Commonwealth of Massachusetts
DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT
Charles D. Baker, Governor  •  Karyn E. Polito, Lt. Governor  •  Chrystal Kornegay, Undersecretary

MASSACHUSETTS
FY 2015 STATE PLAN

U.S. Department of Energy

Weatherization Assistance Program
For Low Income Persons

Division of Community Services
Energy Conservation Unit
100 Cambridge Street, Suite 300
Boston, MA  02114

Telephone: 617-573-1400
Fax: 617-573-1460
“HEAT Line”: 1-800-632-8175
Website: www.mass.gov/dhcd
**APPLICATION FOR FEDERAL ASSISTANCE SF-424**

1. Type of Submission:  
   - [ ] Preapplication  
   - [x] Application  
   - [ ] Changed/Corrected Application  

2. Type of Application:  
   - [x] Continuation  
   - [ ] Revision  
   - [ ] New  
   - [ ] Other (specify):  

3. Date Received  

4. Applicant Identifier:  

5a. Fed Entity Identifier:  

5b. Federal Award Identifier:  
   - DE-EE0006180  

**State Use Only:**  

6. Date Received by State:  

7. State Application Identifier:  

8. APPLICANT INFORMATION:  

   a. Legal Name:  
      - Commonwealth of Massachusetts  

   b. Employer/Taxpayer Identification Number (EIN/TIN):  
      - 04-0002284  

   c. Organizational DUNS:  
      - 824846182  

   d. Address:  
      - Street 1: 100 Cambridge Street/Suite 300  
      - Street 2:  
      - City: Boston  
      - County:  
      - State: MA  
      - Province:  
      - Country: U.S.A.  
      - Zip/Postal Code: 02114  

   e. Organizational Unit:  
      - Department Name: Commonwealth of Massachusetts  
      - Division Name: Department of Housing and Community Development  

   f. Name and contact information of person to be contacted on matters involving this application:  
      - Prefix: Mr  
      - First Name: David  
      - Middle Name:  
      - Last Name: Fuller  
      - Suffix:  
      - Title: Manager Energy Conservation Unit  
      - Organizational Affiliation: MA Department of Housing and Community Development  
      - Telephone Number: 6175731421  
      - Fax Number: 6175731460  
      - Email: David.Fuller@state.ma.us
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Type of Applicant:</td>
<td>A State Government</td>
</tr>
<tr>
<td>11. Catalog of Federal Domestic Assistance Number:</td>
<td>81.042</td>
</tr>
<tr>
<td>CFDA Title:</td>
<td>Weatherization Assistance Program</td>
</tr>
<tr>
<td>12. Funding Opportunity Number:</td>
<td>DE-WAP-0002015</td>
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<tr>
<td>Title:</td>
<td>2015 Weatherization Assistance Funding Opportunity</td>
</tr>
<tr>
<td>13. Competition Identification Number:</td>
<td></td>
</tr>
<tr>
<td>Title:</td>
<td></td>
</tr>
<tr>
<td>14. Areas Affected by Project (Cities, Counties, States, etc.):</td>
<td>Statewide</td>
</tr>
<tr>
<td>15. Descriptive Title of Applicant's Project:</td>
<td>Department of Energy Weatherization Assistance Program for Low Income Persons</td>
</tr>
</tbody>
</table>
## APPLICATION FOR FEDERAL ASSISTANCE SF-424

### 16. Congressional District Of:

- **a. Applicant:** Massachusetts Congressional District 07
- **b. Program/Project:** MA-Statewide

 Attach an additional list of Program/Project Congressional Districts if needed.

### 17. Proposed Project:

- **a. Start Date:** 04/01/2015
- **b. End Date:** 03/31/2016

### 18. Estimated Funding ($):

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount</th>
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<tbody>
<tr>
<td>Federal</td>
<td>5,426,786.00</td>
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<tr>
<td>Applicant</td>
<td>0.00</td>
</tr>
<tr>
<td>State</td>
<td>0.00</td>
</tr>
<tr>
<td>Local</td>
<td>0.00</td>
</tr>
<tr>
<td>Other</td>
<td>0.00</td>
</tr>
<tr>
<td>Program Income</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>5,426,786.00</strong></td>
</tr>
</tbody>
</table>

### 19. Is Application subject to Review By State Under Executive Order 12372 Process?:

- **a. This application was made available to the State under the Executive Order 12372 Process for review on:**
- **b. Program is subject to E.O. 12372 but has not been selected by the State for review.**
- **c. Program is not covered by E.O. 12372**

### 20. Is the applicant Delinquent On Any Federal Debt? (If "Yes", provide explanation)

- No

### 21. By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code Title 218, Section 1001)

- **I AGREE**

**The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

### Authorized Representative:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Initials</th>
<th>First Name</th>
<th>Last Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Chrysal</td>
<td>Kornegay</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Undersecretary</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Telephone Number</th>
<th>Fax Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>6175731100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><a href="mailto:Chrysal.Kornegay@stato.ma.us">Chrysal.Kornegay@stato.ma.us</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature of Authorized Representative</th>
<th>Signed Electronically</th>
<th>Date Signed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chrysal Kornegay</td>
<td></td>
<td>03/12/2015</td>
</tr>
</tbody>
</table>

Authorized for Local Reproduction

[Form Footer]

Standard Form 424 (Revised 10/2016)
Prescribed by OMB Circular A-102
**BUDGET INFORMATION - Non-Construction Programs**

1. Program/Project Identification No.  
   EE0006160

2. Program/Project Title  
   Weatherization Assistance Program

3. Name and Address  
   Commonwealth of Massachusetts  
   100 Cambridge Street/Suite 300  
   Boston, MA 02114

4. Program/Project Start Date  
   04/01/2015

5. Completion Date  
   03/31/2016

---

**SECTION A - BUDGET SUMMARY**

<table>
<thead>
<tr>
<th>Grant Program Function or Activity (a)</th>
<th>Federal Catalog No. (b)</th>
<th>Estimated Unobligated Funds</th>
<th>New or Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Federal (c)</td>
<td>Non-Federal (d)</td>
</tr>
<tr>
<td>1. DOE</td>
<td>81.042</td>
<td>$ 0.00</td>
<td>$ 5,426,786.00</td>
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<tr>
<td>2. STATE</td>
<td></td>
<td>$ 0.00</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. TOTAL</td>
<td></td>
<td>$ 0.00</td>
<td>$ 5,426,786.00</td>
</tr>
</tbody>
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**SECTION B - BUDGET CATEGORIES**

<table>
<thead>
<tr>
<th>6. Object Class Categories</th>
<th>Grant Program, Function or Activity</th>
<th>Total (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) GRANTEE ADMINISTRATION (2) SUBGRANTEE ADMINISTR (3) GRANTEE T&amp;TA (4) SUBGRANTEE T&amp;TA</td>
<td></td>
</tr>
<tr>
<td>a. Personnel</td>
<td>$ 136,825.00</td>
<td>$ 187,950.00</td>
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<td>c. Travel</td>
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<td>d. Equipment</td>
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<td>e. Supplies</td>
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<td>$ 3,986.00</td>
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<tr>
<td>f. Contract</td>
<td>$ 3,520.00</td>
<td>$ 273,800.00</td>
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<td>g. Construction</td>
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<td>$ 0.00</td>
</tr>
<tr>
<td>h. Other</td>
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<td>$ 4,786.00</td>
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<tr>
<td>i. Total Direct Charges</td>
<td>$ 180,501.00</td>
<td>$ 273,800.00</td>
</tr>
<tr>
<td>j. Indirect</td>
<td>$ 88,361.00</td>
<td>$ 0.00</td>
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<tr>
<td>k. Totals</td>
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<td>$ 273,800.00</td>
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<tr>
<td>7. Program Income</td>
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</table>
### SECTION A - BUDGET SUMMARY

<table>
<thead>
<tr>
<th>Grant Program Function or Activity (a)</th>
<th>Federal Catalog No. (b)</th>
<th>Estimated Unobligated Funds</th>
<th>New or Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Federal (c)</td>
<td>Non-Federal (d)</td>
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<tr>
<td>1.</td>
<td></td>
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<td>$ 0.00</td>
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<tr>
<td>2.</td>
<td></td>
<td>$ 0.00</td>
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<tr>
<td>3.</td>
<td></td>
<td>$ 0.00</td>
<td>$ 0.00</td>
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<tr>
<td>4.</td>
<td></td>
<td>$ 0.00</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>5. TOTAL</td>
<td></td>
<td>$ 0.00</td>
<td>$ 0.00</td>
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### SECTION B - BUDGET CATEGORIES

<table>
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<tr>
<th>6. Object Class Categories</th>
<th>Grant Program, Function or Activity</th>
<th>Total (5)</th>
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<tbody>
<tr>
<td>(1) PROGRAM OPERATIONS</td>
<td>(2) HEALTH AND SAFETY</td>
<td>(3) LIABILITY INSURANCE</td>
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<tr>
<td>a. Personnel</td>
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<td>$ 0.00</td>
</tr>
<tr>
<td>b. Benefits</td>
<td>$ 0.00</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>c. Travel</td>
<td>$ 0.00</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>d. Equipment</td>
<td>$ 0.00</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>e. Supplies</td>
<td>$ 0.00</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>f. Contract</td>
<td>$ 3,478,000.00</td>
<td>$ 462,500.00</td>
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<td>g. Construction</td>
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<tr>
<td>h. Other</td>
<td>$ 0.00</td>
<td>$ 0.00</td>
</tr>
<tr>
<td>i. Total Direct Charges</td>
<td>$ 3,478,000.00</td>
<td>$ 462,500.00</td>
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<tr>
<td>j. Indirect</td>
<td>$ 0.00</td>
<td>$ 0.00</td>
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<tr>
<td>k. Totals</td>
<td>$ 3,478,000.00</td>
<td>$ 462,500.00</td>
</tr>
<tr>
<td>7. Program Income</td>
<td>$ 0.00</td>
<td>$ 0.00</td>
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</table>
### BUDGET INFORMATION - Non-Construction Programs

<table>
<thead>
<tr>
<th>Grant Program Function or Activity (a)</th>
<th>Federal Catalog No. (b)</th>
<th>Estimated Unobligated Funds</th>
<th>New or Revised Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Federal (c)</td>
<td>Non-Federal (d)</td>
</tr>
<tr>
<td>1.</td>
<td></td>
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<td>$ 0.00</td>
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<tr>
<td>2.</td>
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<td>3.</td>
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<td></td>
<td></td>
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<tr>
<td>4.</td>
<td></td>
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<tr>
<td>5. TOTAL</td>
<td></td>
<td>$ 0.00</td>
<td>$ 0.00</td>
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### SECTION B - BUDGET CATEGORIES

<table>
<thead>
<tr>
<th>Object Class Categories</th>
<th>Grant Program, Function or Activity</th>
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<tr>
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<td>c. Travel</td>
<td>(3)</td>
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<tr>
<td>d. Equipment</td>
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<td>$ 22,410.00</td>
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<tr>
<td></td>
<td>(5)</td>
<td>$ 0.00</td>
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<tr>
<td>e. Supplies</td>
<td></td>
<td>$ 4,304.00</td>
</tr>
<tr>
<td>f. Contract</td>
<td></td>
<td>$ 4,888,420.00</td>
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<tr>
<td>g. Construction</td>
<td></td>
<td>$ 0.00</td>
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<tr>
<td>h. Other</td>
<td></td>
<td>$ 4,786.00</td>
</tr>
<tr>
<td>i. Total Direct Charges</td>
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<td>$ 5,338,425.00</td>
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<tr>
<td>j. Indirect</td>
<td></td>
<td>$ 88,361.00</td>
</tr>
<tr>
<td>k. Totals</td>
<td></td>
<td>$ 5,426,786.00</td>
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<tr>
<td>7. Program Income</td>
<td></td>
<td>$ 0.00</td>
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U.S. Department of Energy
WEATHERIZATION ASSISTANCE PROGRAM (WAP)
WEATHERIZATION ANNUAL FILE WORKSHEET

(Grant Number: EE0006160, State: MA, Program Year: 2015)

IV.1 Subgrantees

<table>
<thead>
<tr>
<th>Subgrantee (City)</th>
<th>Planned Funds/Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action for Boston Community Development (Boston)</td>
<td>$489,810.00</td>
</tr>
<tr>
<td>ACTION, Incorporated (Gloucester)</td>
<td>$495,760.00</td>
</tr>
<tr>
<td>Berkshire Community Action Council Inc. (Pittsfield)</td>
<td>$193,150.00</td>
</tr>
<tr>
<td>Citizens for Citizens (Fall River)</td>
<td>$449,875.00</td>
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<tr>
<td>Community Action of the Franklin, Hampshire and Quabbin (Greenfield)</td>
<td>$261,610.00</td>
</tr>
<tr>
<td>Community Action Programs, Intercity (Chelsea)</td>
<td>$455,580.00</td>
</tr>
<tr>
<td>Greater Lawrence Community Action Council Inc. (Lawrence)</td>
<td>$412,530.00</td>
</tr>
<tr>
<td>Housing Assistance Corporation (Hyannis)</td>
<td>$187,445.00</td>
</tr>
<tr>
<td>Quincy Community Action Programs (Quincy)</td>
<td>$298,430.00</td>
</tr>
<tr>
<td>South Middlesex Opportunity Council (Framingham)</td>
<td>$669,580.00</td>
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<tr>
<td>Springfield Partners in Community Action (Springfield)</td>
<td>$438,465.00</td>
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<tr>
<td>Worcester Community Action Council (Worcester)</td>
<td>$452,465.00</td>
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<tr>
<td>Total:</td>
<td>$4,804,700.00</td>
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IV.2 WAP Production Schedule

<table>
<thead>
<tr>
<th>Weatherization Plans</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Units (excluding reweatherized)</td>
<td>710</td>
</tr>
<tr>
<td>Rewetherized Units</td>
<td>30</td>
</tr>
</tbody>
</table>

Note: Planned units by quarter or category are no longer required, no information required for persons.

Average Unit Costs, Units subject to DOE Project Rules

<table>
<thead>
<tr>
<th>VEHICLE &amp; EQUIPMENT AVERAGE COST PER DWELLING UNIT (DOE RULES)</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Total Vehicles &amp; Equipment ($5,000 or more) Budget</td>
<td>$0.00</td>
</tr>
<tr>
<td>B Total Units Weatherized</td>
<td>710</td>
</tr>
<tr>
<td>C Total Units Rewetherized</td>
<td>30</td>
</tr>
<tr>
<td>D Total Dwelling Units to be Weatherized and Rewetherized</td>
<td>740</td>
</tr>
<tr>
<td>E Average Vehicles &amp; Equipment Acquisition Cost per Unit (A divided by D)</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

AVERAGE COST PER DWELLING UNIT (DOE RULES)

<table>
<thead>
<tr>
<th>F Total Funds for Program Operations</th>
<th>$3,478,000.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>G Total Dwelling Units to be Weatherized and Rewetherized</td>
<td>740</td>
</tr>
<tr>
<td>H Average Program Operations Costs per Unit (F divided by G)</td>
<td>$4,700.00</td>
</tr>
</tbody>
</table>
IV.3 Energy Savings

Method used to calculate savings: □ WAP algorithm □ Other (describe below)

Method used to calculate savings description:

Massachusetts used DOE's recommended 30.5 Mbtu's per weatherized unit to determine estimated energy savings.

In order to increase energy savings from the WAP while DOE average cost per unit is reduced, DHCD will to focus on:

- Maximizing subgrantee access to utility energy efficiency programs to increase the amount of funds available and to make certain that Subgrantees are able to provide comprehensive energy efficiency services;
- A continued emphasis on subgrantee energy auditor and WAP contractor technical training with priority given to cost-effective blower door directed air sealing including pressure diagnostics and high density insulation techniques and continued efforts at improving the quality of work;
- A continued emphasis on heating system improvements facilitated by alternative funding sources such as DHCD's HEARTWAP and utility funds;

| This year estimated energy savings (MBtus): | 22,570 |
| Prior year estimated energy savings (MBtus): | 49,227 | Actual: (Redacted) |

IV.4 DOE-Funded Leveraging Activities

During FY'94, DHCD developed a statewide strategy to accomplish its leveraging goals. A solicitation for leveraging proposals was made during the 1994 program year. Action, Inc. was selected to represent the subgrantee network. DHCD intends to continue this relationship into 2015 grants through an award to Action Inc. to facilitate and continue its very successful efforts at leveraging non-federal funding for the WAP network.

