Louisiana Housing Corporation

Louisiana Weatherization Health and Safety Plan

☑ 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.

- All DOE WAP funded Health and Safety Measures outlined in this Guidance must be completed consistent with the requirements of the DOE/NREL Standard Work Specifications (SWS) https://sws.nrel.gov/
- Most of the Health and Safety elements of the SWS are outlined in Section 2.00 https://sws.nrel.gov/spec/2

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

The elimination of health and safety hazards is essential before installing weatherization materials on an approved property. This task is accounted for in a separate budget category of the Louisiana Grant Application.

Subgrantees may use funds to abate energy-related Health and Safety hazards only if elimination of such hazards are necessary before or as a result of installation of weatherization materials.

For example, the measure "Repair Leak/Adding a Gas Line" listed in the H&S Measure Matrix is allowable as a Health and Safety cost ONLY if it is done in conjunction with replacement of a heating system as a Health and Safety cost; or if it is to repair an existing gas line as a Health and Safety cost. It is not allowable as a Health and Safety cost to add gas lines for new systems installed as Energy Conservation Measures (ECMs).

LHC will review and track Subgrantee Health and Safety expenditures throughout the grant period. If it appears that a Subgrantee will have unexpended Health and Safety funds, the funds will be reprogrammed to the Program Operations line budget line and additional DOE WAP units will be completed.

LHC's Software of Record (Hancock) contains a Job Funding Limit feature for each Funding Source and Budget Type. LHC uses this feature to define a Funding Limit for overall Health and Safety expenditures on a job. The limit is changed annually, and the Total Average H&S Cost Per Unit as defined by the Health and Safety Plan – H&S Measure Matrix (below) is used as the limit. Any time Health and Safety expenditures on a unit exceed this limit, LHC review and approval will be triggered within the software. LHC must give approval within Hancock before the expenses can be added to the invoice.

H&S Measure Matrix - Optional			
Double Click To Open For Editing			
Cells this shade auto calculate			
Enter Measure ↓	**Enter** Cost ↓	**Enter** Frequency % ↓	Auto Calculates
Bathroom Exhaust Fan	$224.23	30.0%	$67.27
Blocking Heat Producing Devices	$170.30	5.0%	$8.52
Combustion Problems in CAZ	$117.64	12.0%	$14.12
Dryer Venting	$80.94	90.0%	$72.85
Install C/O Alarm	$77.55	95.0%	$73.67
Install GFI	$131.25	5.0%	$6.56
Install Smoke Alarm	$76.74	95.0%	$72.90
Install Window Heat or A/C Unit	$655.87	5.0%	$32.79
Range Hood Install	$384.66	60.0%	$230.80
Remove Unvented Space Heater	$90.33	9.0%	$8.13
Repair Leak/Adding a Gas Line	$197.40	5.0%	$9.87
Replace Mercury Thermostat	$81.97	2.0%	$1.64
Replace Unvented Space Heater	$1,784.03	7.0%	$124.88
Vent Existing Exhaust Applicance Outside	$234.38	40.0%	$93.75
Water Heater Pressure Relief Valve	$50.70	35.0%	$17.75
Water Heater Replacement	$674.26	5.0%	$33.71
Whole House Ventilation	$408.56	50.0%	$204.28
Zonal Pressure Combustion Make Up Air	$203.62	3.0%	$6.11
Total Average H&S Cost Per Unit			$1,079.59
Enter Estimated Production (Annual File: IV.2 WAP Production Schedule) ➔			182
Enter Estimated Program Operations Budget ➔			$1,313,002.00
H&S Budget (Total Average H&S Cost Per Unit * Estimated Production)			$196,486.13
Requested H&S Percentage Per Unit (H&S Budget/Program Operations)			15.0%

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")

No Health and Safety measures will be identified as incidental repair measures (IRMs) this year.

5.0 – DEFERRAL/REFERRAL POLICY

Deferral of services may be necessary if H&S issues cannot be adequately addressed according to WPN 17-06 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?

Deferral may be necessary if health and safety issues cannot be adequately addressed according to WPN 17-07 guidance. Deferral of weatherization services to a home may be caused by health and safety hazards and/or lack of cost effectiveness to implement weatherization measures. Deferral may also be necessary if health and safety issues cannot be adequately addressed through the guidance provided by this Plan.

If health and safety issues identified in an individual dwelling unit cannot be addressed within allowable WAP limits, then the unit would exceed the scope of this program and must be deferred. 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.

In the judgment of the auditor, any conditions that exist which might endanger the health and/or safety of the workers or occupants should be deferred until the conditions are corrected. Clients will be solicited by auditors to reveal known health and safety concerns as part of the initial application for Weatherization and documented on the "Notification of Potential Health and Safety Issues" form. Deferral may also be necessary when occupants are uncooperative, abusive, or threatening. Guidelines are provided herein for determining and documenting whether potential health and safety issues should be remedied, referred to other agencies, or lead to deferral. Agencies are expected to pursue reasonable options on behalf of clients, including referrals, and to use good judgment in dealing with difficult situations.

Deferral and Notice of Potential Health and Safety Issues documentation will include the client's name and address, dates of the audit/assessment and when the client was informed, a clear description of the problem, conditions under which weatherization could continue, the responsibility of all parties involved, and the client(s) signature(s) indicating that they understand and have been informed in writing of their rights, options and the appeal process.

The following guidance has been developed for use by local agencies in the State of Louisiana:

Deferral Based on Health & Safety Standards. All weatherization technicians must be able to perform all authorized weatherization activities and measures without undue threats or concerns regarding their health & safety. Conditions which may constitute undue threats or concerns to staff or client health & safety may include but are not limited to the following items:

- Structurally unsound dwellings that are condemned for human habitation.
- Evidence of substantial, persistent infestation of rodents, insects, and/or other vermin which cannot be reasonably removed or poses health and safety concerns for workers.

