

Weatherization Grantee Health and Safety (H&S) Plan

1.0 – GENERAL INFORMATION

Additional information that does not fit neatly in one of the other sections of this document.

The average per dwelling expenditure of financial assistance provided under WAP for labor, weatherization materials, and related matters may not exceed \$7,776 statewide in Program Year 2021 (starting July 1, 2021), as per the U.S. Department of Energy's Weatherization Program Notice 21-1. Historically, Nebraska has not limited H&S investment to a per-unit cost, but it has allocated between 15-20 percent of its annual allocations to cover H&S-related expenditures. In PY2021, a per dwelling unit limit for Health and Safety expenditures of \$1,500 has been established, based on historical data. Units may exceed the \$1,500 limit if approved in advance by the Nebraska Department of Environment and Energy (NDEE) on a case-by-case basis.

Please see the USDOE approved Nebraska Weatherization Field Guide and Installation Standards, Section 2 for Nebraska's WAP Health and Safety plan for Single Family Homes and Manufactured Homes. (Links to be posted on the Nebraska Department of Environment and Energy website. (<https://neo.ne.gov/programs/wx/wx-sws-2018/wx-retrofitting-2019.html#fq2>))

2.0 – BUDGETING

Grantees are encouraged to budget H&S costs as a separate category and, thereby, exclude such costs from the Average Cost Per Unit (ACPU) cost limitation. This separate category also allows these costs to be isolated from energy efficiency costs in program evaluations. H&S costs that 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 Grantee's Department of Energy (DOE)-approved energy audit tool.

Select which option used below.

Separate H&S Budget ☒

Contained in Program Operations ☐

3.0 – H&S EXPENDITURE LIMITS

Pursuant to [10 CFR 440.16\(h\)](#), Grantees must establish H&S expenditure limits for their Program and provide justification for those limits by explaining the basis and related historical H&S expenditures. DOE acknowledges that it may be necessary for Grantees to deviate from historical expenditures when certain circumstances arise (e.g. funding source changes).

[10 CFR 440.16\(h\)\(2\)](#) dictates that these limits must be expressed as a percentage of the ACPU. To calculate this percentage use the following formula:

$$\text{Total Average H\&S Cost per Unit} = \frac{\text{H\&S budget amount}}{\text{Program Operations budget amount}}$$

For example, if the ACPU is \$5,000 and a Grantee's Program expends an average of \$750 per dwelling on energy-related H&S measures, the Total Average H&S Cost per Unit would equal 15 percent. DOE acknowledges that this percentage may vary significantly between Grantees due to different geographical areas and depending upon the availability of other funding sources, resource availability, etc. Low percentages should include a statement of what other funding supports H&S costs, while larger percentages will require greater justification and relevant historical support.

15 percent is not a maximum limit on H&S expenditures. DOE will conduct a secondary level of review on H&S Plans with a Grantee request of more than 15 percent of Program Operations used for H&S purposes, . **DOE strongly encourages using the table below in developing justification for the requested H&S budget amount.** In accordance with [10 CFR 440.18\(d\)\(15\)](#), these funds are to be expended by the Program in direct weatherization activities, "of which is necessary before, or because of, installation of weatherization materials." This same section of the regulation excludes the H&S costs from the ACPU limitation if H&S costs are budgeted separately.

DOE recommends reviewing recent budget requests and compare those to actual H&S 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 annual plan..

H&S expenditure limits and justification explaining the basis for setting the limits.

Describe H&S Expenditure Limits and Justification Here

See Matrix Below



Measure Matrix Final.xlsx

4.0 – INCIDENTAL REPAIR MEASURES

Any measures that could potentially be identified as H&S but the Grantee chooses to instead identify and treat those measures as incidental repair measures (IRMs), must be implemented consistently throughout the Grantee's weatherization program. The measure must fit the regulatory definition of an IRM and be cost justified along with the associated energy conservation measure and/or package of measures. [10 CFR 440.3](#) defines Incidental Repairs as, "those repairs necessary for the effective performance or preservation of weatherization materials."

H&S measures identified and treated as IRMs within your Program.

NDEE has set cost limits on incidental repair measures that will allow necessary repairs to improve the effectiveness of performance and preservation of weatherization measures. The cost limits associated with incidental repairs are shown below; additional information regarding the specific topics can be seen in the following sections of this Health & Safety plan.

- 7.5 – Biologicals and Unsanitary Conditions - \$300.00
(odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.)
- 7.6 – Building Structure and Roofing - \$300.00
- 7.9 – Electrical - \$300.00
- 7.14 – Injury Prevention of Occupants and Weatherization Workers \$200.00
(Measures such as repairing stairs and replacing handrails)
- 7.16 – Mold and Moisture \$300.00
(Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, etc.)
- 7.17 – Pests - \$300.00

5.0 – OCCUPANT PRE-EXISTING OR POTENTIAL HEALTH CONDITIONS AND HAZARD IDENTIFICATION AND NOTIFICATION FORM(s)

Grantees must include policies/procedures for informing clients of the aspects of weatherization that may put a client with pre-existing health conditions at risk during installation of measures. This screening may occur as part of the initial application for weatherization and/or during the energy audit. Procedures must include what steps will be taken and/or available to the client to ensure that weatherization work will not aggravate pre-existing health conditions. Additionally H&S assessments are required to identify hazards in the home. For those hazards identified, appropriate testing is required when applicable. The client/landlord/property manager must be informed in writing of all testing results, including identification of a hazards revealed by the testing that will lead to deferral/referral.

