

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET

Identification Number: NT43133, State: KY, Program Year: 2011

This worksheet should be completed as specified in Section III of the Weatherization Assistance Program Application Package.

#### III.1 Eligible Population

##### III.1.1 General Description

###### Definition of income used to determine eligibility:

For a dwelling unit to be eligible for weatherization assistance, it must be occupied by a client/family who must meet one of the following criteria:

1. Total annualized income of the client/family residing in the dwelling to be weatherized is at or below 200% of the poverty level determined in accordance with criteria established by the Director of the United States Office of Management and Budget; or
2. The family unit has a member who has received cash assistance payments under Temporary Assistance for Needy Families (TANF) or Kentucky Transitional Assistance Program (K-TAP) sometime during the 12 month period prior to eligibility determination.
3. The applicant's household contains a member who has received cash payments under Title XVI of the Social Security Act during the twelve (12) months preceding the determination of eligibility, the applicant will be categorically eligible.

Income is defined as the annual total cash receipts before taxes from all sources. These include money, wages and salaries before any tax deductions, but do not include food or rent in lieu of wages. These receipts include net receipts from non-farm or farm self-employment (receipts from a person's own business or from an owned or rented farm after deductions for business or farm expenses). Income also includes regular payments from Social Security benefits, railroad retirement, unemployment and workers compensation, strike benefits from union funds, veterans' payments, training stipends, alimony, and military family allotments, private pensions, government employee pensions (including military retirement pay) and regular insurance or annuity payments; and income from dividends, interest, net rental income, net royalties, periodic receipts from estates or trusts and gambling or lottery winnings.

Income excludes capital gains; any assets drawn down as withdrawals from a bank, the sale of property, a house, or a car; child support payments, college scholarships, one-time payments from a welfare agency to a family or person who is in temporary financial difficulty, tax refunds, gifts, loans, lump-sum inheritances, one-time insurance payments, or compensation for injury. Income also excludes non-cash benefits, such as the employer-paid or union-paid portion of health insurance or other employee fringe benefits, food or housing received in lieu of wages, the value of food and fuel produced and consumed on farms, the imputed value of rent from owner-occupied non-farm or farm housing, and Federal non-cash benefit programs as Medicare, Medicaid, Food Stamps, school lunches, housing assistance and combat zone pay to military.



**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

Each service provider selected to operate the weatherization program will be selected at a public hearing and will be a Community Action Agency or other public or non-profit organization. The service providers are selected based on the Agency's ability to operate programs for low-income families and experience in operating a weatherization or housing rehabilitation/renovation program. Each area is contiguous with the area served by the individual Community Action Agencies or the particular county or municipalities served by local governmental entities, which operate low-income housing rehabilitation programs in their respective areas.

Community Action Kentucky (CAK) has twenty three (23) service providers. Each has a number of years of experience at administering and operating a weatherization program. All are currently operating a program that meets the minimum standards as measured by the grantee during its on-site performance and compliance monitoring.

Those service providers that are identified as not meeting the planned goals of the program, lack in proper supervision, do poor quality work, have not implemented new procedures, exceed cost limitations, experience high overhead, and are overall poor performers, are subject to having their funding levels reduced, until programmatic improvements are made, or are subject to being terminated as a service provider. Prior to taking steps to terminate the service provider, the problems will be identified. The service provider will be contacted and required to submit a Corrective Action Plan outlining the steps to make improvements in the areas identified. Staff of KHC and/or staff of the primary contractor, CAK, will provide assistance to the agency in order to improve the status of a service provider. Any new service providers will be selected based upon required state and federal procedures, which will include an RFP and a public hearing. Any new or replacement service provider will meet the criteria outlined previously.

All service providers will be given the option of subcontracting the weatherization of qualified units with a private sector contractor. This option will be used when it is determined that a service provider cannot effectively manage its personnel in a manner that assures that program standards for completeness and quality of workmanship are maintained or the service provider does not have the trained and certified personnel necessary to perform the tasks.

If a service provider elects to subcontract with a private contractor, it shall follow the established guidelines for private sector contracting outlined in the Weatherization Assistance Program Operation and Policy Manual as explained below:

Private Contracting. Prior to entering into a subcontract with private sector contractors, the service provider must:

- 1) Send a letter signed by the service provider's signatory authority to the Department requesting the option to use private sector general contractors, and

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

2) Submit a detailed plan as to how the program will be operated, including a description of the following areas.

An Approved Contractors List (ACL) must be created and maintained, using the following process:

A. The service provider shall place a legal advertisement in all local newspapers of the geographical area to be served. The advertisement shall solicit licensed, insured, contractors to perform Energy system repairs or replacements and/or regular weatherization. The service provider will conduct an orientation meeting to explain the Weatherization Program, inspection procedures, work procedures, form requirements, bidding procedures, suspension criteria, reimbursement procedures and policy, to all interested contractors.

B. The contractors will complete a Weatherization Contractor Application (WX-10) and a Non-Financial Agreement (WX-12). Service provider staff will closely review the information and verify all the information using the Contractor's Work Reference (WX-11).

C. If the contractor meets all the criteria, the WX-12 will be signed by the appropriate service provider staff. The service provider will notify the contractor in writing to acknowledge approval or disapproval. If disapproved, the reasons will be documented in the letter.

D. Once a list has been developed, a procedure meeting will be scheduled for all participating contractors. The program policies and procedures will be explained in detail and all applicable forms and manuals will be discussed as needed. All contractors will be required to attend this meeting. All contractors shall provide a Certification of Insurance, which shall be kept on file by the service provider.

E. Service providers shall allow private contractors an opportunity to apply annually. If the service provider needs additional contractors during the year, the ACL can be re-opened.

F. The service provider can remove a contractor from the ACL for reasons covered under the non-financial agreement, bidding procedures, suspension criteria, or other related service provider policies. The contractor must be notified in writing of the reasons and be given an opportunity to respond.

Bidding Procedures: The service provider must submit a description of the bidding procedures that includes the following:

A. Compliance with all program policies;

B. Criteria for measurements, quantities, locations and change orders;

C. Method(s) to resolve discrepancies between the dwelling needs evaluation and the

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

contractor's interpretation of the measure descriptions;

D. Procedures for completing the contractor's bid;

E. Starting dates, extensions, change orders, inspections, and completion dates;

F. How bids will be awarded; and

G. Posting of a spreadsheet to provide documentation of the winning bid.

Award of Bids. The service provider will perform the dwelling needs evaluation and be required to adhere to the following procedures to award the bids:

A. The service provider will send letters to all contractors on the ACL an invitation to bid, work orders, all applicable forms, and the deadline for submitting the bid.

B. Contractors are required to submit bids on the WX 900P, Work Order.

C. The service provider will review the bids to compare with the service provider's estimate. The contractor's bid must fall within a range of 10%, of the service provider's estimate, to be eligible. From the pool of eligible bids, the service provider will determine the lowest or best bid.

D. If all bids exceed the 10% limitation, they shall be returned to the contractors for a re-bid. If the second bid exceeds the estimate, the work order must be reviewed and a decision made to award the bid.

E. The contractor will be notified and the Agency/Contractor Agreement (WX-14) signed by both parties.  
Change Orders: If at any time during the work process, any changes, additions, or deletions are needed, the service provider, contractor and applicant must agree and sign a Change Order (WX-15).

In Progress Inspections, Final Inspections and Reimbursement: An on-site in-progress inspection may be performed at any time. When the job has been completed, the contractor will complete and send a Notice of Completion (WX-16) and the Final Invoice (WX-17) to the service provider. The service provider will schedule a final inspection and if the work meets program standards, the reimbursement process will begin. If the work fails to meet program standards, the service provider will list the deficiencies on a Deficiency Notice (WX-16A) and allow the contractor to correct the deficiencies. After the re-work, the service provider will perform a re-work inspection.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

**III.1.3 Priorities**

Priority shall be given to identifying and providing weatherization assistance to families whose annual household income does not exceed 200% of the poverty level. Once this has been established, the household will be prioritized according to its occupancy with preference given to those households containing an individual who is elderly, a young child, or disabled. Also, a pattern of high energy usage is factored into the priority ranking. In situations where a household includes a child at risk of being removed from the home due to sub-standard conditions, the priority ranking is waived altogether so that service can be rendered without delay.

Applications are taken throughout the contract period and maintained until services are provided. The service providers are required to re-prioritize applications on a regular basis. If the application is on file longer than twelve (12) months, the agency must contact the client to re-verify the information given at the time of application before service is provided. If the family size or source of income has changed, a new application must be processed.

Each eligible household is prioritized for selection to receive assistance. This is accomplished by the information gathered on the WX-800 through a point system. More points are given for elderly and disabled family members, households with the lowest annual income which use the highest percentage of their income for residential energy costs, and households which use the highest cost fuels per BTU of energy provided. The point spread for this category ranges from two points for 0-6% of income to 15 points for 34% and above of income. The primary fuel type is also evaluated with a point spread of from 2 to 8 points with electricity receiving 8 points and coal receiving 2 points. In addition, if a household has members who are elderly or disabled, an additional 4 points will be added if the household's energy source is wood or 6 points if the energy source is coal. Households with children under the age of six will receive an additional 5 points.

Households that are eligible and have children identified by the Department for Community Based Services local office as being at risk of being removed from the home, if the home conditions are substandard and are in need of weatherization, will be red flagged as priority and will receive service immediately.

