

V.4 Climatic Conditions Attachment

The heating degree days (HDD) and cooling degree days (CDD) were obtained from the 2013 ASHRAE Handbook using the nearest World Meteorological Organization (WMO) location to the subgrantee service area. The combined total of both HDD and CDD ranges from a high of 6669 to a low of 5482. CDD range from a high of 2018 to a low of 1028. HDD range from a high of 5597 to a low of 3464. The Weatherization Assistant (WA), a DOE approved computerized audit tool developed by Oar Ridge National Laboratory provides HDD and CDD for use with the computerized audit tool, which is used to determine eligibility of measures installed.

Subgrantee # From Annual File	Subgrantee Acronym	Subgrantee City	WA (NEAT/MHEA) Weather Station	Nearest WMO Location	WMO #	HDD 65	CDD 65	Combined HDD & CDD
1	CSI	Maryville	Kansas City	St. Joseph/Rose-Cra	724490	5292	1251	6543
2	DAEOC	Portageville	Memphis, TN	Arkansas Intl, AR	723408	3464	2018	5482
3	EMAA	Park Hills	St. Louis	Farmington Rgnl	724454	4597	1226	5823
5	ESC	Joplin	Springfield	Joplin Rgnl	723495	4033	1638	5671
6	GHCAA	Trenton	Kansas City	Spickard (Amos)	725400	5534	1135	6669
7	CMCA	Columbia	Columbia	Columbia Regional	724450	4937	1247	6184
8	ULMSL	St. Louis	St. Louis	St. Louis/Lambert	724340	4436	1650	6086
9	JFCAC	Hillsboro	St. Louis	Farmington Rgnl	724454	4597	1226	5823
11	CAASTLC	Overland	St. Louis	St. Louis/Lambert	724340	4436	1650	6086
12	MOCA	Richland	Springfield	Rolla/Vichy Airport	724456	4680	1294	5974
13	MVCAA	Marshall	Columbia	Sedalia Memorial	724453	4635	1407	6042
14	NECAC	Bowling Green	St. Louis	St. Louis/Lambert	724340	4436	1650	6086
15	NMCAA	Kirksville	Columbia	Kirksville Rgnl	724455	5597	1028	6625
16	OAI	West Plains	Springfield	West Plains Muni	723484	4260	1334	5594
17	OACAC	Springfield	Springfield	Springfield Muni	724400	4442	1366	5808
18	SCMCAA	Winona	Springfield	Poplar Bluff (Amos)	723300	3988	1554	5542
19	WCMCAA	Appleton City	Columbia	Whiteman AFB	724467	4766	1419	6185
36	USCAA	Kansas City	Kansas City	Kansas City Intl	724460	5012	1372	6384

V.7 Health and Safety

Missouri shall concur with and put in place a plan for implementing health and safety requirements outlined in WPN 11-6.

State of Missouri Weatherization Assistance Program Health & Safety Plan

Grantee Health and Safety Plan

Budgeting (Check one):

The grantee is encouraged to budget health and safety costs as a separate category and, thereby, excludes such costs from the average per-unit cost calculation. This separate category also allows these costs to be isolated from energy efficiency costs in program evaluations. The grantee is reminded that, if health and safety costs are budgeted and reported under the program operations category rather than the health and safety category, the related health and safety costs must be included in the calculation of the average cost per home and cost-justified through the audit.

Separate Health & Safety Budget Missouri exercises the option to budget health and safety costs as a separate budget category

Contained in Program Operations _____

Incidental Repairs (List repairs, if any, that will be removed as health and safety measures and implemented as incidental repairs.):

If the grantee chooses to identify any health and safety measures as incidental repairs, they must be implemented as such under the grantee’s weatherization program in all cases – meaning, they can never be applied to the health and safety budget category. In order to be considered incidental repairs, 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.

Incidental repairs necessary for the effective performance or preservation of weatherization materials are allowed. Below are listed examples of incidental repairs and health and safety measures. Included is the expected average cost per incidental repair or health and safety measure. The list below is not an all-inclusive list of incidental repairs or health and safety measures.

Incidental Repairs		Health and Safety	
Measure Type	Expected Avg. Cost	Measure Type	Expected Avg. Cost
Building Structure Repair (i.e. floor repair, roof repair, etc.)	\$250	CO and/or Smoke Detector	\$50
Door Repair	\$100	Combustion Air Ventilation Repair/Replacement	\$200
Ductwork Repair	\$150	Cooling System Repair	\$300
Sump Pump Replacement	\$200	Cooling System Replacement	\$2,500
Window Repair	\$75	Dryer Vent Installation	\$75
		Electrical Repair	\$150
		Gas Leak Repair	\$50
		Heating System Clean and Tune	\$300
		Heating System Repair	\$300
		Heating System Replacement	\$3,000
		Vapor Barrier/Moisture Repair	\$150
		Ventilation Fan Installation	\$538.56
		Ventilation Fan Retrofit/Repair	\$125
		Water Heater Repair	\$200
		Water Heater Replacement	\$900

Incidental repairs will only be allowable expenses when the repair meets the definition of an incidental repair, as defined by 10 CFR 440. An example of an incidental repair would include the repair of a floor that must be done due to a leak from the water heater compromising the structural integrity of the floor and the installation of a replacement water heater as a health and safety measure could not otherwise be performed. Another example of an incidental repair would be the repair of a small leak in a roof so that cost effective insulation may be installed in the attic.

Health and Safety Expenditure Limits (Provide a per-unit average percentage and justification relative to the amount. Low percentages should include a statement of what other funding is being used to support health and safety costs, while larger percentages will require greater justification and relevant historical support.):

The grantee must set health and safety expenditure limits for their subgrantees, providing justification by explaining the basis for setting these limits and providing related historical experience. 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 average cost per dwelling unit. For example, if the average cost per dwelling is \$5000, then an expenditure of \$500 per dwelling would equal 10 percent expenditures for health and safety. 10 percent is not a limit on H&S expenditures but exceeding this amount will require ample justification. These funds are to be expended by subgrantees in direct weatherization activities. While required as a percentage of the average unit cost, if budgeted separately, the health and safety costs are not calculated into the per-house limitation.

Per-Unit Average Percent: 20 % ($3,577.01 \times 20\% = \$715.40$)

Missouri exercises the option to budget health and safety costs separately. This average per home health and safety expenditure will be calculated across all production, not just those homes receiving health and safety work. During DOE Project Year 2015 (PY15) Missouri had a per unit average limit of 20 percent for health and safety.

DOE released WPN 11-6 in January of 2011, which provided guidance regarding health and safety measures within the Weatherization Assistance Program. From July 2015 to March 2016, Missouri spent a total of \$8,152,007 across all distributed weatherization program operation funds, with \$1,571,568.08 being health and safety funds, while weatherizing 1087 units. This amounts to a health and safety per unit average percent of 19.3 percent; thereby Missouri's per unit average percent for health and safety through the grant cycle will be 20 percent.

Missouri may request to exceed the 20 percent health and safety per home when ample justification can be provided.

Deferral Policy (Provide a detailed narrative of the grantees overall deferral policy):

Deferral may be necessary if health and safety issues cannot be adequately addressed according to WPN 11-6 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. In the judgment of the auditor, any conditions that exist, which may endanger the health and/or safety of the workers or occupants, should be deferred until the conditions are corrected. Deferral may also be necessary where occupants are uncooperative, abusive, or threatening. The grantee should be specific in their approach and provide the process for clients to be notified in writing of the deferral and what corrective actions are necessary for weatherization to continue. The grantee should also provide a process for the client to appeal to a higher level in the organization.

- a) There are some situations in which a subgrantee should not or may choose not to weatherize an otherwise eligible unit. In order to deal with these situations each subgrantee must develop a policy which, when implemented, allows weatherization staff to defer working on a home due to conditions or circumstances that may be hazardous to their health and safety or that of the client's.
- b) The following is an example deferral policy intended to list the more common conditions and situations a subgrantee may encounter while delivering weatherization services. This list is not intended to be all inclusive of those instances in which a subgrantee may choose not to weatherize a unit. In some instances, corrective measures by the client/owner may allow program services to proceed. At a minimum, the subgrantee walk-away policy should contain the following:
Documentation
- c) In the event a subgrantee cannot or chooses not to weatherize a dwelling unit it must notify the client and owner/authorized agent in writing and include the following items:

1. The client's name and address;

2. The dates of the audit/assessment;
3. A clear description of the nature and extent of the problem(s), how the problem(s) relate to the determination to not weatherize the unit, and the date of when the client was informed of the problem;
4. A statement of if, or when, conditions may warrant continuation of weatherization and any corrective action required before weatherization services can be initiated;
5. A time limit for correcting problems so that weatherization services may be rescheduled;
6. The responsibility of all parties involved;
7. The client's signature indicating understanding and being informed of their rights and options, including but not limited to the process necessary to appeal the deferral decision; and
8. All correspondence justifying the decision to defer work on a home must be kept in the client file.

Withholding of Weatherization Services

- d) A subgrantee may withhold weatherization services under the following conditions:
1. A dwelling unit is vacant.
 2. A dwelling unit is for sale or in foreclosure.
 3. A dwelling unit is scheduled for demolition.
 4. A dwelling unit is found to have serious structural problems that would make weatherization impossible or impractical.
 5. A dwelling unit is deemed by the auditor to pose a threat to the health or safety of the client, crew or subcontractor.
 6. A mobile home is improperly installed (for example, inadequate supports).
 7. A dwelling unit is uninhabitable (for example, such as a burned out apartment).
 8. When there are minor children in the dwelling but no adult client or adult agent of the client, subgrantee personnel must not enter the dwelling.
 9. An adult client or adult agent of the client need not be present if the estimator or crew foreman feels satisfied with a signed note from an adult client or adult agent of the client stating their permission to enter the dwelling occupied by the minor children.
 10. The client is uncooperative with the weatherization subgrantee, either in demanding that certain work be done and refusing higher priority work which is needed, or by being abusive to the work crew or subcontractor, or by being unreasonable in allowing access to the unit, every attempt should be made to explain the program and the benefits of the work. If this fails, work should be suspended and the State Weatherization Office consulted.
 11. Obvious discrepancies are found between the information supplied by the client on the application and observed conditions at the time of weatherization. The subgrantee must resolve these discrepancies before weatherization work can continue.
 12. If , at any time prior to the beginning of work (materials installed in a unit), the subgrantee determines that the client is no longer eligible or subgrantee personal believe that circumstances may have changed, the unit shall not be weatherized until updated information can be obtained from the client.
 13. There are rats, bats, roaches, reptiles, insects, animals or other vermin that are inappropriately or not properly contained on the premises.
- e) There are health or safety hazards that must be corrected before weatherization services may begin including, but not limited to:
1. The presence of animal feces and/or other excrement,
 2. Disconnected waste water pipes,
 3. Hazardous electrical wiring, or
 4. Unvented combustion appliances.
 5. There are illegal drugs or illegal activities occurring on the premises.
 6. The client or owner is physically or verbally abusive to subgrantee personnel.
 7. The dwelling unit or parts thereof are being remodeled and weatherization work is not coordinated with a housing rehabilitation program.
 8. The eligible household moves from the dwelling unit where weatherization activities and services are in progress. In such a case, the subgrantee must determine whether to complete the work and the circumstances must be documented in the client file.
 9. There are unusual situations, which in the judgment of the subgrantee staff, must be corrected before proceeding with weatherization.