DHCD continues to expand the capacity of the WAP subgrantee providers to leverage non-public resources in order to facilitate the weatherization of additional low-income homes. These leveraging activities will be limited to the provisions contained under Section 142 of the Energy Policy Act of 1992, and may include:

- Training management and technical staff in the coordination and integration of utility and federal resources;
- Intervention and expert testimony on behalf of the low-income ratepayer at utility rate case hearings, to include review of demand side management and low-income energy efficiency plans;
- Continued contact with investor owned utility industry and the private energy service company network;
- Continued negotiation with municipally-owned utilities with an emphasis on those with a high percentage of low-income households;
- Actively pursuing the creation of a unified audit and reporting protocol to facilitate the administration of multiple utility reporting requirements.

The WAP network in Massachusetts currently administer utility funded Demand Side Management (DSM) programs that provide full scale weatherization, similar in scope to DOE WAP, Appliance Management Programs (AMPs) that provide low-income households with both direct education and efficiency upgrades of lighting and high use electric appliances such as refrigerators and freezers and Heating System Replacement Program that is coordinated with the DOE WAP and the LIHEAP funded Heating System Repair and Replacement Program (HEARTWAP) administered by DHCD. Under Massachusetts regulations investor-owned electric utilities provide full-scale building shell improvements and heating system replacement services to non-electric heat customers. The WAP Network also has access to funding for very limited WAP related repairs measures.

During Calendar Year 2014 the WAP Network in Massachusetts leveraged approximately $35 million for use in DSM, AMPs, and Heating System programs for single and small multi-family income eligible homes.

DHCD estimates that combined funding for the DOE WAP, HEARTWAP and low-income utility rate-payers will serve over 16,000 households with some type of energy efficiency or heating system service over the next year.

Additionally, the Massachusetts WAP Subgrantee Network through the Low-income Energy Affordability Network (LEAN), administer an additional $35+ million per year in utility funded activities in a Low Income Multifamily program targeting high use income eligible multi-family buildings. Additional information about that program can be found here: http://leanrmultifamily.org/

No utility funds are utilized or budgeted by DHCD. All funds are contracted by the Massachusetts Utilities directly to local WAP/LIHEAP agencies.
IV.5 Policy Advisory Council Members

- Check if an existing state council or commission serves in this category and add name below

<table>
<thead>
<tr>
<th>Organization</th>
<th>Type of organization</th>
<th>Contact Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Braintree Electric Light Department</td>
<td>Utility</td>
<td>Ms. Ruth Slater</td>
<td>7813482353</td>
<td><a href="mailto:rslater@beld.com">rslater@beld.com</a></td>
</tr>
<tr>
<td>Low Income Energy Affordability Network (LEAN)</td>
<td>Non-profit</td>
<td>Elliot Jacobson, VP Energy Programs</td>
<td>9782814040</td>
<td><a href="mailto:Eli@actioninc.org">Eli@actioninc.org</a></td>
</tr>
<tr>
<td>MA Department of Energy Resources</td>
<td>Unit of State Government</td>
<td>Ms. Alissa Wittenman</td>
<td>6177270030</td>
<td><a href="mailto:Alissa.wittenman@state.ma.us">Alissa.wittenman@state.ma.us</a></td>
</tr>
<tr>
<td>MA Department of Public Utilities</td>
<td>Unit of State Government</td>
<td>Ms. Nancy Stevens</td>
<td>6173055930</td>
<td><a href="mailto:Nancy.Stevens@state.ma.us">Nancy.Stevens@state.ma.us</a></td>
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<tr>
<td>MA Executive Office of Elder Affairs</td>
<td>Unit of State Government</td>
<td>Ms. Arnette Peele</td>
<td>6177277750</td>
<td><a href="mailto:Arnette.y.peele@state.ma.us">Arnette.y.peele@state.ma.us</a></td>
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<tr>
<td>MA Office on Disabilities</td>
<td>Unit of State Government</td>
<td>Naomi Goldberg</td>
<td>6177277440</td>
<td><a href="mailto:Naomi.goldberg@modi.state.ma.us">Naomi.goldberg@modi.state.ma.us</a></td>
</tr>
<tr>
<td>Massachusetts Energy Director's Association</td>
<td>Non-profit</td>
<td>Mr. Peter Wingate</td>
<td>4137742318</td>
<td><a href="mailto:Pwingate@communityaction.us">Pwingate@communityaction.us</a></td>
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<tr>
<td>Massachusetts Oil Heat Council</td>
<td>Non-profit</td>
<td>Michael Ferrante</td>
<td>7813650844</td>
<td><a href="mailto:Mferrante@massoilheat.org">Mferrante@massoilheat.org</a></td>
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<tr>
<td>National Consumer Law Center</td>
<td>Non-profit</td>
<td>Charles Harak</td>
<td>6175428010</td>
<td><a href="mailto:Charak@nclc.org">Charak@nclc.org</a></td>
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<tr>
<td>National Grid</td>
<td>Utility</td>
<td>Ms. Beth Lonergan</td>
<td>8003223223</td>
<td><a href="mailto:beth.lonergan@vs.nariid.com">beth.lonergan@vs.nariid.com</a></td>
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<td>NStar Electric</td>
<td>Utility</td>
<td>Charlie Olsson, Energy Efficiency Manager</td>
<td>7814418720</td>
<td><a href="mailto:charlie.olsson@nstar.com">charlie.olsson@nstar.com</a></td>
</tr>
<tr>
<td>United Way of Massachusetts Bay</td>
<td>Non-profit</td>
<td>Ms. Diane Franz</td>
<td>6176248000</td>
<td><a href="mailto:dfranz@supportunitedway.org">dfranz@supportunitedway.org</a></td>
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IV.6 State Plan Hearings (Note: attach notes and transcripts to the SF-424)

<table>
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<tr>
<th>Date Held</th>
<th>Newspapers that publicized the hearings and the dates the notice ran</th>
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<tr>
<td>02/20/2015</td>
<td>Berkshire Eagle, Boston Globe, Brockton Enterprise, Lawrence Eagle Tribune, Quincy Patriot Ledger, Springfield Union-Republican News, and Worcester Telegram &amp; Gazette Published in all newspapers during the week of February 2, 2015 Posted on DHCD's Web Site and notification through the Massachusetts Secretary of State's Office and the Exec. Office of Administration and Finance Open Meeting Notice.</td>
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</tbody>
</table>
IV.7 Miscellaneous

The Massachusetts Department of Housing and Community Development’s (DHCD) Recipient Business Officer is Ms. Jennifer Maddox, Chief Financial Officer; Jennifer.Maddox@state.ma.us (617) 573-1250. The Recipient Primary Investigator is David Fuller, Manager, Energy Conservation Unit; David.Fuller@state.ma.us; (617) 573-1421.

The Massachusetts WAP Policy Advisory Council meets quarterly. Input from the membership is solicited and welcome regarding the development of policies and procedures and technical standards in coordinating the DOE WAP and utility funded efficiency program in Massachusetts. Members were provided a link to the draft State Plan and Public Meeting Notice.

The DHCD Organizational Chart has not been updated since the recent change in administration this past January. When the new chart is available DHCD will forward the chart to the DOE Project Officer.

The Massachusetts Fringe Rate used for the DOE WAP budget includes the US Health and Human Services approved fringe rate of 27.27% plus the approved payroll tax rate of 1.59%. Total Fringe charged to employees salaries is 28.86%.
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# U.S. Department of Energy

## WEATHERIZATION ASSISTANCE PROGRAM

### GRANTEE INFORMATION

<table>
<thead>
<tr>
<th>State: MA</th>
<th>Grant Number: EE0006160</th>
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### Community Action of the Franklin, Hampshire and Quabbin

<table>
<thead>
<tr>
<th>Name:</th>
<th>Community Action of the Franklin, Hampshire and Quabbin</th>
<th>Contact:</th>
<th>Peter Wingate Energy Director</th>
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<tbody>
<tr>
<td>Address:</td>
<td>393 Main Street, Greenfield, MA 01301</td>
<td>DUNS:</td>
<td>0669865928</td>
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<td>Counties served:</td>
<td>FRANKLIN County, HAMPSHIRE County</td>
<td>Phone:</td>
<td>(413)-376-1112</td>
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<tr>
<td></td>
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<td><a href="mailto:Pwingate@communityaction.us">Pwingate@communityaction.us</a></td>
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### Community Action Programs, Intercity

<table>
<thead>
<tr>
<th>Name:</th>
<th>Community Action Programs, Intercity</th>
<th>Contact:</th>
<th>Marilyn Murphy, WAP Manager</th>
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<tbody>
<tr>
<td>Address:</td>
<td>100 Everett Ave, Chelsea, MA 02150</td>
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<td>Counties served:</td>
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<td>Phone:</td>
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<tr>
<td></td>
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<td>Email:</td>
<td><a href="mailto:mmurphy@capicinc.org">mmurphy@capicinc.org</a></td>
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### Greater Lawrence Community Action Council Inc.

<table>
<thead>
<tr>
<th>Name:</th>
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<th>Contact:</th>
<th>Robin Rozzi, WAP Director</th>
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<tbody>
<tr>
<td>Address:</td>
<td>305 Essex Street, Lawrence, MA 01840</td>
<td>DUNS:</td>
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<tr>
<td>Counties served:</td>
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<td>Phone:</td>
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<tr>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Email:</td>
<td><a href="mailto:rrozzi@glac.org">rrozzi@glac.org</a></td>
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### Housing Assistance Corporation

<table>
<thead>
<tr>
<th>Name:</th>
<th>Housing Assistance Corporation</th>
<th>Contact:</th>
<th>Nancy Davison, Vice President of Operations</th>
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</thead>
<tbody>
<tr>
<td>Address:</td>
<td>460 West Main Street, Hyannis, MA 02601</td>
<td>DUNS:</td>
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<tr>
<td>Counties served:</td>
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<tr>
<td></td>
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<td>Fax:</td>
<td>(508)-775-7434</td>
</tr>
<tr>
<td></td>
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<td>Email:</td>
<td><a href="mailto:ndavison@haconcapecood.org">ndavison@haconcapecood.org</a></td>
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<tr>
<td>Name: Quincy Community Action Programs</td>
<td>Contact: Lauren Rexford, Energy Director</td>
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<tr>
<td>Address: 1509 Hancock Street, Quincy, MA 02169-0000</td>
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<tr>
<td>Counties served: NORFOLK County, PLYMOUTH County</td>
<td>Phone: (617) 479-8181</td>
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<thead>
<tr>
<th>Name: South Middlesex Opportunity Council</th>
<th>Contact: Paul Jackson, WAP Director</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address: 300 Howard Street, Framingham, MA 01701</td>
<td>DUNS: 030806830</td>
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<tr>
<td>Counties served: BRISTOL County, MIDDLESEX County, PLYMOUTH County, NORFOLK County</td>
<td>Phone: (508) 620-2300</td>
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<td>Email: <a href="mailto:pjackson@smoc.org">pjackson@smoc.org</a></td>
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<table>
<thead>
<tr>
<th>Name: Springfield Partners in Community Action</th>
<th>Contact: Joseph Kerigan, Director of Energy Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address: 721 State Street, Springfield, MA 01101</td>
<td>DUNS: 065975384</td>
</tr>
<tr>
<td>Counties served: HAMPDEN County</td>
<td>Phone: (413) 263-6500</td>
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<td>Email: <a href="mailto:jkerigan@springfieldpartnersinc.com">jkerigan@springfieldpartnersinc.com</a></td>
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<table>
<thead>
<tr>
<th>Name: Worcester Community Action Council</th>
<th>Contact: Mary Kittle, Director of Energy Resources</th>
</tr>
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<tr>
<td>Address: 484 Main Street, Worcester, MA 01608</td>
<td>DUNS: 11521597</td>
</tr>
<tr>
<td>Phone: (508) 754-1176</td>
<td>Fax: (508) 754-0203</td>
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<tr>
<td>Email: <a href="mailto:mktittle@wecnet.org">mktittle@wecnet.org</a></td>
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</table>

| MA-03 |
| MA-01 |
| MA-02 |
V.1 Eligibility
V.1.1 Approach to Determining Client Eligibility

Provide a description of the definition of income used to determine eligibility

Consistent with DOE's income eligibility regulation that allows:

3) If a State elects, is the basis for eligibility for assistance under the Low Income Home Energy Assistance Act of 1981, provided that such basis is at least 200 percent of the poverty level determined in accordance with criteria established by the Director of the Office of Management and Budget

DHCD uses household eligibility for LIHEAP as the determination of eligibility for DOE WAP services. Currently, LIHEAP eligibility in Massachusetts is based on 60% of the State Average Median Income which is greater than 200% of the Federal Poverty Level.

Describe what household Eligibility basis will be used in the Program

DHCD uses a "Single Certification Process" in conjunction with the Low-Income Home Energy Assistance Program, (LIHEAP), also administered by DHCD. Effective in FY 2009, LIHEAP allows clients who are certified as eligible for LIHEAP, up to 60% of the Estimated State Median Income to receive weatherization assistance from the DOE WAP. The single certification process simplifies the application process for clients, enables subgrantees to share staff and resources in the certification process as well as providing the client with a more comprehensive energy package. The process also provides consistency of eligibility for LIHEAP, HEARTWAP (DHCD's LIHEAP funded heating system repair and replacement program), and a variety of utility-funded energy efficiency programs, in addition to the DOE WAP. Those households that may not be eligible for LIHEAP, but are categorically eligible for the DOE WAP by virtue of receiving cash assistance payments under Title IV or XVI of the Social Security Act, are eligible for weatherization services as per DOE regulations. Additionally, households that are not interested in LIHEAP services may apply for weatherization through the LIHEAP operating agency (in most cases the same as the WAP) and income eligibility determination is based on the LIHEAP certification requirements or the categorical DOE eligibility outlined above.

Describe the process for ensuring qualified aliens are eligible for weatherization benefits

DHCD uses the LIHEAP application certification process to determine eligibility for LIHEAP and DOE WAP services. The Single Certification Process application process in Massachusetts LIHEAP and WAP does not request information from applicant households about citizenship status or exclude qualified aliens under . All LIHEAP eligible households are referred to WAP and clients are selected from LIHEAP priority ranked eligibility list. Qualified aliens are eligible for WAP and will be served consistent with their priority status.

V.1.2 Approach to Determining Building Eligibility

Procedures to determine that units weatherized have eligibility documentation

LIHEAP Subgrantees are required to document all household income as part of a client's Fuel Assistance application to determine household's eligibility. According to guidelines outlined in the Massachusetts LIHEAP Administrative Guidance the documentation may include: pay stub, public assistance benefits assistance checks, unemployment payments, verification of rental income or pension checks. Verification of the household's income information from all sources is recorded on the application and remains in the client's LIHEAP file.

The process is consistent with DOE Regulations, which allows states to use LIHEAP eligibility criterion as the basis of eligibility under WAP, provided that the LIHEAP basis is at least 200 % of the poverty level and that the same basis is used throughout the State. Clients who are home owners are required to show proof of homeownership and clients who are tenants must have signed permission from the building owner/landlord consistent with DHCD's rental guidance before work can proceed.

The software package used by the LIHEAP Subgrantees to manage the program and client eligibility in Massachusetts is fully integrated with the WAP software implemented during the FY 2012 DOE. Eligibility determination documentation is included in the DOE WAP file.

Describe Reweatherization compliance

Consistent with DOE WAP regulations, DHCD allows Subgrantees to provide additional eligible cost-effective efficiency measures to homes that had received DOE WAP services prior to September 30, 1994. Subgrantees are not encouraged to revisit previously weatherized units. Subgrantees are required to maintain historical records of previously weatherized addresses in a manner that permits an easy search to identify the address' weatherization status. Subgrantees typically use some variation of a spreadsheet or database to identify the funding source, expenditures and measures completed. The system is searched by Subgrantee staff
to determine the status of the address before any outreach activities are conducted. During the Annual WAP Program Assessments, DHCD reviews the reweatherization identification system and tracks several completed units to determine that their status is properly identified.

The WAP software system instituted during the FY 2012 program year simplifies the system. In the future, historical WAP data will be appended to the database.

Describe which structures are eligible for weatherization

Eligible structures include: single family homes (rental and owner occupied), small multi-families (1-4 units), condominiums, multi-family buildings (5+ units), manufactured housing, and as well as group homes, single room occupancy rooming houses (SRO), and shelters.