- Electrical or plumbing hazards that cannot be resolved prior to or as a part of the authorized weatherization work.
- The presence of sewage in any part of the dwelling unit.
- Evidence of environmental hazards such as serious moisture problems, carbon monoxide, gas leaks, friable asbestos, or other hazardous materials, which cannot be resolved prior to the weatherization work.
- The presence of animal or human feces in any area of the dwelling unit where field staff must perform various weatherization measures.
- Excessive garbage and clutter build-up in and around the dwelling unit where field staff must perform weatherization measures.
- Maintenance and housekeeping practices that are negligent to the point of limiting access of field staff to the dwelling or creating an unhealthy working environment.
- Any overt threat of violence, verbal abuse, physical abuse, or profanity towards any weatherization staff member or any household member during the weatherization process.
- Evidence of the presence and/or use of any illegal/controlled substance in the dwelling unit.
- Evidence of drug cultivation, distribution and/or manufacturing on the premises.
- The lack of the presence of a home resident who is at least 18 years old when any weatherization staff is performing the weatherization process.
- The dwelling is a mobile home that has serious structural problems which would make the completion of weatherization measures impossible or impractical for the weatherization field staff.
- A heating system in use has been determined to be unsafe or nonfunctional (through the determination of a qualified agency or technician) and cannot be resolved through the normal efforts of the weatherization agency prior to the commencement of weatherization work or during the normal weatherization process.
- Evidence of standing water in the basement or crawl space area.

Deferral Based on Lack of Cost-Effectiveness. Weatherization work should be performed in a cost-effective manner whenever possible. Situations or conditions which may limit the cost effectiveness of any weatherization work may include, but are not limited to the following:

- Structurally unsound dwelling unit where the costs associated with the repairs substantially exceed the cost of the weatherization measures.
- Major remodeling is currently in progress (and is not coordinated with a housing rehabilitation program).
- A client or owner/authorized agent (landlord/property manager) refuses to allow a cost effective measure to be performed on the dwelling unit, or to make necessary modifications to the dwelling unit to permit weatherization measures to be completed.

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 Form(s) have been developed and comply with guidance?

Yes ☑ No ☐

Agencies are required to gather occupant health information as part of the initial client application process. Information is then discussed with the client during the interview process. This takes place before any work is performed on the home by the agency auditor or subcontractor. Weatherization agencies and their representatives, including subcontractors, are required to take all reasonable precautions against performing work on homes that will subject the occupants or themselves to health and/or safety risks. In cases where an occupant's health is fragile, or an occupant has been identified to have a health condition, including allergies, and/or the crew work activities would themselves constitute a health and/or safety hazard, the occupant(s) at risk may be required to leave during the performance of the work activities. In cases where an occupant is identified as having an allergy to a specific weatherization material, that material will not be installed. If comparable alternative materials are available and the occupant has no known allergic to the alternative materials and they meet DOE regulations, crews may substitute the alternative material(s). If no safe alternative material meeting DOE standards is available, LHC must provide written approval before proceeding. This must be well documented in the client file.

The Louisiana Housing Corporation has developed documentation forms "Notification of Potential Health and Safety Issues" which include the client's name and address, dates of the audit/assessment and when the client was informed of a potential health and safety 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.

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 17-06 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 17-06, Grantees must concur, or choose to defer all units where the specific category is encountered.*
- *"Allowable" items under WPN 17-06 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

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/cooling systems?

"Red tagged," inoperable, or nonexistent primary heating system may be replaced, repaired, or installed where climate conditions warrant, consistent with this guidance. Primary air conditioning system replacement, repair, or installation is allowed only in homes where current occupants meet Louisiana's WAP definition of "at-risk" AND climate conditions warrant. "System" can mean a central unit or several individually operating units; however, when a central unit is in place, it shall be considered the primary unit, and all other units are to be considered secondary. Use proper sizing protocols (Manual J, State Approved sizing protocols, NEAT/MHEA outputs, etc.) based on post-weatherization housing characteristics, including installed mechanical ventilation, when installing or replacing a heating or cooling appliance.

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

Unsafe primary units must be repaired, replaced and removed, or rendered inoperable, or deferral is required. Unsafe secondary units, including space heaters, must be repaired, removed or rendered inoperable, or deferral is required. Replacement or installation of secondary units is not allowed. Only unvented secondary space heaters units that conform to the safety standards of ANSI Z21.11.2 may remain as back-up heat sources.
When selecting items to leave behind, give preference to code-compliant units that do not require electricity. Secondary unvented units that do not meet ANSI Z21.11.2 must be removed and properly disposed of prior to weatherization. Repair of secondary unvented units is not allowed. Secondary unvented units that meet the ANSI Z21.11.2, but are not operating safely, must be removed and properly disposed of. See "Additional Health and Safety Guidance Related to Heating Systems WAP WPN 17-7 Attachment A" https://energy.gov/eere/wipo/downloads/wpn-17-7-weatherization-health-and-safety-guidance .

Indicate Documentation Required for At-Risk Occupants

"Notification of Potential Health and Safety Issues" will be signed and issued to the client and documented in the unit file. Air conditioning system replacement, repair, or installation is allowed in homes of at-risk occupants (under 5 years of age, elderly, or documented medical condition) in Louisiana. Medical eligibility for an air conditioner is required for anyone under the age of 60. You must have written documentation from a third-party medical professional.

Testing Protocols

Make sure primary systems are present, operable, and performing correctly. Check DOE-approved audit (NEAT/MHEA) to determine if the system can be installed as an energy conservation measure (ECM) with a SIR > 1 prior to replacement as an H&S measure. Determine and document presence of "at-risk" current occupants when installing air-conditioning as a Health and Safety (H&S) measure. On combustion equipment, inspect chimney and flue and Combustion Appliance Zone (CAZ) depressurization, CO spillage and CO ppm. For solid fuel appliances look for visual evidence of soot on the walls, mantel or ceiling or creosote staining near the flue pipe. Treat vented gas- and liquid-fueled space heaters the same as furnaces in terms of combustion safety testing, repair and replacement. This policy applies to vented space heaters fueled by natural gas, propane, or oil.

