

North Carolina
Weatherization Assistance Program (WAP)
Health and Safety Plan



United States Department of Energy

Updated: July 2026

NC Department of Environmental Quality,
State Energy Office

NC Weatherization Health and Safety Plan

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Changes since previous version:

- [You might need an entry here if you revise 3.0]
- Section 4.0 Incidental Repair Measures: deleted “E) Backing for wall insulation for an exterior closet (not knee walls).”
- Section 7.1 Air Conditioning and Heating Systems, ‘How do you address unsafe or non-functioning secondary heating systems, Including unvented secondary space heaters?’
 - Edited from “Secondary systems must be repaired, replaced (vented systems) or removed (unvented systems) prior to weatherization or the home must be deferred. Clean and Tune of systems will be energy conservation or health and safety.”
 - To “Ducted or vented secondary systems must be inspected and repaired, replaced, or removed as needed depending on the state of the primary system, or plans to replace primary system. Unvented fuel fired space heaters must be inspected according to NC Standard work Specifications section 7330, and removed if these systems fail. NC does not replace Electric or fuel fired unvented space heaters.”
- Section 7.8 Combustion Gases, “How are crews instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response?”
 - From "ECTs are performed by HVAC professional as warranted, which means they evaluate the system to determine if the unit can be cleaned and tuned for continued use or not. If the system cannot be cleaned and tuned for continued use due to age and/or condition and repairs exceed 25% of replacement costs, the unit will be replaced without a clean and tune. The clean and tune is completed after proper evaluation within the approved Energy Audit Tool. Prior to replacement, attempt to cost justify as an ECM is completed via Energy Audit. Crews are trained to comply with BPI standards regarding problems during testing and the protocols for addressing hazards, including Combustion Safety Test Action Levels."
 - To "Crews are trained to comply with BPI standards or the NC WAP Standard Work Specification depending on which action level is stricter regarding problems during testing and the protocols for addressing hazards, including Combustion Safety Test Action Levels."
- Section 7.9 Electrical, "What guidance do you provide Subgrantees for dealing with electrical hazards, including knob & tube wiring, in homes slated for weatherization?"
 - From "NC SWS provides detailed guidance on this in section 5640. For hazards requiring immediate response, readiness funds are recommended. Provide sufficient over-current protection and damming prior to insulating building components as required by AHJ. Minor electrical repairs (junction box covers, improper splices) to protect occupant or workers from hazards within the living area or in immediate area where weatherization will occur"
 - To "NC SWS provides detailed guidance on this in section 5640. For hazards requiring immediate response, readiness funds are recommended. Provide sufficient over-current protection and damming prior to insulating building components as required by the Authority Having Jurisdiction. Minor electrical repairs (junction box covers, improper splices) to protect occupant or workers from hazards within the living area or in immediate area where weatherization will occur prior to weatherization measures being installed."
- Section 7.18 Radon, "Testing Protocols"

- From "Cover exposed dirt floors within the pressure/thermal boundary with a sealed soil gas retarder. Cover sump well/pits with airtight covers. Implement ventilation as required by ASHRAE 62.2-2016."
- To "Radon testing is allowable in RADON Zones 1 and 2 in North Carolina. Mitigation is not an allowable expense."
- Section 7.18 Radon, "Documentation Requirements"
 - From "Radon testing is allowable in RADON Zones 1 and 2 in North Carolina. Mitigation is not an allowable expense."
 - To "All testing will be well documented in the Agency client file, along with follow- up action taken."

1.0 General Information

Please report any errors or omissions found in this document to SEO.WAP_Info@deq.nc.gov.

2.0 Budgeting

North Carolina Weatherization Assistance Program (NC WAP) budgets Health & Safety (H&S) costs as a separate category and, thereby, excludes 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.

Select which option is used below.

Separate Health and Safety Budget ☒ (checked) Contained in Program Operations ☐ (unchecked)

3.0 Health and Safety Expenditure Limits

Pursuant to 10 CFR 440.16(h), NC WAP has set the following H&S expenditure limits for the Program. These funds are to be expended by the Program in direct weatherization activities.