The service provider will be required to review and prioritize all WX- 800s (single family) on a regular basis, at least every six (6) months, in order that those applicants with the highest priority ranking are served first. Applicants not receiving sufficient priority ratings for the period reviewed will be annotated and will remain eligible for the following period. Service providers have the option of prioritizing applications by county

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

or for the entire service area, whichever helps the service provider utilize the work crews in the most cost-efficient manner.

It will be the responsibility of each service provider to assure that major political subdivisions of its service area receive the same outreach and intake opportunities relative to their share of eligible household population. Each service provider must have the capacity to find and identify eligible households throughout its service area. KHC will monitor each service provider's files on a routine basis to assure that sufficient applications are being taken throughout its service area.

**Documentation of Eligible Units.** To be eligible for Weatherization services, a dwelling unit must be occupied by an eligible family unit as described above, a completed application must be on file and all client information verified and approved.

Applicant income levels will be verified and documented through the use of the most recent check stub or bank statement, Social Security checks, LIHEAP applications, Department for Community Based Services' TANF or K-TAP programs or food stamps verification printouts or other similar records. The intake worker will obtain these records during the application process. The application and supporting documentation will be reviewed and verified by the Weatherization Program Coordinator. The Weatherization Program Coordinator must sign the WX 800 certifying eligibility before any work can be done to the dwelling.

**Dwelling Eligibility Criteria:** Service providers will not be allowed to use contract funds to install Weatherization materials or provide other Weatherization services to a dwelling previously served with contract funds unless one of the following conditions exist:

1. The dwelling unit has been damaged by fire, flood, or other Act of God and repair of the damage to Weatherization material is not covered by insurance.
2. A KHC representative has determined that appropriate or sufficient materials were not originally installed in the dwelling.
3. Dwelling units weatherized prior to September 30, 1994, may receive further Weatherization. These dwellings will receive a new dwelling needs evaluation and will be eligible for services. Dwelling units whose principle purpose is to house individuals, on a temporary basis, are shelters and are eligible to receive service. Nursing homes, prisons, or similar institutional care facilities are not eligible. Each 800 square feet or each floor of the shelter will count as one dwelling unit.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

Rental Property.

A WX Rental (Agency/Landlord Weatherization Agreement for Rental Property) must be signed by both parties documenting and certifying they agree to comply with the terms of the agreement before weatherization work is initiated. See III.5 Rental Procedures for a complete description of rental property.

Supplementation of Funds. The service providers will use funds provided under this grant to supplement, and not supplant, state or local funds.

In subcontracts, the wording is such as to restrict using Weatherization funds to supplant state or local funds. Where local funds provide related dwelling repair services, Weatherization funds will be strictly used for approved conservation measures.

**III.2 Climatic Conditions**

Initial blower door training, pre- and post-test implementation have confirmed that the housing stock encountered in Kentucky's weatherization program is extremely leaky in terms of air infiltration and lacks adequate insulation. The NEAT/MHEA or EQ-QUIP (appropriately) audit will be used for every evaluation performed. Appropriate measures for the State's housing stock and climate will be selected from the audits measures list. Audit results will ensure that the installed measures reflect the housing stock and climate through the application of local weather parameters and current dwelling characteristics and energy use data. Blower door use on every dwelling will indicate only the essential air infiltration measures that are needed and assure minimum ventilation requirements are maintained. There are not enough differences in the climatic conditions in the state to have any major effect on the NEAT or MHEA audits.

**III.3 Weatherization Work**

**III.3.1 Type of Work to Be Done**

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

Weatherization measures will be selected from those available through the NEAT or MHEA and specific additional itemized measures that are included in the listed measures categories. Installed measures will be limited by the audit and allowable federal and state cost limits.

**Type of Work**

Measures could include but are not limited to the services listed below:

**Health and Safety**

**Health and Safety Justification**

The average H&S amount per dwelling for the Kentucky WAP has been approved at \$1,000 dollars, or more, for seven years. When analyzing this history, the percentage of health and safety is far greater in the earlier years due to the lower overall allowable cost per unit and the availability of LIHEAP funding. In 2009 our approved maximum H&S average per unit was increased to \$1,200 along with the increase to \$6,500 allowable maximum weatherization average per unit. However our LIHEAP transfer funding was taken away at this same time resulting in a reduced ability to exceed with other funding if necessary.

**ALL WEATHERIZATION**

	<b>2004-2005</b>	<b>2005-2006</b>	<b>2006-2007</b>	<b>2007-2008</b>	<b>2008-2009</b>	<b>2009-2010</b>
	<b>YTD</b>	<b>YTD</b>	<b>YTD</b>	<b>YTD</b>	<b>YTD</b>	<b>YTD</b>
Program						
Support	1,772,151.00	1,969,471.00	2,020,671.00	2,034,569.00	2,583,259.00	4,742,554.00
WX						
Material	676,239.00	653,380.00	1,600,441.00	1,389,061.00	2,276,482.00	4,046,290.00
WX Labor	529,599.00	526,164.00	2,467,291.00	2,257,922.00	2,987,427.00	5,136,781.00
Vehicles						
&						
Equipment	158,119.00	127,591.00	156,084.00	5,995.00	514,919.00	1,616,027.00
H&S						
Material	1,170,931.00	1,370,895.00	683,350.00	552,260.00	814,648.00	1,353,579.00
H&S						
Labor	2,318,181.00	2,407,502.00	720,844.00	736,874.00	871,299.00	1,412,334.00
H&S %	52.66%	53.56%	18.36%	18.48%	16.78%	15.11%
	<b>6,625,220.00</b>	<b>7055003</b>	<b>7648681</b>	<b>6976681</b>	<b>10048034</b>	<b>18,307,565.00</b>

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

The following chart represents a 6% random sampling of health and safety measures completed on units in the first quarter of 2011 production. A random numbers chart was utilized for unit selection and job numbers for all selected units can be provided. Evaluation labor is an estimate (2 hours) of time spent during the evaluation and test-out procedure. The LSW figure is also an estimate attributed to the fact that 50% of units in Kentucky's WAP are trailers and of the single family units an estimated 75% are pre-1978.

The heightened awareness of indoor air quality, due to implementation of ASHREA 62.2, will bring an increase to the frequency rate of which mechanical ventilation is used in our state. Also an increase in pre-evaluation and final test out time will result when this new H&S plan is fully implemented. This additional time will be necessary to spend with the client to carefully explain new elements such as the need for ventilation along with gathering written documentation that demonstrates the weatherizing agency has performed due diligence with respect to informing and educating the client of any known or perceived hazards.

Allowed Measure	Percentage of Frequency	Average cost of Measure	Total
Combustible Gas (leaks and proper supply piping to meet code)	10.29%	\$50.00	\$5.15
Combustion Venting (repair & bringing existing venting systems up to code)	39.71%	\$150.00	\$59.56
Combustible surface (brining heat systems into clearance, and safety compliance)	8.82%	\$100.00	\$8.82
Other Appliance Repair (mainly repair to secondary heat systems water heaters)	10.29%	\$50.00	\$5.15
Heating Unit Repair	35.29%	\$225.00	\$79.41
Heating Unit Replace	36.76%	\$2,000.00	\$735.29
Smoke/CO Detector	94.12%	\$55.00	\$51.76
Lead Safe Work practices	37.50%	\$200.00	\$75.00
Duct Replace / Install	10.29%	\$100.00	\$10.29
Mechanical Ventilation	14.71%	\$550.00	\$80.88
Evaluation Labor	100.00%	\$75.00	\$75.00
		\$3,555.00	\$1186.31

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

**Infiltration Reduction**

Repairs to all areas of significant air infiltration, including attic bypasses and repairs to tighten heating ducts. Less significant areas of air infiltration can be addressed after all audit measures have been completed, provided the expense does not exceed the maximum cost per dwelling.

**Baseload**

Water heater jacket, duct wrap or any energy using items that are not heat and cooling systems. Replacement is dependent upon NEAT/MHEA or EA-QUIP Audits Low Flow Showerheads Minimum of 1 as plumbing conditions permit Fluorescent Light Bulbs - Minimum of 2 Refrigerator Replacement - Units to be replaced shall be taken to a facility, licensed to reclaim refrigerant. No refrigerator taken out of service shall be sold or returned to service. Refrigerator replacements are basic units that do not include ice makers or water dispensers. Two sizes are provided depending on the occupancy of the dwelling: 14 cubic feet for homes of 3 persons or less and 18 cubic feet for homes with 4 persons or more.

**Attics**

Attic insulation and incidental repairs.

**Walls**

Wall insulation and incidental repairs.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

**Floors**

Floor insulation, water pipe wrap and other incidental repairs.

**Incidental Repairs**

Incidental Repairs are those repairs necessary for the effective performance or preservation of weatherization materials. When a repair activity is a component of an energy efficiency measure that is being installed then the installation and materials are part of the efficiency measure and are classified as incidental repair. 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. Roof repair, knob and tube removal (including the installation of replacement wiring) for protection of and safety of insulation measures, minor electrical repairs (installing miscellaneous wiring, junction boxes and covers to ensure connections meet code), electrical upgrades to handle extra load for HVAC replacement, all of these meet the definition of incidental repair and are allowed as such. The cost of incidental repairs must be included in the cost of the package of measures.