Large multi-family buildings, group homes, shelters and SROs must be submitted to DHCD for prior approval. If large multifamily buildings are submitted to DHCD to receive DOE WAP Services, DHCD will contact the DOE Project Officer for approval.

Describe how Rental Units/Multifamily Buildings will be addressed

DHCD's policy regarding rental units/multi-family buildings and tenant protection policies is outlined in DHCD's WAP IM-2009-008 Rental Guidance. The Rental Guidance protects against rent increases and protects against evictions for a minimum of one year due to the weatherization work that was completed, and ensures that undue property enhancements occur as a result of the weatherization process. DHCD has streamlined the Rental Guidance to incorporate the majority of weatherization situations into a single Tenant/Property Owner/Agency Agreement. In those instances where rehabilitation is part of the weatherization process, more stringent agreements are available through Special Projects provisions. DHCD requires that upon sale of the building, that the new owner, either continue the agreement, or to repay the agency for the cost of weatherization materials and labor. The agreement provides that the tenant is the intended beneficiary of the weatherization and specifically has a right of enforcement. This specific empowerment gives the tenant clear and unequivocal standing in court.

From the Massachusetts WAP Policies and Procedures Manual:

Chapter 5: DOE WAP and HEARTWAP Rental Guidance

Section 5.1

RENTAL GUIDANCE OVERVIEW:

- Legislation and Regulation: The authorizing legislation for DOE Weatherization is the Energy Conservation and Production Act (ECPA) of 1976, as amended, (42 USC 8864 et. seq.). The Act allows weatherization not only in owner-occupied homes, but in low-income rental dwellings as well. Under the Act and DOE regulations governing the program (10 CFR 440.22):
  - The Subgrantee must secure the property owner's written permission for the weatherization work;
  - Rents must not be raised because of the increased value of a dwelling unit due solely to the weatherization;
  - The value of owner's property must not be unduly or excessively enhanced.

The intent is that the benefit of the weatherization work adheres to the low-income tenant. DOE regulations also provide specific standards for determining eligibility of multifamily rental housing for the program. This information is included in the WAP Technical Manual and memoranda.

- DHCD's Interpretation of the Legislation and Regulations: From the beginning of the operation of the WAP, DHCD's policy has been that tenant protection is of primary concern. It was determined that tenants should receive the benefit of the program in two ways:
  - Tenants should receive a tangible benefit from weatherization including an increase in comfort in their homes as well as lower heating bills.
  - Low-income tenants should be reasonably assured that they will continue to enjoy the benefits of the program for a period of time after receiving the weatherization services.
  - Property Owner Contributions: DHCD encourages but does not require an in-kind contribution from the property owner especially in those circumstances when multiple units are receiving weatherization services and the resultant value of those services is high. It is particularly appropriate for a Subgrantee to require owner contributions to repair sanitary or building code violations as a pre-condition for receiving weatherization.
  - Longer Term Agreements/Rent Limitations: An additional approach to assuring that tenants receive the benefits of weatherization is to increase the period of the agreement and/or further regulate rent increases over the agreement period. This is particularly appropriate if the weatherization benefits proposed for the building are of a high monetary value.

Section 5.2
U.S. Department of Energy
WEATHERIZATION ASSISTANCE PROGRAM (WAP)
STATE PLAN/MASTER FILE WORKSHEET
(Grant Number: EE006160, State: MA, Program Year: 2015)

RENTAL WEATHERIZATION PROGRAM REQUIREMENTS:

- **Standard Rental Program Requirements:** Rent in weatherized units shall not be raised for one year following the signature of the agreement, except as noted in this guidance. Owners whose property is weatherized shall agree that if the property is sold within one year, then either:
  - the obligations of the tenant/landlord agreement shall be transferred with the sale of the property; or
  - the total amount of the weatherization materials and labor shall be refunded to the Subgrantee.

See the Appendix for the Standard Tenant/Property Owner Agreement in place for WAP.

- **Allowable Exceptions, Omissions, and Alterations:** Under some circumstances, the basic weatherization program requirements may be modified because other programs' requirements, laws or regulations supersede weatherization requirements, or because modifications of the weatherization requirements are the only means through which the program can be operated, because of particular local conditions. Particular local problems should always be brought to DHCD's attention as soon as possible.

Subgrantees are empowered to design local requirements that go beyond the basic requirements presented here. Such local additions must always be presented to DHCD prior to implementation.

- **Limited WAP:** Where the weatherization of a single unit takes place in an owner-occupied building and where the weatherization is limited to the eligible unit and the total expenditure for the unit in materials and labor will not exceed $400, the Subgrantee may delete Paragraph 8 requirements for repayment or transfer upon sale of the building, in the Standard Agreement.

- **Rent Control:** Where weatherization is undertaken in a unit covered by rent control, the owner shall not be constrained from implementing rental adjustments ordered by the applicable Rent Board. The owner must present documentation that the unit is covered by rent control. The owner must agree in writing not to present to the Rent Board weatherization improvements made by the Subgrantee as the owner’s own improvement expenses. If the applicable rent control eviction protections are more restrictive upon the owner than the Tenant/Landlord Agreement, then the rent control protections shall apply. A Tenant/Landlord Agreement is still required.

- **Rent Subsidy Programs:** Requirements under various state and federally subsidized rent programs in privately-owned housing supersedes the rent provisions of the WAP Tenant/Property Owner Agreement. These programs may provide stronger protections against eviction and rent increases than the weatherization program. Consequently, DHCD recognizes that those stronger protections supersedes the weatherization agreement where appropriate.

- **Taxes, Revaluations, Water/Sewer Rates, and Other Charges:** There are some increases in operating costs to landlords that are not under their control, and which may be substantial. DHCD's basic position is that for the minimum one year period, most such charges will not be sufficient to warrant relaxing the no-rent increase policy. However, extenuating circumstances will be addressed on a case-by-case basis. Property owners will be required to justify those requests by documenting significant increases in property taxes, water/sewer rates or other unusual increases in the operating costs of the property.

Section 5.3

**THE TENANT/LANDLORD (PROPERTY OWNER)/AGENCY AGREEMENT (T/L AGREEMENT)**

Since tenants are not the legal owners of their residences, work may not begin until it is legally consented to in writing by either the property owner or landlord (if the landlord legally represents the owner in this circumstance.)

To accomplish this legal consent, a three-party Tenant/Landlord/Agency Agreement (T/L Agreement) was developed to allow Weatherization agency staff, HEARTWAP staff and contractors to enter the client’s premises in order to perform efficiency work. Subgrantees must use the Agreement in its final form, as attached to this guidance. However, Subgrantees may add to the required provisions to address local conditions. Additions to agreements must be submitted to DHCD for approval prior to their use. A signed and dated Tenant/Landlord/Agency agreement needs to be kept in the client’s file.

- **Standard Weatherization Agreement:** The basic Tenant/Landlord (Property Owner) Weatherization Agreement is intended to be the most frequently used weatherization agreement. Subgrantees must use the agreement in its final form, as included at the Appendix at the end of this Manual. However, Subgrantees may add to the required provisions to address local conditions. Revised agreements must be submitted to DHCD for approval prior to their use.

- **HEARTWAP Standard Agreement:** The Standard HEARTWAP agreement is identical to the basic WAP agreement appropriate references are made to HEARTWAP in place of WAP, including:
  - The Massachusetts Oil Burning code is referenced in place of the Weatherization Priority list.
  - The maximum amount is noted as $1000, plus asbestos abatement, $500 maximum, (unless the property owner is LIHEAP eligible).
Section 5.4

SIGNIFICANT ELEMENTS OF THE STANDARD WAP AND HEARTWAP T/I AGREEMENTS:

- **Parties to the Agreement:** Parties to the Agreement include the tenant, the property owner and the Subgrantee. Note that the owner’s agent may sign the agreement if the agent can demonstrate written authorization to conclude rental agreements.
- **Period of Agreement:** The agreement period begins upon signature by the Agency, which will be the last party to sign.
- **Location of the Dwelling and Permission for WAP Work:** The building address must include the unit number within the building, if applicable.
  - Section a) provides permission to inspect the unit.
  - Section b) provides permission to perform the weatherization work, following the weatherization measures priority list for the particular type of dwelling from Attachment A, the DHCD WAP priority measures list.
  - Section b) also provides a mandatory sign-off for the owner. The owner may allow the Agency to proceed with the weatherization work without further approval.
- **or—**
- The owner will agree to the work separately after seeing the Agency’s write-up of the work. This does not mean that the owner can require measures out of their order of priority, or require measures that are not allowed by the WAP. The intention of this sign-off is that the owner be informed of the work to be done before the fact, to avoid any misunderstanding about what measures have been agreed to.
- The owner must initial one of the options, either to proceed with the work without further approval or to sign-off on the work list prior to the work beginning. With both options the Agency must provide a list of the measures and costs to the owner at the completion of the work.
- **Maximum Amount of Materials and Labor: Completion of WAP Work by Agency:** This section allows the Subgrantee to enter the estimated value of the work to be completed and that the Agency has discretion to determine the exact amount of work that will be done. This section also states the expected completion date of the work to be done by the Agency.

Note that asbestos removal is mentioned. DHCD does not ordinarily pay for asbestos abatement under WAP. The possibility is provided for an extreme circumstance.

- **Owner Repairs:** In some cases, the owner will agree to do repair work as a pre-condition to the Agency starting weatherization work. The owner takes on the obligation to complete the repairs before the Agency starts weatherization. If the owner does not finish the work by the date agreed, then a written extension must be granted. If the owner does not meet the conditions of this section, then the Agency is not obligated to commence the weatherization.
- **Agreement to Allow Fuel Bills to be Examined:** Requires no additional signatures by the owner, but should be pointed out, especially if heat is included in the rent.
- **No Rent Increases Due to Weatherization:** This is a restating of the DOE law and regulations. There is no time limit on this provision.
- **Consideration of Weatherization Work:** The first paragraph makes the agreement effective from the date of signature and then sets the one year minimum period from the date of completion.

The statutory language states that the primary benefit should accrue to the tenants, but does not state any time limit on that benefit. Massachusetts and many other states adopted a basic one year period because real world experience suggests one year is a practical limit that owners will accept. The law, however, does not recognize a time limitation. The increased time period in this revision of the Standard Agreement is in recognition of the need for tenants to have at least a full year of the weatherization benefits, rather than only nine or ten months following completion, which is often the case now.

- **Rent May Not be Increased for One Year:** This period may be increased at the Subgrantee’s discretion. The present rent must be stated, including the payment period (weekly, monthly, etc.). The agreement is worthless without completion of this section.

The waiver provision applies only to housing rented under state or federal rental programs in which tenant rents are directly subsidized and a state or federal regulatory process determines the rent tenants will pay.

- **No Eviction During the Agreement Period:** No eviction during the agreement period except for good cause related to the tenant (or successor tenant). This generally means that the tenant may not be evicted in the absence of serious or repeated violations of the terms of the lease or tenancy.
- **Sale of the Premises:** This provision is intended to provide some measure of protection for low-income tenants when the building is sold.
Under Option 1, the Property Owner agrees not to sell the property unless the buyer agrees to assume all obligations of the Agreement.

Under Option 2, the Property Owner agrees to repay the amount of materials and labor installed in the unit, as of the date of sale. This repayment goes to the agency, not to the tenant.

- **Heat Included in the Rent:** This provision is applicable only if the heat cost is included in the tenants’ rent. The provision includes the minimum one year of no rent increase and provides a percentage increase for a negotiated period of years. We suggest that the period of the extended agreement be based upon the amount of work and the number of units weatherized in the building and the expected savings to be generated for the Owner. We will allow and support 0% increases where appropriate, and will be available for consultation on this issue.

If heat is included in the rent as part of a rent subsidy program, this section does not apply.

- **Other Rental Agreements:** This Agreement is incorporated into any other existing lease or agreement and if there are differences, this agreement supersedes other agreements unless the other rental agreement contains stronger protections for the tenant, in which case those protections apply.
- **Breach and Damages:** This section provides for the Subgrantee's right to recover the weatherization investment when the Owner has breached the agreement, including attorney's fees and court costs. The tenants' right to seek damages from the owner is also addressed, and the owner agrees to pay the tenants' attorney fees and court costs.
- **Last Items:** There are three (3) important concepts here:
  - Placing the agreement under seal relates to the parties' intention that this be a binding contract.
  - The tenant or a successor tenant is the intended beneficiary. Should the tenant move out during the agreement period, the owner is still bound to abide by the agreement provisions for the next tenant.
  - The tenant or any successor shall have a right of enforcement, meaning the right to go to court and seek to enforce the agreement, or seek damages from the owner for breach of the agreement.
  - **Signatures:** Signatures are vital. The Subgrantee must always be sure a copy of the agreement with all signatures is in the hands of all parties and particularly in the client file. Dates are as important as signatures.
  - **Sale of Premises Provisions:** DHCD requires a strong presentation to property owners and tenants about the rights and responsibilities of each party. Draft model letters can be found in this document’s Appendix (A-4) and these include the minimum information that must be given to landlords and tenants. Each Subgrantee may employ these models, or alternative written material that provides, at a minimum, the information provided in the model.
  - **Attachment to the TIL Agreement:** The Weatherization Priority List. See the Appendix of this Manual or the MA WAP Technical Manual for this.

**Section 5.5**

**ADDITIONAL PROVISIONS AND AGREEMENTS IN THE TIL AGREEMENT:**

- **Term of Tenant Protection:** The Term of the Owners’ Agreement, under Paragraph 8 of the Standard Agreement and parallel provisions of other agreements, may be increased beyond one year. This may be the result of doing work in a large multi-family dwelling in which a major investment of weatherization funds is being made and the agency believes that protection for tenants beyond the first year of the agreement is necessary. DHCD does not require approval of an increase in term, but we would like to be informed by Subgrantees.

- **Repairs:** The Subgrantee must specify the owner’s contribution to the weatherization in materials, labor or funds. Where this contribution is being made to correct code violations, the agreement must specify that all WAP work is dependent upon prior completion of the owner’s agreed upon work. In this instance and where other landlord work must be completed in order for weatherization work to be done, the agreement should specify the dates for landlord completion of agreed upon tasks and that time is of the essence for completion.

**Section 5.6**

**PROCEDURES FOR IMPLEMENTING THE STANDARD TIL AGREEMENT:**

- **Clients Living in Private, Non-Subsidized Housing:** Upon receipt or approval of an eligible tenant's weatherization application, the Subgrantee must ensure the building to advise him or her of the tenants' eligibility for weatherization and the benefits and responsibilities of the owner with the owner. Most Subgrantees employ a brief written description, such as those found in Attachments 3A, 3B and 3C.

The Subgrantee should never delegate the initial landlord contact to a third party, such as to an auditor/inspector or contractor working on a
contractual basis.

The owner must sign the agreement prior to the WAP inspection, so that the inspector is legally entitled to enter the premises. The tenant must also provide written permission to the Subgrantee to enter, inspect and do the work, at the point of application.

If the owner wishes to have an agent sign the agreement, the agent must provide a witnessed power of attorney signed by the owner, stating that the agent has the power to enter into contractual arrangements for the owner.

If the owner is making a contribution to the weatherization work, or is making necessary repairs as part of the weatherization agreement, particularly to repair building and sanitary code violations, the contribution and the work to be performed must be clearly stated in the Tenant/Property Owner Agreement.

The owner may provide permission to proceed before the audit is complete, or may require a review of the audit prior to a second sign-off. Following the inspection, but before the job is started, the Subgrantee must provide the owner with a detailed estimate of the weatherization work to be done, and the overall cost if the owner requests that.

- **Subsidized Housing Programs**: Requirements for privately-owned rental dwellings subsidized by one of the various federal or state housing programs are identical to other rental weatherization requirements, except that the provisions on rental increases in these programs govern, rather than the standard weatherization agreement rent provisions. **Publicly-owned subsidized housing, single family, multifamily, or developments must receive prior approval from DHCD.**

Though DHCD does not prohibit Subgrantees from weatherizing units in which heat and utilities are included in the rent, there is recognition that the primary benefits from weatherization services must accrue to the low-income tenant. In practice, (except for Special Projects completed during the ARRA grant), the majority of rental units served in Massachusetts are small multifamily (2-6 units), and the tenants pay their own heating costs and are the direct beneficiaries of the weatherization services. According to data provided on the Building Weatherization Reports submitted from WAP Subgrantees, from the FY 2005-2012 DOE WAP, tenants paid the heating costs in over 85% of the rental units weatherized. While DHCD encourages Subgrantees to solicit in-kind contributions from landlords in multi-family buildings, contributions are not a requirement for the tenants of the building to receive weatherization services. The DHCD has also developed procedures for eligible occupants of Group Homes, Shelters, and Single Room Occupancy situations. DHCD allows the weatherization of shelters and group homes in accordance with 440.22 (i). Prior approval from DHCD is required in all cases.