Client Education

Clients shall be provided all user manuals, preventative maintenance, health and safety notifications, CO education and energy conservation information on heating/cooling units, and information regarding the proper disposal of bulk fuel tanks, if applicable. 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 document **"**Notification of Potential Health and Safety Issues" must also be signed and placed in the unit file. Where combustion equipment is present, provide safety information including how to recognize CAZ depressurization.

Training

Agency Quality Control Inspectors (QCI), auditors and inspectors are trained to document heating/cooling system efficiency data and testing. This curriculum includes repair, replacement options, and protocols for gas leak testing, CO levels, CO spillage, CAZ depressurization, ambient CO levels and combustion testing. The Louisiana Field Guide has been distributed to all sub-recipients along with training of WAP field personnel and program directors. WAP agencies have also been notified that the guide is available online, or by request from LHC weatherization staff. https://cdn2.hubspot.net/hubfs/4280063/WEATHERIZATION/RetrofittingLouisiana2018ManufacturedHousingApproved81418.pdf https://cdn2.hubspot.net/hubfs/4280063/WEATHERIZATION/RetrofittingLouisiana2018SingleFamilyApproved81418.pdf

7.2 - Asbestos - All

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

When an ACM is present, unless testing determines otherwise, take precautionary measures as if it contains asbestos, such as not using blower door tests, wearing proper PPE and utilizing personal air monitoring while in attics. Where blower door tests are performed, perform pressurization instead of depressurization. Encapsulation by appropriately trained asbestos control professional is allowed. Removal is not allowed. WAP agencies seeking guidance on safe policies and procedures should contact a local asbestos action office Louisiana Department of Environmental Quality https://deq.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=asbestos-accreditation-and-notification-forms for technical support.

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?

Minimal standards for remedy include, but are not limited to the following. If the unit contains suspected ACM's in siding, walls, or ceiling assume that this material is contaminated with asbestos and do not disturb it. Do not open any walls to check for vermiculite. Wear proper PPE when entering an attic area that may contain suspected ACM's. Do not track vermiculite insulation or associated dust into living spaces of the unit. Follow EPA, DEQ and OSHA regulations regarding the safety of workers' handling of asbestos to ensure worker and client safety. Do not dust, sweep, or vacuum debris that may contain asbestos. Never saw, sand, scrape, heat or drill holes in asbestos materials. Agencies and contractors are trained to recognize and work safely when suspected asbestos-containing materials through DOE two-day Health and Safety course, asbestos videos, EPA Purple Book "Guidance for Controlling Asbestos-Containing Materials in Buildings" and Louisiana DEQ web site http://deq.louisiana.gov/ . Additional training will be handled on an ongoing and as-needed basis as identified by monitoring, new staff hires and request by Subrecipients, etc. The existence of asbestos siding that is in good condition does not prevent installing dense-pack insulation from the exterior. Siding in good condition may be removed and reinstalled in order to perform the ECM, and the associated costs may be charged as part of the ECM.

Testing Protocols

Visually inspect the exterior wall surface and subsurface, floors, walls, and ceilings for suspected ACM prior to disturbing, drilling or cutting. A positive pressure blower door technique must be used on units with friable (easily crumbled, powdery, soft or chalky) suspected ACM in the siding, vapor barrier, floors, walls, attic and/or ceiling. Units with ACM siding that are in good condition (non-friable) can either have a positive or negative blower door test performed. Asbestos Hazard Emergency Response Act of 1986 (AHERA) sample collection and testing must be conducted by a certified tester. The costs associated with asbestos testing and abatement or replacement with new siding are not eligible expenditures. Removal of non-friable siding is allowed to perform energy conservation measures; however, precautions must be taken not to damage the siding. Asbestos siding should never be cut, sanded, heated or drilled. Where possible, insulate the exterior walls through the interior of the home. Documentation or testing regarding the presence of disturbed asbestos material by an appropriately trained crew leader, auditor or inspector must be maintained in the client file.

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. Provide written disclosure to clients regarding the existence of suspected ACMs and provide client education advising non disturbance of such materials. Client education from the EPA web site on vermiculite insulation will be provided. Go to http://www2.epa.gov/asbestos/protect-your-family-asbestos-contaminated-vermiculite-insulation.

Training and Certification Requirements

How to identify suspected ACM and safe practices for siding removal and replacement. Licensing/certification for removal and reinstallation of asbestos siding if required by authority having jurisdiction (AHJ).

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. Do not perform a blower door test if it will disturb the vermiculite. Wear protective equipment when entering an attic area that may contains suspected ACMs. Do not track vermiculite insulation or associated dust into living spaces of the unit. Follow EPA, DEQ and OSHA regulations regarding the safety of workers' handling of asbestos to ensure worker and client safety. Do not dust, sweep, or vacuum debris that may contain asbestos. Where blower door tests are performed, perform pressurization instead of depressurization if suspected friable ACM are present. Encapsulation by an appropriately trained asbestos control professional is allowed. Removal is not allowed. When deferral is necessary due to asbestos, occupant must provide documentation that a certified professional performed the remediation before work continues.

Testing Protocols

If the unit is suspected to have vermiculite insulation present, then a positive blower door test must be performed instead of a depressurization blower door testing. AHERA sample testing must be conducted by a certified tester; however, sampling, testing, encapsulation and remediation costs are not eligible expenditures. Units containing vermiculite attic insulation suspected of containing asbestos must be evaluated for the installation of attic insulation. If insulation has a SIR of 1.0 or greater in the energy audit software, then the Agency shall seek LHC approval to have the vermiculite insulation tested for asbestos. If the vermiculite contains asbestos, then the insulation must be removed from the computerized audit and work order. This testing, if approved by LHC, is an allowable health and safety expense or may be included as a part of the cost of the associated energy conservation measures. If the Agency has the potential ACMs tested, the Agency must formally notify the client by mail if the test results are positive for asbestos, and the notification must be signed by the client. The testing results from suspected ACMs must be kept in the client file. If approval is granted by LHC for removal or encapsulation of suspected ACMs, the Agencies must use licensed asbestos abatement contractors to remove, encapsulate and/or dispose of ACMs.

