

U.S. Department of Energy

STATE PLAN/MASTER FILE WORKSHEET

Identification Number: EE000651, State: IL, Program Year: 2014

In order to identify and describe, pursuant to 10 CFR 440.14, the State of Illinois's Illinois Home Weatherization Assistance Program (IHWAP) for the Illinois Program Year 2015 / Federal Program Year 2014 (henceforth in this document, *Program Year 2014*) the Illinois Department of Commerce and Economic Opportunity's Office of Energy Assistance (OEA) has prepared this STATE PLAN. The plan will be offered for public hearing and comment with notice of hearing and copies of the planned publically accessible at least 10 days prior to the hearing and opportunity to comment. The Office of Energy Assistance of the Illinois Department of Commerce and Economic Development will hold a public hearing from 10:00 a.m. to 12:30 p.m. on Tuesday, May 13, 2014, located at the Department of Commerce and Economic Opportunity (DCEO), Office of Energy Assistance, 500 East Monroe, 7th floor Conference room, Springfield, Illinois, and also at the James R. Thompson Center, 100 West Randolph, DCEO, 3rd Floor, Illinois Room, Chicago, IL. These two locations will be linked via video conference.

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***IV.1 Sub Grantees & Planned Funding & Units Weatherized:***

<b>Subgrantee (City)</b>	<b>Planned Funds/Units</b>
BCMW Community Services Inc (Centralia)	\$132,387.00 16
Carver CAA (Galesburg)	\$78,110.00 8
CEFS Economic Opportunity Corp (Effingham)	\$222,139.00 27
Champaign Co Regional Planning Commission (Urbana)	\$175,067.00 21
Community & Economic Development Association of (Chicago)	\$4,628,749.00 558
Community Action Partnership of Central Illinois (Lincoln)	\$117,008.00 14
Community Action Project Of Lake County (Round Lake Beach)	\$268,497.00 32
Community Contacts Inc (Elgin)	\$274,112.00 33
Crosswalk CAA (West Frankfort)	\$173,862.00 21
Decatur-Macon County Opportunities Corp (Decatur)	\$125,687.00 15
DuPage County Dept of Human Resources (Wheaton)	\$273,088.00 33
East Central Illinois CAA (Danville)	\$176,873.00 21
Embaras River Basin Agency Inc (Greenup)	\$258,412.00 31
Fulton County Health Department (Canton)	\$56,670.00 7
Illinois Valley Economic Development Corp (Gillespie)	\$121,777.00 15
Kankakee County Community Services Inc (Kankakee)	\$111,466.00 13
Kendall-Grundy Community Action (Morris)	\$74,342.00 9
Madison County Community Development (Edwardsville)	\$207,346.00 25
McHenry County Housing Authority (Woodstock)	\$96,316.00 12
MCS Community Services (Jacksonville)	\$76,381.00 9
Mid-Central Community Action Inc (Bloomington)	\$145,440.00 17
Northwestern Illinois CAA (Freeport)	\$89,864.00 11
Peoria Citizens Committee for Economic Opportunity Inc (Peoria)	\$208,275.00 25
Project NOW (Rock Island)	\$194,120.00 23

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Rockford Human Services Department (Rockford)	\$285,878.00	34
Sangamon County Dept of Community Resources (Springfield)	\$168,102.00	20
Shawnee Development Council Inc (Kamak)	\$132,904.00	16
St. Clair Intergovernmental Grants Department (Belleville)	\$229,808.00	28
Tazwood Community Services Inc (Morton)	\$128,296.00	15
Tri-County Opportunities Council (Rock Falls)	\$297,228.00	36
Two Rivers Regional Council of Public Officials (Quincy)	\$119,466.00	14
Wabash Area Development Inc (Enfield)	\$161,597.00	19
Western Egyptian Economic Opportunity Council (Steeleville)	\$145,442.00	17
Western Illinois Regional Council (Macomb)	\$105,598.00	13
Will County Center for Community Concerns (Joliet)	\$230,381.00	28
<b>Total:</b>	<b>\$10,290,688.00</b>	<b>1,236</b>

***IV.2 WAP Production Schedule***

***Weatherization Plans***

Total Units..... 1,236

Reweatherized Units..... 0

***Average Unit Costs, subject to DOE Project Rules***

**VEHICLE & EQUIPMENT AVERAGE COSTS PER DWELLING UNIT (DOE RULES)**

- A. Total Vehicles & Equipment (\$5,000 or more) Budget ..... \$0.00
- B. Total Units Weatherized ..... 1,236
- C. Total Units Reweatherized ..... 0
- D. Total Dwelling Units to be Weatherized and Reweatherized (B+C) ..... 0
- E. Average Vehicles & Equipment Acquisition Cost per Unit (A divided by D) ..... \$0.00

**AVERAGE COST PER DWELLING UNIT (DOE RULES)**

- F. Total Funds for Program Operations ..... \$6,181,685.00
- G. Total Dwelling Units to be Weatherized and Reweatherized..... 1,236
- H. Average Program Operations Costs per Unit ..... \$5,001.36
- I. Average Vehicles & Equipment Acquisition Cost per Unit ((from line E) ..... \$0.00
- J. Total Average Cost per Dwelling (H plus I) ..... \$5,001.36

***IV.4 DOE-Funded Leveraging Activities***

N/A

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***IV.5 Policy Advisory Council Members***

Designee of the Illinois Department of Commerce and Economic Opportunity	Larry Dawson, Chairperson	Deputy Director of Office of Energy Assistance	Illinois Department of Commerce and Economic Opportunity
Designees (3) of the Department, representing low-income energy consumers	Katherine Brennan	Illinois Department of Human Services	
Designees (3) of the Department, representing low-income energy consumers	vacant		Expecting Nomination from State Agency on Aging
Designees (3) of the Department, representing low-income energy consumers	Bob Vondrasek	Executive Director	South Austin Coalition Community Council
Designee of the Department, representing independent energy providers	Vacant		
Designee of the Illinois Energy Association, representing combination gas and electric public utilities	Laurie Karman	Regulatory Affairs Liaison	Ameren Illinois Utilities
Designee of the gas public utilities that serve more than 500,000 and fewer than 1,500,000 customers	Adrienne Jones	Director of Government Relations	Peoples Gas and North Shore Gas
Designee of the gas public utilities that serve 1,500,000 or more customers	Dave Lukowicz	Manager of Credit	Nicor Gas
Designee of the Illinois Commerce Commission	Joan Howard	Consumer Policy Analyst	Illinois Commerce Commission
Designee of the Illinois Retail Merchants Association	Rob Karr	Vice-President, Government and Member Relations	Illinois Retail Merchants Association

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Designee of the Illinois Municipal Electric Agency and the Association of Illinois Electric Cooperatives	Phillip (Doc) Mueller	Manager, Government Affairs	Illinois Municipal Electric Agency
Designee of the Illinois Industrial Energy Consumers	Eric Robertson	Lueders, Robertson & Konzen	Illinois Industrial Energy Consumers
Designees (2) of the Illinois Community Action Association	Frank Schwab	Executive Director	Illinois Valley Economic Development Corp.
Designees (2) of the Illinois Community Action Association	Kris White	Executive Director	Will County Center for Community Concerns
Designee of the Citizens Utility Board	Aimee English	Senior Consumer Rights Counselor	Citizens Utility Board
Designee of the Illinois Energy Association, representing electric public utilities serving in excess of one million customers	Jennifer Montague	Director Revenue Management	Commonwealth Edison Company

**IV.6 State Plan Hearings**

In order to identify and describe, pursuant to 10 CFR 440.14, the State of Illinois's Illinois Home Weatherization Assistance Program (IHWAP) for the Illinois Program Year 2015 / Federal Program Year 2014 (henceforth in this document, *Program Year 2014*) the Illinois Department of Commerce and Economic Opportunity's Office of Energy Assistance (OEA) has prepared this STATE PLAN. The plan will be offered for public hearing and comment with notice of hearing and copies of the planned publically accessible at least 10 days prior to the hearing and opportunity to comment. The Office of Energy Assistance of the Illinois Department of Commerce and Economic Development will hold a public hearing from 10:00 a.m. to 12:30 p.m. on Tuesday, May 13, 2014, located at the Department of Commerce and Economic Opportunity (DCEO), Office of Energy Assistance, 500 East Monroe, 7th floor Conference room, Springfield, Illinois, and also at the James R. Thompson Center, 100 West Randolph, DCEO, 3rd Floor, Illinois Room, Chicago, IL. These two locations will be linked via video conference.

**V.1 Eligibility**

**V.1.1 Approach to Determining Client Eligibility**

**Describe what household Eligibility basis will be used in the Program**

In accordance with 10 CFR 440.22:

1. DCEO will ensure that weatherization assistance from DOE and HHS funds is provided

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to a family unit:

- a. that contains a member who has received cash payment under Title IV or XVI of the Social Security Act or applicable state or local law during the 12 month period preceding the determination of eligibility for weatherization assistance; and.
- b. That is eligible for assistance under the Low Income Home Energy Assistance Program (LIHEAP) and whose income is at or below the poverty level determined in accordance with criteria established by the U.S. Department of Health and Human Services according to the Low Income Home Energy Assistance Act of 1981, as amended. DCEO will utilize 200% of Poverty as our income guideline standard household income for determining eligibility for the DOE administered Weatherization Assistance Program grant funds.

#### **Describe the process for ensuring qualified aliens are eligible for weatherization benefits:**

Each individual in a household is an applicant and each must be a legal resident of Illinois and either a citizen of the United States or a qualified alien. The definition of qualified alien will conform with the guidance provided by the U.S. Department of Health and Human Services (HHS) under the Low Income Home Energy Assistance Program (LIHEAP) and can be found in the Illinois Low Income Home Energy Assistance Program Policy and Procedures Manual (2012) at pages I.8 – I.10. The standards for documenting qualified alien status can similarly be found in the ILIHEAP Policy and Procedures Manual (2012) at page I.10.

#### ***V.1.2 Approach to Determining Building Eligibility***

##### ***Procedures to determine that units weatherized have eligibility documentation***

100% of client files will contain eligibility data which is verified by local agency staff. Files are reviewed for proper documentation by state monitoring staff.

##### **Describe Reweatherization compliance**

Homes that have been previously weatherized will not be eligible for additional weatherization assistance (except those weatherized prior to September 30, 1994) in accordance with 10 CFR 440.18(e) (2), or those damaged by fire, flood, or Act of God as specified in 10 CFR 440.18 (f) (2) (ii). In cases where a previously assisted unit has been damaged by fire, flood or other natural disaster, assistance can be provided with prior approval from DCEO. Generally, assistance will only be provided to pay for damage not covered by insurance.

##### ***Eligible Structures***

SRO, Group Home, and Shelters. Residents of a privately owned or not-for-profit operated single room occupancy (SRO) building, group home, or shelter are eligible for weatherization work. Such buildings are to be treated as multi-family buildings with regards to all eligibility, cost limitations, and allowable weatherization work. Public or privately owned not-for-profit shelters operated to provide emergency housing for low income households are excluded from the “66% or greater” rule and individual unit eligibility determination. All shelter units may be treated as “vacant” if the transient occupancy is difficult to track. Allowable total labor and material expenditures are to be calculated using the directions for Rental Units, Shelters and Group Homes. SRO’s, Group Homes and Shelters are considered Multi-family dwellings; and therefore the Landlord must sign a Rental Agreement.

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Non-stationary campers and trailers that do not have a mailing address associated with the eligible applicants are not allowed to be weatherized. The use of a post office box for a non-stationary camper or trailer cannot be substituted for a mailing address associated with the real estate.

*Describe how Rental Units/Multifamily Buildings will be addressed*

The procedure and policy used for the multi-family building process will depend on the type of building and eligibility that is being utilized. Per DOE provided policy (WPN 10-15) for the simplified eligibility criteria, and published three lists of properties supplied by HUD and USDA. Properties identified on these lists have been determined to meet certain eligibility criteria under IHWAP. These lists have been updated and can be found at:

[http://www1.eere.energy.gov/wip/multifamily\\_guidance.html](http://www1.eere.energy.gov/wip/multifamily_guidance.html).

Buildings from the HUD or USDA lists, as well as other HUD buildings (not on the list) where the Building Owner/Landlord has documentation of current occupant income (less than 12 months old) and client demographics may use a Single Application Process. However, in buildings where the tenant pays one or more utility accounts the Local Administering Agencies will obtain from each household a utility release with account number for each utility accounts.

Single Application Process HUD or Other Buildings That Have Client Income and Demographic Data: – If centralized client data is obtainable for the building owner/landlord, then a single application may be utilized for the entire building. Even when owners or landlords submit data directly, LAAs will still need to collect and input income and demographic data on individual household units in the building. This information will need to be entered on the WeatherWorks Unit Screens in the Site Manager section.

In the case of HUD buildings appearing on the HUD lists, Local Administering Agencies will require building owner/landlord to provide copies of HUD 50059 forms. Any other needed information will be collected from the building owner/landlord without the need for a separate application process for each client. However, in buildings of five or more units where the tenant pays one or more utility accounts, each household will be required to sign a utility release with account number for all utility accounts.

The LAA will enter and check the income eligibility information for each unit to determine how much may be spent on the building, even when individual tenant applications are not completed.

Standard Application Process: Other Regular or Non-Federally Assisted Multi-Family Buildings - Multi-family buildings where the owner/landlord does not have documentation of the current building occupant's current income and demographic information, the LAA will take an IHWAP application taken for each individual unit in the building. Application will include a utility release with account number for all unit utility accounts.

To qualify for weatherization the entire building, at least two-thirds (66%) of the building's units or apartments must be occupied by income-eligible tenants. In cases of two & four unit buildings, the minimum percentage of eligible units must be 50% or more to qualify the building for weatherization

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Vacant Units - If the landlord signs a rental agreement to rent to another low-income eligible client within one hundred eighty (180) days, a vacant unit will be counted as an eligible unit, but no longer receives any funding for it. The vacant unit is designated eligible due to income.

#### Multifamily Spending Limits and Landlord Contribution

Multifamily building weatherization spending limits are the same as single family unit limits times the number of eligible units.

DCEO will ensure that no undue or excessive enhancement occurs to dwelling units as a result of weatherization. DCEO requires a 50% landlord contribution for mechanical (HVAC) completed on the weatherization project.

#### Rental Procedures

1. DCEO will ensure that as a result of weatherization, rental amounts shall not be raised because of the dwelling unit's increased value, and that the benefits of weatherization will accrue primarily to the client and members of the client's family. This will be accomplished through better comfort in the home, a healthier and safer environment, and cost savings. There will be direct energy cost savings where the client pays the utility bills. In cases where the heat is included in the rent, the rent may not increase as quickly due to energy savings of the building.
2. The state has developed a Rental Agreement, utilized by all 35 Local Administering Agencies, in which landlords agree not to raise rent for twelve months, agree not to evict tenants without cause for twelve months, and assure that in the event of the sale of the dwelling within twelve months, the terms of this agreement shall be complied with by the new owner. Further, the landlord is advised in the agreement that the tenant will be provided a copy of this agreement by the agency.

Tenants who contact the local agency or the state with complaints of violation of this agreement will be referred to Lincoln Land Legal Assistance Foundation for enforcement assistance under this agreement.

Multifamily building weatherization spending limits are the same as single family units times the number of eligible units.

