

Weatherization Grantee Health and Safety Plan

Optional Template

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.

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

H&S Measure Matrix - Optional			
Double Click To Open For Editing			
Cells this shade auto calculate			
Enter Measure ↓	Enter Cost ↓	Enter Frequency % ↓	Auto Calculates
Ventilation	\$190.00	74.0%	\$140.60
Knob and Tube cleanup	\$3,355.00	0.4%	\$13.42
Other Electrical	\$452.00	1.3%	\$5.88
Plumbing	\$628.00	0.8%	\$5.02
Furnace replacement	\$2,880.00	0.8%	\$23.04
Water Heater replacement	\$1,712.00	1.7%	\$29.10
Furnace or Water Heater repair	\$333.00	5.0%	\$16.65
CO alarms	\$65.00	95.4%	\$62.01
Dyer vents	\$25.00	46.2%	\$11.55
Smoke alarms	\$36.00	63.5%	\$22.86
Roof Coating	\$142.00	9.2%	\$13.06
Direct Restitution	\$1,845.00	5.5%	\$101.48
Labor	\$484.00	100.0%	\$484.00
Support	\$79.00	100.0%	\$79.00
Other	\$49.98	100.0%	\$49.98
Total Average H&S Cost Per Unit			\$1,057.65
Enter Estimated Production (Annual File: IV.2 WAP Production Schedule) →			246
Enter Estimated Program Operations Budget →			1814272
H&S Budget (Total Average H&S Cost Per Unit * Estimated Production)			\$260,182.64
Requested H&S Percentage Per Unit (H&S Budget/Program Operations)			14.3%

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 incidental repair measures will be assigned as H&S measures

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?

2018 ND DOE Policies and Procedures Manual – Section 500.70 and ND Single Family and MH SWS section 2312

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

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?

When a space conditioning system does not qualify as an ECM, the following conditions must be met before the unit can be replaced or repaired with Health and Safety funds:

- “Red tagged,” inoperable, or nonexistent primary heating system may be replaced, repaired, or installed consistent with this guidance.
- Use proper sizing protocols (Heatloss calculation in WxPro Software which is based on Manual J.) based on post-weatherization housing characteristics, including installed mechanical ventilation, when installing or replacing a heating appliance.
- Unsafe primary units must be repaired or replaced, or deferral is required.
- See Hazardous Materials Disposal section for more information.
- There must be an identified and documented imminent H&S hazard (e.g. cracked heat exchanger) that necessitates the system replacement.

Almost all our heating system work is done with LIHEAP Emergency Furnace funds prior to weatherization. DOE funds are only used on clients that do not qualify for LIHEAP. See attachment A for more information on heating system policies.

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

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

Almost all our heating system work is done with LIHEAP Emergency Furnace funds prior to weatherization. DOE funds are only used on clients that do not qualify for LIHEAP.

Indicate Documentation Required for At-Risk Occupants

- All cooling work is funded through the LIHEAP Emergency Furnace program. Clients 60 and older are qualified. Client under 60 years of age are required to have a doctor’s note describing a health issue.

Testing Protocols

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

Client Education

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

Training

- WAP H&S policy training on allowable activities.
- Licensing and/or certification for HVAC installers as required by authority having jurisdiction (AHJ).
- CAZ depressurization test and inspection training.
- Furnace training at IREC accredited training centers is available and is allowed in agency training plans.

7.2 - Asbestos - All

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

- Blower door testing is allowed where friable suspected ACM is present unless the suspected ACM is in such condition that it cannot be contained and may be introduced into the living space of the home. Vermiculite in attics is not a reason to not do blower door testing. Workers should use PPE and access should be from outside when working in attics with vermiculite. Air sealing should be done before doing a blower door test. If inside access is necessary, containment must be used. If the ACM is in such a condition that blower door testing cannot be done, the home must be deferred. State Health Department Asbestos trainers have agreed with this policy.