**Dwelling Needs Evaluation**

Prior to any work being done on a dwelling, the dwelling must receive a Dwelling Needs Evaluation (DNE) as described below. Only those weatherization measures that are identified by the DNE can be performed. In addition, these measures cannot exceed cost limitations.

A. Site Eligibility and Dwelling Needs Evaluation Standards. Each dwelling will have a walk-through inspection of its interior, exterior and immediate surroundings. If any of the following conditions are identified, and cannot be corrected within the scope of the program, the dwelling may not be eligible for weatherization until the conditions are corrected.

1. Asbestos anywhere on the interior or exterior of the dwelling that would need to be addressed directly or incidentally to perform the weatherization process will be a deferral. Asbestos hazard clearance must be given by a certified testing entity before beginning weatherization activity. Any testing, abatement or clearance activities are not reimbursable by this program.
2. Raw sewage inside the dwelling, under the dwelling or within its immediate surroundings that may pose a health threat to the evaluator or work crews.
3. Flea infestation within the dwelling or in any area outside of the dwelling where service provider staff or sub-contractors would have to work.
4. Sanitation or health problems identified and documented by the service provider staff that pose a health hazard to its employees or sub-contractors.
5. Building or site conditions identified and documented by the service provider that pose a health and safety hazard to its employees and sub-contractors and cannot be corrected.
6. Major moisture problems that cannot be corrected, such as:

**III.3.2 Energy Audit Procedures**

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

Kentucky received approval to use the NEAT Audit for determining the most cost effective measures on all site-built dwellings in 2009. All dwellings to be weatherized must have either a NEAT/MHEA audit or any other DOE approved audit software performed.

In addition to using the NEAT/MHEA audit or any other DOE approved audit software performed, each dwelling's energy system is inspected for health and safety and receives repairs as necessary. The evaluators have been equipped and trained to measure for heating unit efficiency in the dwelling evaluation process. These inspections and extent of repairs include all fuel lines, the primary heating unit, other combustible fuel appliances and all exhaust gas venting.

<u>Unit Types</u>	<u>Audit Procedures and Dates Most Recently Approved by DOE</u>
Single-Family	NEAT audit approved October 2009
Multi-Family	EA-Quip audit approved 2010 - DOE approved software for buildings of 5 units or more
Mobile Home	MHEA audit approved October 2009

**III.3.3 Final Inspection**

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

Each dwelling unit will be reported as completed only after a service provider has performed a final inspection and certified that applicable work has been completed in a skillful manner, in accordance with the measure priorities determined by the audit procedures and in compliance with federal and state material specifications and installation guidelines.

The service provider will perform a thorough and complete post inspection in accordance with all standards in KY's program. The final inspection will not be performed by the same person who performed or installed weatherization measures or health and safety measures listed on the Work Order.

Each dwelling will receive energy systems safety tests and a blower door test. A back-drafting, worst case scenario, test will be performed on all vented combustion appliances.

This final inspection is documented and accomplished through the use of the "Completed Dwelling Report", (WX-710). The WX-710 is designed for service providers that use either staff work crews or private sector contractors. An appropriate service provider representative must fill out and sign the WX-710 before a dwelling can be reported as complete. The WX-710 requires the inspector to sign a statement certifying that all material installations complied with minimum standards and include job cost, blower door and client demographic information. Service providers are required to submit a copy of the Completed Dwelling Report (WX-710) for every unit reported as completed on the WX702.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

**III.3.4 Assessment of Effectiveness**

A WX702 is generated by each Weatherization Assistance Program service provider based on the production and expenditures. The report provides material, labor and overhead expenditures and number of completed dwellings on a monthly and cumulative basis. This information is then used to calculate average costs per dwelling for materials, labor, and overhead in the energy system and structural weatherization work components and an overall total cost average for each category. These reports are reviewed monthly and the averages compared with similar service providers and to each service provider's planned production and expenditure goals. Any apparent problems are addressed as needed.

When a service provider is identified during on-site monitoring or on monthly reports as exhibiting a pattern of poor work orders, poor work quality, or low production, a training and technical assistance visit is scheduled or a phone call is made, whichever is appropriate. The visit will focus on the specific problem and involve both desk review and field training. Follow up monitoring is performed and a repeat visit is made if necessary.

Guidance containing material specifications and installation standards are distributed to each service provider. All service provider evaluators receive training on inspection procedures using blower doors, carbon monoxide detectors and combustible gas detectors. All crews and contractors receive training on work procedures using blower doors. Once the evaluators, crews and contractors are fully trained and certified by the state program that they can competently use the equipment and follow the required procedures, a service provider will not receive reimbursement for any identified completions out of compliance with program guidance until corrections are made.

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

#### III.4 Health and Safety

Allowable energy related health and safety actions are those actions necessary to maintain the physical well being of both the occupants and/or weatherization workers where:

Costs are reasonable as determined by DOE in accordance with this approved Master Plan;  
The actions must be taken to effectively perform weatherization; or  
The actions are necessary as a result of weatherization work.

The average cost for abating health and safety hazards shall not exceed 15% 24% of the final average cost per unit. No single unit shall exceed \$2,000 \$2,500 of health and safety cost, without written approval from KHC. Health and safety activities that are not direct components of an efficiency measure shall be charged as a health and safety cost.

Kentucky Weatherization (KY WX) addresses general Health and Safety (H&S) extensively in its Weatherization Program Manual (WXPM). The grantee, Kentucky Housing Corporation (KHC), oversees the content and updating of the WXPM as needed. The WXPM functions as the primary guidance for compliance for KHC's sub-grantee(s) and their subcontractors. In this manner, a reliable source of H&S regulations is always available to the program operators, and a consistent system is in place that is readily understood by all participants. KHC anticipates issuing a revised WXPM 9/1/2011. A draft manual revision will be put out for comments by 8/19/11. The Health and Safety (H&S) chapter will outline all current and in progress health and safety procedures covering the specific health and safety issues, action/allowability, testing, client education and training requirements. Any transitional aspects of the health and safety plan are targeted to be in force 6/30/12.

The weatherizing agency must determine presence of at-risk occupants before proceeding with evaluation services. The Health & Safety Client Application and Home Screening Questionnaire form must be reviewed and signed by the client and evaluator before the evaluation is started. Crew and client H&S issues are viewed as closely linked in the areas of site conditions and work procedures. Working from this concept, which assumes that any hazard associated with a work site, whether it is a work practice, an existing condition, client behavior, and so forth, has the potential of harming both crew and client, a holistic approach towards H&S is taken throughout the entire process of weatherizing a home, with special emphasis given to the initial inspection. This is most clearly illustrated in the Health and Safety and Dwelling Needs Evaluation Chapters of the WXPM which, among other things, provides a step by step procedure for identifying H&S problems and the action steps that need to be taken to address them. The 9/1/11 revised manual will include any additions mandated by the Department of Energy Weatherization Program Notices 11-6 & 11-6a and a time line for complete implementation of these additions.

All of this is contingent on having well trained inspectors. KY WX has in place a certification process which ensures a knowledgeable, qualified individual is the first person on the job-site. Therefore H&S issues are revealed before any work is ever done. This goes a long way towards preventing any harm befalling either crew or client. KY WX inspectors (or "evaluators") must have passed or participated in training in the following areas:

Dwelling Needs Evaluation Training  
Blower Door Usage  
NEAT/MHEA Audit Usage and Interpretation

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

Energy Systems Training  
Lead Based Weatherization Safe Work Practices  
CPR/Basic First Aid  
Energy Related Mold and Moisture (includes Indoor Air Quality)  
Basic A/C and Heat Pump Inspection  
Asbestos Identification (new requirement - target implementation date 2/28/12)  
OSHA Safety (new requirement - target implementation date 2/28/12)  
RRP Certified Renovator  
Other training courses determined to be necessary by KHC

#### Health & Safety Issues

As potential hazards are identified, they are analyzed in terms of their severity and how they will be dealt with, up to and including deferral. Wherever possible, measures should be considered through the cost justification method of an SIR>1 as an Energy Conservation Measure (ECM) first, before using funds from the H&S allocation. Clients must always be informed of any Health or Safety risk discovered during the evaluation process in writing and written confirmation of receipt of that information by the client must be obtained and kept in the client file. A listing of Health and Safety issues are compiled, any of which that can't be corrected can result in a deferral on any given project. They are as follows:

#### Air Conditioning and Heating Safety

"Red tagged", inoperable or nonexistent heating system replacement, repair, or installation is allowed where climate conditions warrant, unless prevented by other guidance herein. Kentucky climate involves a defined heating season with a Heating Degree Day (HDD) measurement range from 4200 to slightly over 5000. However the state also has a shorter but taxing cooling season. The Cooling Degree Day (CDD) measurements in Kentucky range from 1500 to slightly less than 1000 in the eastern most mountainous region. The vast majority of the state shares the same HDD measurements as northern parts of states such as South Carolina, Georgia, Alabama, Texas, Oklahoma and New Mexico.

Research indicates of all people who die of heat stroke, about 80 percent are age 50 or older. Deaths attributed to lung disease, diabetes and hypertension increase more than 50 percent during heat waves. Heat stroke occurs 12 to 13 times more frequently in people age 65 and older than in younger persons. It is also an accepted medical fact that infants and children up to four years of age are very sensitive to the effects of high temperatures and rely on others to regulate their environment.