The Massachusetts utilities have a very active, well-funded Low-income Multi-Family Energy Efficiency Program (LIMF) administered on behalf of the WAP Network by the Low-Income Energy Affordability Network (LEAN) and Action for Boston Community Development (ABCD), the WAP Subgrantee in the Boston area. More information about that program is available here: [http://leanmultiagency.org/](http://leanmultiagency.org/)

High priority ranked eligible households in small multi-families that may not be eligible for services through the LIMF can receive services through the DOE WAP. These will typically be smaller townhouse type apartments or condominiums. If the unit is individually heated and located in a building with less than 25 units, the weatherization measures will be determined by the use of the NEAT Audit on the eligible unit.

If a WAP Subgrantee proposes to use DOE WAP funds to weatherize a multifamily (5 or more units) with a common heating system using DOE WAP funds, the Subgrantee must seek prior DHCD approval, complete an energy audit using an approved DOE Multi-family Audit Tool (TREAT, E-OUIP) and develop a list of proposed measures and costs. DHCD will evaluate the proposal to determine if the project is an appropriate investment of DOE funds based on proposed energy savings, benefits to eligible clients, availability of leveraged resources and the impact on other potential eligible entities considering current production and funding limitations. If the project is determined to be a worthwhile investment, DHCD will forward all Information and a formal request to the Department of Energy Project Officer for consideration and discussion prior to giving approval to the Subgrantee.

Small multi-family buildings will be served consistent with the following guidance found in the MA WAP Technical Manual and Policies and Procedures Manual:

**GUIDELINES FOR THE WEATHERIZATION OF MULTI-FAMILY RENTAL BUILDINGS**

Following is the procedure for weatherizing buildings with two or more units.

A. **Buildings with less than 50% of the dwelling units eligible**

When less than 50% of the dwelling units in a building are eligible for weatherization, the following procedure is mandatory:

- All applicable Major Air Sealing/General Heat Waste, Heating System, and Wall Insulation must be completed to the eligible unit.
- All common areas (hallways, attics, basements) that are immediately adjacent to the eligible unit must be weatherized.
- The building’s ineligible units cannot be weatherized.
B. **Building with five (5) or more units and 50-65% of the units are eligible**

When buildings with five (5) or more units and 50-65% of the units are eligible for weatherization, the following procedure is mandatory:

- All applicable Major Air Sealing/General Heat Waste, Heating System and Wall Insulation measures must be performed to the eligible units.
- All common areas (hallways, attics, basements) regardless of their location in relation to the eligible unit, must be weatherized.
- The building’s ineligible units cannot be weatherized.
- Allowable expenditures are limited to those of the eligible units and production credit will be granted to the eligible units only.

C. **50% of the units in a two (2) or four (4) unit building or at least 66% of the units in any building are eligible**

When 50% of the units in a two (2) or four (4) unit building or at least 66% of the units in any building are eligible for weatherization, the Subgrantee may elect either of the following procedures:

1. The Subgrantee may elect to weatherize the entire building including all eligible, and ineligible units and all common areas. If the Subgrantee elects this option, the following procedure is mandatory:
   - The entire building must be weatherized consistent with the applicable Massachusetts Weatherization Priority Measures regardless of the location of the eligible units.
   - Allowable Energy Conservation expenditures are limited to a total of $10,000 x the number of income eligible units in the building.
   - Health and Safety/Repair expenditures are limited to $2,500 x the number of income eligible dwelling units in the building.
   - Total expenditures are limited to a total of $10,000 multiplied by the number of eligible units in the building.

A Building Weatherization Report (BWR) must be submitted for each unit completed. Costs that can be directly attributed to that unit should be reported on that unit’s BWR (i.e. costs associated with Air Sealing/General Heat Waste or wall insulation for that unit). Costs associated with common areas in the building can be charged off to the adjacent unit or divided among the units in such a manner that will ensure that the building receives maximum weatherization services. **Ineligible units must be identified in the appropriate category on the BWR.**

- Subgrantees must ensure that the regulatory maximums for Energy Conservation and Repair/Health and Safety are not exceeded on any individual BWR.

2. The Subgrantee may elect to weatherize only the eligible unit or units and common areas in the building. If the Subgrantee elects this option, the following procedure is mandatory:
   - All applicable Major Air Sealing/General Heat Waste, Heating System, and Wall Insulation must be completed to the eligible unit(s).
   - All common areas (hallways, attics, basements) regardless of their location, must be weatherized.
   - The building’s ineligible units cannot be weatherized.
   - Allowable expenditures are limited to those of the eligible unit or units and production credit will be granted for the eligible unit(s) only.

The Guidelines for the Weatherization of Multifamily Rental Buildings apply only to buildings where a minimum of one dwelling unit is occupied by a tenant. Privately owned condominiums and cooperatively owned buildings may not receive assistance under these Guidelines (including provisions for weatherizing income ineligible units) unless one or more units is occupied by a tenant. These privately owned units may receive assistance on an individual basis, based on the eligibility status of the owner.

D. **Weatherization of Vacant Units**

A vacant unit must always be weatherized as an ineligible unit. **Vacant units cannot be weatherized using LIHEAP Funds.** The only case in which a vacant unit may be weatherized as an eligible unit is when the building is being rehabilitated under a local, state, or federally funded rehabilitation program in conjunction with CDWAP. Weatherizing these units requires DHCD prior approval under the Special Projects Guidance in all instances.

Subgrantees may not sign “Vacant Unit” agreements with building owners on the promise that the units will be occupied by eligible tenants outside of the CDWAP process.

E. **Multifamily Dwelling Client Prioritization Policy**

DHCD will waive the mandatory client prioritization requirements in those cases in which the weatherization of an entire building is possible, and at least one dwelling unit in that building is classified as a priority client. In these cases, the cost effectiveness of the whole house approach will take precedence over the priority status of the remaining units in the building. This waiver does not apply to any income ineligible units in the building.
Describe the deferral Process

There are circumstances when it is appropriate for a WAP agency to defer or provide no weatherization service to an otherwise eligible unit until an unsafe or potentially dangerous condition is corrected. The health and safety of clients, Subgrantee staff and weatherization contractors is of primary concern. All personnel must maintain a high level of awareness concerning the potential hazards associated with the weatherization process in situations that may involve Health and Safety concerns or other problematic issues. The Massachusetts Health and Safety Guidance outlines many of the specific criteria that would require a deferral of services and provides a “Deferral of Services Notice,” to be signed by the local agency and client that outlines the reason for the deferral and conditions that must be remedied before the work can commence. Some of the typical reasons for deferral include, the structural condition of the building, the existence of any number of Health and Safety concerns, (i.e. excessive mold, sewerage, animal waste, pest infestations), and illegal activities being conducted on the premises. Copies of the Deferral of Services Notice is left with the client, maintained in the Subgrantee client file and provided to DHCD.

The deferral policy does not mean that assistance is never to be provided, but that services must be postponed until the problems can be resolved and/or other sources of help are found.” DHCD requires Subgrantees to act as advocates for clients with health and safety concerns, refer the household to available services and do their best to ensure that problems are resolved so that the weatherization work can eventually be performed. Many WAP Subgrantees within the Community Action Programs network in Massachusetts and the DHCD LIHEAP and CSBG program are actively developing a Benefits Enrollment Coordination (BEC) database that will enable staff to have access to a variety of housing and health related programs and contacts that will enhance their ability to assist clients for deferral issues.

When problems of a unique nature exist that are not identified in the Health and Safety Guidance, DHCD staff is consulted by agencies before deciding whether to proceed.

V.1.3 Definition of Children

Definition of children (below age): 7

V.1.4 Approach to Tribal Organizations

☐ Recommend tribal organization(s) be treated as local applicant.

If YES, Recommendation. If NO, Statement that assistance to low-income tribe members and other low-income persons is equal.

DHCD recommends that a Tribal Organization not be treated as a local applicant eligible to submit an application pursuant to 10 CFR 440.12 (b)(5). The DHCD requires that approximately 5% of each Subgrantee unit goal be directed towards the weatherization of units for Native Americans. The WAP Client Priority System awards an additional priority point to households with a Native American member and Subgrantees are encouraged to conduct outreach to and serve tribal members whenever possible. A member of the DHCD staff has Native American heritage and has met with Wampanoag Tribal Council members on many occasions to encourage participation in the program.

V.2 Selection of Areas to Be Served

In FY 1996, DHCD reduced the service delivery network of Subgrantee agencies from 24 to 12. The consolidation was necessary due to the 47% cut in DOE funding. Twelve Subgrantees were selected from within the existing provider network consistent with the criteria listed in 10 CFR440.15. Many Subgrantee agencies that were not selected in the new network have maintained a contractual relationship with the Subgrantee that took over the service territory. Factors used in determining the service delivery network included:

(i) The Subgrantee’s experience and performance in weatherization or housing renovation activities;

(ii) The Subgrantee’s experience in assisting low-income persons in the area to be served; and

(iii) The Subgrantee’s capacity to undertake a timely and effective weatherization program.

Eleven (11) of the WAP Subgrantees in Massachusetts are Community Action Agencies and one (1) a non-profit housing agency; all current Subgrantees have administered successful weatherization programs and utility-funded energy efficiency programs for many years. Through ongoing monitoring, training and technical assistance, DHCD continues to ensure that Subgrantees maintain administrative, programmatic and technical staff capable of operating a successful program and continue to stay current with WAP Best Practices.

All areas of the state are served by the Massachusetts Subgrantees. Each WAP Subgrantee has a specified service territory based on Massachusetts incorporated
V.3 Priorities for Service Delivery

DHCD has consistently geared a high percentage of its production quota to weatherizing the units of low-income elderly, disabled or households with young children and high energy users. DHCD has set subgrantee contractual goals for providing service to priority households. The minimum goal for households with an elderly or disabled member are twenty (20%) and ten (10%) percent respectively. The actual number of elderly households served is typically significantly higher, in some areas over 50%. The minimum goal for households with children under 7 is fifteen (15%) percent.

DHCD has implemented a mandatory statewide client priority system that gave priority to elderly, disabled, and households with children under seven (7) years of age, and high energy users identified through the LIHEAP High Energy Cost Supplement Program, which identified those LIHEAP clients experiencing a high-energy burden. Actual client fuel use information provided by this program allows the WAP agency to identify high-energy users and target those users for additional weatherization priority points. DHCD has also recognized that the burden of the lower income brackets can be significant and allows an addition point for those below 175% of the FPL. LIHEAP operators are required to provide WAP operators with a priority ranked ordering of eligible clients based on the following priorities and corresponding points:

- Elderly - 3 points
- Handicapped - 2 points
- Children under 7 - 2 points
- High Energy Use - 2 points
- Native American - 1 point
- Households at 175% or less of the FPL - 1 point

Those applicants with the highest overall point total will receive priority of service. Subgrantees must document their outreach process to high priority households. DHCD allows Subgrantees to set aside up to twenty-five percent (25%) of their annual production for the weatherization of "hardship" households. These households can be weatherized outside of the established priority system criteria, provided that documentation of the hardship is included within the client file. Allowable "hardships" could include:

- an excessive energy burden and/or consumption not previously identified by LIHEAP.
- a condition that endangers the health and safety of the eligible low-income household.

Subgrantees are also permitted to provide services to income-eligible low priority households in small (2-4 unit) multifamily buildings if other units in that building are occupied by high priority clients. In many instances this enables a Subgrantee to weatherize an entire building using a combination of DOE WAP and leveraged utility funds.

V.4 Climatic Conditions

According to the IECC 2012 Climate Zone, map all of Massachusetts is within Zone 5 and with the exception of parts of Western Massachusetts and Cape Cod all areas are within a reasonable range of Heating Degree Day requirements according to the NOAA National Weather Service data. For the purposes of the WAP, DHCD is regarding the entire state as having a uniform climate. DHCD believes these variations are not large enough to warrant a revision in the allocation formula. However, Subgrantees can use local climatic conditions to determine the SIR of weatherization measures based on an appropriate Degree Day requirement for their area.

V.5 Type of Weatherization Work to Be Done

V.5.1 Technical Guides and Materials

The primary technical guidance for the WAP is the NREL/DOE Standard Work Specifications (SWS) and the SWS linked Massachusetts Weatherization Field Guide. The Weatherization Field Guide is available to WAP Subgrantee program staff, Energy Auditors, Inspectors and contractors working with local Subgrantees as an online manual and a pdf file with imbedded hyperlinks to the DOE/NREL SWS. The link to the Field Guide was emailed to all WAP Subgrantee staff. The Massachusetts Weatherization Field Guide is also available and has been distributed as a spiral bound printed manual that include references to the appropriate SWS for the measures described. The printed manuals were distributed to WAP Subgrantees by DHCD for distribution to their staff and WAP contractors.

Massachusetts WAP Subgrantees are moving to a tablet-based energy audit data collection format and the Weatherization Field Guide with links to the SWS will be installed on the tablet.

DHCD required a signed addendum to the DOE WAP Attachment A Scope of Services between the WAP Subgrantee and DHCD that provides acknowledgement of the requirements of the SWS and the Massachusetts Field Guide. WAP Subgrantee Contract for Services with weatherization contractors must also include a signed addendum acknowledging receipt of the Massachusetts Field Guide and SWS and that the Contractor
agrees to work to those standards. (Samples of both are attached to the State Plan).

While the current WAP Technical Manual provides detailed information of allowable materials from (DOE 10 CFR Attachment A) and energy efficiency measures to be completed in the DOE WAP it is outdated and does not align with the DOE/NREL SWS and the IECC 2012. DHCD is updating all installation specifications and modifying the Manual to align with and link to the DOE Standard Work Specifications (SWS). The new Technical Manual be distributed no later July 2015.

Additional Program Information

During the FY 2015, WAP Subgrantees may spend up to $10,000 on any individual eligible dwelling unit in cost-effective Program Operations, including Incidental Repairs and Health and Safety funds (excluding Subgrantee Program Support funds). Subgrantee Program Operations average expenditure per unit is budgeted at $4,700, plus an additional average $625 for Health and Safety measures. DHCD has established an Incidental Repair maximum per unit of $2,500. Based on costs reported in previous grant periods DHCD expects that this maximum expenditure will be rare and only when there are extensive, unusual needs in the home. DHCD’s approved WAP Priority Measures list requires that when expected Incidental Repair costs reach $1,500, a DOE approved audit must be completed on the unit and all DOE WAP funded measures must achieve a Savings to Investment Ratio (SIR) of 1 or greater.

Subgrantees in Massachusetts have a substantial amount of utility funding available for energy efficiency improvements. The amount far exceeds the amount of DOE WAP funds. Each unit weatherized with utility efficiency program funds can receive up to $4,500 for building shell efficiency measures, $4,500 for heating system replacements (additional funds up to $7,500 are available with a waiver) and additional funds for electric base load measures (primarily refrigerators and lighting improvements). The utility funding can be used independently or in conjunction with DOE WAP funds.

The following is a general list of the weatherization work to be done in an eligible unit:

a) Blower door directed air sealing of major by-passes, key junctions and leaking ductwork;
b) Repair and/or clean and tune primary heating system;
c) Repair or replace the primary heating system, must be reported as a Health and Safety measure unless the SIR is 1 or greater. All heating system work will be completed using alternative funding from a LIHEAP funded heating system repair and replacement program administered by DHCD and operated locally by Subgrantees.
d) Insulate attics after completing comprehensive blower door direct air sealing, sidewalks (dense pack), perimeter, or floor, and ductwork or hydronic heating pipes to appropriate R-values as determined by the SWS and IECC 2012;
e) Install energy efficient lighting and other cost effective electric base-load measures (using utility funding)

Heating System Improvements

DHCD continues to emphasize the upgrading of heating systems as an integral part of the weatherization process and making a home safer and more energy efficient. While heating system improvements will remain as a priority measure within the NEAT generated WAP priority system, the availability of alternative funding specifically for heating system work results in DOE funds being used primarily for building shell measures. WAP Subgrantees administer a closely coordinated LIHEAP Conservation Set-Aside funded heating system repair, improvements and replacement program, HEARTWAP. Subgrantees must access the HEARTWAP program and utility funds for heating system work that is necessary, prior to considering the use of DOE funds.