Measure	Average Cost	Frequency Installed/ Completed	Auto-Calculated Average Cost
Heating System Replacement	\$ 9,112.00 000.00	5.0%	\$455.00
Evaluate, Clean, and Tune	\$275.00	20.0%	\$55.00
Improper Venting of Appliances	\$1,250.00	25.0%	\$312.50
Limited Asbestos Removal	\$1,200.00	10.0%	\$120.00
Asbestos Testing (walls, floors, etc.)	\$500.00	35.0%	\$175.00
Minor Structural Repairs	\$500.00	25.0%	\$125.00
Minor Code Compliance (wiring, etc.)	\$650.00	15.0%	\$97.50
Minor Electrical Repairs	\$1,000.00	5.0%	\$50.00
Limited Removal of VOCs & Air Poll.	\$300.00	5.0%	\$15.00
Minor Leaks of Fuel	\$450.00	5.0%	\$22.50
Minor Combustion App Repairs	\$500.00	5.0%	\$25.00
Limited Disposal of Haz. Materials	\$250.00	5.0%	\$12.50
Limited Injury Prevention/Repairs	\$120.00	20.0%	\$24.00
Lead Safe Weatherization Practices	\$250.00	42.0%	\$105.00
Minor Mold/Moisture Repairs	\$500.00	40.0%	\$200.00
Limited Pest Treatment/Removal	\$250.00	10.0%	\$25.00
Radon Testing and Education	\$100.00	22.0%	\$22.05
Install/Replace Smoke/CO Detectors	\$200.00	40.0%	\$80.00
Client Education/Work Safety Activities	\$50.00	20.2%	\$10.10
Limit. Window/Door Repair/Replacement	\$500.00	5.0%	\$25.00
N/A	\$0.00	0.0%	\$0.00
Total Average H&S Cost Per Unit			\$1,956.15
Enter Estimated Production (Annual File: IV.2 WAP Production Schedule)			386
Enter Estimated Program Operations Budget (Annual File – Budget)			

H&S Budget (Total Average H&S Cost Per Units *Estimated Production)			
Suggested H&S Budget Request			
Measure	Average Cost	Frequency Installed/Complete	Auto-Calculated Average Cost
Heating System Replacement	\$9,100.00	5.0%	\$455.00
Evaluate, Clean, and Tune	\$275.00	20.0%	\$55.00
Improper Venting of Appliances	\$1,250.00	25.0%	\$312.50
Limited Asbestos Removal	\$1,200.00	10.0%	\$120.00
Asbestos Testing (walls, floors, etc.)	\$500.00	35.0%	\$175.00
Minor Structural Repairs	\$500.00	25.0%	\$125.00
Minor Code Compliance (wiring, etc)	\$650.00	15.0%	\$97.50
Minor Electrical Repairs	\$1,000.00	5.0%	\$50.00
Limited Removal of VOCs & Air Poll.	\$300.00	5.0%	\$15.00
Minor Leaks of Fuels	\$450.00	5.0%	\$22.50
Minor Combustion App. Repairs	\$500.00	5.0%	\$25.00
Limited Disposal of Haz. Materials	\$250.00	5.0%	\$12.50
Limited Injury Prevention/Repairs	\$120.00	20.0%	\$24.00
Lead Safe Weatherization Practices	\$250.00	42.0%	\$105.00
Minor Mold/Moisture Repairs	\$500.00	40.0%	\$200.00
Limited Pest Treatment/Removal	\$250.00	10.0%	\$25.00
Radon Testing and Education	\$100.00	22.0%	\$22.05
Install/Replace Smoke/CO Detectors	\$200.00	40.0%	\$80.00
Client Edu. / Work Safety Activities	\$50.00	20.2%	\$10.10
Limit. Window/Door Repair/Replac.	\$500.00	5.0%	\$25.00
N/A	\$0.00	0.0%	\$0.00
Total Average H&S Cost Per Unit			\$1,956.15
Enter Estimated Production (Annual File: IV.2 WAP Production Schedule)			386
Enter Estimated Program Operations Budget (Annual File - Budget)			\$3,273,798.00
H&S Budget (Total Average H&S Cost Per Units * Estimated Production)			\$755,073.01
Suggested H&S Budget Request			23.064%

4.0 Incidental Repair Measures

Incidental repairs are 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 or vapor barriers used to protect floor insulation installed under WAP.