DCEO will ensure that no undue or excessive enhancement occurs to dwelling units as a result of weatherization. DCEO requires a 50% landlord contribution for mechanical (HVAC) completed on the weatherization project.

#### Describe the Deferral Process

The decision to defer work in a dwelling or, in extreme cases, provide no Weatherization services, is difficult but necessary in some cases. This does not mean that Weatherization Assistance will never be available, but that work must be deferred or postponed until the problems can be resolved. Local IHWAP Administering Agencies are expected to pursue all reasonable options on behalf of the client and seek outside funding and/or resources if possible.

Deferral conditions may include, but are not limited to:

- a. The client has known health conditions that prohibit the installation of insulation and

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other weatherization materials.

- b. The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved in a cost effective manner.
- c. The house has sewage or other sanitary problems that would further endanger the client and weatherization installers if Weatherization measures were installed.
- d. The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building officials or utilities.
- e. Moisture problems are so severe they cannot be resolved under existing health and safety measures and with minor repairs.
- f. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.
- g. The client is uncooperative, abusive, or threatening to the crew, subcontractors, auditors, inspectors, or others who must work on or visit the house.
- h. The extent and condition of lead-based paint in the house would potentially create further health and safety hazards for the client or Weatherization workers.
- i. Illegal activities are being conducted in the dwelling unit.

In some cases, IHWAP funds may be utilized to correct the situation (red-tagged heating system, high CO readings, minor plumbing repair, minor roof repair, etc.). If the problems that caused the deferral have been properly corrected, the home may be eligible for Weatherization services.

Weatherization clients that feel the Deferral Policy is incorrect or unfair may appeal the decision through the standard Weatherization Appeal process. It may be possible to utilize other funding sources to correct the issue that is causing the program deferral. Some Local Administering Agencies may also have access to other funding options or other federal, state, local, or other resources where the client could be referred for the deferral reasons to other agencies/organizations.

**V.1.3 Definition of Children**

Five (5) years of age or under.

**V.1.4 Approach to Tribal Organizations**

**Recommend tribal organization(s) be treated as local applicant? No**

*If YES, Recommendation: If NO, statement that assistance to low-income tribe members and other low-income persons is equal:*

No tribal organizations exist within the state. The DCEO makes no recommendation that a tribal organization be treated as a local applicant.

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V.2 Selection of Areas to Be Served

The State of Illinois will continue its IHWAP program for Illinois Program Year 2015 (Federal Year 2014) delivering weatherization services to all counties of the state through its subgrantee network of 35, Local Administrating Agencies serving all 102 counties, with demonstrated effectiveness in weatherization, program operation and management. Prior to the issuance of any sub grant for WAP or HHS funded weatherization services, evaluations of prior year performance are conducted using the following criteria:

- 1. Program compliance
2. Management and administration
3. Fiscal compliance
4. Technical and quality control

V.3 Priorities for Service Delivery

A priority ranking system will be used for all homes in the IHWAP. Multi-family buildings (five plus units) will not be subject to priority ranking. The Department will, however, include the priority potential of the buildings in its review process.

IHWAP applications are taken on a first-come, first served basis, but income eligible households with high heating bills, in relation to income, and those containing elderly members (60 and over), persons with a disability, or young children (5 years of age or below) will be given priority and weatherization services first. Lower priority-ranked, income-eligible households will be served later in the program year, or when funding is available. It is important that this information be conveyed to the client during the intake process.

IHWAP applications should be prioritized in groups. Some LAAs may elect to establish an enrollment period (three weeks, one month, two months, etc.) for their entire service area, take all applications during that time and then prioritize them all at once. Other agencies may choose to prioritize applications in small groups.

Every household is ranked and assigned a priority by the WeatherWorks system. All eligible households in 2- 4 unit buildings should be ranked with the average score used to determine the building's priority.

WeatherWorks automatically calculates the priority points in the following manner:

Table with 5 columns: INCOME, ENERGY COST, ELDERLY, DISABILITY, YOUNG CHILDREN. It lists priority point assignments for various income brackets, energy cost ranges, and household characteristics.

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126-150%= 2

151-200% = 1

### Definitions

*Income:* The Annual Income Matrix chart is utilized for percentage and points. Total household income should also be collected on the client application for clients that are automatically eligible.

*Energy Cost:* This percentage is calculated by dividing the household's total winter heating cost by the households' total annual income.

*Elderly:* Any member of the household 60 years of age or older.

*Disability:* Household containing a person with a disability per the Americans with Disabilities Act.

*Children:* Any member of the household 5 years of age or below.

NOTE: 1 elderly household member = 2 points for household; 2 elderly members = 2 points for household; 1 child 5 years or below = 1 point for household; 3 children 5 years or below = 1 point for household.

All higher priority households should be weatherized before going to lesser priority households. Scheduling variances (due to location, etc.) within a program year are permissible provided the priority rankings are followed during the program year.

Vacant units that will be occupied within the next 180 days with an eligible client are not subject to prioritization. For example, if a client lived in one side of a duplex and the other half was vacant, then the priority ranking for the eligible client would determine the ranking for both units.

First come first served on application date if tie.

Prioritization is by county.

### ***V.2 Selection of Areas to Be Served***

The State of Illinois will continue its IHWAP program for Illinois Program Year 14 delivering weatherization services to all counties of the state through its Sub Grantee network of 35, Local Administrating Agencies serving all 102 counties, with demonstrated effectiveness in weatherization, program operation and management. Prior to the issuance of any sub grant for WAP or HHS funded weatherization services, evaluations of prior year performance are conducted using the following criteria:

1. Program compliance
2. Management and administration
3. Fiscal compliance
4. Technical and quality control

### ***V.4 Climatic Conditions***

Climatic information for the state is provided by the U.S. Climatological Survey and energy

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usage information compiled from state and federal sources. This information indicates that six climatic regions exist within Illinois. The WeatherWorks Energy Audit utilizes BIN Hours data and Cooling Degree Day data broken out by these six regions.

IHWAP Agencies Annual Heating Degree Day Norm Annual Cooling Degree Day Norm	Climate Zone by WeatherWorks for LAA	Climate Zone Bin Hours See Climate Zone /Bin Hours Chart	Cooling Degree Days (used for seasonal cooling load calculations)
BCMW Community Services, Inc.	E	8,752	1,468
Carver Community Actions Agency	C	8,758	948
Community and Economic Development Association of Cook County	A	8,648	740
CEFS Economic Development Corporation	D	8,756	1,165
Community Action Partnership of Central Illinois	C & D	8,758 &	948 & 1,165
Community Contacts, Inc.	A & B	8,648 & 8,758	740 & 714
Decatur-Macon County Opportunities Corporation	D	8,756	1,165
DuPage County Department of Human Resources	A	8,648	740
East Central Illinois Community Action Agency	C	8,758	948
Embarras River Basin Agency, Inc.	D	8,756	1,165
Fulton County Health Department	C	8,758	948
Illinois Valley Economic Development Corporation	D & E	8,756 & 8,752	1,165 & 1,468
Kankakee County Community Services, Inc.	C	8,758	948
Kendall-Grundy	C	8,758	948

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Community Services			
Community Action Partnership of Lake County	A	8,648	740
Madison County Community Development	E	8,752	1,468
McHenry County Housing Authority	A	8,648	740
MCS Community Services	C	8,758	948
Mid-Central Community Action Agency	C	8,758	948
Northwestern Illinois Community Action Agency	B	8,758	714
Peoria Citizens Committee for Economic Opportunity, Inc.	C	8,758	948
Project NOW, Inc.	C	8,758	948
Rockford Human Services Department	B	8,758	714
St Clair County Community Action Agency	E	8,752	1,468
Sangamon County Department of Community Resources	D	8,756	1,165
Shawnee Development Council, Inc.	F	8,753	1,808
Tri-County Opportunities Council	B	8,758	714
Tazwood Community Services, Inc.	C	8,758	948
Two Rivers Regional Council of Public Officials	D	8,756	1,165
Champaign County Regional Planning Commission	D	8,756	1,165
Crosswalk Community Action	E & F	8,752 & 8,753	1,808 & 1,468
Wabash Area Development, Inc.	E & F	8,752 & 8,753	1,468 & 1,808
Western Egyptian Economic Opportunity Council	E & F	8,752 & 8,753	1,468 & 1,808
Western Illinois Regional	C	8,758	948

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

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Council			
Will County Center for Community Concerns	A	8,648	740

Bin Hours (used for seasonal heating load calculations by WeatherWorks) Each bin number represents the number of average hours at a particular temperature range.						
Climate Zone:	A	B	C	D	E	F
	Chicago	Rockford	Peoria	Springfield	St. Louis	Evansville
From -40 to -34	0	0	0	0	0	0
From -35 to -31	0	0	0	0	0	0
From -30 to -24	0	1	0	0	0	0
From -25 to -21	0	0	0	0	0	0
From -20 to -14	2	6	2	0	0	0
From -15 to -11	11	13	12	2	0	1
From -10 to -4	27	49	31	11	1	3
From -5 to -1	53	81	50	24	11	5
From 0 to 4	89	126	89	52	24	16
From 5 to 9	115	179	130	92	50	37
From 10 to 14	164	247	180	131	97	69
From 15 to 19	231	314	250	183	138	114
From 20 to 24	371	458	379	286	228	205
From 25 to 29	589	663	560	511	404	382
From 30 to 34	869	827	764	747	637	639
From 35 to 39	725	631	674	668	670	663
From 40 to 44	572	510	524	574	617	639
From 45 to 49	565	523	505	541	545	608
From 50 to 54	581	548	533	538	576	615
From 55 to 59	604	639	582	582	586	624
From 60 to 64	700	726	703	678	676	704
From 65 to 69	759	689	740	754	764	747
From 70 to 74	581	605	739	812	850	867
From 75 to 79	487	451	571	656	731	704
From 80 to 84	324	287	405	488	578	539
From 85 to 89	165	137	231	277	346	367
From 90 to 94	58	42	89	125	165	163

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

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From 95 to 99	6	6	15	22	47	38
From 100 to 104	0	0	0	2	11	4
Total	8,648	8,758	8,758	8,756	8,752	8,753

Cooling Degree Days (used for seasonal cooling load calculations)					
A	B	C	D	E	F
Chicago	Rockford	Peoria	Springfield	St. Louis	Evansville
740	714	948	1,165	1,468	1,808

***V.5 Type of Weatherization Work to Be Done***

Complete weatherization work shall include the following:

1. Air sealing/infiltration reduction
2. Insulation of attic
3. Insulation of walls
4. Insulation of floors above unheated crawl spaces
5. Control of wasted heat
6. Furnace repairs
7. Furnace retrofits
8. Furnace replacements (when necessary)
9. Air Conditioning Replacement (when necessary)
10. Baseload measures such as compact fluorescent lights, and replacement refrigerators (no freezers will be installed, and ice makers are not allowed)\*.
11. Replacement of inefficient Windows and Doors
12. Related Health and Safety work
13. Incidental Repairs

\* - Refrigeration appliances that are replaced must be disposed of according to the environmental standards in the Clean Air Act (1990), Section 608, as amended by the Final Rule, 40 CFR 82, May 14, 1993. The party recovering the refrigerant must possess an EPA-approved Section 608 Type II license or an approved universal certification.

All work is performed in accordance to the DOE - approved energy audit procedures and 10 CFR 440 Appendixes and will follow the Weather Works energy audit approved by DOE.

Illinois has implemented a computerized approach to Project Retro- Tech which was approved by DOE. This system can automatically perform the calculations leading to Project

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

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Retro-Tech's Cost/Benefit Ratio. Because of the data storage capacity of the state of Illinois' computer, each Sub Grantee's information on material costs, expected life, and R-values can be stored, as well as the labor hours/costs for the installation of a specified quantity of material. The program itself contains data on potential heat savings and fuel cost per heating unit.

Operationally, the Sub Grantee enters data on a particular source of heat loss, e.g., type of window, dimensions, type of wall surrounding, present condition of source of heat loss, and quantity of material required. Then the computer generates the benefit cost ratio and prints a work order which lists:

- The weatherization measures to be installed in order of cost effectiveness
- Estimated material costs
- Estimated labor costs

Every completed unit will receive a final inspection to ensure that the weatherization work was completed properly; ensuring that all work meets the minimum specifications of the *IHWAP Field Standards* and the *IHWAP Program Operations Manual*. In addition DCEO will conduct random checks on Sub Grantee assessments and final inspections.

#### ***V.5.1 Technical Guides and Materials***

DCEO has developed the *IHWAP Operations Manual* that sets forth specific guidelines that Sub Grantees must follow in administering the program. A revised Operations Manual will be issued in July of 2014 that will incorporate *IHWAP Procedure Memos* issued since July 2012. The *IHWAP Operations Manual* covers administrative procedures; building and household eligibility; building analysis (energy audit) procedures, including health and safety protocols; deferral guidelines; reporting and payment procedures; and, procurement and fiscal requirements.

Technical requirements for *IHWAP* weatherization work are contained in the *IHWAP Weatherization Field Standards Manual* as revised for Program Year 2013. This standards manual provides on-site guidance to Sub Grantees and their contractors in installation of measures and other technical aspects of the program.

In Program Year 2014 (State Program Year 2015) DCEO plans to update the *IHWAP Weatherization Field Standards Manual* to ensure that they meet and exceed the DOE adopted Standard Work Specifications for Home Energy Upgrades (SWS). In Program Year 2013, DCEO began the process of review and has identified few areas where the *IHWAP Field Standards* and the *IHWAP Operations Manual* will need supplementing or upgrading to meet or exceed the SWS. Some changes identified will be incorporated first in the revised *IHWAP Operations Manual* to be issued July 2014. DCEO will continue to review the SWS and discuss implementation of necessary revision of the *IHWAP Weatherization Field Standards Manual* with Sub Grantees in the first half of Program Year 14. A revised *IHWAP Weatherization Field Standards Manual* will be issued by July 1<sup>st</sup>, 2015 that will include both any necessary changes and cross references to the appropriate SWS. DCEO will also consider in consultation with Sub Grantees issuing a digital version of the *IHWAP Weatherization Field Standards Manual* with links to appropriate SWS specifications and will review the need for additional installation guidance such as a field guide document.

By the end of Program Year 2014, DCEO will provide Sub Grantees comprehensive field standards and training (see Section V.8.4, below) outlining requirements for work scope

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development and work quality that will meet or exceed the minimum standards found in the SWS. Sub Grantees will also be provided with revised technical requirements for building assessment (energy audits), installation of energy efficiency and health and safety measures and procedures for conducting final inspections in support of the quality work plan. These requirements will be referenced as a requirement of the agreement with each Sub Grantee to provide a mechanism for compliance with the requirement.