Client Education

Provide written disclosure to clients regarding the existence of suspected ACMs and provide client education advising non disturbance of such materials. Client education from the EPA web site on vermiculite insulation will be provided. Go to http://www2.epa.gov/asbestos/protect-your-family-asbestos-contaminated-vermiculite-insulation.

Training and Certification Requirements

Agencies and contractors are trained to recognize and work safely when suspected asbestos-containing materials through DOE two-day Health and Safety course, asbestos videos, EPA Purple Book "Guidance for Controlling Asbestos-Containing Materials in Buildings" and Louisiana DEQ web site http://deq.louisiana.gov/ . AHERA or other appropriate asbestos control professional certification/training for encapsulation or to conduct testing.

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?

Inspect pipe and other coverings for asbestos. 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. Encapsulation by an appropriately trained asbestos control professional is allowed and should be conducted prior to blower door testing if the materials are friable. 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. Keep activities to a minimum in areas having damaged material that may contain asbestos. Document and inform with signatures the client regarding the damaged material and suspected asbestos. Do not further disturb the material. Do not dust, sweep, or vacuum debris that may contain asbestos. Never saw, sand, scrape, or drill holes in asbestos materials. Do not track material that could contain asbestos through the unit. Follow EPA, DEQ and OSHA regulations regarding the safe handling of asbestos to insure worker and client safety.

Testing Protocols

A positive pressure blower door technique must be used in units with friable (easily crumbled, powdery, soft or chalky) suspected ACMs on pipes, furnaces or other small covered surfaces. Units with ACMs on pipes, furnaces or other small covered surfaces that are in good condition (non friable) can either have a positive or negative blower door test performed. AHERA sample testing must be conducted by a certified tester; however, sampling, testing, encapsulation and remediation costs are not eligible expenditures. Pipe wrap or insulation removal suspected of containing ACMs is only allowed on a case-by-case basis, and agencies will need prior written approval from LHC. Units containing suspected friable ACMs on pipe wrap and a major energy saving measure might be sacrificed as a result of the suspected pipe wrap ACMs. The Agency must seek LHC approval to have the suspected ACMs tested. This testing, if approved by LHC, is an allowable health and safety expense or may be included as a part of the cost of the associated energy conservation measures. If the Agency has the potential ACMs tested, the Agency must formally notify the client by mail if the test results are positive for asbestos, and the notification must be signed by the client. The testing results from suspected ACMs must be kept in the client file. If approval is granted by LHC for removal or encapsulation of suspected ACMs, the Agencies must use licensed asbestos abatement contractors to remove, encapsulate and/or dispose of ACMs.

Client Education

Instruct clients in writing not to disturb suspected ACM and results of testing was performed. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence. Client education from the EPA web site on vermiculite insulation will be provided. Go to http://www2.epa.gov/asbestos/protect-your-family-asbestos-contaminated-vermiculite-insulation.

Training and Certification Requirements
Agencies and contractors are trained to recognize and work safely when suspected asbestos-containing materials through DOE two-day Health and Safety course, asbestos videos, EPA Purple Book "Guidance for Controlling Asbestos-Containing Materials in Buildings" and Louisiana DEQ web site http://deq.louisiana.gov/ . AHERA or other appropriate asbestos control professional certification/training for encapsulation or to conduct testing.

7.3 – 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 a known agent is present in the home that may create a serious risk to occupants or weatherization workers. Also see Mold and Moisture guidance below. Cleanup of contaminants such as decomposing garbage and animal/human feces due to the occupant's neglect is not eligible. Hazardous conditions must be corrected by a certified professional and signed clearance notification must be provided to the agency prior to weatherization continuing. Non-hazardous conditions can be corrected by the client, and if performed within 30 days, weatherization can continue.

Testing Protocols

This health and safety category shall require sensory inspection for the purpose of detection. The use of personal protective equipment shall be strictly enforced. Respirators, protective eyewear, and protective clothing will be worn when there is suspicion or knowledge that biological agents may be present in order to eliminate or minimize crew exposure. The inspection will be conducted by the agency representative provided that he/she is not exposed to hazardous biological contaminants (i.e., raw sewage, animal/human feces, decomposing garbage, and animal carcasses).

Client Education

Clients shall be given information on the appropriate clean-up and removal of biologicals identified during the initial inspection performed by the Assessor. Agency will provide information on how to maintain a sanitary home and steps to correct deferral conditions. Inform client in writing that hazardous conditions must be corrected by a certified professional and signed clearance notification must be provided to the agency prior to weatherization continuing. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence. Non-hazardous conditions can be corrected by the client, and if performed within 30 days, weatherization can continue.

Training

Agency Weatherization coordinators, assessors and final inspectors are trained with curriculum that includes how to recognize Biological and Unsanitary Conditions and when to defer as well as worker safety when coming in contact with these conditions. Louisiana conducted statewide weatherization assistance program health and safety training to update all agencies using DOE latest H&S WPN 17-7 Health and Safety Guidance. Additional training will be handled on an ongoing and as-needed basis.

7.4 – 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 with conditions that require more than incidental repair should be deferred. Structurally-compromised areas requiring more than incidental repairs shall be deemed beyond the scope of the WAP and shall be deferred.