In the rare instances when heating system work is performed with DOE WAP funds, Subgrantees must comply with the following guidance and must be charged to the Program Operations, Repair, or Health and Safety categories. All costs associated with heating system measures using DOE WAP funds must be itemized and reported on the Building Weatherization Report (BWR). All work must be completed consistent with the requirements of Section 5.3 of the SWS. Subgrantees must ensure that they do not exceed the maximum allowable expenditure for the unit. Heating system work performed with WAP funds must be closely coordinated with HEARTWAP and utility programs to ensure that clients do not receive redundant assistance from alternative funding sources. Heating System replacements and Asbestos Abatement should be performed with HEARTWAP funds, unless otherwise authorized by DHCD staff. Heating System Replacements performed with WAP funds must receive prior DHCD approval utilizing the replacement request policy in the HEARTWAP Guidance. When DOE WAP funds are used to replace a heating system, the expenditure must be reported as a Health and Safety measure or meet SIR of 1 or greater using a DOE approved audit. Subgrantees must utilize WAP, HEARTWAP and utility funds in such a manner that will ensure that the greatest number of low income clients will receive weatherization and heating system assistance. Subgrantees must also ensure that they provide a cost effective retrofit package consisting of building shell measures (air sealing, insulation, and required health and safety measures) and heating system services to all dwelling units, which receive DOE WAP assistance. DHCD strongly encourages Subgrantees to leverage landlord contributions, utility funds, and any other source of supplemental funding to insure that each building weatherized receives a comprehensive package of energy efficiency measures.

In addition to the requirements of Section 5.3 of the SWS, technical, administrative, and programmatic standards and requirements regarding heating system measures, as mandated in the “HEARTWAP Program Guidance”, are applicable to WAP funded heating system work. In instances where there may be a conflict between the HEARTWAP Guidance and the provisions of the SWS, the protocols required in the SWS are required if DOE WAP funding is used.

Incidental Repairs

Major building rehabilitation is beyond the scope of the Weatherization Assistance Program and not the intention of the program, however,
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WEATHERIZATION ASSISTANCE PROGRAM (WAP)
STATE PLAN/MASTER FILE WORKSHEET

(Grant Number: EE0006160, State: MA, Program Year: 2015)

WAP Energy Auditors often encounter homes in poor structural condition. Dwellings whose structural integrity is in question must be referred to a home rehabilitation related program wherever available. Weatherization services may need to be deferred using the Deferral of Services policy until the dwelling can be made safe for inspectors, contractor’s crews and occupants. Only incidental repairs necessary for the effective performance or preservation of weatherization installations are allowed. Examples of these include repairing roof leaks or repairing areas of unsafe wiring to allow for the installation of attic insulation. Other repairs include cutting and finishing accesses to attics and knee wall areas, repairs to siding, minor repairs to windows and doors, flashing, masonry repairs.

WAP Subgrantees are able to provide repairs up to $2,500 per unit inclusive of labor and material. The typical cost of repairs in a unit will be significantly less. Given the poor condition of some the housing stock and the limitations that this condition places on the amount of weatherization a unit can receive, DHCD is providing the relatively high maximum allowable repairs to enable Subgrantees to provide weatherization benefits to those few units in the most need and where significant investments from alternative sources for energy efficiency work (utility funds) can only be completed if repairs are completed. DHCD encourages Subgrantees to identify and access alternative funding sources for those units needing extensive repairs.

Incidental Repairs are allowable to the extent that they are necessary for the effective performance or preservation of an eligible weatherization measure. In addition, consistent with DOE WAP Program Notice 12-09, the cost of Incidental Repairs must be included in the overall SIR of 1 or greater for package of weatherization measures for DOE funded work. Massachusetts WAP Subgrantees use a NEAT Generated Priority List to determine the weatherization measures to be completed on most units. The Audit Waiver approval did include NEAT runs that included repairs in the cost effective determination of a priority measures and in most cases it not impact the SIR of the proposed measures. However, to make certain that the needed Incidental Repairs do not create a cost effectiveness problem, Subgrantees must use a DOE approved audit when repairs over $1,500 are needed to make certain that the package of proposed DOE-funded weatherization measures meets the SIR requirement. The WAP client file must provide clear documentation of the need for the repairs and the allowable energy conservation measures that are enhanced or protected directly related to the repair. Documentation must include pictures and/or concise descriptions of the repairs needed.

Asbestos Abatement

General asbestos abatement is not an allowable health and safety cost in the DOE WAP. In those rare instances when DOE WAP funds may be necessary for the abatement of asbestos removal is allowed only to the extent that energy savings resulting from the measure will provide a cost-effective savings-to-investment ratio including the cost of abatement. Where permitted by code or EPA regulations, less costly measures that fall short of asbestos removal, such as encapsulation, may be used. Insulating homes with Asbestos Cement Shingles sidewalls may be completed in accordance with the guidance in the WAP Technical Manual.

V.5.2 Energy Audit Procedures
Audit Procedures and Dates Most Recently Approved by DOE

| Manufactured  | M.H.E.A. Generated Priority List approved December 2014 |
| Housing:      | Multi-Family: N.E.A.T. Generated Priority List approved December 2014 (see comments) |

Comments

DHCD implemented an updated DOE-approved NEAT and MHEA generated priority listing and accompanying sample dwelling type system effective during the 2014 Program Year. This has insured that only the most cost-effective measures are installed in eligible dwelling units using DOE WAP funds and appropriate savings to investment ratios are maintained. As part of the submission, DHCD received approval for use of the NEAT generated Priority List for certain Multi-family buildings with the following provision:

Multi-family (5 or more units): DHCD proposes to use this same priority list for the few small multi-family homes that are completed using DOE WAP funds. The majority of buildings larger than 4 family where DOE WAP funds are used are Garden-Style apartments or condos, typically 2 floors or less with separate heating systems with units having interior common walls. In some instances agencies will weatherize a 6 family that is essentially two triple-deckers with a common wall. Because of the large amount of utility funding available to the WAP Network in Massachusetts, and the ability to treat the whole building and leverage significant resources, DOE funds will be used in very few if any larger multi-family buildings. If and when DOE funds are used, the work will be based on the use of a DOE-Approved Energy Audit for Multi-family buildings such as TREAT or the Weatherization Assistant Multi-Family Audit when it becomes available (projected June 2014).

DHCD recognizes the importance of DOE’s audit requirements and will continue to train WAP Subgrantee staff on the use of NEAT and MHEA. An audit run will be required on homes are outside of “typical” conditions, when the measures proposed are allowable but are not listed on the approved Priority Measures list (and all priority measures are addressed) and when Incidental Repairs over $1,500 are being considered as part of the project.
V.5.3 Final Inspection

During the past Program year DHCD continued the process of training and began the certification process for Quality Control Inspectors consistent with the DOE Quality Work Plan Requirements. Massachusetts has and will continue to use the resources of the IREC Accredited training center, the Green Jobs Academy, (GJA) a subsidiary of a Massachusetts WAP Subgrantee, to complete the training and coordinate testing through a BPI Testing Center. Massachusetts has experienced some delays in the certification process because the only BPI Testing Center in the region, Conservation Services Group (CSG) did not have accreditation or a certified proctor for the Home Energy Professional (HEP) level Quality Control Inspector certification until early 2015. The GJA staff approached CSG’s BPI test center and discussed the need within the WAP network regionally and nationally for HEP QCI certification and CSG went through BPI’s required process to get a CSG employee certified as a proctor for the QCI test. Currently there is only a single certified proctor in the region.

As of the date of the submission of the State Plan application, Massachusetts has 4 individuals that have been certified through the HEP QCI process with several more in place to be certified over the next weeks. 22 Subgrantee staff members and 2 DHCD staff members have been through the week-long training. Additional training weeks are scheduled and fully booked in March and April. Written tests are scheduled regularly through March and April. CSG just recently started field testing and are currently scheduling tests the last week of March and early April. Massachusetts anticipates that by the end of May 2015, approximately 30 individuals will have gone through the training and testing process with at least one or two from each WAP Subgrantee.

An issue facing Massachusetts WAP Subgrantees in the certification process is that in some cases otherwise well qualified technical staff members are having difficulty passing the written component of the test. Much of that difficulty is related to the sections of the test designed to determine the candidates’ “soft skills” that have little to do with an individual’s technical ability. Many of these individuals are excellent technical staff and will have passed the field test component of the QCI certification process.

DHCD is proposing to allow those individuals that have successfully taken the week long Tier 1 training and passed the Field Test of the QCI certification but did not pass the written test to be allowed to complete Quality Control Inspections consistent with the QCI standards while DHCD will continue to work with those individuals and provide additional training to put them in position to pass the written exam. DHCD monitoring will be utilized to verify that inspections are completed consistent with QCI requirements.

DHCD’s FY 2015 budget has provided Subgrantees and the Green Jobs Academy (GJA) training center with sufficient funds and will allow Subgrantees to pay additional exam fees for those candidates that are unsuccessful in passing the QCI certification tests in the initial round. DHCD believes that the majority of those taking the field test after completing necessary background training and the week-long QCI training will pass. The greater difficulty has been the written test. DHCD will allow qualified Subgrantee staff to take the written test and pay the exam fee using Subgrantee T&TA funds if they are unsuccessful the first time. The Green Jobs Academy is refining a “refresher” training to assist unsuccessful candidates in passing the written test. Additionally the GJA has a “practice facility” available on a regular basis with an instructor that will assist Subgrantee staff that has completed the week-long training to prepare for the field testing. BPI test regulations limit a candidate to taking a test 3 times in a years period so if someone does fail either test 3 times they will be required to wait a year before they can try again.

All WAP Subgrantee have a standardized quality control procedure it routinely uses to assess the quality and completeness of the weatherization or mechanical work performed by private sector contractors. Whenever a Subgrantee’s contractor weatherizes a dwelling unit, an individual certified through the HES QCI process (or if approved on a temporary basis, an individual who received Tier 1 QCI training and passed the field test component of the QCI certification) must inspect and verify that all involved work was completed consistent with the DOE Standard Work Specifications (SWS) before the job is certified as complete, prior to a contractor receiving payment and the job reported to DHCD. The Subgrantee’s quality control form must be signed and dated by the inspector and the Building Weatherization Report submitted to DHCD must include the name of the QC inspector.

The Weatherization Field Guide linked to the Standard Work Specifications is available to WAP Subgrantee program staff, Energy Auditors, Inspectors and contractors working with local Subgrantees as an online manual and a pdf file with imbedded hyperlinks to the DOE/NREL SWS. The link to the Field Guide was emailed to all WAP Subgrantee staff. The Massachusetts Weatherization Field Guide is also available and has been distributed as a spiral bound printed manual that include references to the appropriate SWS for the measures described. The printed manuals were distributed to WAP Subgrantees by mail and hand delivered by DHCD for distribution to their staff and WAP contractors.

To ensure that all inspections are aligned with the SWS, DHCD and the WAP Subgrantee network are working with the Green Jobs Academy (GJA) to develop a standard quality control form to be used statewide. The process is designed to enhance the QC Form function of the WAP Software package used by Subgrantees to create a SWS linked form that is specific to the measures completed on the unit.
and will include documentation of required, health and safety testing, combustion safety testing, ASHRAE compliance, confirmation that the original audit and installed measures were appropriate for the unit and a required sign-off by the inspector. The form will be available as a printed hard copy and a digital version for use on tablets.

To ensure that Subgrantees understand that all work completed using DOE WAP funds is in compliance with WAP requirements, the Energy Director must sign an Addendum to the Attachment A of the contract with DHCD that includes the following language:

Addendum to the Contract Scope of Services Attachment A between the Massachusetts Department of Housing and Community Development and Subgrantee for the administration of the Department of Energy Weatherization Assistance Program

Consistent with the requirement outlined in DOE Weatherization Program Notice 15-4, Section 2, all Grantee Contracts and Agreements with Subgrantees must include acknowledgement that the Subgrantee understands and agrees that all work completed in the DOE WAP will comply with the requirements of the DOE/NREL Standard Work Specifications (SWS) (https://sws.nrel.gov/) and other related guidance provided by the Grantee.

Consistent with the requirements of WPN 14-4, and 15-4 the Massachusetts Department of Housing and Community Development worked with Satum Resource Management Inc. to develop a Weatherization Field Guide that is aligned with the requirements of the DOE/NREL SWS to provide individuals and companies working with the WAP, information detailing the inspection and installation expectations of the Program.

As the Weatherization Director/Coordinator of [agency name], I acknowledge receipt of information related to the requirements of DOE/NREL SWS and the Massachusetts WAP Field Guide in a print format and pdf file and that energy audits, installations and quality control inspections completed in the DOE WAP will be completed consistent with the requirements of the SWS, the Field Guide and other related technical guidance issued by the Grantee and that I will communicate these requirements to all WAP Staff and private sector contractors working in the WAP.

Additionally WAP contractors must sign the following addendum to their contract with the WAP Subgrantee:

(Subgrantee Letterhead)

Addendum to DOE WAP Contract for Services,

Consistent with the requirement outlined in DOE Weatherization Program Notice 15-4, Section 2, all Grantee Contracts and Agreements with Subgrantees and Subgrantee Contracts and Agreements with vendors and Weatherization Contractors must include acknowledgement that the Subgrantee and the Contractor understands and agrees that all work completed in the DOE WAP will comply with the requirements of the DOE/NREL Standard Work Specifications (SWS) and other related guidance provided by the Grantee.

During the Request for Proposals (RFP) completed by WAP Subgrantees in March 2014 all contractors received an abridged copy of the DOE/NREL Standard Work Specifications and were provided information about how to access the complete SWS (https://sws.nrel.gov/) as a part of the RFP package.
Consistent with the requirements of WPN 14-4, the Massachusetts Department of Housing and Community Development worked with Saturn Resource Management Inc. to develop a Weatherization Field Guide that is aligned with the requirements of the DOE/NREL SWS to provide individuals and companies working with the WAP, information detailing the installation expectations of the Program.

As contractor working in the Weatherization Assistance Program under the name of

(Company Name)

I acknowledge receipt of information related to the requirements of DOE/NREL Standard Work Specifications and the Massachusetts WAP Field Guide as print copies and was offered a pdf file and that all work and installations completed in the DOE WAP will be consistent with the requirements of the SWS, the Field Guide and other related technical guidance issued by the State WAP Grantee and that I will communicate these requirements to all staff working in the WAP.

For the Contractor

For the Subgrantee

Both the WAP Subgrantee acknowledgement and the acknowledgement between the Subgrantee and Contractors must be signed and forward to DHCD.

Final Quality Control inspections must also incorporate all required health and safety testing including combustion efficiency, CO testing of all combustion appliances, worst case draft/CAZ testing of all vented combustion appliances and confirmation of ASHRAE 62.2-2013 compliance. Subgrantee contracts with DHCD require this quality control procedure and part of every client file review includes verification that a quality control inspection was completed and documented. Subgrantees are also strongly encouraged to complete the final inspection while the contractor is still on-site. This practice allows the contractor the opportunity to correct any deficiencies before leaving the jobsite. The Building Weatherization Report (BWR) submitted monthly for completed units includes a certification from the QC inspector that the unit and final inspection was completed consistent with DOE WAP standards.

In addition to the required final inspection, Massachusetts WAP Subgrantees are contractually required to complete and document in process inspections while the WAP contractor is on-site at a minimum of 50% of the units. Many Subgrantees do in process inspections on all jobs to check on progress, discuss any complicated issues and inspect attic air sealing work. WAP contractors are also required to provide photographic documentation of any air sealing work in an attic area that has insulation added before an agency staff member is able to visually inspect the work.

DHCD will permit Subgrantee staff to complete both the energy audit and quality control inspection of a unit (provided the Inspector is CCI Certified). Some Subgrantees with a small technical staff will have only a single CCI certified individual and the need for staff productivity in those Subgrantees is an important consideration. DHCD will focus additional monitoring efforts on those units. DHCD will inspect no less than 10% of the units where that original energy auditor was also the quality control inspector. If during the course of monitoring visits, DHCD determines that a certified QC Inspector is not completing final inspections consistent with WAP requirements, DHCD will first work with the individual to determine if additional training is needed and identify the problem areas. Specific areas of needed training will be determined and training opportunities for those areas will be identified. As an example, if the QC inspector is not completing a CAZ test consistent with DOE WAP requirements, DHCD will require the individual to attend and successfully pass the 4 hour Combustion Safety training provided by the Green Jobs Academy. DHCD will identify additional inspections completed by the inspector and monitor those units. If additional issues are identified, that person will be prohibited from completing quality control inspections until DHCD determines based on additional training, that he/she can and will complete the inspections consistent with program requirements. If additional training does not adequately address the need in the judgment of DHCD, the individual will be prohibited from completing quality control inspections.
V.6 Weatherization Analysis of Effectiveness

DHCD determines that Subgrantees are operating an effective weatherization program by making certain that Subgrantees have adequate staff trained in program management and trained and certified energy auditors and then by regular consistent monitoring against program requirements and standards.