Except where explicitly cited in the Standard Work Specifications, dwellings that require incidental repairs must have a site-specific computerized audit to ensure that the package of measures do not

reduce the overall Savings-to-Investment Ratio (SIR) to less than 1.0. Incidental repairs must be included in the SIR calculation. If the projected incidental repairs drop the overall SIR below 1.0 and there are no other non-federal funds to leverage, the dwelling must be deferred. Incidental repair measures with a total cost of less than \$200.00 will not require a site-specific computerized audit but must be documented in the client file.

The following repairs that must be cost justified through a properly executed computerized audit include but are not limited to : A) Replacing deteriorated window or doors (for non-cost justified reasons) B) Repairing minor roof leaks C) Minor floor reinforcement D) Minor ceiling reinforcement, ~~E) Backing for wall insulation for an exterior closet (not knee walls).~~

5.0 Deferral/Referral Policy

Grantee has developed a comprehensive written deferral/referral policy that covers both Health and Safety, and other deferral reasons? ☒ Yes ☐ ~~No~~

See below:

Subgrantees are required to have a deferral policy on file. Conditions requiring that a dwelling to be placed on deferral status shall include, but shall not be limited to:

- A) The dwelling has been condemned or major dwelling mechanical systems have been "red tagged" by local or state code enforcement officials or utility providers and the system cannot be addressed with Health & Safety funds.
- B) The dwelling structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved cost-effectively.
- C) The primary heating system at the dwelling is nonfunctioning or is functioning improperly and is deemed unsafe and must be replaced, or major repairs are needed and there are insufficient resources available.
- D) Dangerous conditions exist due to high CO levels in combustion appliances which cannot be resolved within weatherization program guidelines.
- E) Moisture problems are so severe they cannot be resolved within program guidelines.
- F) Unsanitary conditions are present in the dwelling that may endanger the health and safety of dwelling occupants or weatherization personnel should weatherization work be performed.
- G) Household members report documented health conditions that prohibit the installation of insulation and other weatherization materials.
- H) Household members, guests, or pets maintained at the dwelling are uncooperative, abusive, or threatening to weatherization staff or contractors.
- I) The extent and condition of lead-based paint or similar hazards in the dwelling may potentially create health and safety risks if weatherization work is performed.
- J) Illegal activities are being conducted in the dwelling unit.

6.0 Hazard Identification and Notification Form(s)

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

Client is informed of potential H&S issues at initial audit. Auditor gives H&S pamphlets and clients signs stating receipt and understanding.

7.0 Health and Safety Categories

7.1 Air Conditioning and Heating Systems

Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility

How do you address unsafe or non-functioning primary heating/cooling system?

These systems must be repaired or replaced prior to weatherization, or the home must be deferred.

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

Ducted or vented Secondary systems must be inspected and repaired, replaced, or removed as needed depending on the state of the primary system, or plans to replace primary system. Unvented fuel fired space heaters must be inspected according to NC Standard work Specifications section 7330, and removed if these systems fail. NC does not replace Electric or fuel fired unvented space heaters. ~~replaced (vented systems) or removed (unvented systems) prior to weatherization or the home must be deferred. Clean and Tune of systems will be energy conservation or health and safety.~~

Indicate documentation required for at-risk occupants: over 65 yrs, disabled, pre-existing conditions.

We solicit information on health concerns from at-risk clients on the data collection form during the initial audit and the client self reports.