Grantees are required to develop documentation forms that include at a minimum:

- *Occupant Pre-existing or Potential Health Conditions;*
 - *Screen occupant(s) to self-report known or suspected health concerns either as part of initial application for weatherization, during the energy audit, or other parts of the weatherization process as specified;*
 - *Inform client in writing of any known risks; and*
 - *Provide client with Subgrantee point of contact information in writing so client can inform of any issues.*
- *Hazard Identification Notification Form*
 - *The occupant(s) (and Landlord's, if applicable) name and address;*
 - *Date(s) of the energy audit/assessment and when the occupant(s) (and Landlord, if applicable) 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 occupant(s) (and Landlord's, if applicable) signature(s) indicating that they understand and have been informed of their rights and options.*

Procedure for soliciting occupants' health and safety concerns related to components of their homes

- Prior to any on-site inspection work being scheduled in a home, sub-grantee intake personnel will assist clients in completing a Weatherization Client Questionnaire and a Health & Safety Home Screening Questionnaire as part of the application process.
 - The questionnaires provides information on health concerns and/or issues such as non-working furnaces, foundation issues, leaks, debris, pet/pest issues, broken glazing, etc. in the home that impact not only the client's safety but the safety of weatherization workers.
 - The questionnaires will be included in the client file for future reference.

Procedure for determining whether occupants suffer from health conditions which may be negatively impacted by the act of weatherizing their dwelling

- If it is determined through the Health & Safety Home Screening Questionnaire that someone in the home is sensitive to a product that may be or is intended to be used during the weatherization process, the sensitivity must be documented in the file and, if possible, an alternative product may be used. If no successful alternative is found, the weatherization of the home may proceed without completion of the measure with no impact on weatherization measures with lower SIRs, with prior Nebraska Department of Environment and Energy approval.

Procedure for addressing potential health concerns including pre-existing health conditions when they are identified

- When a client's health is fragile and/or the weatherization activities would constitute a health or safety hazard, the occupants at risk will be required to leave the home during the activities and requested to return at least 1 hour (or a reasonable time as determined by the installers) after installers are scheduled to leave to allow for clean-up and appropriate ventilation of the home.
- Weatherization funds cannot be used to relocate clients or reimburse them for such costs incurred as a result of the requirement to leave during the day. If the client is unable to leave the home and the intended work may exacerbate an occupant's health condition, the home may need to be deferred.

<ul style="list-style-type: none"> Sub-grantees must take all reasonable precautions against performing work on homes that would subject clients to Health & Safety risks.
Documentation Form(s) have been included for review?
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Location where forms have been uploaded/submitted
Separate attachment to SF424 <input type="checkbox"/> Separate attachment to H&S Plan <input checked="" type="checkbox"/>

6.0 – HEALTH AND SAFETY CATEGORIES

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

- Explain whether you concur with existing guidance from Weatherization Program Notice (WPN) 17-7 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 require comprehensive explanations as to how it meets the intent of DOE guidance.
- Where an action/allowability or testing is “required” or “not allowed” through WPN 17-7, Grantees must concur, or choose to defer all units where the specific category is encountered.
- Any activities that are marked as deferral/referrals must contain the H&S reasons specified within the Master File Section V.1.2 Box 5 Deferral/Referral.
- Unless an alternate funding source(s) is declared, utilize DOE funds to address the particular category.
- Describe the explicit methods to address the specific category.
- Describe in detail what testing protocols (if any) used to assess the particular category.
- Define and quantify minimum thresholds that determine minor, major, and limited definitions and the criteria used to make a determination on a case-by-case basis.
- Define “at-risk” occupant(s) and identify minimum documentation requirements for them.
- Client Education activities specific to H&S reasons is required within the Master File Section V.8.4 Training and Technical Assistance of the annual application.
- Training activities specific to H&S reasons is required within the Master File Section V.8.4 Training and Technical Assistance of the annual application.

6.1 – Air Conditioning and Heating Systems

Concurrence, Alternative or Deferral		
Concurrence with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
Air Conditioning Unallowable with DOE Funds <input type="checkbox"/>	Heating Unallowable with DOE Funds <input type="checkbox"/>	
Other Funding Source Addresses H&S Issue <input type="checkbox"/> Enter Funding Source		

Procedure for unsafe or non-functioning primary heating/cooling systems

- Red tagged” and/or inoperable *heating system* replacement, repair, or installation **is** an allowable Health & Safety Cost.
- Repair of air conditioning systems **is** an allowable Health & Safety Cost. Replacement or installation of air conditioning systems **is not** an allowable Health & Safety Cost.
 - A maximum \$500 may be spent to repair heat pumps and central air conditioning systems.
 - In renter occupied homes, if the cost to repair the furnace, central air conditioner or heat pump exceeds \$500, the owner may repair or replace the unit. However, if the furnace, central air conditioner or heat pump is replaced in accordance with the requirements of this Field Guide and Installation Standards, the *Nebraska Weatherization Assistance Program* (NeWAP) may contribute a maximum of \$500 to the replacement cost.
- Unsafe primary units must be repaired, replaced and removed, or rendered inoperable, or deferral is required.