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

Concurrence, Alternative, or Deferral

Concurrence with Guidance Alternative Guidance Results in Deferral

Funding

DOE LIHEAP State Utility Other

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

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

Testing Protocols

- Visually inspect exterior wall surface and subsurface, floors, walls, and ceilings for suspected ACM prior to drilling or cutting.
- Asbestos Hazard Emergency Response Act of 1986 (AHERA) sample collection and testing must be conducted by a certified tester.

Client Education

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

Training and Certification Requirements

- Safe practices for siding removal and replacement.
- How to identify suspected ACM.
- Licensing/certification for removal and reinstallation of asbestos siding if required by 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.
- Use proper respiratory protection while in areas containing vermiculite.
- 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

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

Client Education

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

Training and Certification Requirements
<ul style="list-style-type: none"> • Training on how to recognize vermiculite. • AHERA or state certification to conduct testing.

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

Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>

Funding				
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DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
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How do you address suspected ACM's (e.g., pipes, furnaces, other small surfaces) that will be disturbed through the course of weatherization work?

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

Testing Protocols

- Assess whether suspected ACMs are present.
- AHERA sample collection and testing is allowed and must be conducted by a certified tester.

Client Education

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

Training and Certification Requirements

- How to recognize suspected ACM.

7.5 – Biologicals and Unsanitary Conditions (odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.)				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Unallowable Measure <input type="checkbox"/>				
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
What guidance do you provide Subgrantees for dealing with biological and/or unsanitary conditions in homes slated for weatherization?				
<ul style="list-style-type: none"> • Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. • Addressing bacteria and viruses is not an allowable cost. • Deferral may be necessary in cases where conditions in the home pose a health risk to occupants and/or weatherization workers. • See Mold and Moisture section for more information. 				
Testing Protocols				
<ul style="list-style-type: none"> • Sensory inspection 				
Client Education				
<ul style="list-style-type: none"> • Inform client in writing of observed conditions. • Provide information on how to maintain a sanitary home. • When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence. 				
Training				
<ul style="list-style-type: none"> • How to recognize unsafe conditions and when to defer. • Safe work practices when encountering such conditions. 				

7.6 – Building Structure and Roofing				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
What guidance do you provide Subgrantees for dealing with structural issues (e.g., roofing, wall, foundation) in homes slated for weatherization?				

<ul style="list-style-type: none"> • Building rehabilitation is beyond the scope of the Weatherization Assistance Program. • Homes that require more than minor repairs must be deferred. • See Mold and Moisture, Code Compliance, and Pests sections for more information. • Visual inspection. • Ensure that access to the portions of the home where weatherization will occur are safe for entry and performance of assessments, work, and inspections.
How do you define “minor” or allowable structure and roofing repairs, and at what point are repairs considered beyond the scope of weatherization?
<ul style="list-style-type: none"> • Minor or allowable structure and roofing repairs must be tied to a measure being done during the weatherization or to protect existing insulation and other energy related parts of the home. The cost must not go above the \$1,049 H&S average per home without state approval. Grantees will look at the savings that would be lost by deferring the home compared to the cost of the repair.
If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?
All homes have a site-specific audit.
Client Education
<ul style="list-style-type: none"> • Notify client in writing of structurally compromised areas. • When deferral is necessary, provide information in writing describing conditions that must be met for weatherization to commence.
Training
<input type="checkbox"/> How to identify structural and roofing issues. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall and will be working on putting this training on during that conference. See the T&TA section of the Master Plan for more information on the conference.

7.7 – Code Compliance		
Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
Funding		
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
What guidance do you provide Subgrantees for dealing with code compliance issues in homes receiving weatherization measures?		

<ul style="list-style-type: none"> • Correction of preexisting code compliance issues is not an allowable cost unless triggered by weatherization measures being installed in a specific room or area of the home. • When correction of preexisting code compliance issues is triggered and paid for with WAP funds, cite specific code requirements with reference to the weatherization measure(s) that triggered the code compliance issue in the client file. • Follow State and local or AHJ codes while installing weatherization measures, including H&S measures. • Condemned properties and properties where “red tagged” H&S conditions exist that cannot be corrected under this guidance must be deferred. • Visual inspection.
What specific situations commonly trigger code compliance work requirements for your network? How are they addressed?
<ul style="list-style-type: none"> • Mechanical work on HVAC systems, egress requirements for door and windows. Crews and auditors are trained in code compliance for these items and they work with the AHJ in permitting and required inspections.
Client Education
<ul style="list-style-type: none"> • Inform client in writing of observed code compliance issues when it results in a deferral. • When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.
Training
<ul style="list-style-type: none"> <input type="checkbox"/> How to determine what code compliance may be required. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall and will be working on putting this training on during that conference. See the T&TA section of the Master Plan for more information on the conference. •