- 1) No utility hookups (It is apparent that utilities have been shut off).
 - 2) Lack of cooperation from client.
 - 3) Dwelling units undergoing remodeling, or which have untreated areas that directly affect the weatherization process, shall not be weatherized.
10. If for any reason a worst-case draft test cannot be done in a dwelling requiring a worst-case draft.
11. If weatherization work is to be completed on a dwelling unit with an unvented gas- and/or liquid-fueled space heater as the primary heat source.

Procedure for Identifying Occupant Health Concerns:
 Procedures must be developed and explained on how information is solicited from clients to reveal known or suspected occupant health concerns as part of the initial application for weatherization, additional screening of occupants again during the audit, and what steps will be taken to ensure that weatherization work will not worsen the health concern.

Subgrantees are required to take all reasonable precautions against performing work on homes that will subject workers or clients to health and safety risks. Before beginning work on the residence, the agency must take into consideration the health concerns of each occupant, the condition of the dwelling, and the possible effect of work to be performed on any particular health or medical condition of the occupants. When a person's health is fragile and/or the work activities would constitute a health or safety hazard, the occupants at risk will be required to leave the home during these work activities.

A subgrantee should ask clients if they have any health conditions that will be aggravated by the work required to install energy conservation retrofits. Precautions must be taken if the client will be unduly affected by dust, the smell from caulking chemicals or other attributes of the retrofit work so as to contain that part of the process and minimize any adverse effects.

Documentation Form(s) have been developed (Check Yes or No):
 Documentation forms must be developed, include the client's name and address, dates of the audit/assessment and when the client was informed of a potential health and safety issue, a clear description of the problem, a statement indicating if, or when weatherization could continue, and the client(s) signature(s) indicating that they understand and have been informed of their rights and options

Yes Each subgrantee is responsible for providing the documentation form, and each subgrantee has an individual deferral policy as directed in the Missouri Weatherization Program Operations Manual.

No _____

Completing the General Issue Tables below, or something similar, for each health and safety category will help explain to DOE how the WPN 11-6 requirements will be addressed.

Air Conditioning and Heating Systems	
<p>Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is "required" or "not allowed" through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.</p>	
<p>Concurrence with WPN11-6 <input checked="" type="checkbox"/> X _____ Alternative Guidance _____</p>	<p>"Red tagged", inoperable or nonexistent heating system replacement, repair, or installation is allowed, unless prevented by other DOE WAP guidance. Air conditioning system replacement, repair or installation is only allowed in homes of at-risk occupants.</p>
<p>Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.</p>	
<p>DOE funds may be used</p>	
<p>Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.</p>	

<p>If the measure is determined to be beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.</p>
<p>Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.</p>
<p>DED/DE will require each subgrantee to perform the following as part of the initial energy audit of each dwelling during the current Program Year:</p> <ul style="list-style-type: none"> a) Test vented and unvented combustion appliances for carbon monoxide (CO) levels. b) Inspect furnace and water heater installations for sufficient combustion air (Refer to NFPA 54, National Fuel Gas Code). If the initial energy audit reveals a need for introducing more combustion air, it should be addressed as part of the weatherization process. c) Inspect and test heating equipment for a sound heat exchanger. Furnaces and other space-heating appliances that have a cracked heat exchanger are health and safety hazards that must be addressed and mitigated. Otherwise, the house must be deferred. Such appliances are also usually degraded to the point that their efficiency is greatly reduced. <p>Replacements will be limited to owner-occupied units. Rental units that have an unsafe heating system will not be weatherized until the landlord has installed an approved, safely operating heating system. A site specific heating system replacement may be authorized by DED/DE on a case by case basis.</p> <ul style="list-style-type: none"> d) Inspect and test heating equipment and the water heater for worst case depressurization and spillage. Venting must be installed in accordance with national, state and local codes. e) Inspect the water heater for health and safety hazards. Water heaters that pose a health and safety risk may be replaced, on a case by case basis, as a health and safety measure. Replacements will be limited to owner-occupied units. Rental units that have an unsafe water heater will not be weatherized until the landlord has installed an approved, safely operating water heater. A site-specific domestic water heater replacement from fuel to electric may be authorized by DED/DE on a case-by-case basis. f) Test fuel lines for leaks. g) Perform a post-blower door test to determine if the dwelling is within the ventilation guidelines.
<p>Standards for Deferral: Describe when deferral should take place for the specific health and safety category.</p>
<p>Deferral should be exercised when existing code violations are present and correcting them would be beyond the scope of the DOE WAP and/or when there are problems affecting the heat system/air conditioner that are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.</p>
<p>Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.</p>
<p>Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP, such as electrical or other code violations. If the client is a renter referral may also be made to the landlord.</p>
<p>Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.</p>
<p>Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as Combustion Safety, Supplemental CAZ Testing, HVAC Service Technician, HVAC Installation, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.</p>
<p>Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.</p>
<p>Clients shall be given all pertinent information on the appropriate use and maintenance of heating and cooling systems and the proper disposal of hazardous materials such as fuel and refrigerant gasses.</p>
<p>Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.</p>
<p>Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13-<u>Additional Safety</u>. All appliances with refrigerant that have been replaced must be decommissioned according to the Clean Air Act of 1990; Section 608, as amended by Final Rule 40 CFR 82, May 14, 1993. Replaced heating and cooling units</p>

cannot be returned to service by sale, barter, or given away for free.
Air Conditioning Installation (as specific to installation as a health and safety measure): Provide a narrative on implementation protocols of air conditioning repair, replacement, and installation including justification for allowability that includes climate justification with degree days and how to define at-risk occupants.
In the 2013 ASHRAE Handbook, the annual cooling degree day in Jefferson City, Missouri is 1,397. The average high temperature in Jefferson City in the month of July is 91.4 degrees Fahrenheit. Jefferson City is in the geographic and climatic center of the state and provides an accurate representation of the state as a whole. Missouri allows the repair, replacement or installation of air conditioners for at-risk occupants. At-risk occupants are determined by the occupant being able to provide a letter from a licensed physician stating that the occupant’s health and safety would be in danger without a functioning air conditioning unit.
Heating System Installation (as specific to installation as a health and safety measure): Provide a narrative on implementation protocols of Heating System repair, replacement, and installation including justification for allowability that includes climate justification with degree days.
In the 2013 ASHRAE Handbook, the annual heating degree day in Jefferson City, Missouri was 4,560. The average low temperature in Jefferson City in January is 7.1 degrees Fahrenheit. Jefferson City is in the geographic and climatic center of the state and provides an accurate representation of the state as a whole. Temperatures below zero are infrequent, but have occurred in every county in Missouri. Thus, heating system installation as a health and safety measure is allowable. DOE WAP funds may not be used on a home that will not have a safe heating system after all weatherization work is completed on the home.

Appliances and Water Heaters

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <u> X </u>	Replacement of water heaters is allowed on a case by case basis. Replacement and installation of other appliances are not allowable health and safety costs.
Alternative Guidance _____	Repair and cleaning are allowed.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the measure is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
DED/DE will require each subgrantee to perform the following as part of the initial energy audit of each dwelling during the current Program Year:	
<ul style="list-style-type: none"> a) Test vented and unvented combustion appliances for carbon monoxide (CO) levels. b) Inspect furnace and water heater installations for sufficient combustion air (Refer to NFPA 54, National Fuel Gas Code). If the initial energy audit reveals a need for introducing more combustion air, it should be addressed as part of the weatherization process. c) Inspect and test heating equipment for a sound heat exchanger. Furnaces and other space-heating appliances that have a cracked heat exchanger are health and safety hazards that must be addressed and mitigated. Otherwise, the house must be rejected. Such appliances are also usually degraded to the point that their efficiency is greatly reduced. Replacements will be limited to owner-occupied units. Rental units that have an unsafe heating system will not be weatherized until the landlord has installed an approved, safely operating heating system. Replacements will be limited to natural gas, propane and oil-fired systems. A site specific heating system replacement may be authorized by DED/DE on a case by case basis. d) Inspect and test heating equipment and the water heater for proper venting. Venting must be installed in accordance with national, state, and local codes. e) Inspect the water heater for health and safety hazards. Water heaters that pose a health and safety risk may be replaced, on a case by case basis, as a health and safety measure. Replacements will be limited to owner- 	

<p>occupied units. Rental units that have an unsafe water heater will not be weatherized until the landlord has installed an approved, safely operating water heater. A site-specific domestic water heater replacement from fuel to electric may be authorized by DED/DE on a case-by-case basis.</p> <p>f) Test fuel lines for leaks.</p> <p>g) Perform a post-blower door test to determine if the dwelling is within the ventilation guidelines.</p>
<p>Standards for Deferral: Describe when deferral should take place for the specific health and safety category.</p>
<p>Deferral should be exercised when existing code violations are present and correcting them would be beyond the scope of the DOE WAP and/or when there are problems affecting the water heater/appliance that are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.</p>
<p>Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.</p>
<p>Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP, such as electrical or other code violations. If the client is a renter referral may also be made to the landlord.</p>
<p>Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.</p>
<p>Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as Combustion Safety, Supplemental CAZ Testing, HVAC Service Technician, HVAC Installation, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.</p>
<p>Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.</p>
<p>Clients shall be given all pertinent information on the appropriate use and maintenance of appliances.</p>
<p>Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.</p>
<p>Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13-<u>Additional Safety</u>.</p>