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

Conduct a visual inspection, ensuring that access to areas necessary for weatherization is safe for entry and performance of assessment, work, and inspection. Basic guidance for WAP crews/contractors: While conducting the initial audit, the building structure shall be inspected for structural integrity. Minor repairs to protect or preserve the DOE materials installed may be performed to protect the energy saving investment. However, building rehabilitation is beyond the scope of the WAP. Dwellings whose structural integrity is in question should be referred to agencies that deliver HUD funds or other appropriate local and state agencies. Weatherization services may need to be delayed or deferred until the dwelling can be made safe for crews/contractors and occupants. Examples of these minor repairs include sealing minor roof leaks to preserve new attic insulation and repairing water-damaged flooring as part of replacing a water heater. Incidental structural repairs shall not include cosmetic applications, such as replacing a floor covering for example carpet or linoleum. Only the structural part shall be replaced or repaired.

If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?

All units undergo a site-specific audit with NEAT or MHEA.

Client Education

Clients shall be notified verbally and in writing regarding any structurally-compromised areas and the describe conditions that must be met in order for weatherization to commence. Appropriate referral resources shall also be provided to the client. All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be documented at the time of assessment, and a copy given to the client and/or landlord.
Training
How to identify structural and roofing issues and recognize unsafe conditions and defer.

7.5 – 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 pre-existing code compliance issues is not an allowable cost other than where weatherization measures are being conducted. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condemned properties and properties where "red tagged" health and safety conditions exist that cannot be corrected under this guidance should be deferred. DOE and LIHEAP funds may be used when weatherization measures are being conducted or when necessary to perform weatherization work. They may not be used simply to correct pre-existing code compliance issues. The cost of complying with code requirements tied to installation of a specific measure will be charged as part of the measure such as following local code to install a furnace. When work is not a direct component of the measure but still necessary to perform weatherization work, the costs must be charged to the H&S budget category. 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/unit file. Follow State and local or AHJ codes while installing weatherization measures, including H&S measures.

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

Lead safe weatherization would require following EPA's RRP rules and policies. Disorganized electrical knob and tubing wiring and roof repairs beyond the scope of WAP services. Client and or landlord receive written and signed deferral notification with this documentation in the unit file.

Client Education

Clients and landlords will be informed and will receive a written and signed deferral notification with this documentation in the unit file.

Training

The auditor will perform visual inspection. Repair code violations directly connected to a weatherization measure or when necessary to perform audit-recommended weatherization work. Follow all state and local codes when installing weatherization measures. Acquire all required permits and licenses pertinent to installing weatherization measures. These vary by jurisdiction and it is the responsibility of each Subrecipient agency to know what the codes are in each of the areas they work in, as well as what permits and licenses are required in each of the areas they work in. Training on how to identify code-compliant issues is included in the Weatherization H&S Training, incorporated in the Louisiana Field Guide, OSHA classes. Additional training will be handled on an ongoing and as-needed basis.

7.6 – Combustion Gases

Concurrence, Alternative, or Deferral

Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐

Funding

DOE ☑	LIHEAP ☑	State ☐	Utility ☐	Other ☐

Testing Protocols

Proper venting to the outside for combustion appliances, including gas dryers, is required. Correction of venting is allowed when testing indicates a problem. Inspect venting of combustion appliances and confirm adequate clearances. Clearance from vent such as "B" vent should be maintained per vent manufacturer's specifications.

CO will be tested for in undiluted flue gases of combustion appliances under worse case CAZ (largest negative pressure). Furnaces CO should not exceed 400 ppm air free measurements or service will be provided (unless CO measurements within manufactured specifications). If CO exceeds 200 ppm air-free measurement in water heaters and room heaters, service will be provided to reduce CO to below these levels (unless CO measurements within manufactured specifications). A clean and tune will be conducted if measured CO in the undiluted flue gases of the oven vent at steady state exceeds 800 ppm measured air free.

Inspect and test for gas or oil leakage at connections of natural gas, propane piping, or oil systems. If leaks are found, immediate action will be taken to notify occupant to help ensure leaks are repaired.

Combustion spillage will be tested for in undiluted flue gases of combustion appliances under worse case CAZ (largest negative pressure). If spillage in a combustion appliance with a warm vent exceeds two minutes during pressure testing, specify measures to mitigate. If spillage in a combustion appliance with a cold vent exceeds five minutes during pressure testing, specify measures to mitigate.

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).

Final combustion testing will be conducted at project completion to ensure compliance with the above specifications.

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 the issue is determined to be beyond the scope of DOE WAP, crews/contractors shall follow all referral and deferral policies and protocols. Replacement, repair or modification of combustion venting that is not related to solving health and safety problems indicated by testing is beyond the scope of WAP weatherization funding. Emergency problems (e.g., ambient gas levels greater than 10% Lower Explosion Limit (LEL) and/or ambient CO levels that exceed 70 ppm) will be communicated clearly and immediately to the customer, the home shall be evacuated, and appropriate personnel (e.g.: HVAC technician, utility, emergency services) shall be contacted.

Carbon monoxide (CO) alarms will be installed in each floor on all dwelling in accordance with ASHRAE 62.2 2016 and authority having local jurisdiction.

Client Education

Client shall be provided with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking, and the importance of keeping burners clean to limit the production of CO. Also, information and manuals on new heating systems will be provided including advice on regular maintenance.
Training
Check DOE-approved audit to determine if the appliance can be justified as an ECM prior to replacement as an H&S measure. Agency Weatherization coordinators, assessors and final inspectors are trained on how to perform appropriate combustion testing, draft spillage, CO and the difference between air free and as-measured CO and how to determine when a building is excessively depressurized. Agencies must maintain documentation justifying the replacement of a combustion appliance with a cost comparison between replacement and repair. Combustion training is incorporated in H&S trainings, ASHRAE 62.2 2016, Auditor/Inspector, Quality Control Inspector and DOE H&S WAP 17-7 Guidance.

7.7 – 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?

