Deferral

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Safe Work Protocols

DOE funds will be used for lead paint testing, site set-up, clean-up, and verification on all pre-1978 homes. Work that disturbs painted surfaces on pre-1978 housing must be in accordance with the EPA’s Lead RRP requirements. All testing, job site set-up, and clean up must be supervised by a Certified Renovator and each crew member must be accompanied by a Certified Renovator. Typical work that may disturb lead paint in pre-1978 homes could include window or through wall Room Air Conditioners. Solar or hybrid hot water system installed with through the wall penetrations will also follow LRRP and LSW. Refer to Hawaii’s Field Guide for more information on LSW practices. It is doubtful that the disturbance of paint will be affected beyond the minimum levels for these measures, but if it will, the job will be deferred.

Deferral is required when the extent and condition of lead-based paint in the house would potentially create further health and safety hazards. If it appears that extensive amounts of lead paint will be disturbed by weatherization creating further health and safety hazards, the client will be notified that the job will be deferred.

Testing Protocols

Job site set-up and cleaning verification is required by a Certified Renovator. Only those costs directly associated with the testing and lead safe practices for surfaces directly disturbed during weatherization activities are allowable. Testing to determine the presence of lead in paint that will be disturbed by WAP measure installation is allowed with EPA-approved testing methods.
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<tr>
<td>Where lead paint is present, clients must receive and acknowledge with signature, the most current EPA “Renovate Right” pamphlet. When deferral is necessary, WAP crew will provide information in writing describing conditions that must be met in order for weatherization to commence.</td>
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<th>Training and Certification Requirements</th>
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<td>All weatherization staff must complete the EPA RRP training within 30 days of hire. At least one staff member at each local agency must be a Certified Renovator. Lead Safe Weatherization training is optional.</td>
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<th>Documentation Requirements</th>
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<td>Client file documentation 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 (or link to photos).</td>
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<tr>
<th>7.16 – Mold and Moisture</th>
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<td>(Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, etc.)</td>
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**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?**

Grantee will not be correcting any mold and moisture problems. If these problems are encountered during assessment, the home will be deferred until problems are resolved. Suspected mold or severe moisture problems will be identified, using sight and smell, during the early stages of an assessment and a determination made of the severity or extent of the problem. If problem is too severe to weatherize the home, client will be notified, and job deferred until problem is resolved.

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. Correction of minor drainage, gutters or down spouts to direct rainwater away from the building is allowable if within the cost limitations. Installation of gutters, down spouts, extensions, flashing, sump pumps, and landscape is not an allowable cost. Surface preparation where weatherization measures are being installed (i.e., 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. Disposal of any material removed from the structure will be done in an environmentally acceptable manner.

**How do you define “minor” or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?**
DOE funds can be used to correct minor drainage problems. Extensive installation of gutters, down spouts, sump pumps or landscaping is beyond the scope of WAP and not allowable. If drainage problems beyond the scope of WAP will affect the operation of any weatherization measures, the work will be deferred until such problems are corrected. Client will be notified of serious drainage problems that are creating health and safety issues or detrimental to installation of weatherization measures. The client will be asked to correct such problems prior to weatherization and/or referred to local agencies who may be able to assist.

DOE funds will not be used to eliminate mold and moisture. Weatherization work will be deferred if mold or moisture exists in home. Water damaged homes shall be deferred. Client will be asked to resolve mold and moisture problems prior to weatherization work. If mold and moisture problems are severe, the client may be referred to other local agencies for assistance.

**Client Education**

Client will be notified of health and safety concerns regarding poor drainage and the effect this may have on any weatherization work. WAP crews will provide client written notification and disclaimer on mold and moisture awareness; information on importance of cleaning and maintaining drainage systems; and 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**

All workers will receive national curriculum on Mold and Moisture or equivalent. WAP crews will also be trained to visually identify any drainage problems.

### 7.17 – Pests

**Concurrence, Alternative, or Deferral**

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

DOE funds will not be used for pest removal. Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses H&S concern for workers.

**Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred**

Pest removal is allowed only where infestation would prevent weatherization. If the presence of pests interferes with weatherization, job will be deferred until pests are removed.

**Testing Protocols**

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

**Client Education**

Client will be provided with information on observed condition, associated risks, and reasons for deferral.

**Training**

Training will be provided on how to assess presence and degree of infestation, associated risks, and deferral criteria.

### 7.18 – Radon

**Concurrence, Alternative, or Deferral**

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### What guidance do you provide Subgrantees around radon?

No DOE funding will be used for radon testing as this is beyond the scope of the grantee’s weatherization program. Radon mitigation is not an allowable H&S cost. Since homes will not be sealed due to natural ventilation, there will be no testing for radon. Only baseload measures will be installed which should not affect infiltration or concentration of radon in homes.

### Testing Protocols

Radon will not be tested.

### Client Education

Client will be referred to EPA consumer’s guide to radon if they express a concern.

### Training and Certification Requirements

There will be no training for radon testing or amelioration as this will not be addressed by grantee.

### Documentation Requirements

Not applicable.

### 7.19 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers

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### What is your policy for installation or replacement of the following:

#### Smoke Alarms:

Installation is allowed where alarms are not present or are inoperable. Smoke alarms can be installed per manufacturer’s guidelines in all units where alarms are not present or are inoperable. WAP crews may install as many alarms as are recommended/required under current local building code. Inoperable alarms will be removed when possible and disposed of per EPA guidelines. Subgrantees will include a clause in their initial application packet that releases the Agency and/or staff from any liability as a result of weatherization work done to the client’s home. Subgrantee auditor/assessor will provide instruction for use and maintenance of the installed device(s).

#### Carbon Monoxide Alarms:

Installation is allowed where alarms are not present or are inoperable. CO alarms or combination smoke/CO alarms may be installed in homes with combustion appliances. CO alarms can be installed per manufacturer’s guidelines in all units where alarms are not present or are inoperable. WAP crews may install as many alarms as are recommended/required under current local building code. Inoperable alarms will be removed when possible and disposed of per EPA guidelines. Subgrantees will include a clause in their initial application packet that releases the Agency and/or staff from any liability as a result of weatherization work done to the client’s home. Subgrantee auditor/assessor will provide instruction for use and maintenance of the installed device(s).

#### Fire Extinguishers:

Providing fire extinguishers are not allowable.

### Testing Protocols

WAP crews will test existing smoke alarms, carbon monoxide detectors, and fire extinguishers for operation.

### Client Education

Client will be educated on the operation of smoke/CO alarms installed by weatherization crews.

### Training
Training will be provided to assessors on installation of smoke/CO alarms and local code compliance.

### 7.20 – Occupant Health and Safety Concerns and Conditions

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**What guidance do you provide Subgrantees for soliciting the occupants’ health and safety concerns related to components of their homes?**

During application intake or home assessment/audit, subgrantees will determine if a person’s health may be at-risk and/or the work activities could constitute a health or safety hazard. The occupant at-risk will be required to take appropriate action based on severity of risk. Failure or the inability to take appropriate actions must result in a deferral. Failure or the inability to take appropriate actions must result in a deferral.

At the time of application or during the home assessment/audit, the occupant must complete a “Client Health Survey” (Attachment B), identifying potential health issues of the applicant and all occupants of the dwelling. This survey will be inserted into the client file for future reference. The information collected during this process will be used to aid in determining the best material and course of action for the weatherization process. When an occupant’s health is fragile and/or work activities would constitute a health or safety hazard, the occupant(s) at-risk will be required to leave the home during work activities. If the occupant is unable to leave the home and the intended work may exacerbate an occupant’s health condition, the home may need to be deferred.

#### 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?

Occupants at-risk will be asked to leave the home during weatherization work to make sure weatherization work does not make health conditions worse. If at-risk occupants cannot be relocated during weatherization work, then the home will be deferred. Training will be provided on how to assess occupant pre-existing conditions and determining course of action is required.

#### What guidance do you provide Subgrantees for dealing with potential health concerns when they are identified?

Occupants at-risk will be asked to leave home during weatherization.