7.8 – Combustion Gases				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>

<ul style="list-style-type: none"> • Proper venting to the outside for combustion appliances, including gas dryers and refrigerators, furnaces, vented space heaters and water heaters is required. • Correct venting when testing indicates a problem. • If unsafe conditions whose remediation is necessary to perform weatherization cannot be remedied by repair or tuning, replacement is an allowable H&S measure unless prevented by other guidance herein. • 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 Grantee Plan or technical Field Guide. • See Air-Conditioning and Heating Systems section and Attachment A for more information.
Testing Protocols
<ul style="list-style-type: none"> • Combustion safety testing is required when combustion appliances are present. • Test naturally drafting appliances for spillage and CO during CAZ depressurization testing pre- and post-weatherization and before leaving the home on any day when work has been done that could affect draft (e.g., tightening the home, adding exhaust). • Inspect venting of combustion appliances and confirm adequate clearances. • Check DOE-approved audit to determine if the appliance can be justified as an ECM prior to replacement as an H&S measure.
How are crews instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response? Crews and auditors have had extensive training in diagnostic testing protocols and have been instructed to follow the SWS for addressing hazards requiring an immediate response.
Client Education
<ul style="list-style-type: none"> • Provide client with combustion safety and hazards information.
Training
<ul style="list-style-type: none"> • How to perform appropriate testing, determine when a building is excessively depressurized, and the difference between air free and as-measured CO. • CO action levels.

7.9 – Electrical				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
What guidance do you provide Subgrantees for dealing with electrical hazards, including knob & tube wiring, in homes slated for weatherization?				

<ul style="list-style-type: none"> • When the H&S of the occupant/worker(s) is at risk, minor repairs, as defined by the Grantee, are allowed when necessary for weatherization measures. • Evaluate and if necessary provide sufficient over-current protection and damming (if required) prior to insulating building components containing knob and tube wiring, as required by the AHJ. • Replacement of knob and tube wiring is allowable if savings of the measure warrant the replacement or if deferral would be caused, the overall savings of weatherizing the house may be considered. • Visual inspection for presence and condition of knob-and-tube wiring. • Check for alterations that may create an electrical hazard. • Voltage drop and voltage detection testing are allowed.
How do you define “minor” or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?
<ul style="list-style-type: none"> • Minor electrical repairs must be tied to a measure being done during the weatherization or to protect the health and safety of the occupants or crews. The cost must not go above the \$1,049 H&S average per home without state approval. Grantees will look at the savings that would be lost by deferring the home compared to the cost of the repair.
If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?
<ul style="list-style-type: none"> • All homes have a site-specific audit.
Client Education
<ul style="list-style-type: none"> • When electrical issues are the cause of a deferral, provide information to client on over-current protection, overloading circuits, and basic electrical safety/risks.
Training
<ul style="list-style-type: none"> • How to identify electrical hazards. • Local (or AHJ) code compliance. <p>In the past we have used trainers from the State Electrical board for this type of training. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall will be contacting them to do this at the training. See the T&TA section of the Master Plan for more information on the conference.</p>

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

<ul style="list-style-type: none"> • 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. • Refer to <i>Hazardous Materials Disposal</i> section for more information.
Testing Protocols
<ul style="list-style-type: none"> • Sensory inspection.
Client Education
<ul style="list-style-type: none"> • 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 for weatherization to commence.
Training
<ul style="list-style-type: none"> • How to recognize potential hazards and when removal is necessary.