Considering preventable deaths may illuminate the need for allowing air conditioning measures. While there are no statistics devoted specifically to that category in Kentucky, the next two paragraphs are devoted to understanding the health risks in our state that relate to the statements above.

Each year in Kentucky there are 2,550 lung and bronchus related deaths. According to the Center for Disease Control (CDC), Kentucky: Burden of Chronic Diseases report, in 2005, 5% of Kentuckians died from stroke, and 1,187 people in Kentucky died from diabetes. In 2007, 10% of adults in Kentucky reported being diagnosed with

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

non-pregnancy related diabetes.

While hypertension is the most prevalent cause of stroke and kidney failure, hypertension must be recognized as part of a bigger disease conglomerate almost always accompanied by obesity, diabetes, kidney disease or many other co-existing problems involving lifestyle and/or genetics. The same CDC report referenced above states that 30% of Kentucky adults have high blood pressure which puts us above the national average of 25%. The report goes on to state 39% of those surveyed had high blood cholesterol, which puts them at greater risk for developing heart disease and stroke.

Air conditioning is the number one protective factor against heat-related illness and death effecting people with health issues such as stated above. Therefore air conditioning system replacement, repair or installation is allowed to be categorized as health and safety in homes with occupants under four years old, over 65 years old and where there are at-risk occupants. Air conditioning system replacement, repair or installation must be attempted through cost justification as an ECM first before using H&S funding. Where this measure can be justified by the approved NEAT/MHEA or EA-Quip audit, replacement, repair or installation is not to be included in health and safety.

Persons requesting the need for air conditioning based on their health being at risk must provide a letter from a doctor defining the condition requiring an air conditioned environment and the maximum allowable air temperature relevant to that person's individual condition.

Repair of all combustible fuel line leaks from the meter or tank to the energy system or appliance. Materials must meet federal, state, and local code. Repair (only) of gas cooking appliances in order to eliminate gas leaks and reduce unsafe levels of carbon monoxide in living area. Repair materials must meet federal, state and local code. Installation of protective materials on combustible surfaces adjacent to energy systems to meet NFPA clearance codes is allowable. Materials and installation must meet NFPA specifications. Materials must meet federal, state and local code.

Energy systems are repaired or replaced, under H&S, when not operational or unsafe. This measure is taken in order to eliminate unsafe levels of carbon monoxide in the living area and to ensure adequate heating. Justification documentation in the form of the appropriate heat system checklist (per energy source) which includes all required diagnostic recordings for the individual unit, and photos demonstrating the specific issue(s) with the system must be in the client file. Replacement of operational units, where diagnostic readings are attainable, must be attempted to be cost justified as a ECM using regular weatherization funds with an SIR>1 before using H&S funds. A unit with a cracked heat exchanger where diagnostic readings are attainable must be attempted to be replaced through cost justification as an ECM first before using H&S funding. Replacement of non-operational units can only be from H&S funding. The weatherizing agency must determine presence of at-risk occupants while also ensuring systems are present, operable and performing. Agencies must discuss and provide clients with information on the appropriate use and maintenance of units, with explanation, from the subgrantee. This information must also cover the proper disposal of bulk fuel tanks when not removed (where applicable).

Appliances and Water Heaters

Replacement of water heaters under H&S is allowed on a case by case basis under the conditions outlined in the

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

WXPM, Chapter 6, Section 6.6. Discuss and provide information and explanation on appropriate use, maintenance, and disposal of appliance/water heaters (where applicable).

Replacement and installation of appliances other than water heaters, such as stoves or washing machines, are not allowable H&S costs.

**Asbestos**

Asbestos anywhere on the interior of the dwelling that would need to be addressed either directly or incidentally during the weatherization process is not an allowable H&S cost. Additionally, asbestos testing or abatement is not an allowable H&S cost. Policies have been in effect for asbestos presence and related work practices for many years. The approach is not to disturb, cut or drill said material and deter those measures that might do so. In instances where measures can be installed without disturbing asbestos surfaces or materials, that is the best approach. In instances where a local authority such as Code Enforcement imposes specific guidelines or requirements, service provider program staffs are to make themselves aware of those restrictions and comply with them.

In addition to this existing asbestos policy KHC acknowledges that removal of siding can potentially cause a health hazard. Therefore no handling and or altering of asbestos materials is allowed. It will be mandatory that all dwelling needs evaluators, crew leaders and weatherization workers attend a course that is specifically targeted to educating these professionals on how to identify asbestos containing materials and work around them without creating a hazard, by February 28, 2012. This four hour course will be presented by an AHERA or other appropriately trained or certified asbestos control professional designed to educate the weatherization staff on how to identify asbestos containing materials and work around them without creating a hazard. An RFP will be posted by September 15, 2011 (or 5 days after approval of this plan) for proposals on this training service. Selection of the winning proposal will be determined based on cost and DOE approval of the proposed curriculum.

If it is determined that weatherization work cannot be performed without creating a hazard the project is to be deferred. The client is to be informed in writing of the potential hazard and the agency must not return to weatherize until an AHERA certified professional issues a clearance statement. A copy of this statement/report must be kept in the client file.

Prior to drilling or cutting an exterior wall and subsurface must be inspected for asbestos.

When vermiculite is present, unless testing determines otherwise, the unit is to be deferred. Where blower door tests are performed, it is a best practice to perform pressurization instead of depressurization. Encapsulation by an appropriately trained professional is allowed. However asbestos encapsulation and testing cost are not reimbursable by the KY WAP. Removal is not allowed.

With regard to pipes, furnaces and other small covered surfaces, assume asbestos is present in the covering materials. Encapsulation is allowed by an AHERA asbestos control professional and should be conducted prior to blower door

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

testing. Asbestos encapsulation and testing are not reimbursable cost within the Kentucky WAP.

Clients must be informed that suspected asbestos is present and how precautions will be taken. Clients will be instructed not to disturb suspected asbestos containing material. Clients must be provided information and explanation on asbestos safety information and steps to correct deferral conditions (where applicable). The clients are required to sign a form, provided by the weatherizing agency, indicating they have been informed (where applicable).

Biologicals and Unsanitary Conditions – odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.

A sensory inspection is required. Clients must be informed of observed conditions. Clients must be provided information and explanation on how to maintain a sanitary home and steps to correct deferral conditions (where applicable).

Remediation of conditions that may lead to or promote biological concerns and unsanitary viruses is not an allowable cost. Addressing bacteria and viruses is not allowed. Cleaning or repairing biological and unsanitary conditions to perform weatherization is not allowed. Deferral may be necessary in cases where a known agent is present in the home that may create a serious risk to occupants or weatherization workers. Also see Mold and Moisture bullet below.

#### Building Structure and Roofing

·Site conditions identified and documented by the service provider that pose a safety hazard to its employees and subcontractors and cannot be corrected within the scope of the program.

·Building Structure – Structural problems with candidate dwellings can often lead to deferral because of their scope is beyond the means of the program to treat. Beyond simple incidental repairs, such as roof patching, there is no feasible means to address severe structural defects.

·During the pre-inspection or initial inspection of the dwelling, the evaluator must have access to all aspects of the structure in order to adequately and appropriately gather data for the NEAT or MHEA energy audit. Clothing, dogs, trash or other impediments restricting access to any portion or portions of the dwelling that block necessary access may constitute a deferral.

Building rehabilitation is beyond the scope of the WAP. H&S funds should not be used when the repair is a component of an ECM. In that case, the repair should be cost justified as an incidental repair. Clients must be notified of structurally comprised areas (where applicable).

#### Code Compliance

Correction of preexisting code compliance issues is not an allowable cost other than where they are triggered by performing weatherization measures. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condemned properties and properties where "red tagged" health and safety conditions exist that cannot be corrected under this guidance should be deferred.

Clients must be notified of observed code compliance issues (where applicable). H&S funds should not be used when the repair is a component of an ECM, such as fixing a light fixture in order to install a CRL bulb. In this case the cost should be cost justified as an incidental repair.

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

KHC will begin a general code awareness training utilizing its construction specialist staff to provide residential code training to the network evaluators. This training will begin in April of 2012.

#### Combustion Gases

Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing indicates a problem. The following inspection and testing is required per the WXPM in Sections 6.2, 6.6, 6.12, Chapter 8 step 2, and KHC Program Notice 06-2010. Combustion safety testing is required when combustion appliances are present.

Correction of venting issues shall be completed and should be done as an incidental repair when it is a component of an ECM. Proper venting to the outside for combustion appliances, including gas dryers is required. Combustion safety testing is required when combustion appliances are present. Inspections must include:

Inspections of venting of combustion appliance and confirmation of adequate clearances to combustibles.

Testing natural draft appliances for draft and spillage under worst case conditions before and after air sealing.

Inspection of cooking burners for operability and flame quality. Replacement of Cook stoves is not allowed. Repair is an allowable H&S cost.

Clients must be provided information and explanation of combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.

Drainage – gutters, down spouts, extensions, flashing, sump pumps, landscapes, etc.

Drainage repairs are allowed with H&S funds only as they relate to code compliance. A repair is allowed as incidental repair when it is a component of an efficiency measure, such as a French drain when installing an air conditioning system, but must be cost justified with the ECM(s).

Major drainage issues are beyond the scope of the Weatherization Assistance Program. Homes with conditions that may create a serious health concern that require more than incidental repair should be deferred. See Mold and Moisture bullet below.