Asbestos - in siding, walls, ceilings, etc.	
<p>Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.</p>	
<p>Concurrence with WPN11-6 <input checked="" type="checkbox"/> <u>X</u> Alternative Guidance _____</p>	<p>Removal of siding is allowed to perform energy conservation measures. All precautions must be taken not to damage siding. Asbestos siding should never be cut or drilled. Recommended, where possible, to insulate through home interior.</p>
<p>Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.</p>	
<p>DOE funds may be used</p>	
<p>Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.</p>	
<p>If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.</p>	
<p>Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.</p>	
<p>The Subgrantee shall inspect exterior wall surfaces and subsurfaces for asbestos siding prior to drilling or cutting.</p>	
<p>Standards for Deferral: Describe when deferral should take place for the specific health and safety category.</p>	
<p>Deferral should be exercised when issues that may create a serious health concern are present and correcting them</p>	

would be beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord. Clients may also be referred to the Missouri Department of Natural Resources website (http://dnr.mo.gov/env/apcp/asbestos/index.htm) which contains asbestos information and contractor lists.
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Asbestos recognition training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the identification of asbestos containing materials and how to handle them properly. The DED technical staff has provided multiple trainings for subgrantees in which they were reminded how to recognize asbestos and vermiculite. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients shall be informed that suspected asbestos material is present and how precautions will be taken.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Asbestos - in vermiculite

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ___X___ Alternative Guidance _____	When vermiculite is present, unless testing determines otherwise, take precautionary measures as if it contains asbestos, such as not using blower door tests and utilizing personal air monitoring while in attics. Where blower door tests are performed, it is a best practice to perform pressurization instead of depressurization. Encapsulation by an appropriately trained asbestos control professional is allowed. Removal is not allowed.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
The Subgrantee shall assess whether vermiculite is present. Asbestos Hazard Emergency Response Act of 1986 (AHERA) certified prescriptive sampling is allowed by a certified tester.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when issues that may create a serious health concern are present and correcting them would be beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if	

possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord. Clients may also be referred to the Missouri Department of Natural Resources website (http://dnr.mo.gov/env/apcp/asbestos/index.htm) which contains asbestos information and contractor lists.
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Asbestos recognition training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the identification of asbestos containing materials and how to handle them properly. The DED technical staff has provided multiple trainings for subgrantees in which they were reminded how to recognize asbestos and vermiculite. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients should be instructed not to disturb suspected asbestos containing material. Provide asbestos safety information to the client. Formally notify the client if test results are positive for asbestos and signed by the client.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Asbestos - on pipes, furnaces, other small covered surfaces

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ___X___	Assume asbestos is present in covering materials. Encapsulation is allowed by an AHERA asbestos control professional and should be conducted prior to blower door testing. Removal may be allowed by an AHERA asbestos control professional on a case by case basis.
Alterative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Asbestos abatement is normally beyond the scope of WAP work in Missouri. If a subgrantee determines that friable asbestos is present in a dwelling, a depressurization blower door test should not be performed. Reference in Missouri WAP Operational Manual 3.I.B.9.e Asbestos Inspection Procedures for more information. Asbestos issues will be referred to the appropriate State agency. AHERA testing is allowed by a certified tester.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when issues that may create a serious health concern are present and correcting them would be beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord. Clients may also be referred to the Missouri Department of Natural Resources website (http://dnr.mo.gov/env/apcp/asbestos/index.htm) which contains asbestos information and contractor lists.	

Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Asbestos recognition training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the identification of asbestos containing materials and how to handle them properly. The DED technical staff has provided multiple trainings for subgrantees in which they were reminded how to recognize asbestos and vermiculite. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients should be instructed not to disturb suspected asbestos containing material. Provide asbestos safety information to the client. Formally notify the client if test results are positive for asbestos and signed by the client.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Biological and Unsanitary Conditions - odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ___X___	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.
Alternative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Where threatening conditions are found via sensory inspection, which may lead to a bacterial concern or unsanitary condition the correction of this threat is eligible as a health and safety expense. An example would be a hole in the floor where mice could enter and infest the home. If conditions such as feces in the home or a home infested with insects or rodents, the home should be deferred. An example would be, the home has animal feces or is infested with roaches, the agency should defer the home until the client has corrected the situation. When an existing harmful bacteria or virus condition is present in the home or work area, health and safety funds are not allowed to address the problem. The agency should defer the home until the client has corrected or eliminated the threat. For example, an occupant in the home has a virus which is contagious or signs of bacteria are present in the home, the home should be deferred.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when known agent is present in the home that may create a serious risk to occupants or weatherization crew. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP, such as the presence of raw	

sewage or other known agents. If the client is a renter referral may also be made to the landlord. Referral to the Missouri Department of Health and Senior Services may be done if biological or virus agents are suspected. Information is available at http://health.mo.gov/index.php .
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. Weatherization workers are to be trained, by the subgrantee, on the identification of biological and unsanitary conditions and how to handle them properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients shall be informed of observed conditions. Information on how to maintain a sanitary home and steps to correct the deferral conditions will be provided.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Building Structure and Roofing	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <u> X </u> Alternative Guidance _____	Building rehabilitation is beyond the scope of the WAP. Homes with conditions that require more than incidental repair should be deferred.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may not be used for building rehabilitation work that is beyond the scope of DOE WAP.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
Structurally compromised areas requiring more than incidental repairs shall be deemed beyond the scope of the WAP and shall be deferred.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Before any work begins, the agency should conduct a visual inspection to be sure that all areas which will be accessed by the workers are safe to enter. If it is found that an area is not safe for workers to conduct weatherization the agency must decide if the repair is considered incidental or if it is beyond the scope of weatherization.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Homes that require more than incidental repair should be deferred.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several	

training providers on this listing that offer health and safety courses such as BPI Building Envelope Professional, Single Family Retrofit Basics, Weatherization training, Weatherization Mold and Moisture, etc. Weatherization workers are to be trained, by the subgrantee, on the identification of building structure and roofing issues and how to handle them properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients shall be notified of structurally compromised areas.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Code Compliance	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <input checked="" type="checkbox"/> Alternative Guidance _____	Correction of pre-existing code compliance issues is not an allowable cost other than where weatherization measures are being conducted. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used when weatherization measures are being conducted. DOE funds may not be used to correct pre-existing code compliance issues other than where weatherization measures are being conducted.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to be beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Visual inspection as well as local code enforcement inspections may be necessary. All state and local codes shall be followed when installing weatherization measures	
Each subgrantee is responsible to acquire all required permits and licenses pertinent to installing weatherization measures. These vary by jurisdiction and it is the responsibility of each subgrantee to know what the codes are in each of the areas they work, as well as what permits and licenses are required.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Condemned properties and properties where “red tagged” health and safety conditions exist that cannot be corrected under this guidance should be deferred.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.. Dwellings whose structural integrity is in question should be referred to the Missouri Department of Housing and Urban Development.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training	

<p>providers around the state, their contact information, the courses they offer and course schedules. Weatherization workers are to be trained, by the subgrantee, on the identification of code compliance issues and how to handle them properly. The DED technical staff has provided multiple trainings for subgrantees in which they were reminded of code compliance issues, etc). Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.</p>
<p>Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.</p>
<p>Clients shall be notified of observed code compliance issues.</p>
<p>Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.</p>
<p>Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13-<u>Additional Safety</u>.</p>

Combustion Gases	
<p>Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.</p>	
<p>Concurrence with WPN11-6 <input checked="" type="checkbox"/> <u> </u> Alternative Guidance <u> </u></p>	<p>Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing indicates a problem.</p>
<p>Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.</p>	
<p>DOE funds may be used.</p>	
<p>Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.</p>	
<p>If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.</p>	
<p>Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.</p>	
<p>DED/DE will require each subgrantee to perform the following as part of the initial energy audit of each dwelling during the current Program Year:</p> <ol style="list-style-type: none"> a) Test vented and unvented combustion appliances for carbon monoxide (CO) levels. b) Inspect furnace and water heater installations for sufficient combustion air (Refer to NFPA 54, National Fuel Gas Code). If the initial energy audit reveals a need for introducing more combustion air, it should be addressed as part of the weatherization process. c) Inspect and test heating equipment for a sound heat exchanger. Furnaces and other space-heating appliances that have a cracked heat exchanger are health and safety hazards that must be addressed and mitigated. Otherwise, the house must be rejected. Such appliances are also usually degraded to the point that their efficiency is greatly reduced. Replacements will be limited to owner-occupied units. Rental units that have an unsafe heating system will not be weatherized until the landlord has installed an approved, safely operating heating system. Replacements will be limited to natural gas, propane and oil-fired systems. A site specific heating system replacement may be authorized by DED/DE on a case by case basis. d) Inspect and test heating equipment and the water heater for proper flue/vent draft. Venting must be installed in accordance with national, state, and local codes. e) Inspect the water heater for health and safety hazards. Water heaters that pose a health and safety risk may be replaced, on a case by case basis, as a health and safety measure. Replacements will be limited to owner-occupied units. Rental units that have an unsafe water heater will not be weatherized until the landlord has installed an approved, safely operating water heater. A site-specific domestic water heater replacement from fuel to electric may be authorized by DED/DE on a case-by-case basis. 	

f) Test fuel lines for leaks.
g) Perform a post-blower door test to determine if the dwelling is within the ventilation guidelines.
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.
Deferral should be exercised when existing code violations are present and correcting them would be beyond the scope of the DOE WAP and/or when there are problems affecting the combustion appliance that are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP, such as electrical or other code violations. If the client is a renter referral may also be made to the landlord.
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as Combustion Safety, Supplemental CAZ Testing, HVAC Service Technician, HVAC Installation, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients shall be provided with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of carbon monoxide.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .
Combustion Gas Problem Discovery: Provide a narrative describing the process to be followed when combustion gas testing reveals health and safety concerns.
When combustion appliances are present in the dwelling, or where there is reason to suspect a significant level of carbon monoxide (CO) present in the ambient air (such as with an attached garage) the ambient air will be tested for CO at the initial building audit and immediately after the implementation of weatherization measures. The testing procedure is: <ol style="list-style-type: none"> (1) Establish building in the winter (heating season) mode with exterior windows and doors closed. (2) Calibrate CO testing equipment in the outdoor ambient. (3) Enter building and walk-through the various rooms and locations and note any areas where CO above outdoor ambient is found. (4) If levels higher than 9 parts per million (ppm) above outdoor levels are found, turn off all combustion appliances and ventilate the unit(s). (5) If measurable levels are 35 ppm or higher than outdoors, remove the occupants, turn off combustion appliances, ventilate the building and contact fuel vendor before continuing test. (6) If ambient CO levels are lower than 9 ppm above outdoors, proceed with testing of combustion appliances. <p>Any combustion gas problems that are discovered need to be addressed by the subgrantee prior to commencing work. CO alarms must be installed in all homes where a furnace return air could back draft a space heater, wood stove, fireplace or water heater. CO alarms should also be installed in homes which have attached garages.</p>