Procedure for unsafe or non-functioning secondary heating systems, including unvented secondary space heaters

- Replacement or installation of secondary units is not allowed.
- Secondary unvented units that conform to the safety standards on ANSI Z21.11.2 may remain as back-up heat sources.
- Units that do not meet ANSI Z21.11.2 **must** be removed, and properly disposed of, prior to weatherization but may remain until a replacement *heating system* is in place.
- Secondary unvented units that conform to the safety standards on ANSI Z21.11.2, but are not operating safely, must be removed and properly disposed of.
- Repair of secondary unvented units is not allowed.
- An unvented gas-liquid-fueled space heater that remains in a completed single-family house after weatherization shall:
 - Not have an input rating in excess of 40,000 Btu/hour;
 - Not be located in, or obtain combustion air from sleeping rooms, bathrooms, toilet rooms, or storage closets, except:
 - One listed wall-mounted space heater in a bathroom if permitted by the authority having jurisdiction which:
 - has an input rating that does not exceed 6,000 Btu/hour;
 - Is equipped with an oxygen-depletion sensing safety shut-off system; and
 - The bathroom has adequate combustion air;
 - One listed wall-mounted space heater in a bedroom if permitted by the authority having jurisdiction which:
 - has an input rating that does not exceed 10,000 Btu/hour;
 - Is equipped with an oxygen-depletion sensing safety shut-off system; and
 - The bathroom has adequate combustion air.

Definition of and documentation required for “at-risk” occupants

- The State of Nebraska’s annual heating degree day normal, over the fifty-year period from 1970-2020 is 6322, with January average °F high and low temperatures of 35 to 12. Clients in units that contain *heating plants* that are inoperable or red-tagged are in danger of frost bite, hypothermia and other life-threatening issues. Therefore, units that contain heating plants that are inoperable or red-tagged at the time of the initial inspection must have the heating plant addressed.
- The replacement or installation of air conditioning is not a Health & Safety measure, therefore no at-risk definition is applicable.

Testing protocols

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

6.2 – Asbestos (Confirmed and/or Presumed Asbestos Containing Material)

Concurrence, Alternative or Deferral

Concurrence with DOE Guidance ☐

Alternative Guidance ☒

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Asbestos on Heating, Ventilation and Air Conditioning (HVAC) systems, distribution, venting and other small surfaces that will be disturbed through the course of weatherization work policy

- An appropriately trained crew leader, auditor or inspector shall complete an initial visual inspection of all surfaces and subsurfaces, piping, and equipment for suspected ACM.
- Assume asbestos is present in suspect covering materials.
- In homes where *friable* suspected ACM, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present:
 - o The sub-grantee **must** take precautionary measures as if it contains asbestos, such as utilizing personal air monitoring.
 - o Blower door testing **must not** be completed.
 - o The costs associated with asbestos testing, abatement or encapsulation **not** eligible expenditures in the *Nebraska Weatherization Assistance Program*.
- In homes with asbestos, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present, encapsulated and in good condition:
 - o Weatherization work may continue.
 - o Blower door testing, using either negative or positive pressure techniques, **must** be completed.

Asbestos in attics, walls, floors roofs and foundations that will be disturbed through the course of weatherization work policy

- In homes where *friable* suspected ACM siding, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present:
 - o The sub-grantee **must** take precautionary measures as if it contains asbestos, such as utilizing personal air monitoring.
 - o Wall insulation measure work must be completed from the interior of the home.
 - o The costs associated with asbestos testing, abatement or replacement with new siding are **not** eligible expenditures in the *Nebraska Weatherization Assistance Program*.
- In homes with asbestos siding, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present and in good condition:
 - o Installing dense-pack insulation from the exterior is allowed.
- Removal of 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 or drilled. Where possible, insulate the exterior walls through the interior of the home.
- The costs associated with asbestos testing are **not** eligible expenditures in the *Nebraska Weatherization Assistance Program*.

Vermiculite that will be disturbed through the course of weatherization work policy

- Visual inspections of all surfaces and subsurfaces, piping, and equipment for suspected ACM.
- Assume asbestos is present in suspect covering materials.
- In homes where *friable* suspected ACM, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present:
 - o The sub-grantee **must** take precautionary measures as if it contains asbestos, such as utilizing personal air monitoring.
 - o The costs associated with asbestos testing, abatement or encapsulation **not** eligible expenditures in the *Nebraska Weatherization Assistance Program*.
- In homes with asbestos, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present, encapsulated and in good condition:
 - o Weatherization work may continue.