Clients must be provided information and explanation of the importance of cleaning and maintaining drainage systems, as well as the benefits of landscape design (where applicable).

#### Electrical, other than Knob-and Tube Wiring

Minor electrical repairs are allowed where health and safety of the occupants is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures such as relocating an electrical outlet to allow for a dryer to be relocated for proper ventilation or proper connection of an existing water heater. A visual inspection must occur and all inspecting and testing is to be as described in the WXPM.

Clients must be provided information and explanation on the hazards of overloading circuits, basic electrical safety/risks and over current protection (where applicable). H&S funds should not be used when the repair is a component of an ECM such as a service upgrade to handle increased load of a new heat system.

#### Electrical, Knob-and Tube Wiring

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

Minor electrical repairs are allowed where health and safety of the occupants is at risk. Upgrades and repairs are allowed when necessary to perform specific weatherization measures. A visual inspection must occur and all inspecting and testing is to be as described in the WXP. M.

Knob-and Tube wiring shall not be covered or encapsulated with insulation in Kentucky. The removal and replacement of knob and tube is allowed as an incidental repair to an ECM such as installing insulation.

Discuss and provide information and explanation to the client on the hazards of overloading circuits, basic electrical safety/risks and over current protection (where applicable).

#### Fire Hazards

Current inspection criteria take into account fire hazards associated with combustion appliances including clearances and venting systems. Through fuel specific checklists, inspectors identify such hazards and make repairs accordingly with respect to budgetary and program limitations. Required adherence to appropriate NFPA codes when repairing or replacing equipment also minimizes the potential for fire hazards.

Correction of fire hazards is allowed when necessary to safely perform weatherization. Home evaluations include checking for fire hazards during the audit. Clients must be informed of observed hazards even if they will not be treated during weatherization.

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

Formaldehyde and Volatile Organic Compounds (VOCs) – Formaldehyde, tobacco smoke, thinners, solvents, cleaners, and any other substances capable of negatively impacting indoor air quality are identified through the On-site inspection process. Basic strategies such as proper storage and ventilation are used to eliminate problems. Air sealing thresholds are maintained so that the presence of these pollutants are not concentrated and allowed to reach toxic amounts. However, this is primarily an occupant responsibility. In some cases, deferral may be an option.

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. Removal of pollutants that is not necessary to perform weatherization (e.g. cleaning old paint cans and oil out of the garages) is not allowed.

Clients must be informed of observed conditions and associated risks. Client must be given written information and explanation on safety and proper disposal of household pollutants (where applicable).

#### Injury Prevention of Occupants and Weatherization Workers – Measures such as repairing stairs and replacing handrails

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.

Workers are to observe if dangers are present that would prevent weatherization. Clients must be informed by evaluators and/or workers of observed hazards and associated risks (where applicable)

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

#### Lead Based Paint

Presence of lead based paint associated with dwellings built before 1978. State policy mandates that all personnel working directly on dwellings shall participate in an eight (8) hour Lead Workers Safety class. Moreover, the presence of lead is an inspection issue and current procedures are designed to identify the presence of lead on Work Orders and work safely in those situations. (See Lead Safe Weatherization Work Practices; in the WXPm.)

With respect to Lead Based Paint issues, KY WX uses an approach that addresses client safety and awareness, worker safety and awareness, and on-site practices.

The head of household of every home to be weatherized receives the informational pamphlet: "Renovating Right". The inspector also conducts a client education segment as part of the initial inspection to assure that the occupants are fully aware of the hazards posed by Lead Based Paint exposure. This procedure is documented by using a signed receipt from the head of household which confirms that the information was not only distributed, but also explained. This receipt is kept in the client file.

All workers on site on any Weatherization project, whether they be a crew based employee of one of the subcontractors or a private sector contractor, must complete an eight (8) hour Lead Safe Worker Practices Workshop. The aim of this course is to inform the worker about Lead hazards and the proper ways to deal with them, and in doing so, to work in such a way as to not expose client families (and their own families) to these hazards. All crews and contractors are required to carry HEPA vacuum machines, respirators, disposable bio suits, and all other items associated with safe Lead Work Practices.

The program manual addresses this area specifically with detailed guidance for onsite protocols:

- Wear a tight fitting respirator and disposable coveralls.
- Seal work areas within a home with tape and plastic. Cover furniture, carpet, and other surfaces with plastic drop cloths or tarps.
- Spray water on disturbed areas to minimize dust.
- Clean-up work area each day. Sweep carefully and wet mop as needed. Use a HEPA vacuum cleaner to collect dust and paint chips.
- Keep children away from work area at all times.

While this represents only a summary of the overall Lead Safe Practices and training, it illustrates KY WX's awareness of the issue and how it is integral to any weatherization project.

Lead Safe Weatherization work practices occur only due to health and safety concerns. It cannot be considered part of an efficiency measure and shall always be calculated and charged as a health and safety cost.

KHC's monitoring staff will have oversight responsibility in this area. While Lead Safe Work Practices have long been built into the program, the monitors will focus more directly on this area as they conduct their bi-annual and annual monitoring visits. Program operators will be required to show that all Lead Based Paint protocols: information sharing, Lead safe work Practices, proper equipment, and so forth are up to date and in compliance to all regulations whatever they turn out to be. Those programs that are not in compliance, and fail to comply once identified, will face the most serious sanctions that can be leveled: reduced allocation to start with, loss of contract if necessary. Special

U.S. Department of Energy

STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

attention will be aimed at those programs failing to meet requirements in the area of Lead Safe Work Practices since it poses such tangible consequences for the households that are served.

Subgrantees must follow EPA's lead; Renovation, Repair and Painting (RRP). 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.

Kentucky's current status is as follows: all sub grantees have applied for and received Lead Renovator Firm status. All evaluators (inspectors) have acquired Lead Renovator (RRP) certification as well as select crew leaders. Additionally, private contractors (excluding HVAC and Plumbers) have also applied for and received Lead Renovator Firm status. This is a requirement for contracting with the program. Private contractors have also met the requirement of having adequate RRP certified employees among their ranks. In summary, Kentucky has met the EPA requirements as they now stand by April 2010 deadline. As new contractors apply to work on WX projects the EPA requirements are explained during the application process. No private contractors will be awarded work on any pre-1978 dwellings that don't meet the EPA rules.

Private contractors will be required to furnish proof of RRP and Lead Renovator Firm status as a condition of working for the WX program. The monitoring staff will routinely check that documentation is on file at each agency verifying compliance to the EPA rules.

All weatherization crews working on pre-1978 homes must receive the 8 hour LSW training and a certified renovator must be assigned to the project and be readily available. State Monitor/Trainers must be Certified Renovators and receive the 8 hour LSW training.

The head of household of every home to be weatherized receives the informational pamphlet: "Renovating Right". The inspector also conducts a client education segment as part of the initial inspection to assure that the occupants are fully aware of the hazards posed by Lead Based Paint exposure.

The RRP requirements of client education apply. The agencies must give the client a copy of the EPA publication: July 2011 Edition of: **The Lead-Safe Certified Guide to Renovate Right Pamphlet** and have the client sign the Sample Pre-Renovation Form located in the back of the Pamphlet to certify the client has been given the pamphlet.

That signed form must be kept in the client's file to show proof the client has received educational material about the dangers of lead paint.

The certified renovator must be physically present at the work site while signs are being posted, containment is being established, and the work area is being cleaned after the renovation to ensure that these tasks are performed correctly. Although the certified renovator is not required to be on-site at all times, while the renovation project is ongoing, a certified renovator must nonetheless regularly direct the work being performed by other workers to ensure that the work practices are being followed. When a certified renovator is not physically present at the work site, the workers must be able to contact the renovator immediately by telephone or other mechanism. In addition, the certified renovator must perform the post-renovation cleaning verification.

Mold and Moisture

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures. Where severe Mold and Moisture issues cannot be addressed, deferral is required.

The Kentucky Weatherization program is not a mold remediation program and funds should not be used to test, abate, remediate, purchase insurance, or alleviate existing mold conditions identified during the audit, the work performance period or the quality control inspection. Most typically, weatherization services may need to be delayed. All local agencies must include some form of notification or disclaimer to the client upon the discovery of a mold condition and what was specifically that was done to the home that is expected to alleviate the condition and/or that the work performed should not promote new mold growth.

Major moisture problems that cannot be corrected within the scope of the program such as:

-An enclosed crawlspace or basement that has standing water for significant periods of time due to inadequate ground or surface water drainage.

-Any building with no overhangs and no gutters, exhibiting signs of major moisture problems such as blistering paint and extensive mold/mildew on the inside of the house.

The clients must be provided with a disclaimer on mold and moisture awareness.

Occupant Preexisting or Potential Health Conditions

A feature of any inspection includes client education, whereby the occupant's health problems are addressed. Once a clear understanding has been reached between the program inspector and the occupant, work practices will be deployed so as not to aggravate any preexisting condition. In some rare instances, a deferral may be the only solution.

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 of at-risk occupants may be allowed on a case by case basis. Failure or the inability to take appropriate actions must result in deferral.

Occupants will be required to reveal known or suspected health concerns as part of initial application for weatherization. The occupants of the dwelling will be screened again during the audit. The client must be provided with information of known risks. It will also require that worker contact information (in the form of agency weatherization office staff phone numbers) be given to the client so client can inform of any issues.