The IHWAP field standards by in large meet or exceed the SWS standards for installation of weatherization measures and related health and safety measures as well. Revisions to the existing field standards will largely providing cross references to the SWS standards. Where the SWS go beyond the existing field standards DCEO will amend the field standards. The process of conforming the IHWAP Field Standards to the SWS will continue through the Program Year 14. These changes / additions to the IHWAP Field Standards are scheduled:

- Spillage time will be reduced to two minutes;
- Personal CO Monitors will be required for personnel testing or gas combustion appliances or installing weatherization measures in the combustion zone of gas combustion appliances.
- Crawl Space Ground Covers overlap with wall vapor barrier cover will be extended to twelve inches.
- Gas fired stoves and cooking ranges will be required to be inspected as part of assessment of combustion safety (however, see note below)

However, in the following instances DCEO will diverge from the SWS with alternative specifications that insure work quality:

- Crawl Space Debris Removal: The IHWAP Field Standards shall require under-floor grade will be removed of all vegetation and organic material. Debris that can cause injury or puncture ground covers (e.g., nails, glass, sheet metal screws, etc.) will be removed from the crawl space. Care will be taken to prevent punctures during installation.
- Appliance Warranty: DCEO will require that refrigerator warranties be a minimum of one year.
- Knob and Tube Wiring: DCEO will continue its policy of allowing installation of weatherization measures where inspection identifies that “knob and tube wiring is present wall cavities to be insulated only if the knob-and-tube wiring is not active. Where knob-and-tube wiring is active, installation of insulation is allowed beneath active knob-and-tube when a one-inch air space between insulation and wiring is maintained. Additionally, the IHWAP Field Standards allow installation if non-metallic channels or barriers, such as rigid foam board, are installed to maintain minimum one-inch air space alongside of knob-and-tube wiring. Where live knob-and-tube wiring is present, attic flooring over joist cavities must be removed and barrier installed before insulating floor cavity installation. Floored Attics Insulation shall not be blown more than 3 feet in any direction. Insulation of cathedral ceiling cavities that contain active knob and tube wiring is not allowed unless tested for safety.
- LoNox water heaters will be preferred but will not be required until uniform pricing and availability becomes standard in the Illinois markets.

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

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- When the sub grantee personnel conduct combustion testing of gas stoves and ranges, they will be required to notify occupants and owners of any hazard, issue a hazardous conditions form to them, and provide them with a copy of combustion safety and hazards informational flyer. Illinois will not require clean and tune or other specialized appliance repair of cooking stoves and ranges where they fail combustion safety testing.
- DCEO will encourage but not require the replacement of incandescent light bulbs with equivalent LED light bulbs in Program Year 2014. DCEO will plan for the implementation of such a requirement in the subsequent program year.

#### ***V.5.2 Energy Audit Procedures***

##### ***Audit Procedures and Dates Most Recently Approved by DOE***

Illinois uses a state developed energy audit program known as WeatherWorks. WeatherWorks also serves as the information management system for its IHWAP. Originally the state established a mainframe version of the state's energy audit tool known as WHEA. In 2003, Illinois developed a new windows version WeatherWorks. On December 16, 2008, the U.S. Department of Energy first approved WeatherWorks for single family homes and mobile home units through December 16, 2013.

In February 2014 DCEO submitted WeatherWorks with required sample energy audits to DOE for reapproval on February 27, 2014. Updates and Maintenance to the WeatherWorks system was completed by OEA and IDCEO's Office of Information Management with engineering assistance of Paul Knight of Domus Plus and the Indoor Climate Research and Training Center (ITRC).

On May 14, 2014 DOE approved WeatherWorks for single family homes and mobile home units through May 29, 2019.

Additionally, on November 8th, 2013 under Illinois' Corrective Action Plan in response to US Department of Energy request regarding energy conservation measures installed with savings to investment ratios generated with inaccurate data inputs. Illinois, at DOE's request, modified its WeatherWorks system to add system controls to require that active SIR reports be based on the current assessment data so that changes in assessment data require recalculation of SIRs.

##### ***Multifamily Building Energy Audits***

In IHWAP Program Years 2012, DOE identified technical problems with WeatherWorks capacity to complete reliable audits of multifamily residential buildings of five units or more. After exploring the technical and resource requirements necessary to give WeatherWorks that capacity, DCEO agreed with DOE's request to use DOE approved energy audit software to audit multifamily weatherization projects and to generate Savings to Investment Ratios (SIR) to justify use of weatherization grant dollars for multifamily energy conservation measures. The state obtained copies of TREAT, organized an in state training that included state technical staff, a staff member of Illinois Climate Research and Training Center (ICRT) of the University of Illinois Sustainable Technology Center (UISTC), and representatives of three Local Administering Agencies. In Program Year 2013 (State Program Year 2014), TREAT was used to energy model multifamily projects and projects with SIR justified measures were submitted to DOE for review and approval. WeatherWorks is still used for case management of multifamily

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weatherization work. In December 2013, DCEO submitted multifamily audit procedures and sample multifamily energy audits to DOE for approval of independent use of TREAT to perform energy audits of multifamily projects.

All Illinois Home Weatherization Assistance Program (IHWAP) multi-family weatherization projects for buildings with five or more living units will use TREAT Multifamily software as an energy audit software tool for energy modeling. While weatherization job management will continue to be managed on IHWAP's WeatherWorks, the energy audit and modeling will be conducted with the TREAT system

On May 14, 2014, DOE issued its review of DCEO's use of and procedures for using TREAT to energy model multifamily weatherization projects and to generate Savings to Investment Ratios (SIR) justify use of weatherization grant dollars for multifamily energy conservation measures which stated "Until Illinois demonstrates it can consistently perform accurate, WAP-compliant multi-family audits, Illinois shall submit each multi-family audit for DOE approval before using WAP funds to implement the recommended scope of work." Pursuant to this DOE decision DCEO will continue to submit Multifamily projects to DOE for review and approval, pursue training and technical assistance for both DCEO staff and sub grantee staff, and request DOE approval of DCEO's independent use of its multifamily energy audit procedures.

Sub Grantees using any of the IHWAP weatherization grants for multi-family projects of five or more units, including buildings with separate heating and cooling for each living unit, must receive approval of the Illinois Department of Commerce and Economic Opportunity's Office of Energy Assistance (OEA). Approval to proceed with installation of proposed measures will be granted by OEA when:

- 1) The Sub Grantee has completed and documented a multi-family assessment meeting IHWAP requirements and guidelines;
- 2) Following IHWAP requirements and guidelines, a TREAT generated energy audit modeling the building's existing energy use and the energy savings of the proposed Energy Conservation Measures (ECMs) that demonstrate a savings to investment ratio of 1.0 or greater. In addition the whole project savings to investment ratio must be 1.0 or greater; and
- 3) The Sub Grantee has submitted supporting documentation including an assessment narrative, a project description (or cover sheet) that includes eligibility, budget and source of cost assumptions, utility usage, photographs documenting typical and unusual conditions, engineering reports (when applicable), and a fully completed IHWAP-approved Assessment Document.

DCEO will issue multifamily weatherization assessment procedures that prescribe:

1. How to collect assessment data to create the TREAT generated energy model;
2. Use of the TREAT software to generate an IHWAP approvable energy model; and
3. How to submit a multi-family project for approval by the Illinois Department of Commerce and Economic Opportunity's Office of Energy Assistance.

All Sub Grantees proposing three (3) or more multi-family projects in a program year must

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obtain the TREAT multi-family software and have one or more staff members trained in its use. OEA will support such training.

For Sub Grantees proposing less than three (3) multi-family projects for the remainder of this program year, and through Program Year 2015, DCEO will assist in the generation of the TREAT Multi-Family model for proposed multi-family weatherization projects where DCEO resources permit, where the Sub Grantee has completed and submitted a multi-family assessment per the guidelines below together with accurate measure cost information and where the Sub Grantee makes appropriate staff available to DCEO for finalizing the necessary TREAT Multifamily model.

#### ***V.5.3 Final Inspection***

Every completed weatherized unit will receive a final inspection by the Sub Grantee's Agency's IHWAP certified final inspector. This inspection will ensure that the weatherization work was completed properly, that all measures called for in assessment and work orders have been installed, completed in a workman like manner and in accordance with the priorities determined by the audit procedures.

The following procedures will support HCR compliance with DOE Quality Work Plan requirements.

The final inspection includes the following:

- review of the audit and work scope to determine that the work that was specified was completed, and that any changes to the work scope were approved in advance and properly documented;
- photographs of completed work;
- verification of the quality and quantity of materials installed;
- verification that installation standards and work quality is acceptable;
- a blower door test to verify final air flow, in units where the test can be safely conducted;
- verification that health and safety tests were conducted and that appropriate mitigation measures were performed;
- a steady-state efficiency test, when necessary;
- client signatures verifying completion of work;
- written notification to owners and occupants of any unsafe conditions; and,
- any additional documentation necessary to explain the outcome of the weatherization project

During Program Year 2014 Sub Grantees will be required to develop the capacity (either in-house or through procurement of contracted services) to conduct a final inspection of each assisted unit that complies with HCR and DOE requirements. Starting in July 2015 each final inspection must be conducted by a quality control inspector that holds current certification from an accredited organization as a Home Energy Professional Quality Control Inspector. DCEO will confirm Sub Grantee progress towards meeting this requirement by first ensuring that all Sub Grantee final inspection personnel prepare for and challenge the HEP QCI certification testing during Program Year 2014 (State Program Year 2015) and will confirm compliance during DCEO's routine desk monitoring and monitoring visits.

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***V.6 Weatherization Analysis of Effectiveness***

Through analysis of Local Administering Agency monitoring including field inspection and data analysis of data collected in the weatherization process and maintained in the WeatherWorks system, OEA has formed specific programs of work quality improvement for the Illinois Program Year 2015 (FY 2014).

First, is a continuing program to improve LAA air sealing work. Monitoring of homes weatherized includes analyzing success at achieving or exceeding air infiltration target rates as determined by the ASHRAE 62.2 ventilation calculation process. Where subgrantees are succeeding in less than 60% of homes weatherized they will be asked to identify actions taken or planned to improve air sealing. Suggestions for action include training efforts with contractors and assessors, job site monitoring of contractors during blower door directed air sealing efforts, field workshops conducted by the staff of the Indoor Climate Research and Training center. Additionally, Indoor Climate Research and Training Center will conduct field workshops for agencies at weatherized homes identified by failure to meet air infiltration goal and will review techniques for identifying and completing air sealing opportunities. Where subgrantees are succeeding in less than 80% but more than 60% of homes weatherized OEA will work with agencies to ensure that reasonable air sealing efforts are being made and to identify particular challenges that a type of housing stock present with the goal of identifying techniques and best practices that may overcome those challenges.

Second, OEA has identified raising the quality of home energy assessment as key to improving weatherization work quality and program compliance and will implement a program of assessor evaluation at each agency. OEA staff will accompany LAA assessors on one assessment and evaluate assessor skills per an evaluation tool. The process will include a post evaluation meeting to discuss observations and, where called for, develop an individual improvement plan with the LAA and its assessor.

Third, OEA will strengthen coordination between its Technical Unit that conducts systematic monitoring of at least 5% of each LAA's weatherization production and its Assessment and Training Unit by coordinated development of a risk assessment, monitoring and training and technical assistance plans. These plans will individually target work quality improvements at each agency and will draw upon monitoring history, Program Year 2014 (FY2013) air infiltration target success, the national IBTS survey results for their formation.

Fourth, OEA will strengthen the monitoring process by requiring an LAA response to monitoring reports with findings or numerous or repetitive observations that requires not only documentation of correction of work deficiencies but also the actions taken or planned that will ensure that similar deficiencies will not be repeated in future weatherization work.

Fifth, OEA continues to guide LAA weatherization programs in the implementation of the revised procurement procedures adopted in Program Year 2013 (FY 2012) in effort to ensure that IHWAP procurement is open, competitive and obtained at market rate pricing. Monitoring will include review of LAA procurement plans and procurement design and execution continues to be a substantial portion of OEA's IHWAP training and technical assistance program.

Additionally, DCEO is continuing a comprehensive program evaluation to determine average energy savings of weatherized homes and its program effectiveness. Local agencies are monitored for their production status on a monthly basis utilizing a computerized Weatherization

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tracking system. DCEO has contracted with the University of Illinois to provide a series of energy evaluation impact studies and to develop a methodology that will be used to conduct periodic impact energy evaluations of the IHWAP. Currently, electronic client data from DCEO databases is being reviewed and will be used to request billing data from utility vendors for energy use and savings. The first energy impact evaluation report was completed in June, 2006 and the second in August, 2011. The Indoor Climate Research and Training program (ICRT) of the University of Illinois Sustainable Technology Center is expected to have the next evaluation complete by June of 2014. This will be an ongoing evaluation process.

V.7 Health and Safety

Illinois Home Weatherization Assistance Program

Health and Safety Plan for Federal Fiscal Year 2014

Illinois has developed a Health and Safety Plan using WAP funds to identify and abate specific health and safety hazards that may exist in dwellings weatherized by Local Administering Agencies. The allowable Health and Safety average will be \$1,000 per unit. The maximum cost for Health and Safety work on a unit is \$1,500. This average was established in light of the ASHRAE 62.2 implementation. Health and Safety funds will be budgeted in a separate line item.

<b>Budgeting (Check one):</b>	
The grantee is encouraged to budget health and safety costs as a separate category and, thereby, excludes such costs from the average per-unit cost calculation. This separate category also allows these costs to be isolated from energy efficiency costs in program evaluations. The grantee is reminded that, if health and safety costs are budgeted and reported under the program operations category rather than the health and safety category, the related health and safety costs must be included in the calculation of the average cost per home and cost-justified through the audit.	
Separate Health & Safety Budget	<input checked="" type="checkbox"/>
Contained in Program Operations	<input type="checkbox"/>

Budgeting

Budgeting Justification

The 2014 Health and Safety Budget is set at 18.77% or \$916.38 average per home weatherized. In State Program Year 2013 IHWAP began applying the ASHRAE 62.2 ventilation standards to each home weatherized. In most homes weatherized that has meant the installation of mechanical ventilation. Last Program Year's Health and Safety Budget was set at 9.6% of average costs per unit but costs of compliance with the ventilation requirement pushed Health and Safety expenditures to almost 19.5%. Experience with installation costs in particular, which in some areas require electricians to install, have pushed sub-grantee Health and Safety requests to 19% or \$916.38 average per home weatherized. Typical Costs and Frequency Survey appears in the table below:

Allowed Measure	Typical Cost	Frequency	Total
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Installation of Smoke Detectors and Carbon Monoxide detectors.	\$150.00	80%	\$120.00
Installation/Repair of exhaust fans in kitchens and bathrooms in accordance with ASHRAE 62.2 protocol.	\$598.41	90%	\$538.57
Correcting/Repairing leaking fuel supply lines.	\$90.00	10%	\$9.00
Correcting/Repairing improper or ineffective HVAC venting (such as installing a chimney liner).	\$290.00	30%	\$87.00
Repairing/Replacing Air Conditioning units in homes where at-risk, medically certified/necessitated occupants dwell.	\$245.00	1%	\$2.45
Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions.	\$49.00	2%	\$0.98
Minor correction of moisture and mold creating conditions when necessary to ensure the long-term stability and durability of the weatherization measures and the clients' long-term health and safety.	\$100.00	5%	\$5.00
Minor electrical repairs/upgrades necessary for weatherization measures and where the health and safety of the occupant is at risk.	\$225.00	10%	\$22.50
Gutter or downspout work when necessary to keep rain water out of the dwelling to stop or prevent moisture/mold mildew conditions per DOE Standard Work Specifications.	\$60.00	2.00%	\$1.20
Combustion zone (depressurization) measures: transfer grilles, return actuators, fresh air intakes, jumper ducts, and door modifications.	\$95.00	20.00%	\$19.00
Ground Cover Installation at Crawlspace	\$210.00	53.00%	\$111.30
			\$917.00

***Health and Safety Expenditure Limits***

Recognizing that potential Health and Safety Costs could absorb and exceed WAP resources for any one home weatherization project, DCEO has established a Health and Safety Budget which may average \$916.38 per unit weatherized or 18.77% of the average cost per unit by an LAA but may not exceed \$1,500 in any one unit.