DHCD ensures that all WAP Subgrantee Energy Directors have adequate technical and administrative staff to deliver WAP services through the budget review process. Although the organization and size of staff differ from agency to agency, DHCD compares Subgrantee staffing patterns as part of that review, and makes certain that each Subgrantee has adequate resources and trained staff to ensure that the primary functions that are essential to carry out the program are part of every Subgrantee budget.

Through regular monitoring described in Section V.8.3, DHCD reviews Subgrantee unit production and expenditures on a monthly basis to determine that they are on track to meet production and expenditure goals. Through data analysis and desktop monitoring (BWR reviews and statistical frequency of WAP measures completed) as well as frequent on-site visits, DHCD works with Subgrantees to ensure that the appropriate priority WAP measures are completed and that production goals are achieved. If a Subgrantee is falling behind their production schedule, or DHCD observes a pattern of unusual costs, DHCD will contact the Energy Director to review the information, determine if there are problems and determine an appropriate plan of action. In the case of production issues the Subgrantee will be required to provide DHCD a detailed planned production schedule, what measures they are taking to ensure that production and expenditure goals are achieved and report to DHCD on a weekly basis through an email report on the number of completed units, units issued to weatherization contractors and units audited/inspected. DHCD will verify the information during the next scheduled site visit.

While DHCD has not conducted a detailed evaluation of cost effectiveness, by limiting the use of DOE funds to only those measures that have proven cost effective by other studies and Best Practices in the energy efficiency industry and maintaining high work quality standards DHCD believes the program in Massachusetts to be highly cost effective. Energy savings evaluations completed by the Massachusetts gas and electric utilities of the low-income programs completing similar measures in Mass. confirm that the programs are cost effective. The type of work completed does not vary significantly from Subgrantee to Subgrantee; most homes typically receive targeted air sealing in attics and basements/crawlspace (including ductwork), attic insulation for homes with lower levels of existing insulation, and dense-pack sidewall insulation, required heating system improvements are referred to the LIHEAP funded REALWAP, the basement/crawlspace area is treated as needed; all work is coordinated with available utility funds. To determine that the cost of installed measures is appropriate, DHCD reviews the pricing structure for the non-low-income utility-funded energy efficiency programs (Mass SAVIE) and informally checks with suppliers about the cost of materials, (i.e. bags of cellulose, door weather-stripping, two-part foam packages).

Many of the methods that DHCD uses to evaluate local agency effectiveness in program delivery, identify potential weakness and our continued effort at improving the technical capabilities of DHCD and local agency staff and contractors and assure high quality work are outlined in the narratives of the V.9.3 Final Inspection, V.9.3 Monitoring Activities and V.9.4 Training and Technical Assistance sections of the State Plan.

DHCD completes field visits to WAP Subgrantees every 5-6 weeks and with new QCI requirements will inspect 2-3 completed units during each visit. If there are call-backs as a result of the visit, Subgrantees must make the required corrections and notify DHCD when the work has been completed and inspected. Each visit also includes a review of a selection of client files. Each site visit and file review incorporates an evaluation of the quality of the program administration, file structure, energy audit/inspection procedure, job orders and quality control inspections. DHCD WAP staff meets weekly to discuss the results and any findings or problems from the site visits and as well as any other issues concerning Subgrantee management, energy auditor/inspectors and weatherization contractors. As a group we identify and discuss strengths and weaknesses of the Subgrantee management and individual Subgrantee technical staff and contractors and identify and target additional training or guidance requirements or identify peer to peer opportunities. We look for consistent good quality and when it is necessary, improvement in all functions of the program. For example, if during a site visit DHCD observes an auditor or inspector’s questionable decisions regarding the weatherization work specified or the work quality of a weatherization contractor, we will review and discuss previous experiences with the Subgrantee auditor and the supervision of the Program Coordinator who oversees the work. We can review DHCD data to determine what type of training and certification they process. We will use the information to identify training needs which may be conducted one on one with a Technical Field Rep, peer to peer with another local agency auditor or a training center course. Follow-up visits will be scheduled to determine if there has been improvement or additional training is needed.

Similarly, if we observe work by a weatherization contractor that is not up to program installation or quality standards, we will review and discuss past reports and previous experiences at all Subgrantees where the company works. We discuss our concerns with all Subgrantees that use the contractor. DHCD will set up additional monitoring visits and target the work of that contractor. Any work that requires correction will be completed by the contractor at no cost to the program. If it is determined that additional training is needed for the contractor and crew, DHCD and the Subgrantee(s) will identify an appropriate format (i.e. on-site with Trainer, Technical Field Rep, or Subgrantee Auditor, or training center combination classroom/hands-on lab). No additional DOE funded work will be awarded to the company until they demonstrate to DHCD the ability to complete installations consistent with program standards.

V.7 Health and Safety
The Massachusetts Health and Safety Guidance is included as an attachment to the State Plan using the DOE Health and Safety Template.

V.8 Program Management

V.8.1 Overview and Organization

Organization

Staffing Pattern/Responsibilities

The overall responsibility for the Department of Energy Weatherization Assistance Program (DOE WAP) for Low-Income Persons rests with the Undersecretary of the Department of Housing and Community Development (DHCD). The program is operated on a day-to-day basis by the Energy Conservation Unit (ECU) of the Division of Community Services (DCS).

DHCD is the primary agency that deals with housing issues in Massachusetts through the administration and management of Public Housing programs, subsidized housing programs, affordable housing and home ownership programs. The DCS within DHCD deals with other state, local, and regional agencies, nonprofit organizations, and municipalities working to maximize available resources and programs to create and enhance long-term self-sufficiency and opportunities for communities, families and individuals. The Community Development Block Grant (CDBG), the Community Services Block Grant (CSBG) program, the Low Income Home Energy Assistance Program (LIHEAP), and other self-sufficiency, economic development and community based programs are operated within the Division. The Energy Conservation Unit within DCS is responsible for the DOE WAP, the Heating Emergency Assistance Retrofit Task Weatherization Assistance Program (HEARTWAP, LIHEAP Conservation Set-Aside funded heating system repair and replacement program), as well as any other weatherization assistance and related conservation programs which might be funded through other sources.

The following is a description of the job responsibilities of the DOE-funded DHCD staff.

Manager, Energy Conservation Unit:

1. Day-to-day management responsibilities for the WAP and other federally-funded low-income energy related programs in Massachusetts.
2. Oversees training and technical assistance to Subgrantees on a State, Regional, and Local one-on-one basis; issues include all phases of WAP technical and program management issues.
3. Develops WAP technical and management memorandum and guidance.
4. Responsible for the oversight and control and disposition inventory, tools and equipment purchased with Federal and State funds; monitors subgrantee inventories through the activities of the Technical Field Representatives.
5. Supervises the Energy Programs Coordinator and the Technical Field Representatives, conducts weekly staff meetings to discuss programmatic and Subgrantee issues and problems and to set priorities for monitoring and training; reviews and approves all Technical Field Representative monitoring reports.
6. Acts as liaison with contractors, manufacturers, and vendors to inform them of program developments and changes; researches new and state of the art developments in materials and installation procedures.
7. Reviews subgrantee budgets, final reports, production, and expenditure rates, and recommends corrective actions where necessary.
8. Represents DHCD as a member of the Massachusetts Low-Income Energy Affordability Network (LEAN).
9. DHCD's member of Massachusetts Best Practices Committee meetings.
10. Responsible for State Plan submission and reporting to federal funding sources.

Energy Programs Coordinator:

1. Assists with WAP Subgrantee Program assessments and provides technical assistance in the areas of program implementation, management and service delivery.
2. Assists with the preparation and coordinator of WAP Subgrantee contracts, budgets and budget amendments.
3. Assists the Energy Conservation Unit Manager with the development of WAP policy and program guidance. Maintains and updates
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(Grant Number: EE0006160, State: MA, Program Year: 2015)

the WAP Policy and Procedures Guidance.
4. Assists in the development and coordination of the State Plan.
5. Assists with the planning, implementation, and management of special projects.
6. Assists with all federal and state reporting.

Technical Field Representatives (2)
1. Schedule and perform Field Monitoring field visits to Subgrantees to ensure program compliance; conducts formal exit interviews at the conclusion of each monitoring visit; completes written evaluations of each visit.
2. Schedule monitoring visits to be on the road four of the five work days; schedules time so that all reports are completed on the fifth day in the office.
3. Use experiences during the field monitoring process to identify Training and Technical Assistance needs of local agency staff and contractors.
4. Develop on-going and constantly up-dated understanding and knowledge of new or changing program regulations so that the monitoring is effective, accurate, and consistent.
5. Conducts annual WAP Subgrantee Program assessments and provides technical assistance in the areas of program implementation, management and service delivery.
6. Reviews Building Weatherization Reports (BWRs) for accuracy; records and checks unit production and expenditure information.
7. Maintain access to literature detailing new materials or installation techniques.

Director of Finance and Fiscal Coordinator (within DHCD's Financial Division)
1. Review all monthly reports for accuracy; reviews and signs all Payment Voucher Forms for accuracy and program compliance and processes to the DHCD Office of Administration and Finance (OAF).
2. Process all completed contracts and amendments through Massachusetts Management Accounting and Recording System (MMARS).
3. Develop and provides individual or group technical assistance for Subgrantees which need further fiscal training.
4. Ensure that Subgrantees are operating within their budgets; on-going telephone communication with subgrantee fiscal officers to report necessary amendments and/or changes.
5. Monitor subgrantee financial records and periodic cash requests to the Commonwealth.
6. Maintain detailed monitoring reports, provides written summaries, and completes follow-up recommendations to the Subgrantee Executive Director, the DHCD/DCS Associate Director, and the Director of Community Services Programs.
7. Provide confirmation of payments and grant amounts/expenditures to subgrantee auditors.
8. Record all fiscal and statistical information in the DHCD records for each subgrantee by funding source. These records will be kept on spreadsheet in the DHCD Management Information System on the Local Area Network.
10. Gather and report statistical and fiscal information upon request.
11. Prepare the financial aspects of the DOE Quarterly Reports.

Fiscal Monitor (within DHCD's Financial Division)
1. Monitors DOE WAP Subgrantee fiscal systems.
2. Monitors DOE WAP Subgrantee Procurement and Inventory systems.
3. Completes detailed monitoring reports.
4. Provide fiscal training and technical assistance to DOE WAP related subgrantee staff.
Systems and Procedures
The primary step in Grantee Planning for the DOE/WAP is the completion of the State Plan. The State Plan provides Subgrantees the guidelines for the operation of the DOE WAP during any program year. The State Plan is incorporated by reference in the contracts that between DHCD and the WAP Subgrantees. Subgrantees are required to report their WAP activities and expenditures on a monthly basis. The monthly reports include expenditure and statistical information. Program requirements on the local level are monitored by DHCD staff.

Fiscal Procedures: Grantee and Subgrantee

DHCD has a fiscal system that uses the DOE Monthly Fiscal Report Form in conjunction with a program report that includes all WAP unit expenditures reported on the Building Weatherization Reports (BWRs), to reimburse Subgrantees for their expenses in a timely manner, typically less than 15 days. The reimbursements are electronically transferred to the Subgrantees through the Massachusetts Management, Accounting, and Reporting System (MMARS).

When the Contract for Services with the WAP Subgrantee is approved by the Massachusetts Comptroller’s Office, DHCD electronically transfers seventeen percent (17%) of the total budget for that year to provide cash flow needed for the start-up of the program. After that initial advance, Subgrantees submit a Monthly Report/Invoice, no later than the 15th of the month for actual expenses incurred in all budget categories in the prior month. At the beginning of the fourth quarter, DHCD Financial and Compliance staff balances expenditures against reimbursements. DHCD staff monitors all monthly reimbursements, relative to the total overall budget per category. Once the maximum contractual reimbursement is disbursed, funds are no longer provided to the Subgrantee. In this manner the DHCD ensures that a Subgrantee does not receive funds beyond which it is entitled. Subgrantee Administrative and Program Support funds are allocated on a per unit basis. If the Subgrantee does not meet their production goal they are not entitled to the corresponding Admin or Program Support.

The accountability of grant funds within each Subgrantee is the responsibility of the Subgrantee Fiscal Officer. The Fiscal Officer issues periodic financial statements to participating weatherization Subgrantees, regarding the status of energy funds. These statements include line item accounts of expenditures to date and funds remaining in each line item. Many Energy Directors maintain duplicate copies of the Fiscal Officer’s energy ledger. All Subgrantees, no funds may be expended without the approval of the Fiscal Officer or Executive Director. In some cases, Energy Directors have the authority to sign-off on funds. Each Subgrantee has its own system of accountability for this in-house expenditure of funds. DHCD conducts regular fiscal monitoring visits to ensure that Subgrantee fiscal operations are in compliance with all state and federal requirements.

Accountability for tools, equipment, vehicles and materials, once purchased through the above outlined procedure, is the responsibility of the Energy Director. All Subgrantees are required by DHCD to maintain an Inventory Control System that classifies “expendable” and “non-expendable” items, indicates their funding source, and at a minimum, describes the item, its purchase price, and location in the Subgrantee. Furthermore, Subgrantee Fiscal Officers are required to book the DOE WAP inventory in their books, so that an accounting of the inventory cost might also be maintained.

Non-Discrimination

No person in the United States shall, on the grounds of race, color, national origin, or sex, or on the grounds of any other factor specified in any Federal law prohibiting discrimination, be excluded from participating in, be denied the benefits of, or be subjected to discrimination under any program, project, or activity supported in whole or in part with financial assistance under this part.

The DHCD will pursue any complaints of discrimination in hiring, staffing, or funding the weatherization program that are directed to it. Any and all complaints will be fully investigated and reported to DOE within a reasonable time. Massachusetts also has a Commission Against Discrimination that is empowered to deal with instances of discrimination as described in the regulations. All appropriate complaints will be referred to that Commission, and will be coordinated to the maximum possible extent.

Aspects of the Equal Opportunity guidelines have been incorporated into Subgrantee contracts along with all reporting and accountability requirements. Contract compliance is monitored by DHCD technical, fiscal and program staff, with appropriate recommendations submitted to Subgrantee Executive Directors and energy staff.

DHCD has adopted the appeals process used by the DHCD’s Low-Income Home Energy Assistance Program, for client appeals related to eligibility for the DOE WAP. The appeal process requirement is included in the WAP agreement between the DHCD and the Subgrantees.

Subgrantees will provide clients with information at the point of application that they are entitled to appeal a finding of ineligibility, based upon the DOE and DHCD guidelines. Clients will have 15 working days to appeal to the Subgrantee, which must reply in writing, stating the reasons for denying or granting the appeal. A client may further appeal to the DHCD having been advised of that right by the Subgrantee, within 15 working days after an adverse finding by the Subgrantee. The DHCD must then reply in writing within 15 working days, informing the client of the result of the appeal and the reasons for the decision. Both the Subgrantee and the Grantee will maintain logs of appeals and the result, open to inspection by the appropriate monitoring entities.
Subgrantees will log all such complaints and make that log available to DHCD and DOE. Complaints that are not resolved at the Subgrantee level will be forwarded to the DHCD that will investigate and determine what actions, if any, need to be taken by the Subgrantee to resolve the situation. DHCD will also log all complaints and resolutions. The DHCD may directly arrange for the resolution of a problem if the Grantee determines that the Subgrantee cannot rectify the situation. Clients will be informed in writing of resolution of each stage of the process.

Reporting Requirements

The primary mechanism for insuring compliance with WAP program reporting requirements is the monthly program report required of all Subgrantees. This program report is due to DHCD no later than the 15th of the month for the previous month’s expenditures. Effective with the FY 2012, DHCD transitioned to a software system that combines Subgrantee fiscal reporting of LIHEAP, HEARTWAP (DHCD’s heating system repair and replacement program), and fiscal and programmatic reporting of the DOE WAP. The software provides DHCD with enhanced desktop monitoring capabilities and allows greater coordination between fiscal and programmatic reports. This software provides DHCD with Building Weatherization Reports for each WAP job completed that includes expenditure data by category and statistical data related to household characteristics. The program report provides DHCD with the resources to complete desk-top monitoring of expenditures and appropriate weatherization measures and the ability to target client files for review in future site visits to the Subgrantee. DHCD is also able to complete accurate Quarterly Reports to the DOE in a timely manner.