**Drainage - gutters, down spouts, extensions,
flashing, sump pumps, landscape, etc.**

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. **Note:** Where an Action/Allowability or Testing is

“required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <u> X </u> Alternative Guidance _____	Major drainage issues are beyond the scope of the WAP. Homes with conditions that may create a serious health concern that require more than incidental repairs should be deferred.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may not be used, except for incidental repairs.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Major drainage issues are beyond the scope of the WAP. Homes with conditions that may create a serious health concern that require more than incidental repair shall be deferred. Visual inspection shall be the primary mechanism for detecting drainage issues.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing drainage issues that may create a serious health concern are present and correcting them would be beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as BPI Building Envelope Professional, Single Family Retrofit Basics, Weatherization training, Weatherization Mold and Moisture, etc. Weatherization workers are to be trained, by the subgrantee, on the identification of drainage issues and how to handle them properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	
Clients shall be informed of the importance of cleaning and maintaining drainage systems.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.	
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .	

Electrical, other than Knob-and-Tube Wiring

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-	Minor electrical repairs are allowed where health and safety of the occupant is at risk.

6 <u> X </u> Alternative Guidance	Upgrades and repairs are allowed when necessary to perform specific weatherization measures.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category. DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP. If the issue is determined to be beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Minor electrical repairs such as adding outlet covers; installing bulbs in open light socket; providing cover on electric service panels, etc are allowed in areas where weatherization work is being performed. Upgrades and repairs such as placing wire connections in sealed boxes in the attic before blowing insulation, flagging electrical connections and adding an electrical outlet for required mechanical ventilation are allowable expenses. Testing for correct wire size and breakers is an allowable expense. Ground-fault circuit interrupter (GFCI) devices should be tested to ensure that they are working properly in dwelling bathrooms and kitchens. If a GFCI is not installed in a dwelling bathroom, a subgrantee may have one installed, if appropriate, given that weatherization work is being performed in that area.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category. Deferral should be exercised when existing electrical issues that may create a serious health and safety concern and correcting them would be beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies. Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training. Basic knowledge of electrical wiring and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the identification of unsafe electric wiring and how to handle it properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education. Clients shall be provided information on overloading circuits and electrical safety/risks.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards. Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .	

Electrical, Knob-and-Tube Wiring

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6	Minor upgrades and repairs necessary for weatherization measures and where

<input checked="" type="checkbox"/> X	health and safety of the occupant is at risk are allowed. Missouri does not allow insulation to be installed over knob and tube wiring.
Alternative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used except to install insulation over knob-and-tube wiring which is not allowable. Funds may be used only for minor repairs and upgrades as stipulated above.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
If active knob-and-tube wiring is to remain in an attic, any insulation must be kept at least three inches from the wiring. Blown insulation must be appropriately dammed to keep the insulation from advancing closer than three inches from the knob-and-tube wiring. If active knob-and-tube wiring is to remain in a dwelling attic, walls, or basement, the walls of the dwelling must not be insulated. If knob-and-tube wiring has been deactivated and the dwelling has been rewired with BX, Romex, or other approved electrical cable, the attic and walls may be insulated without special precaution. DOE funds cannot be used to replace knob-and-tube wiring as a health and safety measure.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing electrical issues that may create a serious health and safety concern and correcting them would be beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Basic knowledge of electrical wiring, knob and tube wiring and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the identification of unsafe electric wiring, knob and tube wiring and how to handle it properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	
Clients shall be provided information on over current protection, overloading circuits and basic electrical safety/risks.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.	
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .	

Fire Hazards

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <input checked="" type="checkbox"/> X	Correction of fire hazards is allowed when necessary to safely perform weatherization.

Alternative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
The auditor should be cognizant of fire hazards and address them when necessary to perform weatherization. If the subgrantee identifies a fire hazard which is not related to a weatherization measure, the agency may not make the repair; however, the agency must notify the client of the fire hazard. If the subgrantee identifies a fire hazard related to a weatherization measure that is beyond the scope of DOE WAP, the agency must defer the home.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing issues may create a fire hazard and correcting them would be beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord. Referral to the Missouri Department of Public Safety and local Fire Chief may also be considered.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Basic knowledge of fire hazards and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the identification of fire hazards and how to handle them properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	
Clients shall be informed of observed hazards.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.	
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .	

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

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 _X_	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.
Alternative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined that 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 the deferral section above for additional deferral criteria.
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.
Auditors will conduct a sensory inspection for formaldehyde, VOCs and other air pollutants. Subgrantees will be advised that some new carpets, wafer board and plywood can emit formaldehyde. This is not specifically a weatherization responsibility. However, if a client has recently installed a large amount of these materials, the subgrantee will be advised that a curing time is desirable before the dwelling is air-tightened, and care should be taken to avoid excessive air tightening in such dwellings. Volatile Organic Compounds (VOC's) are the solvents in some caulking compounds, paint and cleaning agents. Subgrantees are advised to be cautious about using such materials inside dwellings.
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.
Deferral should be exercised when pollutants pose a risk to workers and removal cannot be performed or is not allowed by the client, the unit must be deferred. For additional deferral criteria, see deferral policy above.
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Basic knowledge of VOCs and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the identification of VOCs and how to handle them properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients shall be informed of observed conditions and associated risks. Subgrantee will provide the client written materials on safety and proper disposal of household pollutants.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Injury Prevention of Occupants and Weatherization Workers – Measures such as repairing stairs and replacing handrails.	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ____X____ Alternative Guidance _____	Workers must take all reasonable precautions against performing work on homes that will subject workers or occupants to health and safety risks. Minor repairs and installation may be conducted only when necessary to effectively weatherize the home; otherwise these measures are not allowed.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing	

protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.
Subgrantee staff will observe if dangers are present that would prevent weatherization.
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.
If the issue is determined to be beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as OSHA 10, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients shall be informed of observed conditions and associated risks.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Lead Based Paint

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ___X___ Alternative Guidance _____	Follow EPA’s Lead; Renovation, Repair and Painting Program (RRP) rule which was implemented April 21, 2010. In addition to RRP, Weatherization requires all weatherization crews working in pre-1978 housing to be trained in Lead Safe Weatherization (LSW). Deferral is required when the extent and condition of lead-based paint in the house would potentially create further health and safety hazards.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to be beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Lead Safe Weatherization (LSW) is a set of protocols to be used when disturbing surfaces that may have lead-based paint that will reduce and control the amount of lead dust and paint chips that are generated. The protocols involve setup and cleanup practices that contain the spread of the lead dust during Weatherization work and eliminate most	

traces of the lead dust and debris (generated from the weatherization activities) when the work is finished. LSW Exemptions - Lead Safe Weatherization must be applied to all pre-1978 housing with the exception of the following three conditions:

1. When existing evidence shows that the home has been certified as being lead-free or below the lead threshold limits. When doing so, one of the following methods must be used to determine the paint to be disturbed is not lead-based paint:
 - a) Written determination by a certified lead inspector or risk assessor.
 - b) Proper use of EPA-recognized test, performed by a Certified Renovator.
2. Mobile homes built prior to 1978 that were not painted by the manufacturer, occupant, landlord, or past owner of the unit prior to 1978.
3. When minor repairs or maintenance activities will disturb less than 6 six square feet per room for interior activity. Exemptions to this would include window replacement, demolition of painted surface areas and use of any of the following: open flame or torch, use of a high-speed machine to remove paint, or heat gun at temperatures above 1100 degrees Fahrenheit.
4. The EPA published a new Final Rule in April of 2008: the "Lead: Renovation, Repair, and Painting Program" Final Rule (LRRPP Final Rule). Under certain, fairly common circumstances, the Final Rule requires weatherization providers to give a copy of the EPA booklet "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools" prior to the start of work. The rule also has a record-keeping requirement.
5. Refer to the "Lead-Safe Weatherization: A Training and Reference Manual for Weatherization Managers and Crews" for reference material about lead safe work practices. The notebook was distributed to each agency.

Standards for Deferral: Describe when deferral should take place for the specific health and safety category.

It may be prudent to defer certain Weatherization work in homes that have either tested positive or are assumed to have lead-based painted surfaces. Even if the home does contain lead-based paint, regular weatherization work that does not disturb painted surfaces and does not stir up lead-based paint laden dust residues can be done. The following steps are recommended:

1. First, the subgrantee should assess the following factors:
 - a) What is the condition of the painted surfaces in the house?
 - b) How will specific energy efficiency measures disturb painted surfaces? (will the disturbance generate dust in excess of OSHA minimums)
 - c) Will the cost of doing LSW be a large portion of the total cost, exceeding the amount allowed by state's health and safety plan?
2. Second, based on above factors, weatherization agencies should determine whether to:
 - a) Proceed with all weatherization work, following LSW work practices.
 - b) Do some of the weatherization tasks and defer others.
 - c) Defer all of the weatherization work. Deferral would mean postponing the work until the weatherization agency is prepared to work with lead-based paint, or until another agency has corrected the problem. In cases where extensive LSW would be necessary, agencies are encourage to arrange with other organizations, which are funded to do lead paint hazard control, to perform some of the more costly activities, such as entrance testing or clearance testing. In areas where there are no organizations performing such work, weatherization agencies may choose to develop their own capabilities for lead-based paint hazard control work, but they may not use DOE Weatherization funds for this purpose.

Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.

Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord. Clients may also be referred to the Missouri Department of Health and Senior Services website (<http://health.mo.gov/safety/leadlicensing/>) which contains a licensed lead professionals list.

Training Provision: Discuss how training will be provided for the specific health and safety category. **Note:** Some health and safety categories, like OSHA, require training.