7.11 – Fuel Leaks		
<i>(please indicate specific fuel type if policy differs by type)</i>		
Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>
Funding		
DOE <input checked="" type="checkbox"/>	LIHEAP <input checked="" type="checkbox"/>	State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
Remediation Protocols		
<ul style="list-style-type: none"> • 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. These would typically be funded through the LIHEAP Emergency Furnace grant in a LIHEAP client. DOE H&S funds would be used in the case of a client that does not qualify for LIHEAP but does qualify for DOE Weatherization. • Notify utilities and temporarily halt work when leaks are discovered that are the responsibility of the utility to address. • Test exposed gas lines for fuel leaks from utility coupling into, and throughout, the home. • Conduct sensory inspection on bulk fuels to determine if leaks exist. 		
How do you define allowable fuel leak repairs, and at what point are repairs considered beyond the scope of weatherization?		
<ul style="list-style-type: none"> • The cost of the repair must not go above the \$1,049 H&S average per home without state approval. If above the \$1,049, the state would consider the savings to the home that would be lost by deferral. 		

Client Education
<ul style="list-style-type: none"> • Inform clients in writing if fuel leaks are detected.
Training
<p>Fuel leak testing. We will be contacting training centers to look for this type of training. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall will be contacting them to do this at the training. See the T&TA section of the Master Plan for more information on the conference.</p>

7.12 – Gas Ovens / Stovetops / Ranges				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
What guidance do you provide Subgrantees for addressing unsafe gas ovens/stoves/ranges in homes slated for weatherization?				
<ul style="list-style-type: none"> • When testing indicates a problem, entities may perform standard maintenance on or repair gas cooktops and ovens. If repairs are not done, the client must be informed in writing about the problem. • Replacement is not allowed. 				
Testing Protocols				
<ul style="list-style-type: none"> • Test gas ovens for CO. • Inspect cooking burners and ovens for operability and flame quality. 				
Client Education				
<ul style="list-style-type: none"> • Inform clients of the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO. 				
Training				
<ul style="list-style-type: none"> • Testing techniques • CO action levels <p>We will be contacting training centers to look for this type of training. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall will be contacting them to do this at the training. See the T&TA section of the Master Plan for more information on the conference.</p>				

7.13 – Hazardous Materials Disposal [Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.] <i>(please indicate material where policy differs by material)</i>				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
Client Education				
<ul style="list-style-type: none"> Inform client in writing of hazards associated with hazardous waste materials being generated/handled in the home. 				
Training				
<ul style="list-style-type: none"> Appropriate Personal Protective Equipment (PPE) for working with hazardous waste materials. Disposal requirements and locations. Health and environmental risks related to hazardous materials. 				
Disposal Procedures and Documentation Requirements				
<ul style="list-style-type: none"> Hazardous Waste Materials generated during weatherization work shall be disposed of according to all local laws, regulations and/or Federal guidelines, as applicable. Document proper disposal requirements in contract language with responsible party. Refer to <i>Lead</i> and <i>Asbestos</i> sections for more information on those topics. <p>We will be contacting the State Health Dept. to look for this type of training. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall will be contacting them to do this at the training. See the T&TA section of the Master Plan for more information on the conference.</p>				

7.14 – Injury Prevention of Occupants and Weatherization Workers (Measures such as repairing stairs and replacing handrails)				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
What guidance do you provide Subgrantees regarding allowable injury-related repairs (e.g., stairs, handrails, porch deck board)?				

- When necessary to effectively weatherize the home, workers may make minor repairs and installations, as defined by the Grantee in the ECM-GHW-H&S-IRM lists 2018 attachment to the 2018 State Plan.
- Inspect for dangers that would prevent weatherization.

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.

- The cost of the repair must not go above the \$1,049 H&S average per home without state approval. If above the \$1,049, the state would consider the savings to the home that would be lost by not doing a measure or by deferral.
- If conditions will not be repaired, inform client in writing of observed hazards and associated risks.

Training

- Hazard identification.

7.15 – Lead Based Paint

Concurrence, Alternative, or Deferral

Concurrence with Guidance Alternative Guidance Results in Deferral

Funding

DOE LIHEAP State Utility Other

Safe Work Protocols

- Crews must follow EPA's Lead; Renovation, Repair and Painting Program (RRP) when working in pre-1978 housing unless testing confirms the work area to be lead free.
- Deferral is required when the extent and condition of lead-based paint in the house would potentially create further H&S hazards.
- Only those costs directly associated with the testing and lead safe practices for surfaces directly disturbed during weatherization activities are allowable.