Testing Protocols

Evaluate, Clean, and Tune (ECT) performed by HVAC professional as warranted, which means they evaluate system to determine if unit can be cleaned and tuned for continued use or not. The testing protocol will depend on the job site; however, NC utilizes CAZ, CO, depressurization, spillage, and/or efficiency tests listed in the Residential Energy Audit Tool (or its approved equivalent that meets WPN 22-4 and 24-4). If the system cannot be cleaned and tuned for continued use due to age and/or condition and repairs exceed 25% of replacement costs, the unit will be replaced without a clean and tune. The clean and tune is completed after proper evaluation within the approved Energy Audit Tool. Prior to replacement, attempt to justify as an Energy Conservation Measure (ECM) is completed via Energy Audit.

Client Education

Client should receive educational materials/training on: appropriate use and maintenance of units, documentation for any equipment installed by WAP, proper disposal of bulk fuel tanks, where combustion equipment is present, combustion safety/hazards (how to recognize depressurization, CO poisoning, and fire risks associated with combustion appliance use).

Training

Subgrantee Auditors are trained in diagnostic testing and visual inspection of HVAC systems.

7.2 Asbestos – all

What is the blower door testing policy when suspected Asbestos Containing Material (ACM) is identified?
Where hazardous materials such as asbestos or vermiculite insulation exist that may be circulated, blower door diagnostics shall not be performed.

7.2a Asbestos – in siding, walls, ceilings, etc.	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, Utility
How do you address suspected ACM's in vermiculite that will be disturbed through the course of weatherization work?	
NC WAP only allows limited encapsulation and removal on a case-by-case basis. "Limited" means restricted to the affected area to complete weatherization work that's no greater than 10 square feet. Deferral if this is not an option. Using WAP H&S funds for general abatement, removal, or replacement of asbestos siding, walls, ceilings, thermal system insulation (TSI) or Transite, or vermiculite is prohibited.	
Testing Protocols	
Visually inspect all surfaces (i.e., walls, floors, ceilings, roofs) for suspected ACM prior to drilling or cutting. Assume asbestos is present in suspect materials unless testing reveals otherwise. Testing is only allowed by a certified AHERA asbestos control professional. The condition of asbestos will be assessed, and occupants will be advised to not disturb the material until final testing is complete.	
Client Education	
Contained in client education document.	
Training and Certification Requirements	
Weatherization crews must take asbestos training as described in the NC WAP Training Plan.	

7.2b Asbestos – in vermiculite	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, Utility
How do you address suspected ACM's in vermiculite that will be disturbed through the course of weatherization work?	
WAP only allows limited encapsulation and removal on a case-by-case basis. "Limited" means restricted to the affected area to complete weatherization work that's not greater than 10 square feet. Deferral if this is not an option. Using WAP H&S funds for general abatement, removal, or replacement of asbestos siding, walls, ceilings, thermal system insulation (TSI) or Transite, or vermiculite is prohibited.	
Testing Protocols	
Visually inspect all surfaces (i.e., walls, floors, ceilings, roofs) for suspected ACM prior to drilling or cutting. Assume asbestos is present in suspect materials unless testing reveals otherwise. Testing is only allowed by a certified AHERA asbestos control professional. The condition of asbestos will be assessed, and occupants will be advised to not disturb the material until final testing is complete	
Client Education	
Client will be informed in writing that suspected asbestos is present and what precautions (such as not to disturb material containing asbestos) will be taken to ensure the occupants and workers'	

safety. When asbestos is the cause for deferral, and the client addresses the issue, the client must provide documentation that the asbestos removal or encapsulation was conducted by a certified professional before the home is eligible for weatherization. If suspected asbestos is present, the client will be provided U.S. EPA's "Learn About Asbestos" and "Asbestos, Protect Your Family". The documents can be found at <http://www.epa.gov/asbestos>

Training and Certification Requirements

Weatherization crews must take asbestos training as described in the NC WAP Training Plan.

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

Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility

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

NC WAP only allows limited encapsulation and removal on a case-by-case basis. "Limited" means restricted to the affected area to complete weatherization work that's not greater than 10 square feet. Deferral if this is not an option. Using NC WAP H&S funds for general abatement, removal, or replacement of asbestos siding, thermal system insulation (TSI) or Transite, or vermiculite is prohibited.