Occupational Safety and Health Administration (OSHA) and Crew Safety

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.

MSDS information is monitored during KHC compliance monitoring. Field monitoring performs unit file review for evidence of safe work practices. Field monitoring of in progress units will perform assessments to determine if crews are utilizing safe work practices.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

OSHA 10 hour training for all workers will be required. OSHA 30 hour training will be required for all crew leaders, evaluators and KHC Monitor/Trainers by February 28, 2011. This training can be obtained in various ways. The following are suggested resources.

**Online Training.** OSHA has accepted the below sites for online outreach training. We suggest that you sample them before choosing.

**Construction 10 hour**

1. AdvanceOnline
2. ClickSafety (also Roadway, Cal-OSHA, and Spanish)
3. Summit Training Source (also Spanish version)
4. PureSafety (also Spanish version)
5. Career Safe - (Youth and Corporate versions)
6. Redvector
7. 360Training
8. University of South Florida
9. Coastal Training Technologies
10. Turner Construction

**Construction 30 hour**

1. Turner Construction (also Spanish version)
2. ClickSafety
3. 360Training
4. Summit Training Source
5. University of South Florida
6. PureSafety
7. AdvanceOnline

**Information on obtaining OSHA outreach classes in construction**

**To find in-person training conducted by an authorized OSHA Outreach Trainer:**

- a. See [www.OutreachTrainers.org](http://www.OutreachTrainers.org) to find outreach trainers and/or their schedules
- b. We can send you lists of active trainers in your state – e-mail us if you want this list. Use the lists to contact trainers for information on their training plans.
- c. OSHA Education Center in your area may offer it - [www.osha.gov/dte/edcenters/map.html](http://www.osha.gov/dte/edcenters/map.html)
- d. The OSHA Consultation office in your area may offer it, see [www.osha.gov/dcsp/smallbusiness/consult\\_directory.html](http://www.osha.gov/dcsp/smallbusiness/consult_directory.html)

**Pests**

Pest infestation, within the dwelling or in any area outside of the dwelling, where service provider staff or subcontractors would have to work is cause for deferral. (Pests include, but are not limited to: fleas, roaches, rodents).

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

Clients must be informed of observed condition and associated risks.

**Radon**

Whenever site conditions permit, exposed dirt must be covered with a vapor barrier except for mobile homes without skirting or an exterior under surface that serves as a vapor barrier. In homes where radon may be present, precautions should be taken to reduce the likeliness of making radon issues worse. In extreme cases deferral may be an option.

Radon testing or remediation is not an allowable H&S cost. Clients must be provided with the EPA consumer's guide to radon.

**Refrigerant**

Refrigerators are allowed to be replaced and an ECM only. All reclaimed refrigerant processes must follow the Clean Air Act 1990, section 608, as amended by 40 CFR82, 5/14/93. All EPA testing protocols must apply to any testing. Clients are to be advised not to disturb refrigerant. Anyone working with refrigerant, within or employed by the WAP, must have the appropriate training, either an EPA-approved section 608 type I or universal certification. Any appliance disposal must include refrigerant reclamation.

Non-certified technicians may not attach or disconnect hoses of gauges to measure pressure within the appliances, top-off or remove refrigerant from appliances or otherwise damage the integrity of the appliance.

**Smoke, Carbon Monoxide Alarms, and Fire Extinguishers**

1. Weatherization agencies must install carbon monoxide (CO) alarms and smoke alarms in dwelling units where these devices are nonexistent or non-functioning.

2. CO alarms must be, UL listed, installed in accordance with the manufacturer's recommendations and located in compliance with the SWFG Section 1.1.2. Installed CO alarms must have the capability to accurately detect and display low levels of carbon monoxide to 10 ppm and comply with other program requirements. Electric plug-in CO alarms must have battery backup.

Local agencies must provide the occupant(s) of the dwelling unit with verbal and written information regarding the following:

- a. Dangers of CO and smoke.
- b. How to operate and reset the CO and smoke alarms.
- c. How to read the CO alarm.
- d. How to respond to CO levels above 10 ppm.
- e. How to change the batteries of CO and smoke alarms.

3. Smoke alarms must be, installed in accordance with the manufacturer's recommendations, listed in accordance with UL 217, comply with NFPA 72 and other program requirements.

4. Where multiple smoke alarms are required interconnection is required. Actuation of any one smoke alarm shall activate all of the alarms in the individual unit. Hard wiring and interconnection is not required in existing areas provided:

- a) the alteration or repair does not cause the removal of wall or ceiling finishes exposing the structure, and

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

b) no attic, crawl or basement is available which can provide access for hard wiring and interconnection without the removal of interior finishes.

5) Smoke alarms/detectors must be located:

1) In every sleeping room.

2) Outside of each sleeping area in the immediate vicinity of the bedrooms.

3) On each additional story (including basements).

4) In split level dwellings where an intervening door is located between the adjacent levels. However in split level dwellings without an intervening door a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

5) Near every combustion zone. This alarm can serve the requirements of numbers 3, 4 and 5 where feasible.

6) Providing fire extinguishers is allowed only when solid fuel is present. Fire extinguishers must be installed, according to the manufactures recommendations, be type ABC, UL listed,  $\leq 10$  lb and with a permanently affixed wall bracket to receive the extinguisher. The client must sign a written agreement to allow a fire extinguisher to be installed in the home within sight of the solid fuel burning heat system when standing at the unit. The agency must discuss and provide information on the use and upkeep of the extinguisher to the client.

**Solid Fuel Heating (Wood Stoves, etc)**

The weatherization agency must inspect the stove, chimney and flue. Combustion zone depressurization (CAZ) is required per the Southeast Weatherization Field Guide and the WXPm section 8.5, step 2 item 15.

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. Replacement of secondary heating units is not allowed. This system must be operational and inspected using all WXPm test protocols before any other weatherization begins.

**Stand Alone Electric Heaters**

Defined as, but not limited to, heaters that do not have a permanent connection to electric power. Repair, replacement or installation is not allowed. Removal is recommended. Circuitry must be checked to ensure adequate power supply for existing space heaters.

Clients must be informed of the hazards associated with these types of heaters and the weatherization agency must collect a signed waiver from the client if removal is not allowed.

These heaters are not considered a primary heat source.

**Space Heaters, Unvented Combustion**

Unvented combustion space heaters are not considered a primary heat source. Removal is required, except as secondary heat source and 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. Testing for air-free carbon monoxide (CO) is to be performed per the WXPm. All units must have an ANSI Z21.11.1 label.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

protocols before any other weatherization begins  
Space Heaters, Vented Combustion

These units will be treated as furnaces. The WXPM details the testing required during an evaluation. The replacement system must be operational and inspected using all WXPM test protocols before any other weatherization begins.

Spray Polyurethane Foam (SPF)

Use EPA recommendations (available online at [http://www.epa.gov/dfe/pubs/projects/spf/spray\\_polyurethane\\_foam.html](http://www.epa.gov/dfe/pubs/projects/spf/spray_polyurethane_foam.html)) when working within the conditioned space of when SPF fumes become evident within the 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. Testing will include checking for penetrations in the building envelope. Sensory inspection inside the home for fumes during foam application must also occur.

The client must be informed of plans to use two-part foam and the precautions that may be necessary. Workers using foam products must receive training on the proper use of these various products and understand the specification for each application type. Documentation of installers viewing an installation video or online training and verification of reading and understanding product use information must be kept at the service provider agency. MSDS sheets are mandatory for any foam product used and a thorough understanding of the temperature sensitivity of the product in use is required.

Ventilation

2010 (or the most current) ASHREA 62.2 is required to be met to the fullest extent possible, when performing weatherization activity (DOE mandates implementation by January 1, 2012). Implementing ASHREA 62.2 is not required where acceptable indoor air quality already exists as defined by ASHREA 62.2. Existing fans and blower systems should be updated if not adequate. Evaluation and test out measures must comply with the WXPM.

Discuss and provide information to the client on function, use, and maintenance of ventilation system and components as applicable. Also a disclaimer that ASHREA 62.2 does not account for high polluting sources or guarantee indoor air quality must be given to the client.

KHC Monitor/Trainers will receive training on the standard by 4/31/12. A complete review of the existing Kentucky WAP indoor ventilation and target CFM rates will be completed by 5/1/12. This review will also yield a comprehensive revision to this ventilation section of the state plan detailing methods of compliance. Then training of evaluators and crew leaders will be provided by KHC as cost effective as possible. This training will include proper sizing, evaluation of existing and new systems, depressurization tightness limits, critical air zones, etc.

Window and Door Replacement, Window Guards

Replacement, Repair, or installation is not an allowable H&S cost but may be allowed as an ECM if cost justified. If disturbing lead paint, follow LSW practices and the client must be informed on lead risks as

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

#### Deferrals

Deferrals, or "walkaways" as they are commonly known, are processed accordingly:

- a. The client shall be informed in writing as to why the dwelling cannot be weatherized. If there are conditions that the client must correct before service is provided, those conditions must also be stated in writing.
- b. The service provider is required to refer the client to any alternate program such as home rehab, if one is available in the area.
- c. The service provider shall clearly indicate in the client file why the dwelling was given "deferral" status.
- d. The service provider must document all referrals to other programs or services in the client file.
- e. The client will receive any information prescribed in the Health and Safety section of the WXPM that is appropriate.