**Client Education**

Clients will be provided with information on any known risks to their health conditions.

| Documentation Form(s) have been developed and comply with guidance? | Yes ☑ | No ☐ |

### 7.21 – Ventilation and Indoor Air Quality

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**Identify the Most Recent Version of ASHRAE 62.2 Implemented (optional: identify Addenda used)**

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2021 Grantee Health And Safety Plan Draft 03172021
Whole house ventilation and local exhaust provisions of ASHRAE 62.2 – 2016 will not be performed in the grantee’s territory. Deferral is required for homes where both mechanical cooling is present, and the building has an established pressure boundary. Other components of ASHRAE 62.2 – 2016 such as separating air movement from attached garages and properly venting dryers will be enforced.

Deferral is required for homes where both mechanical cooling is present, and the building has an established pressure boundary. Homes must also be deferred where guidance within this plan cannot address high polluting sources, mold and moisture concerns, or the presence of unacceptable air quality as identified through sensory inspection. Homes that require work beyond the scope of this guidance will be deferred and referred to service organizations that can potentially address the identified hazard or health and safety concern.

Testing and Final Verification Protocols

All homes will be assessed to determine if mechanical cooling is present and the building has an established pressure boundary. If both are present, the home must be deferred. If neither or only one of the two conditions is present, then weatherization work may continue. All homes must also be assessed for attached garages, clothes dryers, combustion appliances (proper ventilation), high polluting sources, mold and concerns, or the presence of unacceptable air through sensory moisture inspection. Where attached garages are present, they must be sealed to separate air flow from the interior of the home. Where clothes dryers are present, they must be properly vented to the outdoors. Refer to ASHRAE 62.2 – 2016 standard for full implementation requirements. Also see Combustion Gases and Mold and Moisture sections above.

Excess materials used in meeting this ventilation standard will be retained by the agency. Items requiring removal from the home will be properly disposed by WAP crews and must not be left with the client.

Client Education

Client will be provided with information on location of service switch and cleaning instructions, function, use, and maintenance of ventilation system and components where present or installed. Include disclaimer that ASHRAE 62.2 – 2016 does not account for high polluting sources or guarantee indoor air quality.

Training

Subgrantee specific training, which could include ASHRAE 62.2 training (proper sizing, evaluation of existing and new systems).

7.22 – Window and Door Replacement, Window Guards

Concurrence, Alternative, or Deferral

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<th>Concurrence with Guidance</th>
<th>Alternative Guidance</th>
<th>Results in Deferral</th>
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Funding

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<th>DOE</th>
<th>LIHEAP</th>
<th>State</th>
<th>Utility</th>
<th>Other</th>
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What guidance do you provide to Subgrantees regarding window and door replacement and window guards?

Replacement, repair, or installation is not an allowable H&S cost, but may be allowed as an incidental repair or an efficiency measure if cost justified.

Testing Protocols

Not applicable.

Client Education

WAP crews will provide written information on lead risks wherever issues are identified.

Training

WAP crew will be aware of current guidance.
### 7.23 – Worker Safety (OSHA, etc.)

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**How do you verify safe work practices? What is your policy for in-progress monitoring?**

Since the grantee’s program mainly installs baseloads, subgrantees’ auditors/assessors perform initial assessment, install baseloads, and perform final inspections. Installation of solar hot water systems and hybrid heat pump water heaters will be done by contractors. Room air conditioners and refrigerators are delivered and installed by vendors. Old units are disposed of by vendors per EPA guidelines. Workers must follow OSHA standards where required and take precautions to ensure the H&S of themselves and other workers. OSHA Confined Space requirements will be followed as applicable.

**Training and Certification Requirements**

All on-site assessors/inspectors must complete OSHA safety training. All subgrantees and contractors must maintain compliance with the current OSHA Hazard Communication Standard, including on-site organized Safety Data Sheets (formerly called MSDS). DOE funds will be used for OSHA training.

Training on the use and importance of PPE.
Training on OSHA’s Confined Space requirement.