Health and Safety cost are allowed cumulatively. Costs which may be paid under Health and Safety include:

1. Installation of Smoke Detectors and Carbon Monoxide detectors;
2. Installation/Repair of exhaust fans in kitchens and bathrooms in accordance with ASHRAE 62.2 protocol;
3. Correcting/Repairing leaking fuel supply lines;
4. Correcting/Repairing improper or ineffective HVAC venting (such as installing a chimney liner);
5. Repairing/Replacing Air Conditioning units in homes where at-risk, medically certified/necessitated occupants dwell;
6. Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions;

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7. Minor electrical repairs/upgrades necessary for weatherization measures and where the health and safety of the occupant is at risk;
8. Minor correction of moisture and mold creating conditions when necessary to ensure the long-term stability and durability of the weatherization measures and the clients' long-term health and safety;
9. Gutter or downspout work when necessary to keep rain water out of the dwelling to stop or prevent moisture/mold mildew conditions per DOE Standard Work Specifications;
10. Sump Pump repair or replacement necessary to keep seepage water out of the dwelling to stop or prevent moisture/mold mildew conditions in accordance with the DOE Standard Work Specifications; and,
11. Other Health and Safety-related costs (such as water heater repair).

#### ***Deferral Policy***

The decision to defer work in a dwelling or, in extreme cases, provide no Weatherization services, is difficult but necessary in some cases. This does not mean that Weatherization Assistance will never be available, but that work must be deferred or postponed until the problems can be resolved. Local IHWAP Administering Agencies will pursue all reasonable options on behalf of the client and seek outside funding and/or resources if possible.

Deferral conditions may include, but are not limited to:

- a. The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
- b. The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that failure is imminent and the conditions cannot be resolved in a cost effective manner.
- c. The house has sewage or other sanitary problems that would further endanger the client and weatherization installers if Weatherization measures were installed.
- d. The house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building officials or utilities.
- e. Moisture problems are so severe they cannot be resolved under existing health and safety measures and with minor repairs.
- f. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.
- g. The client is uncooperative, abusive, or threatening to the crew, subcontractors, auditors, inspectors, or others who must work on or visit the house.
- h. The extent and condition of lead-based paint in the house would potentially create further health and safety hazards for the client or Weatherization workers.
- i. Illegal activities are being conducted in the dwelling unit.

In some cases, IHWAP funds may be utilized to correct the situation (red-tagged heating system, high CO readings, minor plumbing repair, minor roof repair, etc.). If the problems that caused the deferral have been properly corrected, the home may be eligible for Weatherization services.

Weatherization clients that feel the Deferral Policy is incorrect or unfair may appeal the decision through the standard Weatherization Appeal process. It may be possible to utilize other funding sources to correct the issue that is causing the program deferral. Some Local Administering Agencies may also have access to other funding options or other federal, state, local, or other resources where the client could be referred for the deferral reasons to other agencies/organizations.

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***Health and Safety Investigation during Weatherization Assessment and Health and Safety Notice and Client Education***

At time of application all Weatherization applicants are interviewed about potential health and safety hazards in their home and the results of this health and safety interview are recorded on a form.

Most importantly, at the time of the initial energy audit, the auditor also asks the client about problems in the home, possible sickness from Carbon Monoxide poisoning, smell of flue gasses, mold problems, etc. As part of the energy audit the auditor will make important health and safety observations. The WAP client will also receive Consumer Education on all applicable issues in the latest DOE Health and Safety Guidance.

All precautions are taken to ensure that clients are protected from any potential Health and Safety risks. Local WAP agencies have been trained in identifying any health and safety hazardous conditions in the home and the use of a Hazardous Condition Reporting form. All homes receive combustion appliance testing with flue gas analyzers, CO and gas leakage detection equipment and undergo a complete health and safety inspection. All homes are reviewed to ensure proper operation of smoke detectors, and of CO detectors. In addition, we provide copies of the EPA pamphlets "Renovate Right" and "Mold and Moisture" to the owners and occupants at the time of energy audit.

Documentation of receipt is retained in the customer file.

During the assessment, the IHWAP assessor may discover a variety of hazardous health and/or safety conditions. These hazardous conditions are classified as either "immediate" or "potential" depending on their severity. They are defined as follows:

**Immediate Hazard Conditions** - Conditions that reasonably constitute an immediate risk of harm to person or property. For example: gas leaks, severe structural problems, electrical safety problems, severe mold problems, immediate fire hazards, etc.

**Potentially Hazardous Conditions** - Conditions that reasonably represent a potential risk of harm to person or property. for example: items stored in the attic or basement impeding access, leaking water or sewage lines, minor structural problems, etc.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property is listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord. This form includes the client's name, address, assessment date, job number, description of a hazardous condition, time and date, and client and assessor signatures. If an Immediate Hazard is discovered, no Weatherization work (architectural or mechanical) is to be done on the home until the immediate hazard has been corrected. If the immediate hazard cannot be corrected, the home is deferred from Weatherization work until such time that the appropriate hazardous conditions have been remedied or repaired.

***Incidental Repair Limit***

In addition to the Health and Safety Limit, DCEO will implement an Incidental Repair Limit of \$700, an Incidental Repair is a weatherization measure that is necessary for the effective performance or preservation of weatherization materials. Incidental Repair measures are separate and distinct from Energy Saving Retrofit measures or Health and Safety measures.

Some examples of Incidental Repair measures are:

1. Minor roof repair necessary for the effective performance of weatherization measures;
2. Exterior or interior wall repair, necessary to install insulation; Ceiling repair, necessary to install insulation;
3. Repair or replacement of heating system ductwork only if associated with a heating system replacement (and documented as such). If no heating system replacement is done for the unit, repair or replacement, as well as ductwork sealing, would be justified within the air infiltration reduction Energy Conservation Measure Savings to Investment Ratio because this work is intended to save energy lost through air leakage;

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The need for any Incidental Repairs will be justified and documented in the Client File. The cost of these repairs will be included in the Whole House SIR Calculation.

#### ***Health and Safety Plan for Specific Hazards***

The IHWAP Health and Safety Plan encompass the following policy, practice and procedure for specific health and safety threats:

#### **Air Conditioning and Heating Systems**

✓ Concur with WPN 11-6

Funding: General repair and replacement of heating and cooling equipment will not be conducted with Health and Safety funding. Repair or replacement of Air Conditioners as a medically- necessitated Health and Safety measure are only allowed with HHS or State funding. Correcting/Repairing improper or ineffective Water Heater is an allowable health and safety cost. If the flue liner is NOT being installed because of a heating system Retrofit, then it is an allowable health and safety cost.

Beyond DOE WAP Scope: Replacement of nonexistent heating systems, repair or replacement of air conditioning systems with DOE funds is not allowed. Gas lines, sediment traps, flexible connectors, temperature/pressure discharge pipes, temperature/pressure valves, or gas shut off valves are not allowed to be replaced unless they are damaged or leaking.

Standards for Remedy: Air conditioning system replacement, repair, or installation is allowed in homes of at-risk occupants where climate conditions warrant with State or HHS funding.

In Multifamily projects no architectural work is to be done on any unit where the heating system has been determined to be unsafe.

Standards for Referral: Where alternative help with this health and safety hazards exists, client are referred. LIHEAP Emergency Heating program for repair or replacement of heating systems is considered where the client is eligible.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes awareness of IHWAP policy and procedure air conditioning and heating system repair or replacement. The TCP curriculum includes the protocols and procedures for gas leak and combustion testing.

IHWAP's five day contractor certification for HVAC contractors and Mobile Furnace lab training will include combustion safety training and awareness of relevant guidance.

Client Education: Where new units are installed Final inspector will ensure that the occupants have copies of appliance manuals. Where appropriate the LAA will discuss and provide information on appropriate use, maintenance, and disposal of appliances / water heaters. If bulk fuel tanks are not removed, LAA staff will discuss their proper disposal with occupants.

Air Conditions Installation: Assessor will make sure systems are present, operable and performing.

Assessor will also determine the presence of at-risk occupants. In most cases, this would only be limited to the repair of a central AC system or the installation of a window air conditioner but it can include replace of central air condition systems.

An at-risk client must have a medical professional complete and sign the Medical Condition Verification Form. This form is found in the Intake Attachments of the IHWAP Operations manual at Page IV.26.

Because the air conditioner work is a Health and Safety measure, a positive SIR would not be required and the measure would not have to be calculated as a Retrofit. The costs of this measure would have to include the labor to repair/install the air conditioning.

Heating System Installation: Assessor will determine if heating systems are present, operable and performing. Repair or Replacement is cost justified using a Savings to Investment Ratio (SIR) as an energy-

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saving retrofit measure only.

#### Appliances and Water Heaters

✓ Concur with WPN 11-6

Funding: Correcting/Repairing improper or ineffective Water Heater is not an allowable health and safety cost – it may be a Retrofit measure if cost justified. If the flue liner supports the Retrofit measure for a new heating system, then the cost is included in the cost of the Retrofit. If the flue liner is NOT being installed because of the Retrofit, then it is an allowable health and safety cost.

Beyond DOE WAP Scope: Replacement of an appliance other than water heaters is not an allowable health and safety cost. See also air conditioning and heating systems above. The Water Heater Repair costs does NOT include the installation of a chimney liner (or Class B flue), if needed.

Gas lines, sediment traps, flexible connectors, temperature/pressure discharge pipes, temperature/pressure valves, or gas shut off valves are not allowed to be replaced unless they are damaged or leaking.

Standards for Remedy: Combustion appliances are visually inspected as part of the assessment process to determine if they are performing safely. In addition, at assessment, at the end of each work day, and at final inspection combustion testing is performed on each combustion appliance. Copies of test results are placed in the job file and are subject to OEA's monitoring protocol.

Water heaters may be repaired under the overall Health and Safety category. The repair work may include the gas valve, venting, burner adjustment, burner door replacement, minor repairs, etc.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes conducting diagnostic testing on appliances as well as combustion safety training.

IHWAP's five day contractor certification for HVAC contractors' curriculum includes combustion safety training and awareness of relevant guidance.

Client Education: Where assessment detects evidence of this health and safety hazard, LAAs at assessment or at final inspection counsel the client and provide information on appropriate use, and maintenance of appliances / water heaters.

#### Asbestos - in siding, walls, ceilings etc.

✓ Concur with WPN 11-6

Funding: Removal of siding is allowed to perform energy conservation measures.

Beyond DOE WAP Scope: Abatement and replacement of asbestos containing building components is not allowed with any IHWAP funding.

Standards for Remedy: Assessors and installers will inspect the exterior wall surfaces and substrate for asbestos siding prior to drilling or cutting.

Removal of siding is done to perform energy conservation measures. All precautions must be taken not to damage siding. Asbestos siding should never be cut or drilled. Recommended, where possible, to insulate through home interior.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes Asbestos identification and management.

IHWAP's five day contractor certification curriculum includes Asbestos hazard training. All LAA weatherization staff, weatherization contractors' workers must complete either OSHA 15 or OSHA 30 hour training which includes training on Asbestos hazards and the workplace.

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Client Education: When suspected asbestos siding is present client / owner is informed and informed on how to take precautions.

**Asbestos - Vermiculite**

✓ Concur with WPN 11-6

Funding: Asbestos prescriptive sampling is allowed by a certified tester. Encapsulation that can be accomplished without disturbance by a Contractor who has completed IHWAP contractor certification course is paid for only as part of a cost justified energy conservation measure.

Beyond DOE WAP Scope: Removal of asbestos containing material is not allowed.

Standards for Remedy: At assessment the assessor visually screens for the presence of vermiculite. Where vermiculite is present, unless testing has determined otherwise, it is assumed to contain asbestos and precautionary measures such as not using blower door tests, are taken. Removal as an IHWAP measure is not allowed but an IHWAP certified contractor may encapsulate when it is part of a cost justified energy conservation measure and it can be done without disturbance of the vermiculite. Where Blower door tests are performed they will be performed pressurized instead of depressurized.

Standards for Deferral: If complete removal is necessary to install and / or preserve weatherization measures, then the project is deferred.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes identification and management.

IHWAP's five day contractor certification curriculum and OSHA worker safety trainings will include how to identify and manage asbestos containing material.

Client Education: Where assessment detects evidence of this health and safety hazard, LAAs at assessment or at final inspection the LAA staff will counsel the client not to disturb suspected asbestos containing material and will provide the client with a copy of asbestos safety information. If asbestos testing has been done, the client is provided a copy of the results and will sign a form stating the results were received.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property is listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

**Asbestos - on pipes, furnaces, other small covered surfaces**

✓ Concur with WPN 11-6

Beyond DOE WAP Scope: Asbestos removal or hazard abatement is not allowed with IHWAP funding.

Standards for Remedy: Asbestos is assumed present in covering materials. Testing is allowed by a certified tester.

Standards for Deferral: If weatherization would disturb or otherwise create a hazardous condition the building is deferred.

Standards for Disposal: Wastes that are generated where asbestos is present are handled in compliance with the guidelines enumerated in OSHA 29 CFR 1926.1101(IV), Appendix H, Substance Technical Information for Asbestos: Disposal Procedures and Clean-up.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes Asbestos identification and management.

IHWAP's five day contractor certification curriculum includes Asbestos hazard training. All LAA weatherization

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

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staff, weatherization contractors' workers must complete either OSHA 15 or OSHA 30 hour training which includes training on Asbestos hazards and the workplace.

Client Education: Where covering materials suspected of containing asbestos are present, the assessor and /or final inspector will instruct clients not to disturb it. If testing is done clients will receive a copy of the results and will sign a form attesting to the receipt.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

#### **Biologicals and Unsanitary Conditions- odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc.**

✓ Concur with WPN 11-6

Funding: Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed. 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

Beyond DOE WAP Scope: Addressing bacteria and viruses is not an allowable cost. Where severe Mold and Moisture problems are so severe they cannot be resolved under existing health and safety measures and with minor repairs the building is deferred

Standards for Remedy: Sensory and visual inspection for these health and safety issues is part of the assessment protocol. Moisture meters are carried by assessors and used to diagnosis moisture problems. Mold testing is not an IHWAP allowable cost.

Standards for Deferral: 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.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes how to recognize conditions and when to defer as well as worker safety when coming in contact with these conditions.

IHWAP's five day contractor certification curriculum includes how to recognize conditions and when to defer as well as worker safety when coming in contact with these conditions.

Client Education: Were these problems are identified clients receive information on the issues and where appropriate information on how to maintain a sanitary home or moisture awareness information. Where a home is deferred for these issues the LAA will inform the client of what steps to take to correct the deferral conditions.

All clients will receive the EPA Lead Booklet (Renovate Right), and the Moisture/Mold Booklet, are required to be given to every IHWAP Client at the time of the Assessment/Energy Audit. The Client must sign a form stating they have received the booklets at the time of Assessment. They can either sign the form in the back of the book or the form in Exhibit VIII.12. If LAAs do not have sufficient copies on hand, they will copy the camera-ready copies of these booklets from the EPA's internet site, and print them locally.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

Training: Training on these health and safety issues is included in the Weatherization Training and Certification Program training, incorporated in IHWAP Field Standards and Operations Manual and reinforced in OEA field contact with LAA personnel. The IHWAP's Health and Safety on Indoor Pollutants course will include introduction to mold, moisture and biological hazards as well as basic mitigation strategies.