Blower door testing policy when asbestos/vermiculite is present

In Siding, walls, ceilings, etc.

- In homes where **friable** suspected ACM siding, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present, blower door testing, using positive pressure techniques, must be completed.
- In homes with asbestos siding, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present and **in good condition**, blower door testing, using either negative or positive pressure techniques, must be completed.

In vermiculite

- If the presence of asbestos has been previously confirmed or if the sub-grantee believes that vermiculite insulation is present, when blower door tests are performed, it must be performed using pressurization instead of depressurization.

On pipes, furnaces, or other small covered surfaces

- In homes where **friable** suspected ACM, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present, blower door testing must not be completed.
- In homes with asbestos, as determined by an appropriately trained crew leader, auditor or inspector or testing, is present, encapsulated and **in good condition**, blower door testing, using either negative or positive pressure techniques, must be completed.

Testing protocols
<ul style="list-style-type: none"> Visual inspections of all surfaces and subsurfaces, piping, and equipment for suspected ACM. AHERA sample testing must be conducted by a certified tester; however, sampling, testing, encapsulation and remediation costs are not eligible expenditures in the <i>Nebraska Weatherization Assistance Program</i>. Cost incurred by sub-grantees to comply with asbestos training requirements may be charged to the Health & Safety budget category.
Documentation requirements
<ul style="list-style-type: none"> Documentation regarding the presence of asbestos material by an appropriately trained crew leader, auditor or inspector or testing must be maintained in the client file. Any testing results used to support the installation of ECM associated with the exterior walls of the homes or when deferral is necessary due to asbestos, the home owner/occupant must provide remediation documentation indicating the remediation was completed by an Asbestos Hazard Emergency Response Act of 1986 (AHERA) certified professional, prior to weatherization. A copy of the documentation must be included in the client file.

<h3>6.3 – Biologicals and Unsanitary Conditions</h3> <p>(e.g., odors, mustiness, bacteria, viruses, raw sewage, rotting wood)</p>		
Concurrence, Alternative or Deferral/Referral		
Concurrence with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
Unallowable Measure with DOE Funding <input type="checkbox"/> Other Funding Source Addresses H&S Issue <input type="checkbox"/> Enter Funding Source		
Biological and unsanitary conditions in dwellings policy		
<ul style="list-style-type: none"> Remediation of minor conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. Subgrantees are limited to a maximum cost of \$300 to remediate these minor conditions, although approval to exceed this limitation will be reviewed on a case by case basis by the Nebraska Department of Environment and Energy prior to any work being implemented. Addressing bacteria, viruses or major biological and/or unsanitary conditions is not an allowable reimbursable cost. Deferral may be necessary in cases where conditions in the home pose a health risk to occupants and/or weatherization workers. 		
Testing protocols		
<ul style="list-style-type: none"> Sensory and visual inspection. 		

6.4 – Building Structure and Roofing (e.g., roofing, wall, foundation)

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Structural issues in dwellings policy

- Building rehabilitation is beyond the scope of the *Nebraska Weatherization Assistance Program*.

Define and quantify minor or allowable structure and roofing issues. At what point are these considered beyond the scope of weatherization?

- Subgrantees are limited to a maximum cost of \$300 to implement **minor** repairs when necessary to effectively weatherize the home. Approval to exceed this limitation will be reviewed on a case by case basis by the Nebraska Department of Environment and Energy **prior** to any work being implement.

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

- Priority Lists are not used.

6.5 – Code Compliance

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Code compliance issues in dwellings policy

- Correction of preexisting code compliance issues is not an allowable unless triggered by weatherization measures being installed in a specific room or area of the home.
 - Examples of eligible costs associated with cost-effective Weatherization Measures include, but are not limited to: the installation of fans to provide appropriate ventilation in the home, appropriate disconnect switching and clearance requirements on furnace installations, installation of appropriately sized chimney liner when water heaters are orphaned by a high efficiency furnace installation, etc. Costs associated with the purchase of any required permits are eligible
- It is each sub-grantee's responsibility to ensure that weatherization-related work conforms with the applicable codes in the jurisdiction where the work is being performed.
- Follow State and local 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.
- The cost of the permits **must not** be passed onto the client.
- When correction of preexisting code compliance issues is triggered and paid for with WAP funds, specific code requirements with reference to the weatherization measure(s) that triggered the code compliance issue **must** be included in the client file.

6.6 – Combustion Gases

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☐

Alternative Guidance ☒

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Combustion gas issues discovered during testing, including those that require an immediate response policy

- Auditors, Crew leaders and crews are directed to contact their weatherization coordinator or supervisor immediately if during their time on-site:
 - The *heating plant* or other combustion appliance is malfunctioning.
 - Household members exhibit symptoms that could be from carbon monoxide poisoning. Open windows or evacuate the house if necessary.
 - There is a strong odor of heating gas or sewer gas. Open windows or evacuate the house if necessary.
 - Existing conditions have changed in ways that would make proposed work difficult, dangerous or no longer cost-effective.