Testing Protocols

- Testing to determine the presence of lead in paint that will be disturbed by WAP measure installation is allowed with EPA-approved testing methods.
- Testing methods must be economically feasible and justified.
- Job site set up and cleaning verification by a Certified Renovator is required.
- Grantees must verify that crews are using lead safe work practices during monitoring.

Client Education

<ul style="list-style-type: none"> • Follow pre-renovation education provisions for RRP. • When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.
Training and Certification Requirements
<ul style="list-style-type: none"> • All employees and contractors working on pre-1978 homes must receive 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. • Grantee Monitors and Inspectors must be Certified Renovators. • All Certified Renovators and those seeking to become certified may go to the training center at Montana State or the Environmental Technical Institute at the University of North Dakota. When there is enough need we bring the trainers from Montana into the state to deliver the training.
Documentation Requirements
<ul style="list-style-type: none"> • Documentation in the client file must include Certified Renovator certification; any training provided on-site; description of specific actions taken; lead testing and assessment documentation; and, photos of site and containment set up. Include the location of photos referenced if not in file.

7.16 – Mold and Moisture
(Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, etc.)
Concurrence, Alternative, or Deferral
Concurrence with Guidance <input checked="" type="checkbox"/> Alternative Guidance <input type="checkbox"/> Results in Deferral <input type="checkbox"/>
Funding
DOE <input checked="" type="checkbox"/> LIHEAP <input type="checkbox"/> State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
What guidance do you provide Subgrantees for dealing with moisture related issues (e.g., drainage, gutters, down spouts, moisture barriers, dehumidifiers, vapor barrier on bare earth floors) in homes slated for weatherization?

- Limited water damage repairs that can be addressed by weatherization workers are allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures.
- Source control (i.e. correction of moisture and mold creating conditions) is allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures. Source control is independent of latent damage and related repairs.
- Where severe Mold and Moisture issues cannot be addressed, deferral is required.
- Mold testing or cleanup is not an allowable H&S cost.
- Surface preparation where weatherization measures are being installed (e.g., cleaning mold off window trim in order to apply caulk) must be charged as part of the ECM, not to the H&S budget category.
- Approved H&S measures are defined by the Grantee in the ECM-GHW-H&S-IRM lists 2018 attachment to the 2018 State Plan.

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

- The cost of the minor or allowable moisture-related measures must not go above the \$1,049 H&S average per home without state approval. If above the \$1,049, the state would consider the savings to the home that would be lost by deferral.

Client Education

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

Training

- National curriculum on mold and moisture or equivalent.
- How to recognize drainage issues.

We will be contacting training centers and the State Health Dept. to look for this type of training. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall will be contacting them to do this at the training. See the T&TA section of the Master Plan for more information on the conference.

7.17 – Pests

Concurrence, Alternative, or Deferral

Concurrence with Guidance Alternative Guidance Results in Deferral

Funding

DOE LIHEAP State Utility Other

What guidance do you provide Subgrantees for dealing with pests and pest intrusion prevention in homes slated for weatherization?
<ul style="list-style-type: none"> • Pest removal is allowed only where infestation would prevent weatherization. • Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses H&S concern for workers. • 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
<ul style="list-style-type: none"> • If the infestation prevents weatherization and the cost of removal is above the \$900 H&S average per home, state approval is required. If above the \$900, the state would consider the savings to the home that would be lost by deferral.
Testing Protocols
<ul style="list-style-type: none"> • Assessment of presence and degree of infestation and risk to worker.
Client Education
<ul style="list-style-type: none"> • Inform client in writing of observed condition and associated risks. • When deferral is necessary, provide information in writing describing conditions that must be met in order for weatherization to commence.
Training
<ul style="list-style-type: none"> • How to assess presence and degree of infestation, associated risks, and deferral policy. <p>We will be contacting training centers and the State Health Dept. to look for this type of training. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall will be contacting them to do this at the training. See the T&TA section of the Master Plan for more information on the conference.</p>

7.18 – Radon		
Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>
Funding		
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
What guidance do you provide Subgrantees around radon?		