LSW training for Weatherization workers, both in-house and contractor is critical to the protection of Weatherization clients and the workers themselves. Training or retraining for crew members and contractors will be conducted in LSW using either the DOE benchmark LSW Curriculum or an equivalent curriculum. Crewmembers and contractors need to have the training before they work on homes with lead paint where painted surfaces in those homes will be disturbed in the course of doing Weatherization measures. Re-training for LSW needs to be completed within a three-year period. As of April 22, 2010, agencies and contractors addressing activities that disturb lead-based paint in target homes and child occupied facilities must follow the Environmental Protection

Agency's (EPA) Renovation, Repair, and Paint (RRP) Final Rules (Section 402 (c) (3) of TSCA). New crewmembers and contractors are required to be trained within a six-month period. However, they cannot work on a home(s) with lead until becoming a Certified Renovator or being trained on site by a Certified Renovator. Refresher training is required every 5-years. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.

Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. **Note:** Some health and safety categories, like mold and moisture, require client education.

Subgrantees will follow all EPA RRP requirements for client education as outlined in the EPA, RRP April 22, 2008, published rule (40 CFR Part 745) and will provide client with available applicable written material.

Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.

Always collect, bag, and seal all waste at the work site and in the work area. Do not carry the waste to another room or another area before bagging and sealing. Store all waste in a secure container or dumpster until disposal. Avoid collecting bags of debris in work vehicles or in shops. Also, avoid transporting waste in an open truck. If this is the only method of transportation, cover the bed tightly with a tarp. Subgrantees will follow all EPA RRP requirements for disposal as outlined in the EPA, RRP April 22, 2008, published rule (40 CFR Part 745).

Lead Based Paint Compliance: Provide a narrative describing how RRP and LSW implementation will be conducted and how the grantee will verify compliance. The explanation should clearly show an understanding that LSW and RRP are separate requirements and both are required to be met.

Compliance Verification - Monitoring staff will assess LSW during routine monitoring visits.

1. Check inventory for critical materials and necessary crew protective gear.
2. Assess working conditions, equipment and crew for possible lead contamination.
3. Assess the level of lead safe weatherization training that crews and contractors have received.
4. Determine if there is a need for additional training based upon materials assessment, protective gear available, and working conditions.

Non-Compliance Protocol - If an agency is found not following Lead Safe Weatherization practices, the DED/DE will increase monitoring frequency. DED/DE will conduct additional audits on homes during the weatherization work. The agency will also be required to provide additional training to their crew/contractors.

Client Health & Safety - Lead Safe Weatherization requires that residents and pets not have access to the work area while work is underway. Agency staff is required to make every effort to contain the work area and eliminate tracking any dust or materials throughout the house, or exposing residents and pets to any contaminants. If containment cannot be achieved and there is a risk of traffic through the work area (e.g., work will take several days involving the kitchen, bathroom, or bedrooms) agencies are advised to defer the work until other resources can be secured to offset relocation expense for the residents and pets.

Weatherization Worker Protection - DOE requires subgrantees to follow the specified EPA requirements. By adopting basic safety precautions and LSW, Weatherization Programs can protect workers and the occupants of the homes they weatherize from lead exposure. DOE requires subgrantees to follow the specified EPA and Occupational Safety and Health Administration (OSHA) standards for worker safety as well as any state or local requirements. By ensuring all weatherization workers are knowledgeable of LSW Minimum Standards (as revised in the 2008 benchmark procedures and curriculum), subgrantees increase the assurance LSW is being followed properly and risks to the workers and/or occupants are minimized. On or after April 22, 2010, agencies and contractors addressing activities that disturb lead-based paint in target homes and child occupied facilities must follow the Environmental Protection Agency's (EPA) Renovation, Repair, and Paint (RRP) Final Rules (Section 402 (c) (3) of TSCA). New crewmembers and contractors are required to be trained within a six-month period. However, they cannot work on a home(s) with lead until becoming a Certified Renovator or being trained on site by a Certified Renovator. Refresher training is required every 5-years.

Pollution Occurrence Insurance (POI) - POI is required to be carried by each subgrantee. See the federal LIWAP website at www.waptac.org for additional information.

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <u> X </u> Alternative Guidance _____	Limited water damage repairs can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures. Where severe mold and moisture issues cannot be addressed, deferral is required.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Local agencies should ensure that regular weatherization work is performed in a manner that doesn't contribute to mold problems and when the work is performed properly, can alleviate many mold conditions. If a subgrantee determines that a dwelling has an excessive moisture problem, mitigation may be possible if the cause can be eliminated with relatively minor expense. An example would be a broken downspout directing water runoff into a crawl space. Work that threatens the health or safety of WAP crews should not be undertaken. If a mold condition is discovered during the initial inspection of the home by the energy auditor that cannot be adequately addressed by the weatherization crew, then the unit should be referred to the appropriate public or non-profit agency for remedial action.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as Weatherization Mold and Moisture, etc. All auditors and final inspectors are required to take a Weatherization Mold and Moisture course, or equivalent. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	
Subgrantees will provide client notification, written material and disclaimer on mold and moisture awareness.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.	
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional</u>	

Safety.

Mold Protocols: Provide a narrative describing protocols for addressing mold found in the client’s homes. The protocol should include a method of identifying the presence of mold during the initial audit or assessment, notification to the client, and crew training on how to alleviate mold and moisture conditions in homes.

All homes should be checked for previous or existing moisture problems. Repair of moisture problems that might: 1) result in health problems for the client, 2) damage the structure over the short- or long-term, or 3) diminish the effectiveness of the weatherization measures, must be done before the weatherization job is completed. The moisture assessment section of the Auditor Field Form must be filled out along with special attention to the following:

- a. Evidence of condensation on windows and walls indicated by stains or mold.
- b. Standing water, open sumps, open wells, dirt floors, water stains, etc. in basements. Also, check to see if firewood is stored in the basement and whether laundry is hung to dry during the winter months.
- c. Leaking supply or waste pipes.
- d. Attic roof sheathing shows signs of mold or mildew.
- e. Identification of existing or potential moisture problems shall be documented in the client file.
- f. If existing moisture problems are found, no air sealing should be done unless the source of the moisture can be substantially reduced or effective mechanical ventilation can be added to cost-effectively remove the moisture. In some cases, air sealing must be done in order to reduce the source of the moisture (i.e. sealing off crawlspaces from the house, or sealing attic leakage to eliminate condensation on the roof deck).
- g. Because air tightening may cause an increase in relative humidity, client education should include information about moisture problems and possible solutions.
- h. In the course of weatherization, any low-cost measures that help reduce the humidity levels in the house should be installed. Examples of these activities are venting dryers, venting existing bath or kitchen exhaust fans or installing moisture barriers on dirt floors.
- i. A dwelling that has a CFM50 greater than the Building Airflow Standard (BAS) is no guarantee that moisture will not be a problem in that home.

Occupant Preexisting or Potential Health Conditions

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. **Note:** Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.

Concurrence with WPN11-6
 X
Alternative Guidance _____

When a person’s health may be at risk and/or the work activities could constitute a health or safety hazard, the occupant at risk will be required to take appropriate action based on severity of risk. Temporary relocation or at-risk occupants may be allowed on a case-by-case basis. Failure or the inability to take appropriate actions must result in deferral.

Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.

DOE funds may be used.

Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.

If the issue is determined to be beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.

Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. **Note:** Some health and safety categories, like combustion gases, require testing.

A subgrantee should ask clients if they have any health conditions that will be aggravated by the work required to install energy conservation retrofits. Precautions must be taken if the client will be unduly affected by dust, the smell from caulking chemicals or other attributes of the retrofit work so as to contain that part of the process and minimize any adverse effects.

Standards for Deferral: Describe when deferral should take place for the specific health and safety category.

Failure or the inability to take appropriate actions must result in deferral.

Standards for Referral: Describe when referral should take place for the specific health and safety category. If

possible, include associated referral agencies.
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord. Referral to the Missouri Department of Health and Senior Services may be done. Information is available at http://health.mo.gov/index.php .
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as OSHA 10, Weatherization Mold and Moisture, etc. Weatherization workers are to be trained, by the subgrantee, on the injury prevention of occupants and weatherization workers and how to handle them properly. The DED technical staff has provided multiple trainings for subgrantees in which they were reminded of health and safety issues, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients shall be provided information of any known risks. Contact information for workers will be provided so that client can inform of any issues.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Occupational Safety and Health Administration (OSHA) and Crew Safety	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 _____X_____ Alternative Guidance _____	Workers must follow OSHA standards and Material Safety Data Sheets (MSDS) and take precautions to ensure the health and safety of themselves and other workers. MSDS must be posted wherever workers may be exposed to hazardous materials.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category. DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP. If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing. OSHA 10 hour is required for all crew level WAP employees. MSDS available on all job sites.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category. If the weatherization work would put occupants or workers at undue risk, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	

Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as OSHA 10. All crew members are required to have OSHA 10.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
N/A
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .
OSHA and MSDS Compliance: Provide a narrative describing procedures for implementation of OSHA and MSDS requirements related to crew and worker safety, how the 10 and 30 hour training requirements will be met, and what the process is for determining if crews are utilizing good safe work practices according to all requirements (EPA, OSHA, etc.).
A subgrantee must comply with Occupational Safety and Health Administration (OSHA) requirements in all weatherization activities that involve staff personnel. Costs for subgrantees to comply with OSHA requirements may be charged under 440.18 as health and safety, tools and equipment, incidental repairs, etc. The cost category selected should be charged consistently throughout the state (from agency to agency) for the same activity. When contractors are employed by subgrantees, those contractors also are required to comply with OSHA. The contractor costs to comply with OSHA, as applicable, are part of the bid price. Work that threatens anyone's health or safety may not be undertaken. Related costs for subgrantees to comply with OSHA requirements may be charged as tools and equipment. Subgrantees are responsible for purchasing all OSHA required tools and equipment and are required to immediately replace any defective tool or equipment. Because of the wide range of activities involved in weatherizing a house, ensuring crew health and safety requires a broad knowledge of the appropriate OSHA requirements. Some of these requirements include, but are not limited to: respirator protection, techniques for safely lifting heavy objects, electrical equipment safety, ladder safety, and general worker protection. OSHA standards should be consulted for further details. Other useful information includes Material Safety Data Sheets that identify potential health risks and describe the proper use, handling, and storage of a wide variety of materials, including some common weatherization materials. They also suggest personal protective equipment and address first aid measures.