Testing protocols

- Combustion safety testing is required when combustion appliances are present.
- Test naturally drafting appliances for spillage and CO during CAZ depressurization 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) Include copies of all required CAZ Depressurization Test (WX9) and Daily Safety Test Out (WX10) testing WX forms in client file requirement.
- Inspect venting of combustion appliances and confirm adequate clearances.
- Run DOE-approved energy audit to determine if the appliance can be justified as an ECM prior to replacement as an H&S measure.

6.7 – Electrical		
Concurrence, Alternative or Deferral/Referral		
Concurrence with DOE Guidance <input type="checkbox"/>	Alternative Guidance <input checked="" type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
Unallowable Measure with DOE Funding <input type="checkbox"/> Other Funding Source Addresses H&S Issue <input type="checkbox"/> Enter Funding Source		
Electrical hazards, including knob & tube wiring, in dwellings policy		

Knob-and-Tube Wiring in Attics:

- The Nebraska State Electrical Board does not permit directly covering knob and tube wiring with insulation.
- In attics where knob-and-tube wiring has been previously covered and it has been determined to be cost-effective to install additional insulation, the insulation work **must** be completed:
 - when it has been determined where the wiring is located,
 - following a determination that it is actually still “active”, and
 - after the wiring has been appropriately covered to prevent direct contact with the insulation and to provide adequate air space (a minimum of 3 ½” clearance) for “cooling” of the wire.
- Appropriate shielding materials for concealing the knob-and-tube wiring **must** include gypsum board (5/8” or thicker), plywood or oriented strand board.
- Once the determination of the wire locations is documented in the client file, the wiring **must** be appropriately shielded to prevent direct contact with the additional insulation and to provide adequate air movement space for cooling of the wire, then insulated.
- In attic areas where knob-and-tube wiring penetrates the plane of the attic and extends up into a side or *knee wall*, a fire resistant baffling **must** be installed around the wire to provide sufficient space for air movement around the wire to provide adequate air space to accommodate the cooling of the wire, then insulated.

Knob-and-Tube Wiring in Sidewalls:

- Knob and tube wiring in sidewalls **must not** be covered by new insulation.
- If knob and tube wiring in walls is covered by existing insulation, additional insulation **must not** be installed.

Overloaded Electrical, Fuses and Splices:

- Serious electrical hazards exist when gross overloads such as over usage, overloaded outlets and/or oversized fuses are present. Should auditors and crews find such existing problems, they should notify the owner and note the problem in the client file. Weatherization measures that involve the installation of new equipment such as air conditioners, heat pumps or electric water heaters can exacerbate previously marginal overload problems to hazardous levels. Rewiring of a home is outside the scope of the weatherization program.
- Wiring splices **must** be enclosed in metal or plastic electrical boxes, fitted with cover plates. Electrical boxes in attics **must** be marked with a flag that is visible above the insulation. *Type-S-Fuses* **must** be sized according to the smallest gauge of wire in the circuit to be protected. The following gauge wire requires the following size fuse:

Wire Gauge	Fuse Size
12 gauge wire	20 amp fuse
14 gauge wire	15 amp fuse

- If no insulation is being installed in a home the existing fuses **must** remain intact. In homes that utilize fuses where attic insulation is being installed the State Electrical Board recommends the use of a licensed electrician for the installation of safety *Type-S-Fuses* as indicated in the National Electrical Code.
- When the H&S of the occupant/worker(s) is at risk, minor repairs may be completed as necessary to allow for the implementation of 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 authority having jurisdiction.

Define and quantify minor electrical issues. At what point are these considered beyond the scope of weatherization?

- Subgrantees are limited to a maximum cost of \$300 to implement these **minor** repairs, although approval to exceed this limitation will be reviewed on a case by case basis by the Nebraska Department of Environment and Energy **prior** to any work being implemented.

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

- Priority Lists are not used.

6.8 – Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and other Air Pollutants

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒ Alternative Guidance ☐ Results in Deferral/Referral ☐
 Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Formaldehyde, VOCs, flammable liquids and other air pollutants in dwellings policy

- Removal of pollutants is allowed and 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 Hazardous Material Disposal section for more information.

Testing protocols

- Sensory and visual inspection.

6.9 – Fuel Leaks *(please indicate specific fuel type if policy differs by type)*

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒ Alternative Guidance ☐ Results in Deferral/Referral ☐
 Unallowable Measure ☐

Fuel leak remediation protocols

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

At what point are fuel leaks considered beyond the scope of weatherization?

- Fuel leaks found on the property, but after (or behind) the meter must be repaired before weatherizing a unit.
- When a minor gas leak is found on the property, but before (or in front) of the meter, the utility service must be contacted before work can proceed.

Testing protocols

- Test exposed gas lines from utility coupling into and throughout the home
- Conduct sensory inspection on bulk fuels to determine if leak exists.