Testing Protocols

See above.

Client Education

Contained in client education document.

Training and Certification Requirements

Weatherization crews must take asbestos training as described in the NC WAP Training Plan.

7.5 Biologicals and Unsanitary Conditions

Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility

What guidance do you provide Subgrantees for dealing with biological and/or unsanitary conditions in homes slated for weatherization?

This is contained in NC WAP SWS section 5520: Biological Hazards and Poor Sanitation.

Testing Protocols

Using NC WAP H&S funds for testing of materials for biological contaminants is prohibited.

Client Education

Contained in client education document; clients are notified if these conditions exist.

Training and Certification Requirements

Weatherization workers are trained to identify these conditions and take appropriate action.

7.6 Building Structure and Roofing

Concurrent with Guidance ☒ (checked) Funding: Utility, Other

What guidance do you provide Subgrantees for dealing with structural issues (e.g., roofing, wall, foundation) in homes slated for weatherization?

Only very minor structural issues are allowable, otherwise dwelling is deferred <u>-until</u> problem(s) are corrected using other funding.
How do you define “minor” or allowable structure and roofing repairs, and at what point are repairs considered beyond the scope of weatherization?
Only repairs under 10 square feet are allowable as an incidental repair and must be cost justified with a computer audit. Larger repairs require deferral until corrections are made with other funding.
If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site specific audit required?
See above.
Client Education
Contained in client education document; clients are notified if these conditions exist.
Training
Auditors are trained to identify structural issues at the initial audit.

7.7 Code Compliance	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, Utility, Other
What guidance do you provide Subgrantees for dealing with code compliance issues in homes receiving weatherization measures?	
Correction of preexisting code compliance issues is not an allowable cost other than where weatherization measures are being conducted.	
What specific situations commonly trigger code compliance work requirements for your network? How are they addressed?	
Situations where weatherization measures are conducted that would affect electrical wiring, plumbing, or HVAC appliances.	
Client Education	
Contained in client education document; clients are notified if code conditions exist.	
Training	
Auditors are trained on how to identify code compliant construction.	

7.8 Combustion Gases	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, Utility
Testing Protocols	
Field staff use BPI Combustion Appliance Zone testing procedures.	
How are crews instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response?	
ECTs are performed by HVAC professional as warranted, which means they evaluate the system to determine if the unit can be cleaned and tuned for continued use or not. If the system cannot be cleaned and tuned for continued use due to age and/or condition and repairs exceed 25% of replacement costs, the unit will be replaced without a clean and tune. The clean and tune is completed after proper evaluation within the approved Energy Audit Tool. Prior to replacement, attempt to cost justify as an ECM is completed via Energy Audit. Crews are trained to comply with BPI standards <u>or the NC WAP Standard Work Specification depending on which action level is stricter</u>	

regarding problems during testing and the protocols for addressing hazards, including Combustion Safety Test Action Levels.
Client Education
Contained in client education document; clients are notified immediately if problems are found with combustion appliances.
Training
Auditors, final inspectors, and crew leaders receive classroom and ongoing in-field training on BPI Combustion Appliance Zone testing procedures.

7.9 Electrical	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, Utility, Other
What guidance do you provide Subgrantees for dealing with electrical hazards, including knob & tube wiring, in homes slated for weatherization?	
NC SWS provides detailed guidance on this in section 5640. For hazards requiring immediate response, readiness funds are recommended. Provide sufficient over-current protection and damming prior to insulating building components as required by AHJ the Authority Having Jurisdiction. Minor electrical repairs (junction box covers, improper splices) to protect occupant or workers from hazards within the living area or in immediate area where weatherization will occur prior to weatherization measures being installed.	
How do you define “minor” or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?	
Minor electrical repairs are typically those costing less than \$1,000. Electrical repairs over this amount may be deferred if there is a lack of health and safety dollars to make major electrical repairs. Handled on case-by-case basis. based on Section 2.07 of the state plan.	
If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?	
These repairs are designated as Health and Safety repairs only and are not subject to a site specific (computer) audit if a priority list is used.	
Client Education	
Clients are notified at initial audit if any electrical hazards exist and what the course of action will be.	
Training	
Auditors are trained to identify potential electrical hazards.	