Subgrantee Organization

The DOE/WAP Subgrantees for the Commonwealth of Massachusetts include eleven (11) Community Action Agencies, and one (1) non-profit housing agency. All are similar in the way they approach their management of the Weatherization Assistance Program, each has the freedom to shape their organization and their energy program in the manner which best meets their needs, and the needs of the communities they serve. Through the budget review and approval process and ongoing monitoring procedures, DHCD ensures that Subgrantees have adequate technical and administrative staff to administer the DOE WAP.

Contractor Labor

All weatherization work in Massachusetts is completed by private sector contractors under contract with Subgrantee agencies. Contractors participating in the DOE WAP respond to an open competitive procurement process. The Subgrantee has the responsibility of reviewing the responses and then choosing a minimum of three contractors for the work that is needed. The use of fewer than three contractors is not allowed unless a waiver is secured from the DHCD. The contractors are then awarded work on an equitable basis. While DHCD does not provide certification for private sector contractors used in the WAP, all contractors must demonstrate technical competence and knowledge of typical DOE WAP measures, such as air sealing, attic and sidewall insulation installation and health and safety protocols before signing a contract with a WAP Subgrantee. Contractors must also demonstrate competency using a blower door and that their insulation blowing equipment is capable of completing dense-pack sidewall insulation. DHCD Technical Staff and consultant trainers also provide training on weatherization techniques to private sector contractors working in the program as needed. DHCD has also provide contractors with subsidized training at the Green Jobs Academy, an IREC Certified DOE Training Center. Contractors must provide verification that they have satisfied all licensing requirements consistent with state regulations, (Construction Supervisors License or Insulation Specialty License) maintenance and adequate Liability and Workers' Compensation Insurance policies and have received OSHA Job Safety training, passed an EPA approved Lead-Safe Renovators program and are MA Licensed Lead-Safe Contractors (Massachusetts equivalent of EPA Certified Firm) and have completed a Lead-Safe Weatherization (LSW) training based on the DOE LSW Curriculum including any DHCD required refresher training.

Once a contractor has completed a weatherization job, the Subgrantee must perform a final quality control visit to the home. No contractor shall be paid until its work has been inspected and approved by a Subgrantee-employed Certified QC inspector as complete and acceptable. All call-backs must be corrected prior to payment being made. If work performed by a contractor is consistently less than acceptable, the Subgrantee has the option of terminating the contract with the contractor and requiring the return of any outstanding work. Additionally, the DHCD Technical Field Staff perform frequent quality control visits to homes in every Subgrantee service area on a regular (monthly) basis. If the DHCD staff determines that a contractor is doing work that is not up to WAP standards, the Subgrantee Energy Director and WAP staff will be informed and provided with recommendations or requirements for additional training or termination if problems persist.

Subgrantee Implementation

The Subgrantee implementation of the DOE WAP must be in accordance with the State Plan, the DOE WAP Contract with DHCD, their approved Budget, any guidance that is released by DHCD including DOE/NREL Standard Work Specification, the Massachusetts Weatherization Field Guide, the Massachusetts WAP Policies and Procedures Manual, and any memoranda that the DHCD releases. Subgrantees are monitored regularly (monthly site visits) to ensure adherence to programmatic requirements.

DHCD staff monitors all monthly reimbursements, relative to the total overall budget by category. Once the maximum contractual reimbursement is disbursed, the State Comptrollers’ accounting system is designed to ensure that no additional funds are available to
V.8.2 Administrative Expenditure Limits

Due to the availability of utility leveraged funds, no Massachusetts WAP subgrantees require the use of administrative funds in excess of the budgeted amount.

V.8.3 Monitoring Activities

The 2 members of the DHCD Technical Field staff devote a significant portion of their time to monitoring activities. They typically conduct Subgrantee field visits 3-4 times per week. Each field visit includes the inspection of 2-3 weatherized units and includes a full inspection consistent with QC requirements. DHCD will complete a full QC inspection by a certified inspector on no less than 10% of the units completed during the FY 2015 program year. The field inspection of each includes a full review of the client file, energy audit, work order, contractor(s) invoice(s) and quality control inspections. The field staff have all received extensive training in all aspects of weatherization including most recently:

- BPI HEP QC Inspector Certification (pending)
- BPI Building Analyst Professional and Envelope Specialist (or their previous titles)
- Advanced Blower Door Training/Pressure Diagnostics
- Combustion Safety Training
- Thermal Imaging Training by Snell Infrared, Monroe Infrared
- EPA Lead RRP Certified Renovator/Mass Lead Safe Renovator Supervisor
- DOE Lead Safe Weatherization (LSW)
- OSHA 10 Job Site Safety
- ASHRAE 62.2-2010 and 2013
- BPI Home Energy Professional Quality Control Inspector
- New England Fuel Institute Oil Heat Technician Training

In addition to the these formal trainings the staff have regularly attended continuing education opportunities at DOE Regional Technical Conferences, Affordable Comfort New England Training Conferences, various trainings offered by manufacturers of combustion testing equipment and heating systems, the Massachusetts Gas Networks Annual Heating System Training, Heat Loss/Heating System Sizing Software training using the TACO Flo Pro software. Staff also has been provided the DOE/ERL Energy Auditor, Crew Member and Crew Chief curricula for review. In addition, DHCD staff regularly review web-based trainings and videos available on a variety of subjects related to home weatherization, insulation, heating systems, combustion safety and efficiency testing, as well as trade journal related to home heating, weatherization and residential construction and remodeling. DHCD staff also maintains contacts within the various industries involved in home weatherization and home heating and provides WAP Subgrantees with technical and product literature and website links.

While much of the staff responsibilities are technical in nature, they are also well versed in the programmatic aspects of the program an important part of their responsibilities include review of client files for compliance in all aspects from client selection through verification of the final quality control inspection and recording of the work to DHCD.

The Technical Field Staff is paid by Grantee Training and Technical Assistance funds and DHCD’s LIHEAP-funded heating system repair and replacement program. DHCD views each monitoring visit as an opportunity for identifying Training and Technical Assistance needs as well as to ensure programmatic compliance with regulations and standards it is difficult to isolate the actual percentage of T&TA funds that are directed to this effort.

Technical monitoring visits are completed to each WAP Subgrantee once each 4-6 weeks; each Subgrantee typically receives 10 monitoring visits each year with an estimated 2-3 sites inspected with a full QC review during each visit. Additional in process inspections are scheduled while WAP contractors are on site as time and scheduling permits. Subgrantees are sent an Information Memorandum each month with the dates of the scheduled monitoring visits. Technical monitors regularly rotate to different Subgrantees so that each Monitor completes site visits to each Subgrantee at least once or twice per year. Each monitoring visit also includes a client file review for compliance with the required documentation. Additional Training and Technical Assistance or Monitoring visits are scheduled if problems are identified either during regularly scheduled monitoring visits or through desk reviews of monthly reports. Field staff completes a written report following each monitoring visit which is sent to the Subgrantee. If there are any call backs identified as a result of the monitoring visits, the Subgrantee must provide DHCD with the resolution of the call back. DHCD tracks call backs both by Subgrantee and contractor to assist in identifying problems and potential training opportunities i.e. if a particular contractor is having a problem with air sealing measures, DHCD will identify and provide appropriate training. Similarly if DHCD identifies a Subgrantee or a specific energy auditor exhibiting a pattern of missed opportunities or recommending inappropriate measures, DHCD will provide
additional training. Call backs related to the installations completed by WAP contractors are completed at no cost to the DOE WAP. If additional appropriate work that was not identified by the WAP Subgrantee is needed and is identified by the DHCD field staff and that unit has been submitted to DOE, no additional DOE funds may be used to correct the deficiencies.

DHCD technical field monitoring is transitioning to a tablet-based format. The form used by field staff have a hyperlink to the DOE/NREL Standard Work Specification (SWS) related to the installed measure. All monitoring will be conducted to ensure that all work is in compliance with the SWS.

The Contract Scope of Services between DHCD and Subgrantees provide the following provisions for suspension or termination of the contract:

Pursuant to Sections 4 and 5 of the Commonwealth Terms and Conditions, the Department may terminate or suspend this Contract as follows:

(A) **Without Cause** The Department may terminate this Contract without cause by giving written notice to the Contractor at least one hundred eighty (180) calendar days prior to the effective date of termination.

(B) **For Cause** The Department may terminate or suspend this Contract for cause by giving prior written notice to the Contractor. A notice of termination hereunder shall allow a reasonable time, but not less than thirty (30) calendar days prior to the specified effective date of termination, for the correction of any breach or failure to perform. The Department shall give at least fifteen (15) calendar days’ notice prior to the specified effective date of a suspension and shall specify a suspension period of no less than twenty-one (21) calendar days and no greater than sixty (60) calendar days. Failure by the Contractor to respond to the notice of suspension within five (5) business days of receipt thereof, or failure by the Contractor to cure any breach or failure to perform within the suspension period, shall be cause for immediate termination. Whenever possible, the determination of which shall be made by the Department in its sole discretion, the Contractor shall be permitted to continue client intake and home inspection activities during the period of suspension. If the Contractor cures to the Department’s satisfaction within the suspension period, the Department shall rescind the suspension immediately.

(C) **Emergency** If the Department determines that any breach or failure to perform by the Contractor endangers the life, health, or safety of program recipients, or that immediate action is necessary to protect state and/or federal funds or property, the Department may take immediate action to suspend this Contract for a period of no less than twenty-one (21) calendar days and no greater than sixty (60) calendar days or alternatively to terminate this Contract. Written notice of termination or suspension shall be given by letter, return receipt requested, or hand-carried. Such termination or suspension shall be effective upon the Contractor’s receipt of written notice thereof. Whenever possible, the determination of which shall be made by the Department in its sole discretion, the Contractor shall be permitted to continue client intake and home inspection activities during the period of suspension. Failure by the Contractor to respond to the notice of suspension within five (5) business days of receipt of the notice or failure by the Contractor to cure any breach or failure to perform within the suspension period shall be cause for immediate termination. If the Contractor cures to the Department’s satisfaction within the suspension period, the Department shall rescind the suspension immediately. The Department may terminate this contract under this paragraph in the event of bankruptcy, assignment for the benefit of creditors, or other such indicant of inability on the part of the Contractor to fulfill its contractual obligations.

The Contract also contains the following provisions related to audits, field visits and inspections:

(H) The Contractor shall ensure the cooperation of its employees and Board members in any review, audit, or inspection conducted by the Department, its authorized representatives, (including without limitation, fiscal monitors), representatives of the Commonwealth of Massachusetts, DOE, and the Comptroller General of the United States. The Contractor agrees to provide auditors authorized by the Department with appropriate assistance in obtaining information maintained by the Contractor relevant to the completion of the audit of expenditures made pursuant to this Contract.

(I) The Contractor also agrees to inform and/or provide the Department with notice of any communication and/or correspondence originating from DOE or their representatives regarding the WAP.

1. Except in the case of suspected fraud or misuse of funds provided to the Contractor pursuant to this Contract, or criminal activity, the Department shall give advance written notice of five (5) business days prior to any audit or inspection conducted pursuant to this Contract by the Department, its authorized representatives, or authorized representatives of the Commonwealth of Massachusetts.

2. Regularly scheduled site visits by the Department that have been agreed upon verbally by the Department and Contractor shall not be subject to the notice requirement set forth in this section.

(J) (1) Following each monitoring visit to the Contractor, the Department shall prepare a written report of findings, a copy of which shall be sent to the Contractor’s Executive Director. The Department Monitoring Report may contain observations, evaluations, suggestions and/or specific direction for corrective action on the part of the Contractor. In the event that specific corrective action is provided, the Contractor shall have thirty (30) days from the receipt of the directions to comply, or ten (10) days to contact the Department in the event that
the Contractor does not agree with the findings or direction of the Department's report. In the case of a dispute, the Department and the Contractor shall meet at the earliest convenience to resolve the specific disputed issues. Failure of the Contractor to reply or comply with specific directions shall be treated as a breach under Section 4 of the Commonwealth Terms and Conditions and under Section II(6) above, of this Contract.

(2) The Department may also determine, upon the basis of its own monitoring reports, Contractor reporting, and observed Contractor activity, that a comprehensive review of the Contractor's operation of WAP is warranted. Such review shall result in a written report, with findings presented, and corrective action specifically directed if applicable. The Contractor agrees to cooperate with such program review activities. Failure to comply with specific directions shall be treated as a breach under Section 4 of the Commonwealth Terms and Conditions and under Section II(6) above, of this Contract.

(K) In addition to ongoing monitoring performed by the Department's staff, the Contractors shall be evaluated by the Department's staff annually by means of the "Weatherization Assistance Program Subgrantee Assessment Procedure". Through interviews, inspection of client files, site visits and direct observation, program strengths and areas of concern shall be identified. The assessment shall be instrumental in helping Contractors to improve their productivity, efficiency, quality, and management capacity.

DHCD also completes a full scale programmatic/administrative monitoring (Program Assessment) visit for each WAP Subgrantee annually. This visit includes a review of client files, administrative systems, client priorities, leveraging activities, contractor procurement, utilization and file maintenance, technical procedures, (energy audits, health and safety testing, work orders, contractor invoice, and quality control inspection), reweatherization and reporting. The Program Assessments also incorporate a review of the WAP Field Monitoring for the year. The Assessments are completed by a combination of one or two of the Technical Field Representatives, the Energy Programs Coordinator and the Program Manager. DHCD conducts an Exit Conference at the close of each assessment and Subgrantees are provided a written report with findings, observations, Corrective Actions and Best Practices. Subgrantees are given a period of time, typically 3 weeks, to respond to the Assessment. DHCD reviews the report to make certain that corrective actions and recommendations are addressed. Follow-up visits are completed when needed. The WAP Program Assessment Monitoring instrument is attached.

Financial Monitoring is completed annually at each WAP Subgrantee by the Division of Community Services Financial and Compliance Unit. Fiscal reviews address subgrantee financial management procedures, and are conducted at the subgrantee site. The DHCD/DCS Finance and Compliance Unit reviews accounting records for compliance with required record keeping, procurement, and financial management procedures. While the reviews are conducted annually, more frequent visits will be scheduled if the fiscal situation at a particular subgrantee(s) warrants. Written reports, in support to the exit interview, are mailed to the subgrantee within two weeks of the visit. Subgrantees must respond in writing within 30 days of receipt. DHCD Fiscal requires annual submission a bound hard copy of the Subgrantee's A133 Audit and the Audit is reviewed by fiscal staff for compliance issues. The A133 audit is further reviewed during the Subgrantee's annual Fiscal Monitoring visit.

DHCD completes Desk Reviews of Subgrantees each month. Programmatic Building Weatherization Reports (BWRs) are submitted for each unit weatherized. BWRs contain information about energy efficiency, incidental repairs and health and safety measures completed and all related costs on each unit. All BWRs are reviewed to make certain that all expenditure data is within the allowable parameters and that the efficiency improvements are appropriate. Subgrantees are contacted with questions as needed and corrections made as required. DHCD identifies if there are any patterns of unusual activities such as many units with high repair costs or potentially skipped priority measures. Reported units are also identified for potential scheduled site visits during the desk review process.

Approximately 59% of the Training and Technical Assistance funds retained by DHCD is used for monitoring activities. As a percentage of the total T&TA allocated (to Subgrantees and Training Center) that percentage is approximately 25%.

V.8.4 Training and Technical Assistance Approach and Activities

DHCD considers Training and Technical Assistance to be the core component of administering a technically sound Weatherization Program and views all interactions with WAP Subgrantees and weatherization contractors as an opportunity to assess and improve the operations of the program.