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#### Building Structure and Roofing

- ✓ Concur with WPN 11-6

Funding: Building rehabilitation is beyond the Scope of IHWA. Homes with conditions that require more than incidental repair should be deferred.

Beyond DOE WAP Scope: Building rehabilitation is beyond the scope of the Weatherization Assistance Program. Structural and roof repair are not allowable costs of the IHWAP.

Standards for Remedy: Visual inspection for roofing and structural issues is part of the assessment protocol. Evaluation of roofing and structural issues includes ensuring that access necessary for weatherization work is safe for entry and performance of assessment, work and inspection.

Standards for Deferral: Where the house has been condemned or electrical, heating, plumbing, or other equipment has been "red tagged" by local or state building officials or utilities the home is deferred.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes how to identify structural and roofing issues.

IHWAP's five day contractor certification curriculum includes general code compliance.

Client Education: Clients are notified of structurally compromised areas and, where the building is deferred for roofing or structural issues, of the necessary steps to correct.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

Procedure and Protocol: If more than incidental repair is required the building is deferred. Roofing repair to ensure the long term stability and durability of weatherization measures may be allowed under the health and safety budget.

Training: Training on how to identify structural issues is included in the Weatherization Training and Certification Program training, incorporated in IHWAP Field Standards and Operations Manual and reinforced in OEA field contact with LAA personnel.

#### Code Compliance

- ✓ Concur with WPN 11-6

Funding: Correction of preexisting code compliance issues is allowable only where weatherization measures are being conducted.

Beyond DOE WAP Scope: Correction of preexisting code compliance issues is not allowable except where weatherization measures are being conducted.

Standards for Remedy: Weatherization work will comply with applicable codes in the jurisdiction where the work is being done. Visual inspection at assessment and local code enforcement inspections are used to establish code compliance issues.

Standards for Deferral: Condemned properties and those with "red tagged" health and safety conditions are deferred.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes relevant code compliance policy and how to determine what code compliance may be required.

IHWAP's five day contractor certification curriculum includes overview of code compliance policy.

Client Education: Clients are informed of code compliance issues where they are uncovered in the assessment.

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All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

#### Combustion Gases

✓ Concur with WPN 11-6

Funding: Proper venting of combustion appliances is an IHWAP requirement. Correction of venting is allowed when testing indicates a problem.

Beyond DOE WAP Scope: Replacement, repair or modification of combustion venting that is not related to solving health and safety problems indicated by testing is beyond the scope of IHWAP weatherization funding.

Standards for Remedy: Combustion safety testing will occur wherever combustion appliances are present. The assessor shall inspect venting of combustion appliances and confirm adequate clearances. Naturally drafting appliances are tested for draft and spillage under worst case conditions before and after air tightening. Cooking burners may be inspected for operability and flame quality.

Training: How to perform appropriate testing, determine when a building is excessively depressurized, and the difference between air free and as-measure is part of the IHWAP TCP curriculum. In addition, combustion safety field training is offered or required whenever monitoring indicates that it is not being done correctly.

IHWAP's five day contractor certification curriculum includes awareness of combustion safety issues and how to perform combustion safety testing.

IHWAP monitoring of assessor skill will focus on combustion safety testing and where inadequate skills are noted, OEA Assessment and Training Unit will provide field training to LAA personnel.

Client Education: As part of the weatherization process, clients are provided a combustion safety and hazards informational flyer. This will include the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

Combustion Gas Problem Discovery On all Natural Draft & Power Vented Appliances the following procedures are followed:

The following inspection procedures and maintenance practices are performed on all gas-fired furnaces, boilers, water heaters and space heaters. The IHWAP Weatherization Field Standards Manual provides the acceptable combustion test analysis values.

1. Inspect the burners for dust, debris, misalignment and other flame-interference problems. Look for soot, burned wires, and other evidence of flame roll-out. Clean, vacuum and adjust burners.
2. Clean and adjust thermostat and check anticipator setting.
3. Determine that pilot is burning (if equipped) and that main burner ignition is satisfactory.
4. Test pilot-safety control for complete gas valve shutoff when pilot is extinguished.
5. Install new thermocouple (if an intermittent ignition device, or IID, is being installed).
6. Adjust pilot flame so that the hot tip of the thermocouple is enveloped by the flame.
7. Test for CO with flue gas analyzer in undiluted flue gases before they enter the draft hood. A CO reading of 100 ppm is considered the maximum acceptable level. A reading in excess of 100 ppm indicates that the furnace needs to be adjusted or repaired.

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8. Observe flame characteristics if soot, CO, or other combustion problems are evident.
9. Remove causes of CO and soot, such as closed or blocked primary air intake, over-firing and flame impingement.
10. Check venting system for proper size and pitch.
11. Check venting system for obstructions, blockages or condensation.
12. Set up and operate house under worst-case depressurization identified in the IHWAP Weatherization Field Standards Manual, "House Depressurization Limits", when measuring appliance draft, measure chimney draft above the draft diverter. Minimum draft pressures shown in IHWAP Weatherization Field Standards Manual must be reached within two minutes of appliance operation for each natural draft combustion appliance. Draft does not have to be measured for power-vented appliances.
13. Take action to improve draft, if inadequate because of improper venting, leaky venting, obstructed chimney or lack of combustion/dilution air.
14. Seal leaks in vent connectors and chimneys with high temperature sealant.
15. Determine steady-state efficiency (SSE) using flue gas analyzer measuring in undiluted flue gases below the draft diverter.
16. Check high limit control for proper operation
17. Measure O<sub>2</sub> level and stack temperature in undiluted gases (before they enter the draft hood). O<sub>2</sub> level should be between 4% and 9%. Net stack temperature should be between 300oF and 600oF.
18. Measure gas input
19. Adjust gas input if burners are over-fired or under-fired. Adjust input by adjusting gas pressure to between 3.4" and 4.3" water column (w.c.) for natural gas and 10 " w.c. to 11" w.c. for propane, or replace the burner orifices.
20. Testing of naturally drafting appliances for draft and spillage under worst case conditions will occur before and after air tightening.

The following inspection procedures and maintenance practices are required for all direct vent sealed combustion furnaces.

1. Inspect the burners for dust, debris, misalignment and other flame-interference problems. Look for soot, burned wires, and other evidence of flame roll-out.
2. Clean, vacuum and adjust when needed.
3. Inspect the secondary heat exchanger and clean as needed. Inspect and clean combustion blower wheel and motor as needed. Clean and adjust thermostat and check anticipator setting.
4. Test for CO with flue gas analyzer in undiluted flue gases before they enter the draft hood. A CO reading of
5. 100 ppm is considered the maximum acceptable level. A reading in excess of 100 ppm indicates that the furnace needs to be adjusted or repaired.
6. Observe flame characteristics if soot, CO, or other combustion problems are evident.
7. Remove causes of CO and soot, such as closed primary air intake, over-firing, and flame impingement. Check venting system for proper size and pitch.
8. Determine steady-state efficiency (SSE) using flue gas analyzer measuring in undiluted flue gases below the draft diverter.
9. Check high limit control for proper operation.

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10. Measure O2 level and stack temperature in undiluted gases (before they enter the draft hood). Adjust as necessary to meet Product Manufacturer's Instructions.
11. Measure gas input
12. Adjust gas input if burners are over-fired or under-fired. Adjust input by adjusting gas pressure to between 3.4" and 4.3" water column (w.c.) for natural gas and 10" w.c. to 11" w.c. for propane, or replace incorrect or damaged burner orifices.

Cooking burners are inspected for operability and flame quality in the assessment process.

Client Education: Clients are provided a combustion safety and hazards informational flyer as part of the weatherization process.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

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

✓ Concur with WPN 11-6

Funding: Major drainage issues are beyond the scope of IHWAP. Homes with conditions that create a serious health concern that require more than incidental repair will be deferred.

Beyond DOE WAP Scope: Addressing drainage issues is beyond the scope of IHWAP weatherization work except in limited instances where correction of moisture and mold conditions is necessary in order to weatherize the home and to ensure the long term stability and durability of the weatherization measures installed.

Standards for Remedy: Assessor visually inspects to determine potential drainage issues. Where issues are identified, the assessor determines if deferral is appropriate.

Standards for Deferral: Homes with drainage problems that may create a serious health concern requiring more than incidental repair are deferred.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program (TCP). The TCP curriculum includes awareness and identification of drainage issues and inspection procedures for them.

IHWAP's five day architectural contractor certification curriculum includes awareness of drainage issues.

Client Education: Where assessment detects evidence of this health and safety hazard, LAAs at assessment or at final inspection will counsel the client All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

#### **Electrical Other than Knob- and Tube Wiring**

✓ Concur with WPN 11-6

Funding: Minor electrical repairs are allowed where health and safety of occupants is at risk. Upgrades and repairs will also be allowed when necessary to perform specific weatherization measures.

Beyond DOE WAP Scope: Replacement of electrical systems is not allowed with any IHWAP grant.

Standards for Remedy: The Assessor will inspect for electrical safety issues at assessment.

Standards for Deferral: To the extent electrical conditions prevent proper weatherization and may not be addressed with WAP funds, the home is deferred and other resources, if available, on a case-by-case basis.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's

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ten week Training Certification Program. The TCP curriculum includes: How to identify electrical hazards and their remedy.

IHWAP's training curriculum will offer a continuing education class in basic electricity and electrical issues

Client Education: Clients are provided the Electrical Safety Workbook which includes information on over-current protection, overloading circuits, and basic electrical safety/risks.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

#### Electrical Knob- and Tube Wiring

✓ Concur with WPN 11-6

Funding: Minor repairs, including minor upgrades of knob and tube wiring systems, are allowed where health and safety of occupants is at risk. Upgrades and repairs will also be allowed when necessary to perform specific weatherization measures.

Beyond DOE WAP Scope: Replacement of electrical systems is not allowed with any IHWAP grant.

Standards for Remedy: The Assessor will inspect for electrical safety issue at assessment. Wall cavities that contain active knob-and-tube wiring will not be insulated

Standards for Deferral: Where the extent electrical conditions prevent proper weatherization and may not be addressed with WAP funds the building will be deferred.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. How to identify electrical hazards

IHWAP's training curriculum will offer a continuing education class in basic electricity and electrical issues

Client Education: Clients are provided the Electrical Safety Workbook which includes information on over-current protection, overloading circuits, and basic electrical safety/risks.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord

#### Fire Hazards

✓ Concur with WPN 11-6

Funding: IHWAP allows correction of fire hazards when necessary to perform weatherization work.

Beyond DOE WAP Scope: IHWAP funds from any source cannot be used to remedy certain conditions that constitute fire hazards, such as excessive accumulation of debris that make it impossible to safely perform weatherization work beyond the limits of the Health and Safety Budget.

Standards for Remedy: Assessment and audit will include a check for fire hazards. Work procedures will include a check for fire hazards as well.

Standards for Deferral: Certain conditions that constitute fire hazards, such as excessive accumulation of debris that make it impossible to safely perform weatherization work and cannot be remedied within the health and safety budget is grounds for deferral.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes awareness of and inspection for fire hazards.

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IHWAP's five day contractor certification curriculum includes fire hazard training. All LAA weatherization staff, weatherization contractor's workers must complete either OSHA 15 or OSHA 30 hour training which includes training on fire hazards and the workplace.

Client Education: Clients are informed of observed fire hazards.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord

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

✓ Concur with WPN 11-6

Funding: Removal of pollutants is allowed and is required if they pose a risk to workers.

Standards for Remedy: Sensory inspection is part of the inspection process. Removal of pollutants is allowed and is required if they pose a risk to workers.

Standards for Deferral: If pollutants pose such a risk and they cannot be removed or the client will not allow removal, the property is deferred.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes how to recognize potential hazardous and when removal is necessary

Client Education: Clients are advised where there is an observed risk and be provided with written materials on safety and proper disposal of household pollutants.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

Procedure and Protocol: Removal of pollutants is allowed and is required if they pose a

### Injury Preventions for occupants and workers

✓ Concur with WPN 11-6

Funding: Minor repairs and installation is allowed only when necessary to effectively weatherize a home.

Beyond DOE WAP Scope: Repairs for injury prevention other than when necessary to effectively weatherize a home are not allowed to be funded with IHWAP funds from any source.

Standards for Remedy: Assessor observation at assessment is the primary means of identification of injury risks to workers such as repairing stairs or replacing handrails.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes injury prevention identification and management.

IHWAP's five day contractor certification curriculum includes injury prevention awareness. All LAA weatherization staff, weatherization workers must complete either OSHA 15 or OSHA 30 hour training which includes training on injury prevention in the workplace.

Client Education: Clients are informed of observed hazards and associated risks.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

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

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#### Lead Based Paint Hazards

- ✓ Concur with WPN 11-6

Funding: Where lead safe work practices are required as part of a cost justified energy conservation measure or incidental repair measure their costs may be funded as a health and safety measure.

Beyond DOE WAP Scope: Lead based paint hazard abatement is not allowed with IHWAP weatherization funding.

Standards for Remedy Testing for lead based paint hazards is allowed. All homes built prior to 1978 is treated as if they have lead-based paint and all work follows the requirements of the United States Environmental Protection Agency's "Renovation, Repair, and Painting" (RRP) program employing lead-safe methods while working on painted surfaces that are being repaired or retrofitted for energy efficiency. Additionally, contractors and crews comply with the U.S. Department of Energy's for Lead Safe Worker requirements for lead safe practices and procedures as described in Weatherization Program Notice WPN 08-6 & 09-6 when in the course of installing weatherization measures when disturbing painted surfaces assumed to contained lead based paint -- technologies or techniques are employed to ensure that workers work safe to protect themselves and the IHWAP clients.

Summary of Lead-based Paint Safe Work Practices –An RRP Certified Renovator performs job site set up and cleaning verification.

Working Wet – DCEO trains its LAAs to "work wet" and carefully clean up by using HEPA-VACS to vacuum dust and debris raised when Weatherization work is being done. Family members will not be allowed in the immediate work area while the work is in process.

i. *Visqueen the work area* - Visqueen the work area means the crews and Contractors would place 6mil Visqueen in the immediate area where they are working and a painted surface is disturbed so that any waste materials would fall on to the Visqueen. The Visqueen is to be taped to the floor so it does not slide around and it stays in place. Air distribution systems in the immediate areas - warm air supply and return ducts must be taped.

ii. *Working Wet* - Working wet means that during the preparation of work surfaces or nailing, screwing fasteners, sawing, or disturbing the painted surfaces, the area should be misted with plain water so as to keep dust levels down. Wetting the painted surfaces keeps the dust levels down and avoids creating and spreading dust. This technique has been shown effective in keeping lead levels to a minimum. Lead poisoning from lead-based paint and products has been shown to be caused principally by air borne dust from lead-based products.

iii. *Cleaning up the Area* - When the work is completed, the Visqueen must be folded up into itself and double taped. The work area must be vacuumed with a HEPA-VAC, and then washed down with a detergent. The area again is vacuumed with a HEPA-VAC. All Local Administering Agencies will distribute the Lead booklets (Renovate Right) at time of assessment, prior to the weatherization work beginning. Workers are required to employ LSW on EVERY home, whether there is more or less than two square feet of interior lead-based paint estimated. DCEO has informed all Sub grantees that although pollution occurrence insurance is now optional, it is a good idea to continue to carry it. DCEO will monitor for LSW compliance at the local contractor and crew. Any non-compliance issues are dealt with using the procedures outlined in the Problem Resolution measures listed below, in the Monitoring section.