#### Client Education

The WXPM will define the proper time and method to disclose and distribute information on all aspects of the evaluation discovery process. This procedure is documented by using a signed receipt from the head of household which confirms that the information was not only distributed, but also explained. This receipt is kept in the client file. Draft forms have been developed to document all information discussed and given to the clients along with application and onsite interviews to verify preexisting at risk and health concerns. The use of these forms will be mandatory 6/1/2012.

#### III.5 Rental Procedures

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

**Rental Policy**

Policy for weatherizing rental housing: single family homes, duplexes to four-plexes and multi-family structures.

Before any weatherization services are provided, including inspection of rental units, ownership must be clearly established. Legal ownership, including all parties that have fractional or limited interest, shall be verified by a copy of the legal title (deed) which shall be kept on file with the agency overseeing the project.

**Definition of Renters**

·If the applicant can be verified as the sole owner by a deed or a will, the dwelling shall be considered owner occupied.

·If the applicant is occupying a dwelling for which he/she is paying mortgage payments or for which he/she has signed a land contract or had entered into a lease with the option to purchase, the property shall be considered owner occupied.

·If the applicant applying for assistance has no legal fractional or limited interest in the property being occupied, such property is rental regardless if rent is paid or not.

·If the applicant applying for assistance has a legal fractional or limited interest in the property by pays some sort of rent to one or more of the other fractional or limited interest owners, such shall be considered rental.

·If the applicant applying for assistance has a legal fractional or limited interest in the property and pays no rent, such property shall be considered owner occupied.

·If the applicant applying for assistance does not legally own the property but pays no rent and no other entity pays rent on his behalf, such property shall be considered rental.

**Owner(s)**

General. For any rental unit to receive weatherization service the occupants must meet the current income eligibility guidelines. Once eligibility (per WAP federal guidance for single and multifamily) is confirmed, the owner(s) of the housing unit(s) must agree to following:

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

1. To not increase the rent on any living unit weatherized for a period of 18 months from the date of the final inspection as documented by the WX-710, Completed Dwelling Report. Furthermore, the owner shall not alter any other rental agreement that is in place for an 18 month period beginning with the date of the final inspection. For example, rent that includes utilities shall not be altered during the 18 month period unless it can be demonstrated in writing that such an alteration shall be in the best interests of the tenant occupying the rental unit. The service provider, as well as Kentucky Housing Corporation (KHC), shall reserve the right to accept or deny such alterations on an individual basis.
2. To enter into a Agency/Landlord Weatherization Agreement for Rental Property (WX Rental). This document shall be signed by the agency and owner, and kept on file with the agency overseeing the project.
3. To not sell the rental unit(s) for a period of 18 months, and;
4. To reimburse the Kentucky Housing Corporation (KHC) Weatherization Assistance Program (WAP) the full cost of all weatherization funds in the event that unforeseen circumstances shall necessitate the sale on any and all rental units served within the 18 month period beginning with the date of the final inspection.
5. To inform all tenants about the scope and type of work that will likely be performed on their dwelling(s). This shall take place in conjunction with the program's routine client education component.

**Tenant(s)**

General. For any rental unit to be considered an eligible unit the occupants must meet the current income eligibility guidelines. Once eligibility is confirmed the tenant(s) of the housing unit(s) must agree to the following:

1. To abide by all conditions set forth on the WX-800, Weatherization Application Form, including providing access to their dwelling for the contractor or work crew, representatives of the service provider, and KHC staff, as the dwelling is being weatherized.
2. To report to the service provider representative and KHC any increase in rent or other alteration in their rental agreement with the owner for an 18 month period beginning with date of the final inspection.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

**Service Provider**

General. For any rental unit to receive weatherization service the occupants must meet the current income eligibility guidelines. Furthermore, the service provider shall establish clear ownership of the property including all parties with fractional and limited interest. A WX-800T Weatherization Application Form shall be completed for each living unit to be served. Also:

1. The service provider shall educate the occupant(s) about the weatherization work that will likely be performed on their dwelling.
2. The service provider shall oversee the project. As such, the service provider will assist as needed in every aspect of the job: scheduling, inspecting, special arrangements if any, resolving disputes, and obtaining all needed signatures and documentation.
3. The service provider shall assure that all households weatherized have a direct means of communicating with its representatives during both the weatherization work and the ensuing 18 month rental control phase.
4. The service provider shall inspect, document, and develop work specifications for each living unit using accepted inspection processes and appropriate energy audit software. The service provider shall perform and document a final inspection in which all parties involved must sign off on to verify completeness of and satisfaction with, all work performed.

**Limitations and Scope of Work**

General. Any occupant of a rental unit of any kind is eligible for weatherization service provided the occupant's household meets the income guidelines set by the Department of Energy (DOE). Additionally, the owner(s) of the dwelling must agree to the conditions previously stated and enter into a Landlord/Tenant Agreement with the tenant(s). Apart from these conditions the following restrictions apply to weatherizing rental housing units:

1. No service provider shall weatherize more rental units than one third (33%) of its planned completions for a contract year without written approval from KHC. In seeking such approval the service provider must explain how exceeding this cap will benefit the clients that it serves and that in doing so equitable service shall be maintained

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

throughout its entire service area.

2. No owner, developer, or landlord shall receive weatherization service for more than 25 rental units under its ownership (full or in partnership) with any individual service provider in a contract year, without written approval from KHC.

3. KHC reserves the right to consider large multi-family projects that exceed the limitations described above; and allow such projects to go forward provided , a.) The service provider can show that such projects are a best use of its resources for the area that it serves; b.) And that equitable service will be maintained in its service area.

4. All rental weatherization projects shall be prepared and completed in accordance to the appropriate DOE approved energy audit software or prescriptive list, local ordinances, state weatherization assistance program policy and prevailing building codes.

5. Service providers that wish to serve multi-family structures larger than stand-alone ten-plex units must advertise in local media, i.e., newspapers, community cable channels, websites, etc. the opportunity for all area owners/landlords/developers to have their properties weatherized by the WAP. For such projects, KHC reserves the right to allow or deny service based on the written justification provided by the service provider, all other conditions described in this section, and assurance that all Equal Opportunity requirements with respect to contracting (if applicable) are met. Preference shall be given to owners/landlords/developers that make financial contributions towards the weatherization of their properties.

**III.6 Program Management**

**III.6.1 Overview**

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

The Weatherization Assistance Program will be administered by KHC. KHC will be responsible for program administration, on-site monitoring, training, technical assistance, planning contract negotiation, quarterly reporting, processing invoices, contractual and compliance monitoring, manual changes and assistance in formulating policy.

The Cabinet for Finance and Administration will be responsible for final disbursement of funds for the weatherization program.

KHC will contract with the Community Action Kentucky, Inc. (CAK) which will subcontract with the 23 service providers to provide weatherization assistance. CAK will be responsible for the following:  
Preparing subcontracts, with approval from the KHC, for each of the 23 service providers.  
Reviewing audits of the service providers, reconciliation of any funds.  
Preparing reports as directed by KHC.  
Representing the Weatherization Assistance Program on DSM collaborative's.  
Providing technical assistance to service providers as directed by KHC.  
Davis Bacon does not apply to regular DOE.

**III.6.2 Administrative Expenditure Limits**

The Grantee will retain no more than 5% of available funds for administrative purposes, of which a portion will be made available to the CAK for responsibilities under the contract between KHC and CAK. In determining the amount of additional administrative funds, if any, that may be allocated to qualified service providers, up to the DOE maximum, the administrative burden of each of the service providers in administering the weatherization program will be considered. An additional 5% may be allocated to service providers if the following conditions are met:

1. The service provider is not administering the program under any sanctions or a corrective action plan, and;
2. The service provider has no excessive administrative charges against the program, and;
3. Any outstanding audit has been finalized, and;
4. The service provider received less than \$350,000 of new DOE funds to administer the program.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

**III.6.3 Monitoring Approach**

Monitoring will be accomplished in the following manner:

1. In compliance with 10 CFR 440.12(b)(6), KHC has established the following monitoring plan to ensure service providers adhere to contractual and federal regulatory constraints, have adequate programmatic and financial management control, and achieve acceptable quality standards in the field work performed.
2. All service providers will receive on-site monitoring and desk reviews throughout the contract year for program oversight using an On-Site Dwelling Review Report, Weatherization Program Review, monitoring reports from previous visits, and the Service Cost Worksheets.
3. Those service providers receiving \$300,000 or more in weatherization funds may be monitored for sub-contract compliance and financial management.
4. An annual review of the audit will be performed by CAK. CAK will review the audit schedules related to weatherization, consult with the auditor and reconcile any differences. A copy of CAK's audit review will be forwarded to KHC.

The KHC weatherization monitors will review field work; provide training, technical assistance; review program performance; and provide management with an assessment of the program.

A monthly desk review of each service provider's WX702, Completed Dwelling Reports and monthly invoices will be performed. The purpose of the review is to tie invoices to reported completions by comparing expenditures on the Completed Dwelling Reports to the program operations amounts on the invoices. Unless there is a justification as to why the two reports are not in agreement, invoice requests in excess to the line item cost amounts on the Completed Dwelling Reports will be disallowed.

A quarterly desk review of each service provider will be conducted to:

- compare the expenditure averages and production rates with planned,
- determine the cost efficiency
- determine the overhead rate, and
- ensure that expenditure averages per completed dwelling are in compliance with WAP guidelines.