Minor electrical repairs are allowed where health or safety of the occupant is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures. Non-contact testing method will be used to determine if wiring is live. Proper clearance will be maintained around live knob and tube as required by the National Electrical Code (NEC) or authority having jurisdiction. When required, a dam that does not cover the top will be created to separate insulation from the wire path on knob and tube wiring. Evaluate and if necessary provide sufficient over-current protection. Wiring will be replaced with new appropriate wiring in accordance with the NEC National Electrical Code and local codes. Old wiring will be rendered inoperable by licensed electrician in accordance with the NEC National Electrical Code and local codes.

The Assessor will identify and inspect for electrical safety issues at assessment. Non-contact testing method will be used to determine if wiring is live. Auditors will perform visual inspection on identifying electrical hazards and non-code compliant issues. Voltage drop and voltage detection testing should be performed as necessary. Aluminum wiring should be thoroughly inspected before any insulation work is done. If aluminum wiring is found to be active and in the areas to be insulated, no insulation should be added.

How do you define "minor" or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?

When minor electrical repairs within the scope of the DOE WAP are required (moisture venting, GFCI receptacles, heating system, etc.) the typical standard of remedy shall be to sub-contract the repair work to a licensed electrician. All appropriate procurement procedures shall be followed when sub-contracting. Replacement of major electrical systems (main electrical panel, rewiring non code compliant attics, or electrical issues in units having multiple additions) is not allowed. If it is beyond the scope of DOE WAP then the client will be deferred, crews/contractors shall follow all Referral and Deferral policies and protocols.

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. All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be documented at the time of assessment and a copy given to the client and/or landlord.

Training

Auditor T&TA has been provided on visual inspection for identifying electrical hazards and non-code compliant issues.

7.8 – 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. Suspected pollutants beyond small amounts of normal household cleaners must be removed from the envelope prior to weatherization. Permanent location of suspected pollutants should be considered in defining the envelope. ASHRAE 62.2 2016 addresses normal household conditions and does not account for high polluting sources. The sub grantee agencies will consider additional ventilation in homes with suspected VOC problems that are not easily removed.

Testing Protocols

Sensory inspection is part of the inspection process. Formaldehyde vapors are emitted by pressed wood products, hardwood, plywood, wall paneling, particleboard, wafer board, environmental tobacco smoke, durable press drapes, glues, some new carpets, urea-formaldehyde foam insulation, etc. VOCs are emitted by some household cleaning products like cleansers and disinfectants; paints, paint strippers, and other solvents; preservatives; stored fuels, and automotive products; moth repellents and air fresheners, etc. The U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) have standards for workplace exposures to formaldehyde: https://www.osha.gov/OshDoc/data_General_Facts/formaldehyde-factsheet.html .

Client Education

Inform client in writing of observed hazardous condition and associated risks. Provide client written materials on safety issues and proper disposal of household pollutants. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

Training

Subgrantees have been trained on how to recognize potential hazards and when removal is necessary. Additional training will be handled on an ongoing and as-needed basis as identified by new staff hires, results of monitoring reports, requests by sub recipients etc. Additional resources are available at https://www.epa.gov/indoor-air-quality-iaq .

7.9 – 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. Notify utilities and temporarily halt work when leaks are discovered that are the responsibility of the utility to address. Gas leaks will be detected through use of properly calibrated combustion gas detector and bubble test of piping system.

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

Identify for repair or replacement any kinked, corroded or visibly worn flexible gas lines and any flexible connectors manufactured prior to 1974. Visible minor gas leaks in fitting and connectors can be repaired, major gas leaks underground, in walls and in confined spaces are usually considered beyond the scope of weatherization. All natural gas and propane gas leak repairs, agencies are required to use licensed, professional plumbing services that operate by city and parish local codes, permits and AHJ (authority having justification).

Client Education

Inform clients and or landlord in writing if fuel leaks are detected.

Training

Subgrantees are trained to BPI standards on fuel leak inspections, detection methods, proper identification methods and client notification requirements. Any additional hazards such as asbestos insulation on fuel pipes will be documented to protect repair workers and clients.

7.10 – 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?

Gas cook stoves, ovens and other combustion appliances will be assessed as health and safety concerns, CO levels, proper operation. Repair work may include cleaning, minor repairs and venting under health and safety. Oven replacement is not allowed. Use ASHRAE 62.2 2016 standards for kitchen ventilation requirements. On units with gas ovens/stoves, the oven exhaust range hood must be vented to daylight, or the unit will be a deferral.

Testing Protocols

Gas ovens will be tested for CO, a clean and tune will be conducted if measured CO in the undiluted flue gases of the oven vent at steady state exceeds 800 ppm measured air free. Specify clean and tune if the flame has any discoloration, flame impingement, an irregular pattern, or if burners are visibly dirty, corroded, or bent on gas range burners.

Client Education

CO detection or warning equipment will be installed on each level of all units outside each separate sleeping area in the immediate vicinity of the bedrooms in accordance with ASHRAE 62.2 2016 and authority having local jurisdiction.

Training

Subgrantee Weatherization coordinators, assessors and final QCI inspectors are trained on how to perform appropriate CO testing and visual inspections on ovens/stove. Combustion training is incorporated in ASHRAE 62.2 2016, Auditor/Inspector, Energy Auditor, Quality Control Inspector, DOE H&S WPN 17-7 Guidance and Program Year Update classes.

7.11 – 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 ☐

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

Follow MSDS/SDS guidelines for material disposal location requirements, environmental risks, appropriate Personal Protective Equipment (PPE) for working with hazardous waste materials and all state and local codes. Sub grantees and contractors must dispose of office and field equipment when obsolete in a responsible manner. Seek out county and local government programs that recycle computer and electronic equipment containing hazardous components. Also, any debris removed from a client's house, especially materials used to weatherize and which contain hazardous chemicals must be disposed of properly, in accordance with state and federal EPA rules.

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. Document proper disposal requirements in contract language with responsible party. Refer to Lead and Asbestos sections for more information on those topics.