Training: All contractor weatherization crews have at least one supervisory worker who has been trained and certified in lead-safe renovation practices under the United States Environmental Protection Agency's "Renovation, Repair, and Painting" (RRP) program.

All weatherization workers and LAA coordinators, assessors and final inspectors have Lead Safe Worker Training and EPA Lead Safe Renovator training.

DCEO provides the revised Lead Safe Work (LSW) Practices Training to all WAP Sub grantee staff as part of both its required TCP training required of all agency coordinators, assessors and final inspectors and its Contractor Certification Training required of all weatherization contractors.

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

Identification Number: EE000651, State: IL, Program Year: 2014

All Sub-Grantees and building shell contractors are required to have the EPA Certified Lead Renovator training. The Sub-Grantees and building shell contractors will obtain this contracting on their own.

#### Client Education:

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

### Mold and Moisture

✓ Concur with WPN 11-6

**Funding:** Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are all allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures

**Beyond DOE WAP Scope:** IHWAP funding from any source cannot be used to address severe Mold and Moisture issues nor can it be used for mold testing.

**Standards for Remedy:** The sub grantee's assessor shall visually inspect at the time of the audit. During the course of the energy audit, Weatherization staff asks the client about the problems of energy use in their home. In that interview the clients are asked about moisture and mold. A checklist for mold and moisture is included as documentation of this discussion, and is included in the client file. The Local Administering Agency staff uses the conversation with the client to assist in identifying the potential deficiencies and weatherization work for the home.

**Standards for Deferral:** Where severe Mold and Moisture issue cannot be addressed, deferral is required.

**Training:** Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes the national curriculum.

Awareness of moisture and mold hazards for the weatherization program is detailed in the Weatherization Standards published in the administrative guidance for the Illinois Home Weatherization Assistance Program (IHWAP), which is updated each year. In addition, the Weatherization Field Standards Manual contains a section on "Mold and Moisture Hazards" including text, general guidelines, and photographs. The Indoor Climate Research and Training program of the University of Illinois Sustainable Technology Center has prepared this section. The Weatherization Field Standards Field Manual also contains a section under "Health and Safety Issues" on "Moisture" and recommendations on potential solutions. The Weatherization Field Standards Field Manual is distributed to all Local Administering Agencies, and all IHWAP contractors

**Client Education:** In addition to the interview, the EPA publication "A Brief Guide to Mold, Moisture, and Your Home" is distributed to all WAP clients

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property is listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

#### Mold Protocols:

Awareness of moisture and mold hazards for the weatherization program is detailed in the Weatherization Standards published in the administrative guidance for the Illinois Home Weatherization Assistance Program (IHWAP), which is updated each year. In addition, the Weatherization Field Standards Manual contains a section on "Mold and Moisture Hazards" including text, general guidelines, and photographs. The Indoor Climate Research and Training program of the University of Illinois Sustainable Technology Center has prepared this section. The Weatherization Field Standards Field Manual also contains a section under "Health and Safety Issues" on "Moisture" and recommendations on potential solutions. The Weatherization Field Standards Field Manual is distributed to all Local Administering Agencies, and all IHWAP contractors

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

Identification Number: EE000651, State: IL, Program Year: 2014

#### Occupant Pre-existing or Potential Health conditions

- ✓ Concur with WPN 11-6

Funding: Temporary relocation of at-risk occupants is allowed on a case by case basis.

Beyond DOE WAP Scope: If cost of relocation is beyond the scope of the health and safety budget, no IHWAP funds from any grant source may be used.

Standards for Remedy: Initial client interview will include questions on known or suspected health concerns. Clients are screened again during audit

Standards for Deferral: If cost of relocation is beyond the scope of the health and safety budget, the home must be deferred.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes awareness of potential hazards and how to assess occupant preexisting conditions and determining what action to take if the home is not deferred

Client Education All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property is listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

#### Occupational Safety and Health Administration (OSHA) and Crew Safety

- ✓ Concur with WPN 11-6

Standards for Remedy: Weatherization workers will follow OSHA standards and Material Safety Data Sheets (MSDS) pursuant to the revised Hazard Communications Standard 29 Code of Federal Regulations 1910.1200, and will 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.

Training: Agency Weatherization coordinators, assessors and final inspectors as well as all personnel installing weatherization measures whether employees of the sub-grantee or their contractors will have completed the OSHA 10 hour or OSHA 30 hour training. Crew leaders must have the OSHA 30 hour training.

DCEO provides Health and Safety training to all WAP crews, contractors and Local Administering Agency field staff. WAP agencies will comply with OSHA requirements. Costs for tools, and equipment related to Health and Safety for applicable WAP staff is paid from IHWAP Program Support funding. If the items are for Health and Safety Training, the costs may also include training and technical assistance (T&TA) funds. Health and Safety requirements are contained in the Weatherization Field Standards Manual. The Weatherization Field Standards Manual details the requirement to use personal safety equipment when necessary.

Training also includes the requirement and use of Material Safety Data Sheets (MSDS), first aid techniques, and related safety equipment like ladders and respirator protection and proper worker safety techniques. During this program year, DCEO will again be requiring the 10- hour Construction Worker and 30-hour Construction Supervisor OSHA safety course for all Weatherization contractors and crews. DCEO will periodically monitor Weatherization jobs in progress to ensure that contractors /crews are utilizing safe work practices according to all program requirements.

OSHA and MSDS Compliance: OEA Weatherization Monitoring unit performs periodic work site assessments to determine if crews are utilizing safe work practices.

#### Pests

- ✓ Concur with WPN 11-6

Funding: Pest removal is allowed only where infestation would prevent weatherization. Screening of windows and points of access is allowed to prevent intrusion.

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

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Beyond DOE WAP Scope: Pest removal or eradication not related to installation of weatherization measures is not allowed.

Standards for Remedy: At assessment the assessor will determine the presence and degree of infestation and risk to workers.

Standards for Deferral: Infestation of pests may be cause for Deferral where the infestation cannot be reasonably removed or poses health and safety concern for workers.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes how to assess the presence and degree of infestation associated risk and need for deferral.

Client Education: Clients are informed of observed conditions constituting pest related health risks.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property is listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

### Radon

✓ Concur with WPN 11-6

Funding: Testing may be allowed in locations with high radon potential

Beyond DOE WAP Scope: Other than covering exposed dirt with vapor barriers, the costs of radon mitigation cannot be funded with IHWAP funds from any grant source. \*

Standards for Remedy: Whenever site conditions permit, exposed dirt must be covered with a vapor barrier except for mobile homes. In homes where radon may be present, precautions should be taken to reduce the likeliness of making radon issues worse.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes radon awareness: what it is, how it occurs, what factors may make it worse and what weatherization measures may be helpful.

Client Education: Clients are provided with the EPA Consumer's guide to Radon.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property is listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

### Refrigerant

✓ Concur with WPN 11-6

Funding: The costs of refrigerant handling and safe disposal are included in the costs of the relevant retrofit weatherization measure.

Standards for Remedy: Refrigerant is reclaimed per the Clean Air Act 1990, section 608, as amended by 40 CFR82, 5/14/93.

Training: Workers handling refrigerants are required to have EPA approved section 608 type I or universal certification.

Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes proper handling of refrigerants

IHWAP's five day HVAC contractor certification curriculum and its Mobile Furnace Lab trainings will include proper handling of refrigerant.

Client Education: Clients are advised to not disturb refrigerants.

Disposal Procedures & Procedure and Protocol: Refrigeration appliances that are replaced are disposed of

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according to the environmental standards in the Clean Air Act (1990), Section 608, as amended by the Final Rule, 40 CFR 82, May 14, 1993. The party recovering the refrigerant must possess an EPA-approved Section 608 Type II license or an approved universal certification.

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

✓ Concur with WPN 11-6

Funding: Installation of smoke/CO detectors is allowed where detectors are not present or are inoperable.

Beyond DOE WAP Scope: Replacement of operable smoke / CO detectors is not an allowable cost with IHWAP funds from any source.

Standards for Remedy: In all houses weatherized at least one operational smoke detector is installed. Smoke detectors are installed when one is not present or operational. Batteries are installed to make existing smoke detectors operational when necessary. Smoke detectors are installed by the contractor and not left with the client.

Smoke / CO Detector Installation:

Smoke / CO Detectors are installed per manufacturer's instructions.

One smoke detector is installed on each level of the home on the ceiling or six inches below the ceiling on the wall. Additional smoke detectors are installed so that there is one smoke detector located within 15 feet of every room used for sleeping. When applicable, one additional smoke detector is installed at the base of the basement stairwell when applicable.

Smoke detectors will not be installed near kitchen stoves or bathroom showers, within 12 inches of exterior windows and door, in front of supply air registers or in unoccupied attics.

Existing smoke detectors are relocated as necessary

CO detectors are installed on each separate living level of the home where household members frequently spend time. CO detectors are not installed in unfinished basements.

When smoke alarms / CO detectors are installed, the installer will test them for proper performance assure that they contain new batteries or, in the case of hard-wired smoke alarms or CO detectors, are wired to a circuit that is energized at all times and will not be wired to a ground-fault circuit interrupter (GFCI).

Smoke alarms that are powered by a battery will emit a signal when the battery is losing power. All installation hardware, including a screw mounting bracket, should be included with the alarm. Smoke alarms installed are approved by Underwriters Laboratories (UL).

CO alarms will not be installed in the following areas: near bathrooms or in shower areas, in closets, crawl spaces or unheated areas where extreme hot or cold temperatures occur, within 5 feet of fuel burning appliances, close to adjacent walls or in corners, near bathtubs or basins, directly above or below return air grilles or supply registers, and behind drapes, furniture, or other objects that could block air flow to the CO alarm.

CO alarms will meet or exceed UL2034-98 and/or IAS696 standards, will plug-in models with separate battery backup, will have a manual test and reset button, and will have a five-year warranty on the detector and sensor. The expiration date, as warranted by the manufacturer, is written on the front of the alarm in permanent ink.

Standards for Deferral: Absence or condition of smoke detectors will not be reason for deferral: Smoke detectors are installed when one is not present or operational.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes awareness of the need for smoke alarms / CO detectors and their proper installation.

Client Education: LAA personnel review smoke alarm testing procedures with clients following alarm

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installation and advise them regarding battery replacement as appropriate. Clients are informed about the purpose and features of the CO alarms and informed on what to do if the alarm sounds.

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

✓ Concur with WPN 11-6

Funding: 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.

Standards for Remedy: Agency inspectors inspect chimney and flue of all wood stoves and conduct combustion appliance zone depressurization testing.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes how to perform CAZ depressurization testing, proper inspection of flue and general safety issues of wood stoves.

Client Education: Where assessment detects evidence of this health and safety hazard, sub grantee staff at assessment or at final inspection will counsel the client wood stove safety including recognized depressurization.

All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property is listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

#### **Space Heaters / Stand Alone Electric**

✓ Concur with WPN 11-6

Funding: Removal is allowed.

Beyond DOE WAP Scope: Repair, replacement, or installation of a stand-alone electric space heater is not allowed by IHWAP funding from any source.

Standards for Remedy: Removal is recommended to clients who use them.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes awareness of the hazards of stand-alone electric space heaters.

Client Education: All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property is listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the

#### **Space Heaters Unvented Combustion**

✓ Concur with WPN 11-6

Funding: Removal of unvented combustion space heaters is required and is an allowable expense to IHWAP grants.

Standards for Remedy: IHWAP Weatherization contractors are required to remove unvented space heater even if used as a secondary heat source and the unit conforms to ANSI Z21.11.2. Before weatherization, the unit may remain until a replacement heating system is in place.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes understanding the dangers of unvented space heaters.

Client Education: Clients are informed of the dangers of unvented space heaters – CO, moisture, NO<sub>2</sub>, and that CO can be dangerous even if a CO alarm does not sound.

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All conditions an Energy Auditor/Assessor believes constitute an immediate or potential risk to an individual or property shall be listed on DCEO's Hazardous Condition Form at the time of assessment and a copy is given to the client and/or landlord.

#### Space Heaters, Vented Combustion

✓ Concur with WPN 11-6

For purposes of health and safety vented combustion space heaters are treated as furnaces, venting is tested consistent with furnaces and combustion safety protocol for draft, CO and supply line leaks under the same protocol as furnaces.

#### Spray Polyurethane Foam (SPF)

✓ Concur with WPN 11-6

Funding: Health and safety precautions related to the installation of SPF, including worker personal protective equipment (PPE) are included in the costs of the associated measure.

Standards for Remedy: Installers shall follow EPA recommendations when working within a conditioned space or when SPF fumes become evident within the conditioned space. When working outside the building envelope, isolate the area where foam is applied, precautions are taken so that fumes will not transfer to inside conditioned space, and exhaust fumes outside the home. During installation installers will check for penetrations in the building envelope and make sensory inspection inside the home for fumes during foam application.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes training on the use of various products with specification for each application type, MSDS sheets, and temperature sensitivity of SPF products.

Client Education: Before installation notification are given to clients of plans to use two part foam and the precautions that may be necessary.

#### Ventilation

✓ Concur with WPN 11-6

Funding: When mechanical ventilation systems are required to meet the ASHRAE 62.2 (2013) requirements costs are allowable health and safety expenses.

Standards for Remedy: Compliance with ASHRAE 62.2 (2013) ventilation compliance to the fullest extent possible is met in all homes weatherized. Where acceptable indoor air quality already exists as defined by ASHRAE 62.2, implementation is not required. Existing fans and blower systems are updated if not adequate. See ASHRAE 62.2 Compliance below.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes ASHRAE 62.2 training including proper sizing, evaluation of existing and new systems, depressurization tightness limits, critical air zones, etc.

IHWAP has provided and continues to provide ASHRAE 62.2 Basic training to all sub grantee weatherization field staff.

IHWAP's five day contractor certification curriculum includes ASHRAE 62.2 training including proper sizing, evaluation of existing and new systems, depressurization tightness limits, critical air zones, etc.

Client Education: Clients are provided with information on function, use and maintenance of ventilation

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system and components when ventilation fans are installed. Clients are provided a disclaimer that ASHRAE 62.2 does not account for high polluting sources or guarantee indoor air quality.

ASHRAE 62.2 Compliance:

OEA's 35 agencies have fully implemented ASHRAE 62.2 compliance. Beginning in fall of 2012 agencies use the IHWAP 62.2 spreadsheet to input blower door values and calculate air infiltration targets and ventilation requirements. The worksheet calculates leakage allowances and minimum mechanical ventilation

Agencies use the ASHRAE 62.2 protocol to meet the minimum requirements for mechanical and natural ventilation intended to provide acceptable indoor air quality in low- rise buildings of three stories or less, including single-family homes.

The ventilation system may consist of continuously operating bathroom and/or kitchen exhaust fans, a supply-only system or a balanced system. The required airflow is measured following installation of the ventilation system to assure the desired airflow has been achieved. Airflow may be measured with a flow hood, flow grid or other measuring device. Accessible override control is provided to the occupants.

Local exhaust fan switches and "fan on" switches are permitted as override control.

#### Window and Door Replacement, Window Guards

✓ Concur with WPN 11-6

Funding: Replacement, repair, or installation is not an allowable health and safety cost but may be allowed an efficiency measure if cost justified and, if well documented and justified, could be part of an air infiltration weatherization measure.