6.10 – Gas Range/Ovens

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☐

Alternative Guidance ☒

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Unsafe gas range/ovens policy

- Maintenance on or repair gas cooktops and stoves is not allowed.
- Replacement is not allowed.

Testing protocols

- Test gas ovens for CO.
- Inspect cooking burners and ovens for operability and flame quality.

6.11 – Hazardous Materials Disposal [e.g., Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.] *(please indicate where policy differs by material)*

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Hazardous materials disposal policy (existing material/appliance and hazardous material)

- Hazardous materials generated in the course of weatherization work shall be disposed of in accordance to local laws, regulations and/or federal guidelines as applicable.

Documentation requirements

- Documentation in the client file contract information regarding the party responsible for appropriate disposal.
- In the case of Lead, 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 containment set up. Include the location of photos if it is not referenced in the file.

6.12 – Injury Prevention of Occupants and Weatherization Workers

(e.g., repairing stairs and replacing handrails)

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☐

Alternative Guidance ☒

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding <input type="checkbox"/> Other Funding Source Addresses H&S Issue <input type="checkbox"/> Enter Funding Source
Injury prevention measure(s) policy
<ul style="list-style-type: none"> When necessary to effectively weatherize the home, workers may make minor repairs and installations to allow for the implementation of weatherization measures.
Define and quantify minor or allowable injury prevention measures. At what point are these considered beyond the scope of weatherization?
<ul style="list-style-type: none"> Subgrantees are limited to a maximum cost of \$200 to implement minor repairs, although approval to exceed this limitation will be reviewed on a case by case basis by the Nebraska Department of Environment and Energy prior to any work being implemented.

6.13 – Lead Based Paint
Concurrence, Alternative or Deferral/Referral
Concurrence with DOE Guidance <input checked="" type="checkbox"/> Alternative Guidance <input type="checkbox"/> Results in Deferral/Referral <input type="checkbox"/>
Unallowable Measure with DOE Funding <input type="checkbox"/> Other Funding Source Addresses H&S Issue <input type="checkbox"/> Enter Funding Source
Lead safe work protocols
<ul style="list-style-type: none"> Crews must follow EPA’s Lead; Renovation, Repair and Painting Program (RPP) 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 the lead-based paint in the house would potentially create further H&S hazards, the sub-grantee will inform the client of the of the issues associated with a deferral in the Weatherization Deferral Notice (Form WX4) completed by the Weatherization Representative and signed by the client or building owner. Only those costs directly associated with the testing and lead safe practices for surfaces directly disturbed during weatherization activities are allowable.
Testing protocols
<ul style="list-style-type: none"> 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.
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 containment set up. Include the location of photos if it is not referenced in the file.

6.14 – Mold and Moisture

(e.g., drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers)

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☐

Alternative Guidance ☒

Results in Deferral/Referral ☐

Unallowable Measure ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

- Sub-grantees **must** ensure that weatherization work is performed in a manner that does not cause or contribute to mold problems, and when the work is performed properly, may alleviate mold conditions.
- Where severe Mold and Moistures cannot be addressed, deferral is required.
- Mold cleanup is not an allowed 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.
- All clothes dryers and exhaust fans **must** be vented to the exterior.
- The NeWAP requires a full ground laid moisture barrier **must** be installed whenever possible in accessible *crawl spaces* and under manufactured and modular homes *except* when one exists, or the space has a concrete floor.
 - The moisture barrier **must** be a Class I *vapor retarder*, a minimum of 6 mils thick, extended up the walls and the support columns at least 12 inches and the joints **must** overlap a minimum of 12 inches.
 - When installing insulated skirting without adequate clearance to install a full ground laid moisture barrier, the moisture barrier **must** extend a minimum of 24 inches beyond the insulation.
- **Limited** water damage repairs and **Minor** source control work that can be addresses by weatherization workers and are allowed when necessary in order to weatherize the home and to ensure the long-term stability and durability of the measures

Define and quantify minor or allowable moisture-related measures. At what point are these considered beyond the scope of weatherization?

- Subgrantees are limited to a maximum cost of \$300 to implement **limited** repairs, although approval to exceed this limitation will be reviewed on a case by case basis by the Nebraska Department of Environment and Energy **prior** to any work being implemented.
- Subgrantees are limited to a maximum cost of \$300 to implement this **minor** source control (i.e. correction of moisture and mold creating conditions) independent of latent damage and related repairs. Approval to exceed this limitation will be reviewed on a case by case basis by the Nebraska Department of Environment and Energy **prior** to any work being implemented.

6.15 – Pests

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☐ Alternative Guidance ☒ Results in Deferral/Referral ☐
 Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Pests and pest intrusion prevention policy

- Pest removal is allowed only where infestation would prevent weatherization. Subgrantees are limited to a maximum cost of \$300 for pest removal, although approval to exceed this limitation will be reviewed on a case by case basis by the Nebraska Department of Environment and Energy *prior* to any work being implemented.
- 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 and quantify pest infestation thresholds. At what point are these considered Beyond the scope of weatherization

- Pest removal issues that would exceed the maximum cost of \$300 to remedy must be deferred and information must be provided to the client in writing describing conditions that must be addressed in order for weatherization to commence.