7.12 – 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)?

Injury prevention related repairs are only allowable if minor in nature and when necessary to effectively weatherize a home. Minor repairs are only allowed so weatherization installers can access the area needed to safely complete authorized weatherization measures. Photo and other documentation of existing condition of minor repair are required and LHC written approval is required in order to proceed if minor repair costs exceed $300.

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.

Allowable injury prevention refers to minor installations needed to let workers safely access work areas or prevent injury. Replacing a missing or unsafe stair tread on the stairs leading to attic, steps leading into unit or work areas. This would only be done if needed to effectively weatherize the unit. If repairs required for workers to safely access necessary work area are beyond the scope of WAP, the unit must be referred or deferred in accordance with the LHC policies and procedures.

Training

All WAP Subgrantees have received Health and Safety, hazard identification and hazard documentation Training & Technical Assistance.

7.13 – 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 confirm 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.

Documentation in the client file must include: Certified Renovator certification; LHC's Lead Safe WAP Renovation Checklist, 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.

Weatherization deferral must occur if the following assessments are made:

- The cost of LSW represents an excess amount.
- Agency is not prepared to work with lead-based paint in terms of having proper training or liability insurance.

The issue of liability is one in which agencies must pay close attention to, particularly if there is an exclusion clause in an agency's insurance policy that would not cover possible litigation for lead poisoning. Agencies are advised to have insurance that will provide coverage for LSW work in situations involving lead-based paint. The cost for this insurance is an allowable DOE expense and should be obtained at reasonable rates. Weatherization activities do not include lead abatement.

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.

Testing shall only be performed by a certified Lead Paint Inspector or Risk Assessor who is trained in sampling techniques. Routine testing, before and after weatherization work, of dwelling for lead-based paint is not an allowable expenditure. Before incurring a Testing expense consider the following:

- Dwelling exact age is unknown, assume the presence of lead-based paint.
- Dwelling built from 1978 on, may be assumed to be free of lead-based paint.
- Dwelling built prior to 1940; assume the presence of lead-based paint.
- Dwelling built between 1940 and 1978, testing may not be warranted if the amount of paint to be disturbed is small.

Job site set up and cleaning verification by a Certified Renovator is required.

Client Education

Follow pre-renovation client education provisions for RRP Lead safe work. Provide client education on dangers of Lead and have client signed confirmation of receiving EPA's Renovate Right pamphlet in the unit's file. https://www.epa.gov/lead/renovate-right-important-lead-hazard-information-families-child-care-providers-and-schools. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.

Training and Certification Requirements

All employees and contractors working on pre-1978 homes must receive documented training to install measures in a lead-safe manner in accordance with the SWS and EPA protocols, and installation must be overseen by an EPA Certified Renovator. WAP Agencies Auditors and QCI Inspectors must be Certified Renovators.

Documentation Requirements

Subgrantees must verify that crews are using lead safe work practices on jobsites. Lead assessment documentation is required in the unit file on ALL pre-1978 site built units weatherized, and all units where dwelling exact age is unknown. All unit files, with lead identified and LSW performed on unit, must have the "Lead Safe WAP Renovation Checklist" documentation for Lead safe work completed and in the unit file.

7.14 – 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 and moisture source control that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures. Source control is independent of latent damage and related repairs. 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. ASHRAE 62.2 2016 will be used to address moisture related issues with adequate whole house and spot ventilation on completed units.

How do you define "minor" or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?

Mold cleanup is not an allowable H&S cost. Where severe Mold and Moisture issues cannot be addressed, deferral is required. Limited water damage repairs and minor moisture related measures that can be easily addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary, in order to weatherize the home and to ensure the long term stability and durability of the measures installed. Moisture sources in the home will be identified and removed or reduced.

Client Education

Provide client written notification and disclaimer on mold and moisture awareness. Provide client with EPA's "A Brief Guide To Mold, Moisture and Your Home": https://www.epa.gov/mold/brief-guide-mold-moisture-and-your-home. Provide client education on importance of cleaning and maintaining drainage systems and 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

Subgrantees attended health and safety training which including DOE curriculum on mold and moisture. Subgrantee training on how to recognize and correct drainage issues.

7.15– 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?				
Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses health and safety concern for workers. Screening of windows and points of access, and incorporating pest exclusion into air sealing practices to prevent intrusion is allowed.				
Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred				
Pest removal is allowed only where infestation would prevent weatherization. When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.				
Testing Protocols				
Visual assessment of presence and degree of infestation and risk to worker.				
Client Education				
Inform client in writing of observed condition and associated risks.				
Training				
Subgrantees will be trained in how to assess presence and degree of infestation, associated risks, removal, pest management, and need for deferral. Sub grantees will be made aware of pests' potential and additional training will be handled on an ongoing and as-needed basis as identified by new staff hires, results of monitoring reports, requests by Subrecipients etc.				

7.16 – 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. Louisiana does NOT have any "high radon potential" areas. SEE map of Radon Zones for Louisiana below. This information can be located at: http://www.epa.gov/radon/pdfs/statemaps/louisiana.pdf. Clients must sign an informed consent form prior to receiving weatherization services. This form must be kept in the client file.

Testing Protocols

Testing allowed in areas with high radon potential (Louisiana has no areas listed in the "high radon potential areas").

Client Education

Provide clients with EPA's "A citizen's Guide to Radon": https://www.epa.gov/radon/citizens-guide-radon-guide-protecting-yourself-and-your-family-radon. Clients must sign a radon informed consent form Radon-informed-consent-language-sample (https://nascsp.org/wp-content/uploads/2018/07/radon-informed-consent-language-sample.pdf) prior to receiving weatherization services. This form must be kept in the client file.

Training and Certification Requirements

Radon issues in Louisiana are very limited; training in weatherization measures that may be helpful in radon prevention, will be addressed as need arises.

Documentation Requirements

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.