Standards for Deferral: Owners are referred to other resources if they exist.

Training: Agency Weatherization coordinators, assessors and final inspectors are certified through IHWAP's ten week Training Certification Program. TCP curriculum includes awareness of guidance and IHWAP policy and standards regarding window and door replacement and window guards.

Client Education: Clients receive information on lead risks.

### V.8 Program Management

#### V.8.1 Overview and Organization

The weatherization funds DOE allocates to Illinois are the responsibility of the Governor to administer. The Department of Commerce and Economic Opportunity (DCEO) has been designated as the administering entity for weatherization services. The Weatherization Assistance Program is located within the Office of Energy Assistance (OEA). Weatherization services have been a responsibility of DCEO or a predecessor agency since 1977. In Illinois, the weatherization program is called the Illinois Home Weatherization Assistance Program (IHWAP). IHWAP provides Illinois' low-income residents with the labor and materials needed to weatherize their homes.

There will be three funding sources used to operate the IHWAP program. These are:

- Weatherization Assistance Program (WAP) funding from DOE,
- Low Income Home Energy Assistance Block Grant funds from the U.S. Department of Health and Human Services (HHS), and
- State Supplemental Low Income Energy Assistance Funds.

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Illinois use of WAP funding from DOE described in this plan conforms to the rules and regulations issued by DOE for expenditure of WAP funding. The use and expenditure of DCEO may administer HHS and State Supplemental Low Income Energy Assistance Funds under the same rules except where applicable law, rule or regulation demands otherwise and where DCEO elects to adopt differing rules for its non-DOE weatherization funding.

#### ***V.8.2 Administrative Expenditure Limits***

The Department has determined an increase in DOE regulations and the addition of Health and Safety activities have ultimately led to an increased administrative workload and additional paperwork. The Transparency policies that resulted with the ARRA funding also produced additional administrative burdens. With the drastic reduction in funding, the diminished resources have placed more duties on the Administrative areas of the WAP. As a result, the Local Administering Agencies have been confronted with increased program administration costs. For these reasons, the Department is increasing administrative costs to 10% for all WAP Sub Grantees that receive less than \$350,000.

Local agencies that receive \$350,000 or more in DOE funding will be limited to 5% Administrative funds. Currently only one local IHWAP agency's DOE grant exceeds \$350,000. The remaining 35 agencies that are below the threshold of \$350,000 will receive 10% Administrative funding. Any WAP entities that are added at a later date, and are under a funding level of \$350,000 will be considered for additional Administrative funding up to 10%.

#### ***V.8.3 Monitoring Activities***

There is a total of 17 staff within the Office of Energy Assistance (OEA) whose duties include the monitoring of weatherization activities. However, this staff does not spend their full time on monitoring activities. On a full time equivalent (FTE) basis, 17 divisional FTEs are available to monitor weatherization activities. These 17 FTEs are split into three sub-divisions within the Office of Energy Assistance. This includes six (6) FTEs in the Assessment and Training Unit (ATU), six (6) FTEs in the Technical Services Unit, three (3) FTEs in the Fiscal Monitoring Unit and two (2) FTEs in supervisory/managerial roles.

The following monitoring will be completed for each WAP Sub Grantee:

1. Programmatic and Management Monitoring
2. Annual Sub Grantee Review Periodic Electronic Desk Audits RRP and LSW Review Equipment/ Inventory/Materials Reporting
3. Program Requirements
4. Procurement Review
5. Training & Technical Assistance Needs
6. Sub Grantee Field Monitoring
7. Client File Review (paperwork, Eligibility, Work Orders, Invoicing etc.) Assessments/Energy Audit Review
8. Quality Control Review, Final Inspection Review, Financial Monitoring

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9. Financial Management/Accounting Systems and Operations
10. Audits Payroll/Personnel Vehicles and Equipment Invoicing
11. Annually, the Department will summarize each of its Sub Grantee's financial reviews, program monitoring reports, and any outstanding issues and develop an annual Sub Grantee Evaluation/Monitoring Analysis that will identify each Sub Grantee's needs, strengths, and weaknesses. The results of this monitoring analysis will be considered during the annual planning for the following year's grant and will be used to develop a Sub Grantee annual risk analysis and plan for improvement.

**Weatherization Grant Monitoring Functions of OEA Units**

The *Technical Services Unit* will monitor the quality of work (including file reviews, invoicing and costing, contractor payment and on-site inspections) It conducts routine desk monitoring, file review and field inspections of LAA weatherization activities.

Weatherization Sub Grantees will be visited at least two times per year by OEA staff. Each of these visits may be made by a different unit within OEA and will cover different subject matter. These visits will be as follows:

The *Assessment and Training Unit (ATU)* is responsible for developing uniform policy and guidelines for weatherization assessment, work standards, training and final inspection; maintaining training and certification standards

The ATU staff will cover Assessment (Energy Audit) monitoring and provide training to Local Administering Agency staff and contractor/crew staff as needed. These trainings will focus on programmatic updates, correction of identified deficiencies to ensure programmatic compliance and weatherization improvement measure(s) application procedures to increase installer skill levels. The Assessment and Training Unit will work in conjunction with the Indoor Climate Research and Training Program at the University Illinois Sustainable Technology Center on the development and implementation of WAP training initiatives including the Assessor (Energy Auditor)/Final Inspector (Quality Control Inspector) Training and Certification Program and Contractor Certification Program. The Training and Assessment unit will also develop uniform policy and guidelines for weatherization assessment, work standards, training and final inspection; and maintaining training and certification standards.

The ATU and Technical Services Unit will collaborate annual to produce a risk assessment of each Sub-grantee's weatherization program and from that assessment a monitoring plan and Plan for Improvement which will focus monitoring and training activities for that Sub-grantee.

The *Fiscal Monitoring Unit* will monitor the financial aspects of implementing the WAP. OEA will to conduct a comprehensive fiscal monitoring visit to each LAA at least once per year.

**Monitoring Of Completed Weatherized Units**

The Technical Services Unit and the Assessment and Training Unit are responsible for the review of programmatic requirements; including client file reviews and material

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specifications, quality, and cost-effectiveness. A minimum of five percent of the completed files will be reviewed. Programmatic monitoring is conducted at each Sub Grantee agency by the assigned Weatherization Specialist at least annually and more frequently, if needed. The Sub Grantees provide comprehensive electronic program reporting on a monthly basis. These reports are thoroughly analyzed by Technical and Management staff.

Illinois' in-house procedures for review of each of these areas are described in the following sections:

1. On-site Monitoring of Completed Units. Five percent of the units completed by a Sub Grantee are reviewed by the Technical Services unit. Reviews are conducted using a standardized job rating sheet. This job rating sheet rates the pre-work inspection (Assessment/Energy Audit), the actual work done, and the post-work inspection for each major category of energy loss.
2. File Reviews for Completed Units. Technical Services Unit staff will complete a file review for all weatherized homes that are on-site monitored. Additional randomly selected completed files will also be reviewed.
3. Material Specifications Review. Administrative and Programmatic Manual, Volume I, Program Operations, require all Sub Grantees to procure only those materials specified in federal regulations and detail these specifications for use by Sub Grantees. The Administrative and Programmatic Manual, Volume II: Procurement requires all Sub Grantees to keep a complete record of their materials procurement process (including material specifications) on file for review by DCEO staff. These procurement files are required and, if material specifications are not met, the Sub Grantee must rebid that item. The Technical Services Unit considers whether the minimum product specifications are adequate to meet the needs of each Sub Grantee's climatic conditions and/or work efficiencies. If the minimum specifications do not appear to be adequate, the reviewer may recommend the Sub Grantee change its minimum specifications on the next bid.
4. Monitoring Material Prices for Cost Effectiveness. The material procurement files noted above will also contain a record of the prices bid and the price accepted for each type of material used by the Sub Grantee. These prices are compared to the prices paid in the same area of the state by neighboring Sub Grantees and adjusted for agency specific needs (e.g. Sub Grantee has no warehouse so price includes "just in time" delivery service). The performance of each type of material is also reviewed during on-site inspections. Products that do not perform as specified are to be rejected in the next round of Sub Grantee bidding.
5. Pre- and Post-work Inspection Reviews. As previously indicated, the Technical Services Unit and the Assessment and Training Unit uses a job rating sheet when performing on-site reviews. This job rating sheet was developed to evaluate not only the quality of work, but the acceptability of both the pre- and post-work inspection. When appropriate, further training is required of a staff person that has performed a significant number of unacceptable pre- or post-work inspections.

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#### Monitoring Tools

DCEO utilizes a Weatherization Program Operation Monitoring Tool and Job Rating Sheet and the client file review checklist. DCEO uses a Fiscal Management Review form. Each of these tools is described in the sections which follow.

#### Work Quality Deficiency Determination and Follow Up

At field review of weatherization work installed by a sub grantee, OEA monitors may make determinations for specific field conditions identified. Determinations will include:

1. **Finding**: A serious weatherization work deficiency constituting noncompliance with the IHWAP Field and/or IHWAP Program Operations Manual. (See *Findings Criteria* below.)
2. **Observation**: All areas of noncompliance with the IHWAP Field Standards Manual and/or IHWAP Program Operations Manual not considered a *Finding* will be considered an *Observation*.
  - a. *Observations* may include but are not limited to sloppy work, missing attic insulation measuring sticks, incorrect documentation, etc.
  - b. *Observations* will require a response from the Sub Grantee, detailing the corrective action taken to alleviate the deficiency identified, if specifically noted in the Field Visit Report.
  - c. When similar *Observations* are found on two or more consecutive on Monitoring Visits, those *Observations* may be elevated to a *Finding*. *Observations* could result in the requirement of additional training for the Sub Grantee personnel and/or contractor personnel.
3. **Recommendation**: For field conditions observed that do not constitute substantial noncompliance with the IHWAP Field Standards Manual and/or IHWAP Program Operations Manual, OEA may determine a *Recommendation*.
4. **Best Practice**: For weatherization work installed or weatherization process completed that is exemplary in nature OEA may make a *best practice* determination.

#### Findings Criteria

1. A deficiency meeting any of the following criteria constitutes a *Finding*:
  - A. Work completed with IHWAP funds compromises the health and safety of clients, Sub Grantee staff, and contractor/crew staff, or the structural integrity of the building.
  - B. A health and safety problem is created by, exacerbated by, or not corrected by the delivery of IHWAP-funded services.
  - C. The omission of a required procedure that addresses health and safety concerns that are within the scope of weatherization.
  - D. The omission of a required measure or technique with major energy savings

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potential, as determined by the Savings-to-Investment Ratio in the WeatherWorks System or Weatherization measures that are paid for with IHWAP Funds that are not applied to the dwelling.

- E. Expenditure of IHWAP funds for items that exceed the stated cost limits, without prior written OEA authorization as specified in IHWAP Program Operations Manual. Additional funds that exceed the cost limit specified will be considered as disallowed costs and must be removed from WeatherWorks or refunded to DCEO. All fiscal files, records, and documentation must be revised accordingly.
- F. Poor quality workmanship that significantly affects the performance of weatherization measures.
- G. Expenditure of IHWAP funds on measures that are not approved under the IHWAP or required for mitigation of health and safety concerns.
- H. Expenditure of IHWAP funds on Retrofit measure that do not yield an acceptable Savings-to-Investment Ratio as determined by the WeatherWorks System.
- I. Any action or lack of action that would threaten the integrity of the IHWAP and/or its ability to receive future grant funding.

2. A monitoring visit report from OEA that contains *Findings*:

Requires an immediate response from the Sub Grantee receiving the finding as defined in the Monitoring Visit Report generated by OEA.

Requires that corrective action must be taken.

Could result in disallowed costs that the Sub Grantee would have to refund to DCEO.

Could result in an increased monitoring frequency by OEA.

Could result in the requirement of additional training for the Sub Grantee and/or LAA/contractor personnel as specified by OEA.

Could result in the recommendation of High Risk status or Grant Default Status for the Sub Grantee receiving the *Finding*. Subsequently, Special Conditions will be placed on the Sub Grantee's grant agreement(s).

Continued *Findings* may result in the termination of the Sub Grantee's IHWAP grant agreement with OEA.

**Substantial Number or Repeated Finding: High Risk Status or Grant Default Status**

The occurrence of a substantial number of, or repeated, *Findings* may result in a decision by the DCEO administration that a Sub Grantee be placed on High Risk status or Grant Default Status.

If a Sub Grantee is placed on High Risk status or Grant Default Status, special conditions will be placed on the grant which will affect the Sub Grantee's ability to draw IHWAP funds. Those special conditions will include but not be limited to additional reporting requirements as specified by OEA, a detailed corrective action plan to remedy monitoring deficiencies, and limited or total restrictions on the availability of

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cash requests from the appropriate IHWAP grants, or all DCEO funding.

If a Sub Grantee is placed on High Risk status or Grant Default Status, the Sub Grantee will be placed on probationary status for up to two years following the date of the probation period initiation.

Failure by the Sub Grantee to comply with the special conditions placed on the grant agreement and/or continued non-compliance or *Findings* will be grounds for termination of the grant agreement between the Sub Grantee and DCEO.

After failing to comply with Weatherization grant conditions, or the correction of grant deficiencies, the Sub Grantee will be referred to DCEO Legal Counsel for review and disposition.

Notwithstanding any of the above, DCEO may suspend or terminate a contract without prior written notice upon a finding of substantial non-compliance or substantial breach of grant agreement.

#### **Monitoring Report Letters**

DCEO will submit the monitoring letter to the Sub Grantee within 30 days of the monitoring visit summarizing the results of the monitoring. The report will include any determinations made, the field conditions on which any determinations made are based and the rule or policy that support the determination. The monitoring letter will also detail the remedy required to resolve the determination which can include correction of the work and/or a plan of improvement or a corrective action plan. The Sub Grantee will have 30 days to respond. DCEO will issue a response to the Sub Grantee response releasing the Sub Grantee from the determinations of the monitoring report if all deficiencies noted in the monitoring report have been corrected or directing further action on the part of the Sub Grantee.

#### **Fiscal Monitoring**

Fiscal Monitoring Review- Covers the areas of financial reporting, account reconciliation, cash analysis, cost allocation, cash disbursements. The significant activity dates (e.g. application date, assessment date, date work began, date work completed, date final inspected).

Required documentation (e.g., WeatherWorks Work Order form, Cost Reporting (invoicing) screens in WeatherWorks, Release of Lien Waiver form, Final Inspection sheet, etc.).

Significant findings (e.g. timelines of payment, fiscal priorities not followed computations not accurate, etc.). The Fiscal Review also covers the areas of internal control, subcontract monitoring, accounting procedures, cost classification and documentation, fiscal audit review, and cash management.

Problem Resolution Schedule - Once a finding is noted during a monitoring visit, the reviewer is responsible for correctly assessing how best to address it. DCEO reviewers are trained and counseled to keep the following in mind when determining how to address a finding.

1. How serious is the finding? For example, did the Sub Grantee forget to include a

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client notification letter in the file (a state procedural requirement) or was income documentation missing (a legal requirement)?

2. What is the level of significance? For example, did the Sub Grantee miss one item on the equipment inventory list or are fifteen percent of the items purchased over the last year missing?
3. Has this been a problem in the past? For example, did the Sub Grantee have unacceptable pre-work inspections in past years or previous monitoring visits?