7.10 Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and other Air Pollutants	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, Utility
What guidance do you provide Subgrantees for dealing with formaldehyde, VOCs, flammable liquids, and other air pollutants identified in homes slated for weatherization?	
Guidance is provided in section 5430 of the NC SWS, as well as ongoing in-field training.	
Testing Protocols	
Auditors are trained to identify pollutants and take the appropriate action.	

Client Education
Clients are notified at initial audit if any pollutants exist and what the course of action will be
Training
Training is provided in accordance with NC WAP Training Plan.

7.11 Fuel Leaks
Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility
Remediation Protocols
Leaks must be repaired by a licensed professional. Repairs are not allowed <u>an allowable NC WAP expense</u> for leaks on the utility side of service.
How do you define allowable fuel leak repairs, and at what point are repairs considered beyond the scope of weatherization?
Minor Fuel <u>Leak repairs under \$1,000 are an allowable expense using health and safety funds as long as sufficient funds are available, or other funding sources if not. allowable. For major leaks, fuel source must be shut off and local emergency services and/or fuel company notified. Major leaks must be corrected before any work can proceed on the dwelling. may only be repaired using other funding or home must be deferred.</u>
Client Education
Client Education Contained in client education document.
Training
Auditors are trained to identify fuel leaks on an ongoing basis.

7.12 Gas Ovens / Stovetops / Ranges
Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility
What guidance do you provide Subgrantees for addressing unsafe gas ovens/stoves/ranges in homes slated for weatherization?
NC WAP SWS section 6520 addresses this.
Testing Protocols
NC WAP SWS section 6520 addresses this.
Client Education
Contained in client education document.
Training
Auditors are trained to address these appliances as part of required combustion safety testing.

7.13 Hazardous Materials Disposal [Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.]
Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP
Disposal Procedures and Documentation Requirements
NC WAP SWS addresses this in multiple sections. Documentation of proper disposal must be in every client file, including Lead Renovation, Repair & Painting (RRP).
Client Education

Contained in client education document.
Training
Auditors and crews are trained on disposal of such materials, including Lead Renovation, Repair & Painting RRP

7.14 Injury Prevention of Occupants and Weatherization Workers	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP
What guidance do you provide Subgrantees regarding allowable injury-related repairs (e.g., stairs, handrails, porch deck board)?	
NC WAP SWS section 5550 addresses this.	
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.	
From NC WAP SWS section 5550: “Minor repair shall be allowable to secure steps and handrails where such actions are necessary to effectively weatherize the dwelling. Measures deemed unnecessary or excessive shall be prohibited.”	
Training	
Auditors and crews are trained on injury prevention on a regular basis; monthly weatherization agency safety meetings are required.	

7.15 Lead Based Paint	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, Utility
Documentation Requirements	
A renovator of record certification must be in any client file where lead safe work occurred.	
Safe Work Protocols	
NC WAP SWS addresses this section 2420.	
Testing Protocols	
NC WAP SWS addresses these protocols in sections 5200 and 5660.	
Client Education	
Contained in client education document.	
Training and Certification Requirements	
Refer to the NC WAP Training Plan.	

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.)	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, Utility
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?	
NC WAP SWS section 5700 addresses this.	

How do you define “minor” or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?
Mold and/or moisture issues under 10 square feet may be remediated. Larger areas may be cause for deferral if other funding is not available.
Client Education
Contained in client education document.
Training
Auditors are trained to identify these types of hazards on an ongoing basis.

7.17 Pests
Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility
What guidance do you provide Subgrantees for dealing with pests and pest intrusion prevention in homes slated for weatherization?
Contained in client education document.
Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred
NC WAP SWS section 5530 addresses this; thresholds are defined on a case-by-case-basis; recurring treatment plans are not an allowable expense.
Testing Protocols
Visual inspection for pests or pest waste prior to diagnostic testing (blower door) is required.
Client Education
Contained in client education document.
Training
Auditors are trained to identify these types of hazards.