<ul style="list-style-type: none"> • Radon mitigation is not an allowable H&S cost. • Clients must sign an informed consent form prior to receiving weatherization services. This form must be kept in the client file. • In homes where radon may be present, work scope should include precautionary measures based on EPA Healthy Indoor Environment Protocols for Home Energy Upgrades, to reduce the possibility of making radon issues worse. • Whenever site conditions permit, cover exposed dirt floors within the pressure/thermal boundary with 6 mil (or greater) polyethylene sheeting as described in the ND Single Family SWS and Field Guide. • Other precautions may include, but are not limited to, sealing any observed floor and/or foundation penetrations, including open sump pits, isolating the basement from the conditioned space, and ensuring crawl space venting is installed.
Testing Protocols
<ul style="list-style-type: none"> • Testing is not allowed but Sub-grantees may direct clients to the State Health Department which has testing available.
Client Education
<ul style="list-style-type: none"> • Provide all clients EPA’s <i>A Citizen’s Guide to Radon</i> and inform them of radon related risks. • Informed consent form must include: <ul style="list-style-type: none"> ○ Information from the results of the IAQ Study that there is a small risk of increasing radon levels when building tightness is improved ○ A list of precautionary measures WAP will install based on EPA Healthy Indoor Environment Protocols ○ Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety
Training and Certification Requirements
<ul style="list-style-type: none"> • Auditors, assessors and inspectors must have knowledge of radon, what it is and how it occurs, including what factors may make radon worse, and precautionary measures that may be helpful. • Workers must be trained in proper vapor retarder installation. • A zonal map can be located at https://www.epa.gov/sites/production/files/2015-07/documents/zonemapcolor.pdf. Information may also be found at https://www.epa.gov/radon/find-information-about-local-radon-zones-and-state-contact-information#stateradon.
Documentation Requirements
<ul style="list-style-type: none"> • Written confirmation that EPA’s <i>A Citizen’s Guide to Radon</i> was received and radon related risks discussed with the client. Page 2 of the attached Health and Safety Inspection and Release Form is the Radon Informed Consent form and contains the required language and sign off for the client.

7.19 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>

What is your policy for installation or replacement of the following:
Smoke Alarms: Smoke alarms must be installed where alarms are not present or are inoperable.
Carbon Monoxide Alarms: CO alarms must be installed where alarms are not present or are inoperable.
Fire Extinguishers: Where solid fuel burning equipment is present, fire extinguishers may be provided as an allowable H&S measure.
Testing Protocols
<ul style="list-style-type: none"> • Check existing alarms for operation. • Verify operation of installed alarms.
Client Education
<ul style="list-style-type: none"> • Provide client with verbal and written information on use of devices installed.
Training
<ul style="list-style-type: none"> • Where to install alarms. • Local code compliance. We will be contacting training centers and the State Fire Marshall’s office to look for this type of training. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall will be contacting them to do this at the training. See the T&TA section of the Master Plan for more information on the conference.

7.20 – Occupant Health and Safety Concerns and Conditions		
Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
Funding		
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
What guidance do you provide Subgrantees for soliciting the occupants’ health and safety concerns related to components of their homes?		
<ul style="list-style-type: none"> • When a person’s health may be at risk and/or WAP work activities could constitute an H&S hazard, the occupant will be required to take appropriate action based on severity of risk. • Failure or the inability to take appropriate actions must result in deferral. 		
What guidance do you provide Subgrantees for determining whether occupants suffer from health conditions that may be negatively affected by the act of weatherizing their home?		
<ul style="list-style-type: none"> • Screen occupants to reveal known or suspected health concerns either as part of initial application for weatherization, during the audit, or both. 		