Pests	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ___X___ Alternative Guidance _____	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 health and safety concern for workers. Screening of windows and points of access is allowed to prevent intrusion.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category. DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP. If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client	

to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Subgrantees will assess the presence and degree of infestation and risk to workers.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when infestation of pests cannot be reasonably removed or poses health and safety concern for workers and correcting them would be beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Basic knowledge of pests and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the identification of pests and how to handle them properly. The DED technical staff has provided multiple trainings for subgrantees in which they were reminded of health and safety issues, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	
Clients shall be informed of observed conditions and associated risks.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.	
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .	

Radon

Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ___X___	Whenever site conditions permit, exposed dirt must be covered with a vapor barrier except for mobile homes. In homes where radon may be present, precautions should be taken to reduce the likeliness of making radon issues worse.
Alterative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
DED/DE believes the potential in Missouri for exacerbating radon problems with weatherization work is rather low and does not plan to expend funds for radon testing or mitigation. Missouri has ten northwestern counties in zone 1	

which are in the EPA’s high potential for indoor radon levels where testing is allowed as a health and safety expense.
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.
Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord. Referral to the Missouri Department of Health and Senior Services may be done. Information is available at http://health.mo.gov/index.php .
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Radon training for weatherization workers, both in-house and contractor can be critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on what is it, how it occurs, what factors make it worse, weatherization measures that may be helpful and vapor barrier installation. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients shall be provided with the EPA Consumer’s Guide to Radon where radon may be present.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Refrigerant	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 __X__	Reclaim refrigerant per Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93
Alternative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
The replacement of air conditioners; approved since 1992, and the approved refrigerator replacements (Weatherization Program Notice 00-05) requires agencies to reclaim refrigerant per Clean Air Act 1990, section 608, as amended by 40 CFR 82, 5/14/93. The appliance vendor, decommissioning center, or other entity recovering the refrigerant must possess EPA-approved section 608 type I or universal certification. Subgrantees should ensure they have appropriate protocols in place that comply with all standards relating to the disposal of the existing appliances.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral	

criteria, see deferral policy above.
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.
Referral should be made to the Environmental Protection Agency. Information can be found at http://www.epa.gov/ .
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Basic knowledge of refrigerants and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the basic knowledge of refrigerants and requirements governed by EPA Section 608.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Clients are instructed not to disturb refrigerant.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Smoke, Carbon Monoxide Detectors, and Fire Extinguishers	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <input checked="" type="checkbox"/> Alternative Guidance _____	Installation of smoke/CO detectors is allowed where detectors are not present or are inoperable. Replacement of operable smoke/CO detectors is not an allowable cost. Providing fire extinguishers is allowed only when solid fuel is present.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
CO alarms must be installed in all homes where a furnace return air could back draft a space heater, wood stove, fireplace or water heater. CO alarms should also be installed in homes which have attached garages.	
Smoke detectors should be in every home and should be installed if not present in a home receiving weatherization services. Smoke alarms should be installed near combustion zones and near bedrooms. Refer to the Missouri Weatherization Field Guide for additional detail on installation and consult manufacturer’s recommendations. Reference in Missouri WAP Operational Manual 3. I. B.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord. Referral to the Missouri Department of Public Safety and local Fire Chief may also be considered.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note:	

Some health and safety categories, like OSHA, require training.	
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. Weatherization workers are to be trained, by the subgrantee, on the installation of smoke alarms, carbon monoxide detectors and fire extinguishers and how to handle them properly. The DED technical staff has provided multiple trainings for subgrantees in which they were reminded of code compliance issues, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	
Clients shall be provided with verbal and written information on use of smoke/CO detectors and fire extinguishers where allowed.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.	
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .	
Smoke/CO Detector Installation: Provide a narrative describing smoke/CO Detector installation parameters and procedures.	
CO alarms must be installed in all homes where a furnace return air could back draft a space heater, wood stove, fireplace or water heater. CO alarms should also be installed in homes which have attached garages.	
Smoke detectors should be in every home and should be installed if not present in a home receiving weatherization services. Smoke alarms should be installed near combustion zones and near bedrooms. Refer to the Missouri Weatherization Field Guide for additional detail on installation and consult manufacturer’s recommendations. Reference in Missouri WAP Operational Manual 3. I. B.	

Solid Fuel Heating (Wood Stoves, etc.)	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <u> X </u>	Maintenance, repair, and replacement of primary indoor heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary heating units is allowed.
Alterative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
The wood stove should be fired after the blower door testing is complete. With the stove operating, check around the solid-fuel appliances for carbon monoxide (CO) emissions. If there are any indications of CO leaking from the stove into the ambient air, repairs should be made to correct the problem. Weatherization should not proceed until appropriate repairs are made allowing safe operation of the stove or fireplace.	
Maintenance, repair, and replacement of a primary indoor solid fuel heating units is allowed where occupant health and safety is a concern. Maintenance and repair of secondary solid fuel heating units is allowed as a health and safety measure. Replacement of a secondary solid fuel heating unit is not allowed.	

All venting systems and installations shall comply with the latest edition of NFPA 211, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances.	
Fire extinguishers may be installed where the client is using a solid fuel source of heat such as wood, pellets, etc.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Basic knowledge of fire hazards and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the proper on the identification of fire hazards and how to handle them properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	
The client shall be notified of any unsafe conditions and provided safety information including recognizing depressurization.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.	
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .	

Space Heaters, Stand Alone Electric	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ___X___ Alterative Guidance _____	Repair, replacement or installation is not allowed. Removal is recommended.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may not be used, except for incidental repairs.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Check circuitry to ensure adequate power supply for existing space heaters.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If	

possible, include associated referral agencies.
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.
Basic knowledge of fire hazards and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the proper on the identification of fire hazards and how to handle them properly. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
The client shall be informed of hazards and a signed waiver if removal is not allowed.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Space Heaters, Unvented Combustion	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 ___X___	Removal is required, except as secondary heat where the unit conforms to ANSI Z21.11.2. Units that do not meet ANSI Z21.11.2 must be removed prior to weatherization but may remain until a replacement heating system is in place.
Alternative Guidance _____	
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
Testing for air-free carbon monoxide is allowed. Check units for ANSI Z21.11.2 label.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There	

are several training providers on this listing that offer health and safety courses such as Combustion Safety, Supplemental CAZ Testing, HVAC Service Technician, HVAC Installation, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
The client shall be informed of dangers of unvented space heaters: CO, moisture, NO2, CO can be dangerous even if CO alarm does not sound.
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .

Space Heaters, Vented Combustion	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <u> X </u> Alternative Guidance _____	Shall be treated as furnaces
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category. DOE funds may be used.	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP. If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing. Venting should be tested consistent with furnaces, see heating system guidance above.	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category. Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies. Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training. Missouri provides a list of training providers, available on the DED website (http://ded.mo.gov/) that subgrantees may choose from, but are not limited to, at their own discretion. This list is updated monthly with available training providers around the state, their contact information, the courses they offer and course schedules. There are several training providers on this listing that offer health and safety courses such as Combustion Safety, Supplemental CAZ Testing, HVAC Service Technician, HVAC Installation, etc. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	

<p>Clients shall be given all pertinent information on the appropriate use and maintenance of heating systems and the proper disposal of hazardous materials such as fuel..</p>
<p>Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.</p>
<p>Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13-<u>Additional Safety</u>.</p>

Spray Polyurethane Foam (SPF)	
<p>Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.</p>	
<p>Concurrence with WPN11-6 <input checked="" type="checkbox"/> <u>X</u> Alternative Guidance _____</p>	<p>Use EPA recommendations (available online at http://www.epa.gov/dfe/pubs/projects/spf/spray_polyurethane_foam.html) when working within the conditioned space or when SPF fumes become evident within conditioned space. When working outside the building envelope, isolate the area where foam will be applied, take precautions so that fumes will not transfer to inside conditioned space, and exhaust fumes outside the home.</p>
<p>Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.</p>	
<p>DOE funds may be used.</p>	
<p>Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.</p>	
<p>If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.</p>	
<p>Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.</p>	
<p>Check for penetrations in the building envelope. Sensory inspection inside the home for fumes during foam application.</p>	
<p>Standards for Deferral: Describe when deferral should take place for the specific health and safety category.</p>	
<p>Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.</p>	
<p>Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.</p>	
<p>Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.</p>	
<p>Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.</p>	
<p>Basic knowledge of SPF and training for weatherization workers, both in-house and contractor is critical to the protection of the Weatherization clients and the workers themselves. Weatherization workers are to be trained, by the subgrantee, on the proper on the use of SPF and how to handle it properly, along with proper use of MSDS.</p>	
<p>Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.</p>	
<p>The client shall be provided notification to the client of plans to use two-part foam and the precautions that may be necessary.</p>	
<p>Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.</p>	
<p>Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13-<u>Additional Safety</u>.</p>	

Ventilation

<p>Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.</p>	
<p>Concurrence with WPN11-6 <input checked="" type="checkbox"/> <u> X </u> Alternative Guidance _____</p>	<p>ASHRAE 62.2-2013, with inclusion of Addenda a, b, and j is required to be met to the fullest extent possible, when performing weatherization activity. Implementing ASHRAE 62.2 is not required where acceptable indoor air quality already exists as defined by ASHRAE 62.2 or when the exceptions listed below are met.</p>
<p>Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.</p>	
<p>DOE funds may be used.</p>	
<p>Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.</p>	
<p>If the issue is determined to be beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.</p>	
<p>Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.</p>	
<p>ASHRAE 62.2 evaluation, fan flow and follow up testing are required to ensure compliance.</p>	
<p>Standards for Deferral: Describe when deferral should take place for the specific health and safety category.</p>	
<p>Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.</p>	
<p>Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.</p>	
<p>Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.</p>	
<p>Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.</p>	
<p>Missouri provides regional and on-site training upon request for the ASHRAE 62.2 standards. Missouri requires at least one staff at each subgrantee to be trained in the technical standards to meet ASHRAE 62.2 requirements. A listing of training providers for health and safety classes is posted on the Missouri weatherization web site for all subgrantees to access. Missouri also requires each agency to have a BPI certified Building Analyst, which has health and safety criteria and requires recertification every three years. Additionally, all homes completed must have a final inspection performed by a certified Quality Control Inspector. Missouri is also providing Tier I and Tier II training in accordance with WPN 15-4.</p>	
<p>Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.</p>	
<p>The client shall be provided with information on function, use and maintenance of ventilation systems and components. Include disclaimer the ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality.</p>	
<p>Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.</p>	
<p>Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13-<u>Additional Safety</u>.</p>	
<p>ASHRAE 62.2 Compliance: Provide a narrative describing implementation of ASHRAE 62.2, which will be required during the 2015 program year. Grantees must provide justification if making changes to AHRAE 62.2 specific to their housing stock and local considerations.</p>	
<p>Ordered complete and most current copy of ASHRAE 62.2 for training purposes and make information available to sub-grantees. Update technical standards to meet ASHRAE 62.2 requirements. All homes audited after July 1, 2015 will be required to comply with ASHRAE 62.2-2013 standards, with inclusion of ASHRAE 62.2-2013 Addenda b.</p>	

All installed mechanical ventilation will be required to follow the guidelines of ASHRAE 62.2.