Quarterly, the weatherization staff may meet with CAK to review each service provider's progress, identify those with problems, provide technical assistance where necessary and request a Corrective Action Plan. Those agencies working under a Corrective Action Plan will be monitored closely for signs of improvement.

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

An on-site dwelling review will be conducted annually by the KHC weatherization monitoring staff on a representative sample of each service provider's completed dwellings to ensure that all work meet WAP standards. Work quality will be evaluated as well as completeness, compliance with NEAT/MHEA or EA-QUIP audit priorities and expenditure maximums and performance of diagnostic procedures. The client files of all dwellings inspected will be reviewed to determine that all required forms are included and that they are accurate and complete. A complete file may contain all or some of the following: (Depending whether the agency has private contractors or is crew based.)

1. An Application and Prioritization for Weatherization, WX-800;
2. Income verification;
3. Proof of ownership, or
4. Agency/Landlord Agreement, WX Rental 5. Work Order, Generated from approved audit software 6. Completed Dwelling Report, WX-710
7. Copy of the NEAT, MHEA or EA-QUIP audit
8. Energy Systems Check List
9. Agency Contractor Agreement, WX-14 (Private Contractor)
10. Contractor Notice of Completion WX-16 (Private) Contractor)
11. Change Order, WX-15, if applicable
12. Private Contractor Invoice, WX-17, if applicable
13. DNE Eligibility Waiver, Fuel Change Request, WX-910, if applicable
14. EPA verification statements regarding Lead and Mold Hazards
15. Baseload check list, WX-BLR

The monitor may also look at the Weatherization Contractor Application, WX-10; Weatherization Contractor Work Reference, WX-11; the Approved Vendor List; and the Service Cost Worksheets, WX-702.

Previous monitoring findings and recommendations will be reviewed to evaluate the success and appropriateness of all corrective actions implemented by the service provider. Upon completion of the on-site review, the monitor will hold an exit conference interview with the service provider's Executive Director, the Weatherization Program Coordinator and other appropriate staff to review all findings, conclusions, and possible recommendations. Upon completion of a written report, KHC will decide any actions warranted by the monitor's findings.

For fiscal and contract performance monitoring, KHC weatherization monitors will verify compliance with and documentation of these fiscal requirements: expenditures, source and application of funds for expenditures, access to and retention of fiscal records,

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

previous contract audit, cost, other resources, invoicing, liability insurance policy, equipment purchase approval and property inventory maintenance. The Financial Director at CAK will monitor the invoices and expenditures on a monthly basis for expenditures to the appropriate fund source. If expenditures exceed the planned budget by more than 10%, a budget realignment will be required.

For contractual monitoring, the monitor will verify compliance with and documentation of these contractual requirements: disallowed cost reimbursements, reporting, personnel policies, record confidentiality, conflict of interest and nepotism, client and dwelling eligibility, availability for required training, purchase bidding, listed assurances and certifications and record retention.

KHC will continue to monitor all service providers by reviewing the price they have paid for common weatherization materials. Any service provider found to be paying substantially more than other service providers in their geographical area will be required to identify other vendors carrying less expensive materials and begin purchasing from those vendors.

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

#### III.6.4 Training and Technical Assistance Approach

Training and technical assistance (T&TA) is available and required of all service providers agency personnel and private contractors covering any aspect of operating the Weatherization Assistance Program. Requests can be initiated by a service provider or a monitor. KHC will decide the most appropriate personnel or method to provide training and technical assistance.

After concluding a training or technical assistance activity, a T&TA report will be completed to document which trainer conducted the activity, what training or assistance was provided, when and where the activity occurred and which service provider staff participated in the activity. This report will be completed by each agency and forwarded to KHC for review.

Training and technical assistance will be provided through on-site visits, regional training sessions or statewide training sessions. Any out-of state training meetings or conferences must receive prior approval.

KHC will provide training and technical assistance to all service providers as described in the following plan:

- 1) Routine Technical Assistance. Technical assistance covering any programmatic aspect of operations can be provided during monitoring visits by the monitoring staff or at any time the service provider encounters a problem. If the monitor identifies major problems, more extensive technical assistance will be scheduled in the immediate future following the monitoring visit. Technical assistance related to the actual installation of weatherization measures will be provided by experienced staff.
- 2) State Training. Statewide training will be scheduled by KHC when it is deemed that statewide training is needed. Appropriate service provider staff and private contractors are required to attend each state sponsored related training sessions. Funds are made available to support the expenses incurred while attending the training.
- 3) On-Site Training will be conducted as needed.

Classroom and field training sessions, providing hands-on experience, will be continued for service provider evaluators and heat system technicians performing energy system health and safety tests and repairs. Field training sessions will reinforce classroom training that has already been conducted and will provide updated information on new heating equipment and components.

#### Certification Training Criteria

Any service provider weatherization staff assigned evaluation or inspection activities as any portion of their job duties must participate in the Basic Blower Door, Energy Systems, and NEAT and MHEA training courses to perform those duties; and other related topics as deemed necessary by KHC. Each course will have a written examination and a laboratory examination requiring a passing score of 70% for successful completion. It will be the responsibility of the service provider to train crew leaders or private contractors in Basic Blower Door knowledge and skills for using the blower door during material installation at client dwellings. Certified dwelling needs evaluators will be required to pass a refresher course that encompasses all aspects of the evaluator training every three (3) years. This new requirement will begin late in the grant cycle. A ten (10) day course is anticipated. Failure of a service provider staff member or private contractor to meet the following series of certification criteria successfully within the time frames established by KHC will result in that individual or private contractor being prohibited from performing the assigned or contracted activities on client dwellings. Participation in and the successful completion of advanced, refresher and other related training is required to maintain qualified staff to perform program activities.

## U.S. Department of Energy

### STATE PLAN/MASTER FILE WORKSHEET (continued)

Identification Number: NT43133, State: KY, Program Year: 2011

KHC will make every effort to assist the service provider personnel with attaining the required skill levels.

Prior to being certified, the agency personnel must participate in and complete the following:

1. Basic Blower Door. Be able to show an understanding of dwelling pressure diagnostic principles, related terminology, and a sequence of test procedures on a written examination. Be able to demonstrate on-site, the ability to properly test a dwelling. The demonstration would include correctly preparing the dwelling, installing the blower door, reading the gauges, determining the ventilation rate, and locating air infiltration by-passes and heat system duct leakage.
2. NEAT and MHEA training. Demonstrate ability to perform a Dwelling Needs Evaluation using the NEAT or MHEA audit which includes gathering accurate measurements, inputting data to the software program and interpreting and using the data to prioritize repair measures.
3. Dwelling Needs Evaluation and Material Specifications. On a written examination, show understanding of the Dwelling Needs Evaluation process, measure priority order, and the concept of the whole-house approach to weatherization services. Be able to use the Material Specification Manual to identify proper materials and the correct installation methods. Demonstrate on-site the ability to conduct a thorough Dwelling Needs Evaluation by performing each procedure in the correct sequence and identifying the corrective measures required by the test dwelling.
4. Energy Systems. Attend and successfully complete a series of training sessions addressing all types of combustion fuels and appliances. Topics include, but are not limited to, heating unit inspection, furnace examination, understanding of combustion principles; heating unit operations, and component functions; health and safety and troubleshooting tests and equipment; ventilation principles and systems; electricity and use of code books and other reference materials. Demonstrate in a laboratory and in a field setting the ability to properly perform all required health and safety tests, test energy systems for operation malfunctions and identify and perform proper corrective measures.
5. Lead Based Paint Safe Work Practices. Attend and successfully complete eight (8) hours of lead based paint safe work practices as it pertains to weatherization. Additionally, attend an eight (8) hour refresher course as directed by KHC, and any other DOE required Lead training.
6. CPR Training. Attend and successfully complete a Basic First Aid/CPR class. Attendees can schedule training with the local Red Cross or other agencies that have a certified course in CPR.
7. Energy Related Mold and Moisture and Basic Air Conditioning. Attend and successfully complete eight (8) hours of training on recognizing conditions that promote mold growth they may encounter in conducting weatherization work applications and methods to best prevent new mold growth.
8. Renovation, Repair and Painting (RRP). Attend an EPA certified 8 hour course and achieve a Lead Renovator (RRP) certification.
9. BPI. Attend a certified BPI training facility and achieve a Building Analyst certification.
10. Occupational Safety and Health Administration (OSHA). Attend a certified OSHA 30 hour training.

Each service provider is required to have a certified crew leader or other existing field staff to act as backup to the evaluator. Staff whose sole duty is energy systems repair or replacement are required to pass energy systems components of the training sessions. Heat system work limited to solid fuel is exempt from the certification criteria training requirements; however, sufficient field training on solid fuels will be provided.

All training sessions will be identified, scheduled and taught by KHC staff or arranged with a certified instructor in a particular field. As new procedures and initiatives are introduced, training will be identified and scheduled. KHC reserves the right to prohibit individuals who do not successfully complete applicable training requirements from performing Dwelling Needs Evaluation.

**U.S. Department of Energy**

**STATE PLAN/MASTER FILE WORKSHEET (continued)**

**Identification Number: NT43133, State: KY, Program Year: 2011**

**III.6.5 Energy Crisis Plan**

Currently, Kentucky does not expend WAP funds under an energy crisis plan, but will take this issue under consideration.