7.18 Radon
Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility
Precautionary Package
Precautionary package of radon measures will be completed on all dwelling units when applicable.
What guidance do you provide Subgrantees around radon?
SWS section 5670. Radon pamphlet/precautionary Consent form provided to client.
Testing Protocols radon testing allowed in Radon Zones 1&2.
Cover exposed dirt floors within the pressure/thermal boundary with a sealed soil gas retarder. Cover sump well/pits with airtight covers. Implement ventilation as required by ASHRAE 62.2 2016. Radon testing is allowable in RADON Zones 1 and 2 in North Carolina. Mitigation is not an allowable expense.
Documentation Requirements
Radon testing is allowable in RADON Zones 1 and 2 in North Carolina. Mitigation is not an allowable expense. All testing will be well documented in the Agency client file, along with follow-up action taken.
Client Education
Contained in client education document and Precautionary Consent form for client signature.

Training and Certification Requirements
Auditors are trained on this topic during monitoring visits and as part of other certifications and trainings.

7.19 Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers
Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility
What is your policy for installation or replacement of the following:
Smoke Alarms: Described in NC WAP SWS section 5631
Carbon Monoxide Alarms: Described in NC WAP SWS section 5621
Fire Extinguishers: Described in NC WAP SWS section 5630
Testing Protocols
All alarms are tested and replaced or installed as needed. Fire extinguishers are allowed on a case-by-case basis where solid fuel burning appliances are present.
Client Education
Contained in client education document.
Training
Auditors are trained to identify safety device needs in the dwelling.

7.20 Occupant Health and Safety Concerns and Conditions
Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP
What guidance do you provide Subgrantees for soliciting the occupants' health and safety concerns related to components of their homes?
See above.
What guidance do you provide Subgrantees for dealing with potential health concerns when they are identified?
Subgrantees are trained to immediately notify clients of potential health concerns as soon as they are discovered.
Client Education
Contained in client education documents.
Documentation Form(s) have been developed and comply with guidance? ☒ Yes ☐ No

7.21 Ventilation and Indoor Air Quality
Concurrent with Guidance ☒ (checked) Funding: DOE, LIHEAP, Utility, Other
Identify the Most Recent Version of ASHRAE 62.2 Implemented (optional: identify Addenda used)
ASHRAE 62.2 2016
Testing and Final Verification Protocols
Described in NC WAP SWS sections 5800-5820.
Client Education
Contained in client education document.
Training
Auditors are trained on ventilation and indoor air quality on an ongoing basis.

7.22 Window and Door Replacement, Window Guards	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP, State, Utility
What guidance do you provide to Subgrantees regarding window and door replacement and window guards?	
NC WAP SWS addresses this in sections 9231 and 9241.	
Testing Protocols	
See above.	
Client Education	
Contained in client education document.	
Training	
Crews and auditors are trained on how to address window and door sealing and repair or replacement.	

7.23 Worker Safety (OSHA, etc.)	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP
How do you verify safe work practices? What is your policy for in-progress monitoring?	
OSHA confined space, fall protection, and safety data sheets were designed by NC WAP and are required as part of weatherization. NC WAP will also review at least one “in-progress” dwelling at each dwelling annually. Subgrantees are required to have regular documented safety meetings.	
Training and Certification Requirements	
Refer to the NC WAP Training Plan for training requirements.	
7.24 EPA's Renovation, Repair and Painting (RRP) compliance	
Concurrent with Guidance ☒ (checked)	Funding: DOE, LIHEAP
How do you verify EPA's Renovation, Repair and Painting (RRP) compliance (e.g. tracking of training certifications, reviewing client files for certifications and photo documentation, in progress monitoring, etc.)?	
See SWS 2420 Lead-Safe/Renovate Right.	
Training and Certification Requirements	
Refer to the NC WAP Training Plan for training requirements.	