What guidance do you provide Subgrantees for dealing with potential health concerns when they are identified?		
<ul style="list-style-type: none"> Follow required safety protocols when performing WAP work activities. Temporary relocation of at-risk occupants is allowed. 		
Client Education		
<ul style="list-style-type: none"> Inform client in writing of any known risks. Provide client with Subgrantee point of contact information in writing so client can inform of any issues. When deferral is necessary, provide information in writing describing conditions that must be met for weatherization to commence. 		
Documentation Form(s) have been developed and comply with guidance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
<ul style="list-style-type: none"> The Health and Safety Inspection and Release Form is attached. 		

7.21 – Ventilation and Indoor Air Quality				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
Identify the Most Recent Version of ASHRAE 62.2 Implemented (optional: identify Addenda used)				
<ul style="list-style-type: none"> ASHRAE 62.2 – 2016 We have been given a variance on section 6.5.2 to use our duct leakage standards. We also have been given an exception to section 6.4 to use our Worst Case Spillage Test in place of the requirements of this section. We will meet section 6.1 and 6.1.1 by using blower door guided air sealing and infrared cameras. We will notify DOE of any adoptions of addendums to the Standard. 				
Testing and Final Verification Protocols				
<ul style="list-style-type: none"> Install ventilation as required by ASHRAE 62.2 - 2016. If the ASHRAE normative Appendix A is employed and an existing fan is being replaced or upgraded to meet whole-house ventilation requirements, take actions to prevent zonal pressure differences greater than 3 pascals across the closed door, if one exists. Measure fan flow of existing fans and of installed equipment to verify performance. Use the blower door testing to use the Infiltration Credit. 				
Client Education				
<ul style="list-style-type: none"> Provide client with information on function, use, and maintenance (including location of service switch and cleaning instructions) of ventilation system and components. Provide client with equipment manuals for installed equipment. Include disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality. 				
Training				

- ASHRAE 62.2 training, including proper sizing, evaluation of existing and new systems. Staff have had training at State Conferences, HPC, Energy OutWest, and webinars put on by the state. They will be trained on any addenda adopted.

We will be contacting training centers to look for ASHRAE training. We have begun preparations for a State Weatherization H&S Training conference to be held in late summer-early fall will be contacting them to do this at the training. See the T&TA section of the Master Plan for more information on the conference.

7.22 – Window and Door Replacement, Window Guards				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>
What guidance do you provide to Subgrantees regarding window and door replacement and window guards?				
<ul style="list-style-type: none"> • Replacement, repair, or installation is not an allowable H&S cost. 				
Testing Protocols				
<ul style="list-style-type: none"> • Not applicable 				
Client Education				
<ul style="list-style-type: none"> • Provide written information on lead risks wherever issues are identified. 				
Training				
<ul style="list-style-type: none"> • Awareness of guidance. 				

7.23 – Worker Safety (OSHA, etc.)				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>		
Funding				
DOE <input checked="" type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/>	Utility <input type="checkbox"/>	Other <input type="checkbox"/>

<ul style="list-style-type: none"> Workers must follow OSHA standards where required and take precautions to ensure the H&S of themselves and other workers. All Subgrantees and contractors must maintain compliance with the current OSHA Hazard Communication Standard, including on-site organized Safety Data Sheets (SDS) (formerly called MSDS).
How do you verify safe work practices? What is your policy for in-progress monitoring?
<ul style="list-style-type: none"> Safe work practices are verified during in-progress monitoring, using photo documentation in the file, and client interviews when monitoring. Each crew will be visited in the field once per year with no advance notice.
Training and Certification Requirements
<ul style="list-style-type: none"> Use and importance of PPE. OSHA 10 hour training is required for all crew members, crew foreman, auditors, and inspectors. Ongoing training as required in Hazard Communication Program.

7.24 – <Add in Topic>		
Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
Funding		
DOE <input type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
Remediation Protocols		
Testing Protocols		
Client Education		
Training		

7.24 – <Add in Topic>		
Concurrence, Alternative, or Deferral		
Concurrence with Guidance <input type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral <input type="checkbox"/>
Funding		
DOE <input type="checkbox"/>	LIHEAP <input type="checkbox"/>	State <input type="checkbox"/> Utility <input type="checkbox"/> Other <input type="checkbox"/>
Remediation Protocols		
Testing Protocols		

Client Education
Training