7.17 – 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:

In all units weatherized at least one operational smoke detector and operational CO detector is installed per level, if either detector is not present or operational. Batteries are installed to make existing smoke detectors and CO alarms operational when necessary. Smoke detectors and CO alarms are installed by the agency/contractor and not left with the client. Properly disposal of detectors and extinguishers following local code and state compliance. Smoke/CO detectors are installed per manufacturer's instructions and local AHJ.

Smoke Alarms: Installation of smoke/CO detectors is allowed where detectors are not present or are inoperable. Replacement of operable smoke/CO detectors is not an allowable cost.

Carbon Monoxide Alarms: Installation of smoke/CO detectors is allowed where detectors are not present or are inoperable. Replacement of operable smoke/CO detectors is not an allowable cost.

Fire Extinguishers: A fire extinguisher may be provided in units whose primary heat source is solid fuel (wood, coal, wood pellets, grains, etc.). The fire extinguisher must be installed according to manufacturer's standards and local code in vicinity of the primary heating source.

Testing Protocols

Check existing alarms/detectors for operation, following manufacture guides for installation and testing of detectors installed.

Client Education

The client will be provided with verbal instructions and the manufacturer's information sheet on use of smoke/CO detectors and fire extinguishers.

Training

Additional training will be handled on an ongoing and as-needed basis as identified by DOE Program Notices, new staff hires, results of monitoring reports, requests by Subrecipients, etc.

7.18 – 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?

Agencies are required to gather occupant health information and any related concerns as part of the initial client application process. The information and health and safety concerns associated with components of the unit are then discussed with the client during the interview process.

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?

Weatherization agencies and their representatives, including subcontractors, are required to take all reasonable precautions against performing work on homes that will subject the occupants or themselves to health and/or safety risks. . In cases where an occupant's health is fragile, or an occupant has been identified to have a health condition, including allergies and/or the crew work activities would themselves constitute a health and/or safety hazard, the occupant(s) at risk may be required to leave during the performance of the work activities. In cases where an occupant is identified as having an allergy to a specific weatherization material, that material will not be installed. If comparable alternative materials are available and the occupant has no known allergic to the alternative materials and they meet DOE regulations, crews may substitute the alternative material(s). If no safe alternative material meeting DOE standards is available, then LHC must provide written approval before proceeding. This must be well documented in the client file.

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

All units will contain documentation which include the client's name and address, dates of the audit/assessment and when the client was informed of a potential health and safety 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. Louisiana conducted statewide weatherization assistance program health and safety training to update all agencies using DOE latest H&S WPN 17-7 Health and Safety Guidance. Additional training will be handled on an ongoing and as-needed basis.

Client Education

Inform client in writing of observed condition and associated risks dealing with potential health concerns.

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

Notification of Potential Health and Safety Issues.

7.19 – 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				
Testing and Final Verification Protocols				
Conduct ASHRAE 62.2 2016 evaluation, measure fan flows, estimate costs needed to meet ASHRAE 62.2 2016 compliance. Install ASHRAE compliant fans only for ventilation as necessary to meet the ASHRAE 62.2 2016 standards. Use whatever is greater for ASHRAE calculations the bedrooms plus one or number of occupants. Accurate CFM measurements and unit data are requirements, along with performing follow-up testing to ensure compliance. Make CFM adjustments as needed to meet the standard. Post weatherization blower door numbers can be assumed to calculate required CFM but ventilation must be adjusted and documented in the unit file once final blower door numbers are performed. Take action to prevent zonal pressure differences greater than 3 Pascal across the closed interior door (if one exists), when replacing existing or upgrading whole house ventilation fans.				
Client Education				
Clients are provided with information on function, use and maintenance (including location of service switch and cleaning instructions) of ventilation system and components when ventilation fans are installed. Clients are provided a disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality. Provide client with equipment manuals for installed equipment. Agencies will document ASHRAE fan CFM setting on the back of the ASHRAE fan grill installed for unit\occupant information.				
Training				
Louisiana has conducted statewide health and safety training which will included training to meet ASHRAE 62.2 2016 requirements and will continue on an as needed basis. ASHRAE 62.2 2016 documentation will be included in every units file. WAP agencies will utilize ASHRAE 62.2 2016 calculation sheet, it can be found at: https://www.redcalc.com/ashrae-62-2-2016/ .				

7.20 – 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?

Replacement, repair, or installation is not an allowable H&S cost. Window and door replacement(s) must first be modeled and treated as ECM(s) if cost justified. Window and door replacements shall not be included in the air sealing ECM. When working on windows and doors follow LSW requirements for pre-1978 units and all units where exact building age is undetermined. .

Testing Protocols

Visual inspection of windows and doors for health and safety issues.

Client Education

Windows and door replacement and window guards cannot be installed with H&S funds. When working on windows and doors follow LSW requirements for pre-1978 homes and all units where exact building age is undetermined.

Training

Subgrantees are aware of window and door replacements guidance.

7.21 – Worker Safety (OSHA, etc.)

Concurrence, Alternative, or Deferral

Concurrence with Guidance ☑	Alternative Guidance ☐	Results in Deferral ☐

Funding

DOE ☑	LIHEAP ☑	State ☐	Utility ☐	Other ☐

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

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 https://www.osha.gov/Publications/OSHA3514.html , including on-site organized Safety Data Sheets (SDS) (formerly called MSDS). In-progress monitoring will verify MSDS/SDS, RRP Lead, agencies local health and safety plan, ASHRAE documentation and proper personal protection equipment (PPE) are organized and available on all job sites.

Training and Certification Requirements

Subgrantees have been trained on use and importance of proper PPE, OSHA 10 construction certifications, WAP safe work practices and social distancing. Louisiana conducted statewide weatherization assistance program health and safety training to update all agencies using DOE latest H&S WPN 17-7 Health and Safety Guidance. Additional training will be handled on an ongoing and as-needed basis.