6.16 – Radon

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒ Alternative Guidance ☐ Results in Deferral/Referral ☐
 Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Procedure for radon in dwellings

- The following radon precautions will be implemented in *all* weatherized homes to reduce the possibility of exacerbating any potential radon issues:
 - Whenever site conditions permit, cover exposed dirt floors within the pressure/thermal boundary with 6 mil (or greater) polyethylene sheeting, lapped at least 12” and sealed with appropriate sealants at all seams, walls and penetrations.
 - Air seal existing sumps in such a way that water can drain from above and below the sump cover.
 - Seal and caulk visible, accessible penetrations, openings or cracks in below-grade walls and floors that contact the ground with a sealant that meets the requirements of ASTM C920.
 - Other precautions may include, but are not limited to, sealing any observed floor and/or foundations penetrations isolating the basement from the conditioned space, and ensuring crawlspace venting is installed.
- The following additional radon precautions will be implemented in *all* weatherized homes equipped with active radon mitigation systems:
 - Verify that the radon vent fan is operating.
 - If a previously installed radon mitigation system is not operating correctly advise the client to consult the system installer of the state radon office.
- Radon mitigation is not an allowable H&S cost.

Testing protocols
<ul style="list-style-type: none"> Radon testing is not an allowable cost.
Documentation requirements
<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. Provide all clients the radon informed consent/consent to perform work form (Wx6) signed. A copy of the signed form must be included in the client file prior to receiving weatherization services.

6.17 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers		
Concurrence, Alternative or Deferral/Referral		
Concurrence with DOE Guidance <input checked="" type="checkbox"/>	Alternative Guidance <input type="checkbox"/>	Results in Deferral/Referral <input type="checkbox"/>
Unallowable Measure with DOE Funding <input type="checkbox"/> Other Funding Source Addresses H&S Issue <input type="checkbox"/> Enter Funding Source		
Installation or replacement policy for the following safety devices:		
Smoke Alarms: <ul style="list-style-type: none"> Battery Operated smoke alarms may be installed where alarms are not present or are inoperable Installation of Smoke Alarms and Carbon Monoxide Detectors, as per manufacturer's instructions, is required on initial inspection of the home. Battery operated or plug-in 110 Volt Detectors, located one per sleeping level and one adjacent to a combustion appliance, are eligible for reimbursement. 		
Carbon Monoxide Alarms: <ul style="list-style-type: none"> CO detectors must be installed where detectors are not present or are inoperable. Replacement of operable CO Detectors is not an allowable cost. Installation of Smoke Alarms and Carbon Monoxide Detectors, as per manufacturer's instructions, is required on initial inspection of the home. Battery operated or plug-in 110 Volt Detectors, located one per sleeping level and one adjacent to a combustion appliance, are eligible for reimbursement. 		
Propane Gas Detectors: <ul style="list-style-type: none"> Must be installed in homes and manufactured housing on permanent foundations that have propane combustion appliances. The gas detectors must be permanently installed according to the manufacturer's instructions and 110 volts. 		
Fire Extinguishers: <ul style="list-style-type: none"> The costs associated with providing fire extinguishers are not allowable Health & Safety Costs. 		
Testing protocols		
<ul style="list-style-type: none"> Check existing smoke alarms for operation. Check for operation of existing CO detectors. Verify operation of installed alarms. 		

6.18 – Ventilation and Indoor Air Quality

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

Version of American Society of Heating Refrigeration and Air-conditioning Engineers (ASHRAE) 62.2 Implemented (optional: identify Addenda used)

- NDEE requires ventilation be installed to meet latest DOE approved ASHRAE 62.2.

Procedures for complying with implemented ASHRAE standard

- Subgrantees are required to complete pre- and post-weatherization ASHRAE 62.2 evaluations (Redcalc) to ensure that the home meets the Standard for Acceptable Indoor Air Quality and include both evaluations in the client file.
- 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.
- Exhaust fans **must** be vented to the outdoors, and never into building attics or *crawl spaces*. They should have tight-fitting *backdraft dampers*.
- The installation of low sone (1.0) fans is encouraged so the client will run the fan longer.

Testing protocols

- Measure the fan flow of existing fans and of installed equipment to verify performance.
- Complete ASHRAE 62.2 evaluations, as discussed above, to determine required ventilation and fan flow requirements.

6.19 – Window Repair, Door Repair

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding ☐ Other Funding Source Addresses H&S Issue ☐ Enter Funding Source

Window repair and door repair H&S policy

- Replacement, repair, or installation of Windows and Doors is not an allowable Health & Safety measures through the NeWAP.