Depending on the seriousness, significance, and repetitiveness of the finding, the reviewer has several options on how to attempt to resolve the issue. These options, and when they are considered appropriate follow.

Verbal counseling-findings that are not serious, significant or repetitive are usually resolved through verbal counseling. The reviewer speaks to the Sub Grantee staff, makes them aware of the finding, asks that they correct the problem, and requires future compliance or verbal counseling is documented as an observation in the reviewer's monitoring letter.

Technical assistance-findings that are serious or significant but that have not been a problem in the past call for technical assistance. While the Sub Grantee is required to correct the finding, as a "first time offender" they are given technical assistance on how to improve procedures and ensure compliance in subsequent weatherization activities.

Corrective actions-an agency with a very serious or significant problem or a finding addressed in previous visits is required to develop a corrective action plan. The corrective action plan is a permanent change in procedures aimed at resolving the problem noted. Any corrective actions to be required of the Sub Grantee must be addressed in the exit conference with the executive director (or designated representative). From the date of the reviewer's official correspondence, a Sub Grantee is given fifteen calendar days to submit a written corrective action plan. The reviewer must then revisit the Sub Grantee to determine whether the corrective action plan has effectively resolved the problem. A serious or significant problem that remains unresolved at the end of the program year may lead to a conditional grant, a limited grant or no designation.

#### ***V.8.4 Training and Technical Assistance Approach and Activities***

##### ***How a State assesses the training needs of its Sub Grantees.***

Sub grantee training and technical assistance (T&TA) needs are determined by training assessment surveys; Weatherization Technical Services Unit (based on quality control visits) requests submitted to DCEO by Sub Grantees and by the needs of the IHWAP program for trained and certified weatherization personnel. The Sub Grantee T&TA budget is calculated on the basis of the amount of training that will be provided by DCEO during the program year and the historical costs associated with Sub Grantee travel, lodging, etc.

Additionally, DCEO will conduct an annual risk assessment of the Sub Grantee's

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weatherization program. Using that assessment DCEO will develop with the grantee an improvement plan that will identify the grantee's training needs and available resources for meeting them. Where the Sub Grantee is required by the monitoring process to development and implement a Corrective Action Plan (CAP), the CAP may also identify training needs of the Sub Grantee.

**What training the State will provide for Sub Grantee staff and if attendance is mandatory.**

Listed below are the major categories of basic training and technical assistance (T& TA) to be provided to Sub Grantees plus a description of each category that also outlines the resources to be used to provide the training and technical assistance and whether attendance is required.

- State Conference - This conference explains new policies and procedures and provides general technical and management training. Trainers for the major portion of the conference will be DCEO and Sub Grantee staff, with several outside speakers. Attendance is mandated for each Sub Grantee.
- Weatherization Coordinator Meetings - Program meetings will be held at least twice throughout the year. These one-day sessions provide programmatic updates and allow for the exchange of information among Sub Grantees as well as input from Sub Grantees to DCEO on topics of concern. Each meeting agenda deals with at least one major issue that is discussed at length (e.g., incidental repairs, landlord contributions when weatherizing rental units). Attendance at these meetings is at the option of each Sub Grantee's Executive Director.
- Health and Safety Workshops - Will be held to instruct coordinators and workers on correct work techniques to avoid injuries. Sub Grantees may be given T&TA funds to attend the National DOE conference if applicable. Reimbursement of Sub Grantee costs will cover conference fees, travel, lodging and meals/per diem.
- Consumer Education - DCEO will continue emphasizing the importance of consumer education for energy conservation. This training will focus on pre-weatherization client education and Health and Safety.
- Mechanical and Architectural Contractors' Workshops - These regional workshops will be held throughout the state to familiarize contractors with program rules and weatherization goals and techniques.
- This year DCEO will through ICRT continue to offer workshops and certification on Dense-Pack Insulation Techniques, and Insulation. Additionally, Mobile Furnace Lab workshops, ASHRAE 62.2-2013 webinars, Basic Electrical Workshops, and DOE Lead Training Workshops.
- Again this year DCEO through ICRT will provide Advanced Air Sealing Techniques Field Workshops at Sub Grantee locations.
- Affordable Comfort Conference and other DOE Training Opportunities - LAAs will be able to utilize their T/TA funding to attend these conferences.
- Lead Safe Weatherization (LSW) Classes - this training will be given to new WAP staff

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and workers, and will be arranged for by the local WAP agencies.

- Repair, Renovate and Painting (RRP) -This EPA training will be given to new WAP staff and workers.
- Training in use of TREAT Multifamily Software as well as Multifamily Assessment Procedures will be offered to personnel of Sub Grantee who plan to complete three or more multi-family projects of five or more residential units at least once during the program year.

*Whether the Grantee requires any certification or training of Sub Grantee staff prior to hire or by date certain from date of hire.*

**Training and Certification Program (TCP)/ Energy Auditor Certification** - Certification of Sub Grantee staff began in 1988. While it is a part of our overall T&TA plan, it is primarily Sub Grantee basic training. Beginning in Program Year 2014 IWHAP's traditional TCP training will undergo minor changes to conform TCP to the curriculum for Home Energy Professionals Certification *Home Energy Auditor – Single Family*. This curriculum is based on the Job Task Analysis for Home Energy Auditor developed by the National Renewal Energy Laboratory (NREL) as part of the U.S. Department of Energy's Quality of Work Plan. The ICRT Center has been accredited by Interstate Renewal Energy Council (IREC) to teach the Energy Auditor Curriculum. To gain accreditation ICRT made only minor changes to the TCP curriculum. ICRT under its contract with DCEO for weatherization training activities will teach one ten week TCP / Energy Auditor course in the program year. At the conclusion the TCP/ Energy Auditor training, successful Sub Grantee trainees will challenge the HEP certification testing for Home Energy Auditor – Single Family.

Additionally, the DCEO-OEA Assessment and Training unit will then administer an Assessment /WeatherWorks Data Entry exam to all successful TCP trainees. Upon successful completion of this field exam the trainee(s) will be certified as a Weatherization Assessor (Energy Auditor) in the IHWAP program.

The TCP / Home Energy Auditor Training is divided into ten weeks of training:

- Weatherization Basics and Assessment Process (5 days)
- Basic Heat Transfer (5 days)
- Building Types and Fundamentals (5 days)
- Building Diagnostics (5 days)
- Thermography (Infra-Red) and Assessment Basics (5 days)
- Heating Systems (5 days)
- Advanced Heating Systems (5 days)
- Air Conditioning, Heat Pumps, and Air Flow (5 days)
- LSW and Moisture/Mold, IAQ, Health and Safety, Hazardous Materials (3 days)

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- Assessment Exam, Data Entry, Proficiency Exam (5 Days)

These training modules will each be held throughout the year with class size limited to approximately twenty persons. Trainers will include both OEA Training and Assessment Unit and vocational/post-secondary specialists. Attendance will be mandatory for Sub Grantee coordinators, assessors, and final inspectors.

All current Assessors and Final Inspectors were required to complete a previous version of these courses and pass the proficiency test within their first year of employment. New assessors and final inspectors must complete these courses and pass the test within nine months of being hired by a Local Administering Agency. If an existing or new Assessor or Inspector fails to achieve certification during the grace period, they will be prohibited from conducting assessments or inspections until they obtain re-certification. Enrollees are encouraged to complete one elective course or training as well.

All current Assessors and Final Inspectors were required to complete a previous version of these courses and pass the proficiency test within their first year of employment. Coordinators are required to earn a TCP certificate by completing all ten courses. New coordinators must complete the course work within one year of being hired by a local agency. Coordinators who fail to complete the required training program will be prohibited from holding the position of weatherization coordinator until they successfully complete the course requirement.

The next scheduled round of TCP Re-Certification classes are scheduled for the 2014 program year.

Enrollment in any of the courses and certification is available to other weatherization staff, such as crew leaders, crew members, subcontractors or field superintendents as well.

#### **Training and Certification of Quality Control Inspectors**

In Program Year 2014, DCEO will require that Sub Grantee personnel completing final inspection of weatherized units prepare for and challenge the Quality Control Inspector (QCI) certification examinations. The goal of this process will be to have at least one QCI certified final inspector completing final inspections for DOE WAP funded weatherized homes.

ICRT under its contract with DCEO for weatherization training activities will beginning in May of 2014 will conduct ten five day Quality Control Inspect courses at the ICRT training facility in Champaign, Illinois. This curriculum for this course is based on the Job Task Analysis for Quality Control Inspector developed by the National Renewal Energy Laboratory (NREL) as part of the U.S. Department of Energy's Quality of Work Plan. The ICRT Center has been accredited by NREL to teach the Quality Control Inspector Curriculum.

Based on student self-assessment, DCEO staff assessment of Sub Grantee Weatherization personnel and monitoring experience, and experience in the QCI training, ICRT will offer "brush up" workshops, online self-study materials and other practical aids to prepare candidates for the QCI tests. QCI testing will commence as soon after successful completion of the QCI course as both the candidate is ready and the testing administrator, Building Professional

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Institute (BPI) can certify the candidate and schedule the both written and field examinations.

Course costs, testing fees and course materials will be included in DCEO's annual training contract with ICRT. Sub Grantees will use their T&TA budgets for associated travel, lodging and per diem/ meals.

During the Program Year, DCEO will determine the type and level of support for Sub Grantee candidates multiple attempts to successfully change the test. It is anticipated that support will be provided for at least a second challenge of the QCI examinations.

**How The State Compares Productivity And Energy Savings Between Sub Grantees And How These Comparisons Are Used In The Development Of T&TA Activities And Priorities.**

1. Quality Control - Quality control reviews are conducted year round by the Technical Services staff. Based on the findings of a quality control review, a Sub Grantee may receive on-site technical assistance aimed at improving individual Sub Grantee staff skills in assuring work quality. Technical assistance is provided by the DCEO reviewer or other staff specialists. Attendance is required for those persons specified by the quality control reviewer. Overall energy audits are reviewed to determine if the best Weatherization measures with the highest potential energy savings have been called for, or if additional training is needed.
2. "Hands-On" for Crews - Quality control reviews, standard monitoring and technical assistance sessions often point out the need for one-on-one work with crew members. Agency or staff-specific needs may include such items as basic energy conservation concepts, program requirements, and work techniques. Technical assistance is provided by DCEO staff. Attendance is required for those persons specified by the quality control reviewer, the monitor, or other staff.

Portion Of State T&TA Funds Will Be Allocated for State Program Oversight Efforts, How Such Funds Will Be Apportioned:

DCEO will be retaining about 70% of the training and technical assistance (T&TA) funding to contract the Training and Certification Program (TCP) and other training activities to the Indoor Climate Research and Training program (ICRT) of the Illinois Sustainable Technology Center at the University of Illinois at Champaign. DCEO staff developed TCP with the assistance of the Weatherization Coordinators' Working Group. The coordinators' working group consisted of nine local coordinators and representatives from the Policy Advisory Council. This group was involved in all phases of the development process and the TCP represents a consensus of that group.

1. TCP Delivery Mechanism. The Training and Certification Program involved developing a standardized training program and providing an adequate delivery mechanism to accomplish four major objectives:
  - A. To provide a standardized and consistent training curriculum for local agency

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weatherization staff;

- B. To increase and maintain adequate skill levels of weatherization staff and to keep pace with changing technologies;
- C. To provide career development opportunities for local agency staff; and
- D. To achieve a recognizable certificate for completing a minimum of 10 TCP courses.

Different training delivery mechanisms were proposed including: private consultants, in-house DCEO staff, state universities and local junior colleges. After careful review, it was determined that a vocationally-oriented community college would provide the best combination of theory and hands-on applicability Indoor Climate Research and Training program (ICRT) of the Illinois Sustainable Technology Center at the University of Illinois at Champaign offers DCEO the best opportunity to effectively accomplish all four objectives.

The reasons for selecting ICRT as the training provider include:

- A. Control of training curriculum and instructors to insure consistent training.
- B. Flexibility to alter the curriculum as weatherization technologies change
- C. Ability to test competency level of enrollees to insure that training objectives are reached and maintained

Ability to develop a college credited curriculum which conforms to the training needs of the IHWAP and can receive endorsements from both private and public sectors.

2. TCP Curriculum. Three major factors were considered in developing the content of the curriculum:

- 1. The content of the courses must be relevant to the day-to-day operation of the IHWAP.
- 2. The duration of the TCP must be reasonable and strike a balance between being so short as to be meaningless and so long that it would place a burden on staff time.
- 3. The Instructors must be knowledgeable of the subject matter and be able to communicate with the staff being trained. These three points were constantly mentioned during our discussions with weatherization coordinators. If the program is to be successful, it must be accepted by the local staff.

DCEO has designed a one-week contractor training and certification program. There are separate weeks for Architectural and HVAC contractors. This approach is in conjunction with the Illinois Sustainable Technology Center and will be using a portion of the Illinois Community College network. All contractors in the program will be brought up to the same standard, and certified.

**Assessment of Grantee T&TA Activities to Determine Whether These Funds Are Being Spent Effectively.**

As described in the state plan under "Analysis of Sub Grantee Weatherization Project Existence and Effectiveness," data is regularly gathered from Sub Grantees in order to analyze how well the weatherization program is being operated. This data comes via the Illinois Home Weatherization Assistance Program WeatherWorks System. Observations will also be made in the local agency annual visits and details in the individual monitoring reports

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to see what areas of training and technical assistance needs to be improved, added, or revised.

***V.9 Energy Crisis and Disaster Plan***

The purpose of DCEO's disaster planning and relief is to provide emergency services to low-income individuals and families affected by a disaster as determined by a Presidential or Gubernatorial order declaring either a Federal or State Emergency. IHWAP and IHWAP grant funds have a very limited role in any disaster response. Funds are limited to eligible weatherization activities and the purchase and delivery of weatherization materials.

Sub Grantees will be required to prioritize service to buildings occupied by disaster victims. In some cases, Sub Grantees covering adjacent areas will be allowed to perform work in disaster areas, with the consent of the Sub Grantees that primarily serves that area. Work will be limited to allowable Program measures. In cases where a previously assisted unit has been damaged by fire, flood or other natural disaster, assistance can be provided with prior approval from DCEO. Generally, assistance will only be provided to pay for damage not covered by insurance.

To the extent that services are in support of eligible weatherization (or permissible reweatherization) work for eligible households, such expenditure is allowable. Allowable expenditures include:

- The cost of incidental repairs to an eligible dwelling unit if such repairs are necessary to make the installation of weatherization materials effective.
- The cost of eliminating health and safety hazards, elimination of which is necessary before the installation of weatherization materials.
- The cost to perform functions related to protecting the DOE investment such as: weatherization materials, tools, equipment, weatherization vehicles, or protection of local agency weatherization files, records and the like during the initial phase of the disaster response.
- The cost to use weatherization vehicles and/or equipment to help assist in the disaster relief provided DOE is reimbursed according to the DOE Financial Assistance Regulations 10 CFR Part 600.

The use of Weatherization Grant funds for relief efforts is limited by the following:

- The total allowance for relief efforts is limited to a maximum allowance of \$6,500 per dwelling unit.
- The total allowance for incidental repairs in support of the installation of weatherization materials is limited to the current maximum reimbursement for minor envelope repairs per Sub Grantee contract.
- The total allowance for the installation of each weatherization measure is limited to the current maximum reimbursement per Sub Grantee contract.

The cost to pay for weatherization personnel to perform relief work in the community as a result of a disaster is not allowable.