Window and Door Replacement, Window Guards	
Concurrence or Alteration: Check if you concur with existing guidance from WPN 11-6 or if you are using an alternative Action/Allowability. Include the guidance from WPN 11-6 or alternative guidance in the space provided. Alternatives must be explained and comply with DOE guidance. Note: Where an Action/Allowability or Testing is “required” or “not allowed” through WPN 11-6, the grantee must concur or choose to defer all units where the specific issue is encountered. Allowable items under WPN 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.	
Concurrence with WPN11-6 <input checked="" type="checkbox"/> Alternative Guidance _____	Replacement, repair, or installation is not an allowable health and safety cost but may be allowed as an incidental repair or an efficiency measure if cost justified.
Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.	
DOE funds may be used per above stipulations	
Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP.	
If the issue is determined to beyond the scope of the DOE WAP, subgrantees will defer the work and refer the client to other resource agencies who may be able to address the problem. Refer to the deferral section above for additional deferral criteria.	
Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.	
N/A	
Standards for Deferral: Describe when deferral should take place for the specific health and safety category.	
Deferral should be exercised when existing issues are beyond the scope of the DOE WAP. For additional deferral criteria, see deferral policy above.	
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.	
Referral should be made to local community organizations or other sections within the subgrantee organization, if possible, when problems are identified that are beyond the scope of the DOE WAP. If the client is a renter referral may also be made to the landlord.	
Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.	
Weatherization workers are to be trained, by the subgrantee, on the proper rules and guidelines regarding doors and windows.	
Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.	
The client shall be provided information on lead risks.	
Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.	
Disposal procedures can be found in the Missouri Operations Manual Section 3, Subsection I, Part B, 13- <u>Additional Safety</u> .	

V.8.3 Monitoring Activities (PY2016)

I. INTRODUCTION

The State of Missouri historically has administered the Weatherization Assistance Program (WAP) through a supervised network of nonprofit Subgrantee agencies. The State may procure new implementation subgrantees as described elsewhere in this document. As the granting agency for the statewide program, the DED/DE is responsible for monitoring the performance of each WAP Subgrantee.

DED/DE conducts a fiscal/procedural risk assessment each year for all subgrantees to determine the percentage of client files that will be reviewed during the upcoming monitoring year. Based on the risk assessment, fiscal/procedural monitors will review a minimum of 5% of the client files of each of the subgrantee homes that they completed during that year (or a minimum of 10 client files, whichever is greater). For medium risk subgrantees a minimum of 9% of the client files of each of the subgrantee homes that they completed during that year will be reviewed (or a minimum of 15 client files, whichever is greater). For high risk subgrantees a minimum of 18% of the client files of each of the subgrantee homes that they completed during that year will be reviewed (or a minimum of 20 client files, whichever is greater). Every subgrantee is monitored at least once in the program year.

DED/DE conducts a technical risk assessment each year for all subgrantees, which determines the percentage of homes that will be inspected during the upcoming monitoring year. Based on the risk assessment, for subgrantees assessed as low risk, technical monitors will inspect a minimum of 5% of each of the subgrantee homes that they completed during that year. For subgrantees assessed as medium risk, technical monitors will inspect a minimum 7.5% of each of the subgrantee homes that they completed during that year. For subgrantees assessed as high risk, technical monitors will inspect a minimum 10% of each of the subgrantee homes that they completed during that year. Additionally, for subgrantees where the auditor performs both the initial audit and final quality control inspection, as described in WPN 15-4 Section 3, the technical monitors will inspect a minimum of 10% of each of the subgrantee homes that they complete during that year. Technical monitors also inspect initial audits, homes in progress and final inspections being performed by subgrantee staff during technical monitoring visits, when applicable. Technical monitoring visits are conducted twice per year for each subgrantee. One half of the total number of homes to be inspected for the year is inspected during each monitoring visit. All subgrantee final inspections as well as grantee technical monitoring for completed homes reported in Program Year 2015, and beyond, will be performed by a certified Quality Control Inspector as outlined in WPN 15-4 Section 3.

A. Monitoring Procedure

Monitoring enables DED/DE to determine if the residents of Missouri are being adequately served and if the WAP is being operated in compliance with the

federal/state regulations and requirements. Information obtained by the monitoring effort is used to determine:

- Internal controls and processes used by subgrantees
- Types of training and technical assistance required
- Fiscal integrity of subgrantees
- Production rates
- Proactive measures that may be taken to improve program operations
- Compliance with federal/state regulations and requirements
- Quality of weatherization work performed on clients homes
- Programmatic and Management Monitoring
 - Subgrantee Review
 - Subgrantees are reviewed through desk reviews and on-site monitoring visits.
 - Financial/Administrative
 - Desk reviews are conducted on an on-going basis through monthly reports of expenditures; clients served, and completed homes.
 - On-site reviews are held at least once each program year to review procedural, fiscal, technical and compliance issues.
 - Annual independent audits are reviewed to ensure audited financial schedules match financial reports during the year.
 - Equipment/Inventory/Materials
 - An annual equipment inventory is required. Equipment and vehicles are reportable with a cost equal to or greater than \$5,000.
 - Eligibility
 - Eligibility is reviewed during through desk reviews and on-site visits. Any issues of in-eligibility are deducted from future reimbursements.
 - Rental
 - Landlord agreement forms (if applicable) are reviewed to determine authorization from the client's landlord.
 - Landlord proof of income documentation (if applicable) is reviewed to determine the landlord contribution.
 - Feedback and Reporting
 - Monitoring reports are issued with findings and recommendations.
 - Follow-up action as a result of the monitoring report is due within 30 days for fiscal/procedural and 45 days for technical.
 - Energy Audits
 - Energy audits, including on-site evaluations and computerized audits, are reviewed during on-site technical monitoring visits and through desk reviews.
 - Field Work
 - Field work is reviewed during on-site technical monitoring visits.
 - Health & Safety
 - A limit for the average cost per home for Health & Safety costs is twenty percent (20%) of expenditures.

- Installed health and safety measures are reviewed for proper installation
 - Homes monitored are reviewed for any health and safety measures that were not appropriately addressed.
 - Quality Assurance
 - Quality assurance is reviewed on-site during technical monitoring and by tracking subgrantee field inspectors reoccurring issues.
 - Training and Technical Assistance
 - Required technical training is of personnel is review on-site during monitoring.
 - Training and Technical Assistance expenditures are reviewed via desk reviews through monthly reports of expenditures; clients served, and completed homes.
 - Staff or entity performing the monitoring
 - DED/DE staff or contract monitors on behalf of the DED/DE perform the monitoring.
 - How monitoring results are handled and required follow-up procedures
 - Corrective action plans from the subgrantees are required based upon findings from monitoring reports.
 - Required actions noted within the monitoring reports are required to be performed by the subgrantees lest future funding be withheld.
 - Follow-up action as a result of the monitoring report is due within 30 days for fiscal/procedural and 45 days for technical.
- Subgrantee Monitoring
 - Program Overview (Client File Review, Work Orders, etc.)
 - Client Files are reviewed for the following documents: weatherization application, proof of income, re-verification of income (if applicable), proof of ownership, landlord agreement (if applicable), landlord proof of income (if applicable), NEAT or MHEA audit data, invoices, bills for materials and labor charges, work orders/estimates, recommended measures, utility bills, photos, work order changes, date of energy audit, date of final inspection, etc.
 - Annual household income is recalculated to determine compliance with Federal requirements for eligibility.
 - County statistics are reviewed to determine whether all areas are served equally based on population and poverty numbers.
 - Average cost per home is calculated and reviewed.
 - Financial/Administration
 - Subgrantees have appropriate insurance coverage for their agency and their personnel
 - Inventory
 - Materials inventory is valued using the First In First Out (FIFO) inventory valuation method.
 - Energy Audits

- Energy audits, including on-site evaluations and computerized audits, are reviewed during on-site technical monitoring visits and through desk reviews.
 - Qualifications & Training
 - Required training and certifications of subgrantee staff are evaluated on-site and through desk monitoring.
 - Weatherization of Units
 - Work performed on-site is reviewed during technical monitoring visits.
 - Health and Safety
 - A limit for the average cost per home for Health & Safety costs is twenty percent (20%) of expenditures.
 - Installed health and safety measures are reviewed for proper installation
 - Homes monitored are reviewed for any health and safety measures that were not appropriately addressed.
 - In Progress
 - Homes in progress are reviewed on-site during technical monitoring visits.
 - Final Inspections
 - Final inspections are reviewed on-site during technical monitoring visits and through desk monitoring.
 - Staff or entity performing the monitoring
 - DED/DE staff or contract monitors on behalf of the DED/DE perform the monitoring.
 - How monitoring results are handled and required follow-up procedures
 - Corrective action plans from the subgrantees are required based upon findings from monitoring reports.
 - Required actions noted within the monitoring reports are required to be performed by the subgrantees lest future funding be withheld.
 - Follow-up action as a result of the monitoring report is due within 30 days for fiscal/procedural and 45 days for technical.
- Financial Monitoring
 - Financial Management/Accounting Systems and Operations
 - Subgrantee has accounting policies and procedures.
 - Bank reconciliations are performed in a timely manner.
 - Advance funding is deposited into an insured, interest bearing account.
 - Weatherization costs trace to the general ledger.
 - Weatherization reimbursements from DED trace to the general ledger.
 - Audits
 - Follow-up of prior monitoring concerns.
 - Single Audit was performed by an independent auditor and prior audit concerns, if any, were addressed.