6.20 – Worker Safety (e.g., OSHA)

Concurrence, Alternative or Deferral/Referral

Concurrence with DOE Guidance ☒

Alternative Guidance ☐

Results in Deferral/Referral ☐

Unallowable Measure with DOE Funding <input type="checkbox"/> Other Funding Source Addresses H&S Issue <input type="checkbox"/> Enter Funding Source
Federal, state and local worker safety requirements policy
<ul style="list-style-type: none"> Subgrantee crews and contractors must comply with Occupational Safety and Health Administration (OSHA) standards and Material Safety Data Sheets (MSDS) and take precautions to ensure the health & safety of themselves and other workers, including the use of personal protection equipment. Costs incurred by subgrantees to comply with OSHA requirements may be charged to the Health & Safety budget category. OSHA standards including, but not limited to: <ul style="list-style-type: none"> respirator protection, techniques for safely lifting heavy objects, electrical equipment safety, ladder safety, and general worker protection.

6.20.1 – Infectious Disease Preparedness and Response
Concurrence, Alternative, or Deferral
Concurrence with DOE Guidance <input type="checkbox"/> Alternative Guidance <input checked="" type="checkbox"/> Results in Deferral/Referral <input type="checkbox"/>
Unallowable Measure with DOE Funding <input type="checkbox"/> Other Funding Source Addresses H&S Issue <input type="checkbox"/> Enter Funding Source
Procedure for soliciting occupants’ health and safety concerns associated with Infectious Diseases when state and local health department Directed Health Measures (DHM) are issued
<ul style="list-style-type: none"> Prior to sending workers to a home Subgrantees are required to complete a supplementary screening, in addition to the Home Health and Safety Screening Questionnaire referenced in Section 5.0 to provide additional information regarding suspected health concerns associated with other infectious diseases. The health and safety of local crew and contractors depends on this type of screening during any other infectious disease outbreak, and clients who are not feeling well or who have contracted a virus can be put on a deferred waitlist. Screening should be complete via telephone (instead of traveling to any client dwelling) during in the application process and again within 24 hours prior to beginning any on-site work. Screening questions should include, but not be limited to: <ul style="list-style-type: none"> Has anyone in the household tested positive or are presumed positive for COVID-19 or other infectious disease? If so, have they met the CDC criteria to be around others per the section “When it’s safe to be around others: ending home isolation?” Has anyone in your household experienced fever, cough or shortness of breath in the last two weeks? Has anyone in your household been in contact with someone who has had a fever, cough or shortness of breath in the last two weeks? Does anyone in the household have underlying medical conditions or are they in frequent contact with someone who has underlying medical conditions?
Procedures for Subgrantee weatherization staff associated with Infectious Diseases when state and local health department Directed Health Measures (DHM) are issued

- Allow and encourage appropriate physical distancing and avoid groups of people as allowed in state and local Health Department Directed Health Measures (DHM)
- Encourage staff participation in virtual training conferences, meetings etc.
- Minimize non-essential travel and adhere to CDC guidelines regarding isolation following travel.
- Require sick employees to stay home.
- Do not attend onsite training and/or meetings and conferences sooner than allowed per state and local Health Department Directed Health Measures (DHM)
- Collect applications remotely, if possible, and in instances where remote applications are not plausible, identify and implement strict distancing protocols.
- Complete program intake and eligibility determination, including client signing application verifying accuracy of information utilizing all efforts to minimize client exposure and maximize client services.
- Place eligible vulnerable clients on a waitlist, giving them priority once the state or local jurisdiction is implementing standard weatherization services. All vulnerable individuals should continue to shelter in place throughout the outbreak, these individuals are defined as:
 - Elderly individuals.
 - Individuals with serious underlying health conditions, including high blood pressure, chronic lung disease, diabetes, obesity, asthma, and those whose immune system is compromised such as by chemotherapy for cancer and other conditions requiring such therapy.

Procedure for Subgrantees during the implementation weatherization measures when working in homes during a low-risk state and local health department Directed Health Measures (DHM)

- Sub-Grantee and Grantee weatherization staff must follow with the EPA's Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes.
- Sub-grantees must implement the following Infectious Disease Preparedness and Response policies and procedures for all crew and contractor on-site work completed during a disease outbreak:
 - Mandate all field workers to use appropriate Personal Protective Equipment (PPE) as per the required training referenced below including removal, and cleaning to avoid contamination (and cross-contamination).
 - Provide the necessary supplies to maintain clean surfaces in client homes both before and after they are performing work.
 - Limit off site trips during the delivery of weatherization services.
 - Provide all vehicles and crew members with hand sanitizer containing at least 60% alcohol.
 - Prioritize the completion of all exterior work prior to addressing the interior work in the client home.
 - Practice social distancing.
 - Minimize the number of crew and clients simultaneously in the home at the time of interior work.
 - During interior work asks clients if they can leave the home, isolate themselves into one room or install a physical barrier (i.e. clear sheet of plastic, or zip wall) while work is being conducted.
 - Offer face masks to clients to contain respiratory secretions.
 - Limit contact by allowing one driver per vehicle per day and disinfect the vehicle before and after use.
 - If the installer determines that a client is exhibiting respiratory illness, they should contact the Agency Weatherization Director or Executive Director to inform them of the concern and allow the client to be moved to a waitlist for an appropriate time period to ensure worker safety.