- Payroll/Personnel
 - Crew labor is traced to timesheets.
 - Contract labor is traced to the contractor's invoice.
- Vehicles and Equipment
 - All vehicles require both DOE and DED/DE approval before the vehicle may be purchased.
 - Subgrantee completes and submits the Vehicle and Equipment Inventory Report by December 1 of each year.
 - Subgrantee completes and submits the Equipment/Vehicle Disposal Report no later than 90 days from the DED/DE disposal approval letter.
 - Subgrantee completes and submits the Vehicle/Equipment/Building Purchase, Lease Request form for any leases, if applicable.
- Procurement
 - Subgrantee procurement requirements are met per Section VI of the Weatherization Operations Manual.
- Sub-awards/Subgrantee Monitoring
 - Desk reviews are conducted on an on-going basis through monthly reports of expenditures; clients served, and completed homes.
 - Annual independent audits are reviewed to ensure audited financial schedules match financial reports during the year.
- Invoicing
 - Materials, contract labor, crew labor and incidental repair costs per the client file match invoices and work orders in the client file.
- Records Retention
 - All records are kept for three years.
- Staff or entity performing the monitoring
 - DED/DE staff or contract monitors on behalf of the DED/DE perform the monitoring.
- How monitoring results are handled and required follow-up procedures
 - Corrective action plans from the subgrantees are required based upon findings from monitoring reports.
 - Required actions noted within the monitoring reports are required to be performed by the subgrantees lest future funding be withheld.
 - Follow-up action as a result of the monitoring report is due within 30 days for fiscal/procedural and 45 days for technical.

B. Tentative Monitoring Schedule

Each subgrantee has fiscal monitoring occur once a year and technical monitoring occur twice a year. Below is a tentative monitoring schedule for PY16.

Subgrantee # From Annual File	Subgrantee Acronym	Fiscal Monitoring*	Technical Monitoring Visit 1*	Technical Monitoring Visit 2*
1	CSI	3/1/2017	9/28/2016	3/7/2017
2	DAEOC	3/23/2017	11/9/2016	4/11/2017
3	EMAA	1/26/2017	10/19/2016	3/22/2017
5	ESC	12/9/2016	8/30/2016	2/1/2017
6	GHCAA	10/26/2016	9/8/2016	2/8/2017
7	CMCA	6/1/2017	10/26/2016	3/28/2017
8	ULMSL	10/7/2016	11/30/2016	4/25/2017
9	JFCAC	3/1/2017	12/14/2016	5/9/2017
11	CAASTLC	6/28/2017	11/2/2016	4/4/2017
12	MOCA	3/29/2017	10/12/2016	3/14/2017
13	MVCAA	3/22/2017	10/19/2016	3/21/2017
14	NECAC	11/7/2016	9/28/2016	2/29/2017
15	NMCAA	6/6/2017	9/14/2016	2/15/2017
16	OAI	1/12/2017	9/21/2016	2/22/2017
17	OACAC	5/9/2017	12/7/2016	5/2/2017
18	SCMCAA	3/28/2017	11/9/2016	4/11/2017
19	WCMCAA	1/5/2017	9/8/2016	2/8/2017
36	USCAA	4/26/2017	11/16/2016	4/18/2017

* Dates are tentative and visits are for the week of the date.

II. PROBLEM RESOLUTION:

A variety of problems may arise during the course of a program year which may require different methods of resolution. Most problems can be placed into one of four categories:

1. Reporting

Reporting problems can generally be resolved using written communication explaining the problem. Where the problem is significant, an on-site visit will be made to gather the correct data and assist the Subgrantee in developing better reporting procedures.

2. Housing Quality

A housing quality problem may be noticed during a field visit. Where significant problems are found in the workmanship on the home, the Subgrantee will be required to return to the home(s) and correct the problem. Where a problem is found to be widespread, the Subgrantee will be required to notify DED/DE of the resolution to the problem following procedures as defined in the Weatherization Program Operational Manual. This may include informal or formal staff training.

3. Safety

For safety issues, the Subgrantee will be required to correct all deficient work and to re-inspect all completed homes with similar concerns, providing routine updates to DED/DE until all concerns are corrected. DED/DE will re-inspect to verify that

corrections have been made either through an on-site inspection or by telephone contact with clients.

4. Fiscal Compliance

DED/DE will require subgrantees to take corrective action when a Subgrantee is not in compliance with the federal and state requirements. The action taken will depend upon the nature of the problem. If, for example, a problem involves a disallowed cost, the Subgrantee will be required to repay DED/DE. DED/DE will require the Subgrantee to provide documented evidence of corrective action(s) when DED/DE has determined that the Subgrantee is not in compliance. DED/DE will monitor subgrantee implementation of corrective actions during annual on-site monitoring visits.

The processes that DED/DE follows for the discipline and/or removal of a subgrantee from the program are outlined in the Weatherization Program Operational Manual, Section 1, Subsection V and Subsection VI.

III. IMPROVEMENTS BASED ON PAST YEARS' EXPERIENCES

The Weatherization Assistance Program will continue to be upgraded to keep current with new accepted technology and improved ways of conducting business such as pressure diagnostics testing, use of infrared camera in the field, BPI certifications and NREL JTAs.

IV. QUALITY CONTROL MEASURES

A. Statewide Requirements

1. Inspections

See the Missouri WAP Grantee Master File V.5.3.

2. Work Measures

See the Missouri WAP Grantee Master File V.5.1.

B. Purchasing Controls

1. Materials Specifications 10 CFR 440 Appendix A (Revised)

Each Subgrantee is required to specify material standards in their bid documents. Materials are required to meet or exceed standards specified in the most current 10 CFR Part 440 Appendix A and the Missouri WAP material standards list. DED/DE requires all materials have a long term life expectancy, if applicable. Missouri Subgrantees require that vendors submit certification documentation for all major weatherization materials such as insulation and storm windows. Bid and contract documents are reviewed by DED/DE.

2. Materials Purchasing Standards

Standards for competitive bidding are detailed in the Weatherization Program Operational Manual; Procurement Section.

C. On-Site or Local Controls

1. Responsibility for Post-Work Inspections

DED/DE monitoring staff reviews the homes completed for each Subgrantee for compliance with either the Independent QCI or Independent Auditor/QCI as outlined in WPN 15-4 Section 3 DOE Prescribed QCI Policy.

2. Accuracy of Work Orders and Inspections

The Subgrantee Quality Control Inspectors are required to assure that proper work priorities were followed and that the work has been properly performed. DED/DE monitoring staff will review the process. A Subgrantee having problems will first be provided more technical assistance. Continued problems will result in further steps beginning with disqualification of Subgrantee inspectors and ending with the subgrantee loss of DED/DE funding. DED/DE will implement this provision to emphasize the importance of completing work in a cost-effective and quality manner.

V. MONITORING REPORTS

DED/DE will submit a monitoring report (fiscal/procedural and technical) to the subgrantee within 30 days of a monitoring visit. For subgrantee fiscal/procedural monitoring reports that contain recommendations that require implementation, DED/DE requires that the subgrantee submit a corrective action plan within 30 days of receipt of the report. For subgrantee technical monitoring reports that contain recommendations that require implementation, DED/DE requires that the subgrantee submit a corrective action plan within 45 days of receipt of the report. All corrective actions are reviewed for implementation during the subsequent fiscal/procedural or technical monitoring visit.

DED/DE will report progress to DOE using the following method:

A. Submitting an Annual/Project Summary Report

The annual/project summary report documents the following:

- Number and types of monitoring visits scheduled and completed
- Significant findings
- Findings status
- Significant corrective actions
- Current management issues
- Assistance needs

An annual summary report will be provided to DOE giving an overview of the year end and the status of activities that were planned.

VI. STAFFING FOR MONITORING ACTIVITIES

DED/DE staff are listed below by title and should correlate to the personnel section of the SF424A. Please note, this will not completely match the SF424A as not all positions or personnel services are utilized for monitoring activities.

Environmental Manager B2: Procedural/Fiscal Monitor and Monitoring Report Approval, Technical Monitoring Report Approval - **Grantee T&TA, 20% and Grantee Admin, 10% for this application**

Management Analysis Specialist I: Procedural/Fiscal Monitor (incl. payment desk monitoring) - **Grantee T&TA, 20% and Grantee Admin, 25% for this application**

Energy Specialist IV (Procedural): Procedural/Fiscal Monitor and Monitoring Report Reviewer and Approval - **Grantee T&TA, 50% and Grantee Admin, 20% for this application**

Environmental Specialist III: Technical Monitoring, Building Performance Institute (BPI) Quality Control Inspector; BPI Building Analysts Professional; BPI Envelope Professional; EPA Certified Renovator; National Environmental Health Association Health Homes Specialist; Energy Related Mold and Moisture training - **Grantee T&TA, 80% for this application**

Environmental Specialist III: Technical Monitoring, Building Performance Institute (BPI) Quality Control Inspector; BPI Building Analysts Professional; EPA Certified Renovator; National Environmental Health Association Health Homes Specialist- **Grantee T&TA, 80% for this application**

Energy Specialist IV (Technical): Technical Monitoring, Building Performance Institute (BPI) Quality Control Inspector; BPI Building Analysts Professional; BPI Envelope Professional; EPA Certified Renovator; National Environmental Health Association Health Homes Specialist; Energy Related Mold and Moisture training - **Grantee T&TA, 80% for this application**

Energy Specialist III: Procedural/Fiscal Monitor (including desk review of payment submissions and reports) - **Grantee T&TA, 65% and Grantee Admin, 10% for this application**

Energy Specialist III: Procedural/Fiscal Monitor (including desk review of payment submissions and reports) - **Grantee T&TA, 80% and Grantee Admin, 5% for this application**

Auditor I/II: Procedural/Fiscal Monitor (incl. payment desk monitoring) - **Grantee T&TA, 65% and Grantee Admin, 5% for this application**

Account Clerk II: Fiscal Monitor (incl. payment desk monitoring) - **Grantee Admin, 5% for this application**

Fiscal & Administrative Manager: Procedural/Fiscal Monitoring – **Grantee Admin, 5% and Grantee T&TA, 20% for this application**

Administrative Office Support Assistant: Misc. monitoring/report writing duties - **Grantee Admin, 5% and Grantee T&TA, 5% for this application**

Deputy Director: Misc. monitoring/administrative/oversight duties - **Grantee Admin, 5% for this application**