DHCD's Training and Technical Assistance (T&TA) activities are designed to maximize energy savings, minimize production costs, improve program management, improve the technical skills of WAP auditors/inspectors and private sector contractors, ensure the health and safety of WAP clients and workers, and reduce the potential for waste, fraud and abuse in the Program. DHCD also strongly believes in the importance of continuing education and improvement in all areas of the program, technical and management for the Grantee, Subgrantee and installation contractors. DHCD uses our monitoring, several weeks of IBTS Quality Assurance visits (DHCD and Subgrantee staff accompanied IBTS on the majority of their site visits) recommendations from the Massachusetts Office of the Inspector General (MA OIG) and other work quality issues and training requirements identified on the WAP TAC website to identify areas of potential weakness, how they relate to our operation of the WAP and what we need to do to continue to improve the quality of services provided and
prevent complacency. Examples: While the IBTS site visits generally identified that the MA WAP Subgrantees were completing good quality work, they identified some areas that could be improved such as techniques to air seal and insulate box sill areas; the recommendation was implemented. IBTS identified weaknesses in documentation in the Client File review. DHCD recognized that while many of the items cited as missing were actually present in the file, we needed improvement in the structure and standardization of documentation and issued a memorandum updating and more clearly delineating Client File Documentation requirements and updated the WAP Policies and Procedure Manual. Early in the ARRA grant the MA OIG recommended strengthening waste, fraud, and abuse policies. DHCD implemented through the MA Office of Administration and Finance a required training for all involved in the program.

DHCD Field Staff and the Program Manager have a long history in the technical side of weatherization, the DOE program and heating system improvements and recognize the need to stay current with building science concepts and applications and make certain the WAP Subgrantees and contractors can implement the Best Practices of the business. Some of the formal training and certification of DHCD staff is outlined in the V. 8.3 Monitoring section of the Plan.

DHCD staff uses diagnostic equipment as a means to monitor weatherization work and train Subgrantee technical staff and weatherization contractors. Infrared scanners, blower doors, digital manometers, gas leak detectors, flow meters and combustion and carbon monoxide testers are required and used by local agency and DHCD staff in the DOE WAP. Technical Field Representative uses these tools to evaluate the quality of weatherization work that contractors perform, and test combustion appliances, evaluate the health and safety concerns of the dwelling, and training Subgrantee auditors in their use.

All WAP Subgrantees are required to have blower doors and have received extensive training from DHCD staff on the use of this diagnostic tool. In addition, Subgrantee technical staff members are required to have and demonstrate competency in the use of combustion efficiency test equipment, carbon monoxide testers and gas leak detectors to help ensure health and safety concerns regarding combustion appliances are addressed. All WAP Subgrantees have multiple infrared scanners for use by their energy auditors. DHCD has provided extensive training on the use of infrared scanners in conjunction with a blower door as a diagnostic tool for identifying air leakage areas and as a quality assurance tool to verify that wall, slope and ceiling insulation and air sealing work was completed properly. Closeout field visits and monitoring, DHCD field staff identifies strengths and weaknesses of Subgrantee technical staff and recommends and/or requires additional training to make certain that all audits and inspections are completed consistent with program requirements. Failure to attend required training or consistent performance out of compliance with program standards will result in suspension of the auditor's certification until he/she are able to demonstrate that training requirements have been met and are able to demonstrate competence to DHCD staff through additional field testing.

During the FY 2014 DHCD provided Subgrantees and contractors training and technical assistance in many areas of the DOE Program including ASHRAE 62.2 implementation, Advanced Blower Door training, Combustion Safety, dense pack insulation, blower door directed air sealing priorities and OSHA Job Site Safety (10 and 30 Hour) and BPI Home Energy Professional Quality Control Inspector Training. Most WAP technical staff and many contractors attended the Affordable Comfort New England conference in Springfield MA in October 2014. The method of providing training is dependent on the specific needs and goals of the training. For example, if monitoring reports indicate a contractor needs additional training in a specific area, training will be provided one-on-one with the company by DHCD staff or an appropriate consultant or industry partner such as the National Fiber training facility in Belchertown MA or specific training will be developed in conjunction with the Green Jobs Academy in Framingham Mass.

Massachusetts is home to the DOE WAP funded Training Centers, the Green Jobs Academy (GJA) in Framingham MA, a subsidiary of the WAP Subgrantee, the South Middlesex Opportunity Council (SMOC). The GJA has received IREC Accreditation as a training facility and offers BPI continuing education credit for attendance as well as continuing education credit for Massachusetts' Department of Public Safety licensing requirements (i.e. Construction Supervisor, Insulation Specialty License). The GJA is in process of obtaining certification as a BPI Testing Center. GJA also offers Massachusetts (formerly EPA) Lead RRP training, OSHA 10 and 30 Job Site Safety, Crew and Crew Chief training (based on the DOE curriculum posted WAP TAC and NREL JTAs), Advanced Blower Door/Pressure Diagnostics and Combustion Safety training and ASHRAE 62.2 compliance training. To the greatest extent possible, all training is aligned with the DOE/NREL Job Task Analysis (JTA) and will be conducted by the Green Jobs Academy to ensure that the trainings meet the Tier 1 training requirements of the DOE Quality Work Plan.

DHCD and the Network have the ability to work directly with the GJA to develop training specific to WAP needs. The GJA developed an ASHRAE 62.2 training program based on the DOE Curricula and information posted on WAP TAC and other industry sources. The training was mandatory for all WAP auditors (and DHCD staff), DHCD and GJA staff have conducted several follow-up field training on sizing and specifying ventilation requirements with Subgrantees. During FY 2013 DHCD continued to work with GJA and WAP Subgrantee staff for additional training as issues were identified during full implantation of the Standard as well as preparing DHCD and Subgrantee staff for the transition to ASHRAE 62.2-2013.

Energy Auditor Certification Requirements:

DHCD requires that Subgrantee energy auditors and quality control inspectors undergo a training program to ensure that they are technically competent. The program is tailored to the needs of the individual. DHCD has a certification process that auditors must complete within six months of hiring and before they conduct any DOE WAP audits on their own. The two-part process includes a field test that involves setting up two field audits. The candidate must demonstrate the ability to set-up and use a blower door to conduct a single point CFM @ 50 test.
and to identify the air sealing needs of the home. The auditor must complete an inspection and evaluation of the heating system and all combustion appliances for efficiency, safety, CO testing, and proper draft and demonstrate the ability to conduct a worst case draft test. All other Health and Safety concerns (asbestos, lead issues, moisture/mold concerns and VOC's) must be identified and addressed. The unit must be evaluated for ASHRAE 62.2 requirements. Other requirements include evaluation of appropriate insulation needs of the home, defining the thermal and pressure boundary, and accurately measuring and determining the square footage of areas to be insulated as well as demonstrating appropriate Client Education abilities. WAP Subgrantee Energy Auditors/Inspectors are required to be certified using this Mass WAP-specific field test and a 100 question written test. Auditor/Inspectors are also required to complete the OSHA 10 Job Site Safety training, EPA (now MA Department of Labor Standards) Lead RRP Certified Renovator and Lead Safe Weatherization training, and are required to take advantage of continuing education opportunities such as Advanced Blower Door/Pressure Diagnostics and Combustion Safety and training involving heating system sizing, installation and operation. DHCD collects and maintains a spreadsheet-based record of training and certification of Subgrantee technical staff and uses the spreadsheet to determine where additional training may be needed.

In 2010, DHCD began the process of requiring BPI Building Analyst Professional training and certification and funded the training and certification. However, when DOE/NREL began the Job Task Analysis and professional certification for the four (4) job classifications and Home Energy Professional Certifications (Energy Auditor, QC Inspector, Crew Member, and Crew Chief) DHCD viewed those classifications as more relevant to the WAP and held off the requirement for BPI certification. Subgrantees were encouraged to continue the process for those interested in pursuing the certification (or maintaining their existing certification). DHCD has changed the future certification focus to the DOE/NREL protocols. Currently about ⅔ of the Energy Auditors are BPI Building Analyst Professional certified as well as several in the BPI Envelope Professional and Heating System Professional categories. Those staff members that have received BPI certification are encouraged to maintain that certification pending DOE's move to the Home Energy Professional certification requirements.

Quality Control Inspector Training and Certification

During the FY 2015 program year DHCD will continue the process of training and certification for Quality Control Inspectors consistent with DOE's Quality Work Plan guidance. DHCD will provide WAP Subgrantees and the Green Jobs Academy with adequate T&I Funding to provide QCI Certification training to as many technical staff members as possible that exhibit the ability to make it through the training and certification process.

DHCD's minimum goal is to have at least one QCI Certified individual at each the 12 WAP Subgrantees and 7 subcontract agencies that they work within the WAP Network as well as the DHCD Technical Staff. We will not limit the number of Subgrantee WAP staff within the network that can receive the QCI training and certification. We will support all qualified technical staff that have demonstrated a reasonable likelihood of success.

In recognition of the importance of maintaining a high level of technical expertise, DHCD and the GJA will also continue to offer (and require attendance when appropriate) Tier 1 Continuing Education training to all staff in areas such as advanced use of the blower door and pressure diagnostics, combustion testing and safety, CAZ testing, duct leakage testing, ASHRAE 62.2 compliance Lead RRP and LSW. Training workshops will be scheduled at the GJA facility or in the field.

Private sector contractors and their crews working in the WAP will be required to attend regular training as well. Training will be completed through the Green Jobs Academy. Training subjects will directed toward the need of the group and ranges from installation techniques for air sealing measures, dense pack insulation, enhancing blower door skills including pressure diagnostics. While crews and crew chiefs have completed OSHA 10 as required, job site safety will also be addressed. Lead Safe Weatherization (LSW) Training will be required of contractors new to the Program and refresher trainings will be offered and required when needed. Trainings will be conducted in several different formats including using the Green Jobs Academy facility and in small groups involving contractors that work for a Subgrantee with the WAP Coordinator, auditor/inspectors, and DHCD. In addition, Green Jobs Academy training will be conducted on-site at a home being weatherized. The on-site model, with a GJA trainer and DHCD Technical staff at the job site, has proved very beneficial based on past experiences. Training and work is completed under real life conditions, the trainer and DHCD staff is able to observe the crew's tools, equipment and testing and installation procedures and offer suggestions for improving techniques to improve efficiency and effectiveness of the work in addition to demonstrating installations that comply with the SMS requirements. Local agency technical staff will be encouraged to attend and participate. DHCD and the GJA will plan to conduct 1 or 2 of these trainings each week as scheduling permits.

DHCD will continue to conduct training in the use of the National Energy Audit (NEAT) and Manufactured Housing Energy Audits for WAP Subgrantee staff when requested. DHCD has determined that small group (maximum 4-5 attendees) is the most effective method for NEAT and MHEA training.

DHCD reviews Subgrantee Building Weatherization Reports (BWRs) and unit production each month as reports are submitted. BWRs are reviewed for appropriate high priority weatherization measures and expenditures. Production is compared to goal for the period. The BWR review is used on a larger scale to determine that a Subgrantee (or an individual energy auditor at that Subgrantee) is completing the most cost effective measures that will result in the greatest energy savings. If any review determines that the most cost effective measures are not being completed DHCD will identify the need for additional monitoring and training. DHCD also compares the measures completed and levels of production with other Subgrantees. Underperforming Subgrantees are identified and addition monitoring or training and technical assistance is provided depending on the need.

Client education is delivered in the home as part of the initial energy audit and the quality control inspection. The information is customized
to the needs of the home and interest and ability of the residents. All WAP Energy Auditor training includes a client education component so that the auditor understands the importance of communicating with residents of the home what is involved in the weatherization process, how their interaction with installed measures may affect the effectiveness of the measure, what they can do to save energy, identify and make the residents aware of potential health and safety related and air quality concerns and what to expect next. Clients are provided with brochures concerning moisture and mold issues, lead paint safety, and any other information that may be appropriate for the specific needs of the home. In addition to the DOE WAP, Massachusetts’s Subgrantees administer utility-funded Appliance Management Programs (AMPs) that provide residents with information on electric base-load usage and measures that they can take to save electric energy. In many instances, this service is delivered at the same time as the WAP audit. DHCD On-site Monitoring visits to client’s home provide an informal means of observing the Energy Auditor’s interaction with the residents of the home and the client education delivery resulting in possible recommendations for additional training if needed. DHCD and the WAP Network continues to work with the Best Practices group (a subsidiary of LEAN) to maintain up-to-date client education material that is relevant to both the DOE WAP and the utility-funded programs in Massachusetts.

DHCD and the GJA will work with a group of WAP Coordinators to put together a curriculum and Best Practices for WAP Program Managers and conduct regional management training workshops. The JTA’s and the DOE Draft Quality Management Plan will be the core of the subject matter. Subjects will include: DOE Guidance and regulations, coordination with utility-funded efficiency programs, Best Practices, staff management, contractor management, and DHCD’s policy and procedures.

V.9 Energy Crisis and Disaster Plan

The primary energy related crisis (outside of high fuel costs) to face low-income households in Massachusetts is the breakdown or inefficiency of their heating system. DHCD has in place a heating system repair and replacement program known as the Heating Emergency Assistance Retrofit Task Weatherization Assistance Program (HEARTWAP) to help resolve this problem. This program is funded by LIHEAP Conservation Set-Aside funds. During the heating season, the program serves primarily as an emergency intervention service to provide assistance to low-income clients having problems with the operation of their primary heating system. Eligible households call the local administering agencies and notify HEARTWAP staff when they are having a problem. Heating companies, under contract with the local agency, provide services necessary to keep the heating system operating efficiently and safely. The client's dealer of record is utilized whenever possible. Provisions are in place for clients to contact their dealer directly if the emergency occurs during the evening or on weekends. During the spring and summer months, the HEARTWAP provides heating system maintenance and efficiency upgrade services subject to the availability of funds. HEARTWAP services include emergency repairs, clean and tune, burner replacements, entire system replacements and asbestos abatement (only as needed for heating system services). The HEARTWAP has been refined by DHCD staff over the past years of operation so that it is capable of dealing with most heating emergencies. As a result of the HEARTWAP and the extensive availability of utility efficiency program funds in Massachusetts, DHCD does not foresee the need to use DOE WAP funds for an emergency crisis program.
Massachusetts DOE WAP Health and Safety Plan – 2015

All DOE WAP funded Health and Safety Measures outlined in this Guidance must be completed consistent with the requirements of the DOE/NREL Standard Work Specifications. (SWS) [https://sws.nrel.gov/]
Most of the Health and Safety elements of the SWS are outlined in Section 2.00 [https://sws.nrel.gov/spec2]

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

- Separate Health & Safety Budget
- Contained in Program Operations

**Incidental Repairs (List repairs, if any, that will be removed as health and safety measures and implemented as incidental repairs):**
If the grantee chooses to identify any health and safety measures as incidental repairs, they must be implemented as such under the grantee's weatherization program in all cases - meaning, they can never be applied to the health and safety budget category. In order to be considered incidental repairs, the measure must fit the following definition and be cost-justified along with the associated efficiency measure. Incidental Repairs means those repairs necessary for the effective performance or preservation of weatherization materials. Such repairs include, but are not limited to, framing or repairing windows and doors which could not otherwise be caulked or weather-stripped and providing protective materials, such as paint, used to seal materials installed under this program.

DHCD is not proposing moving any measures previously reported as Health and Safety to the Incidental Repair category. Incidental Repairs are described in Section V.5.1 Technical Guides and Materials the Master File of the State Plan.

**Health and Safety Expenditure Limits (Provide a per-unit average percentage and justification relative to the amount. Low percentages should include a statement of what other funding is being used to support health and safety costs, while larger percentages will require greater justification and relevant historical support):**
The grantee must set health and safety expenditure limits for their subgrantees, providing justification by explaining the basis for setting these limits and providing related historical experience. It is possible that these limits may vary depending upon conditions found in different geographical areas. These limits must be expressed as a percentage of the average cost per dwelling unit. For example, if the average cost per dwelling is $5000, then an expenditure of $500 per dwelling would equal 10 percent expenditures for health and safety. 10 percent is a limit on H&S expenditures but exceeding this amount will require ample justification. These funds are to be expended by subgrantees in direct weatherization activities. While required as a percentage of the average unit cost, if budgeted separately, the health and safety costs are not calculated into the per-house limitation.

Per-Unit Average Percent: 13.3%
Massachusetts is requesting a Health and Safety average cost per unit of $625 for the FY 2015. This represents 13.3% of the average cost per unit (APCU) of $4,700 in DOE Program Operations. Massachusetts plans to continue to maintain a Program Operations APCU significantly lower than DOE's allowable ($7,105 for FY 2015) so that Subgrantees can utilize DOE WAP funds in more units. However, once DOE WAP funds are used in a unit, all Health and Safety requirements must be implemented including ASHRAE 62.2. 2013. DHCD has also established a maximum of $2,500 of DOE WAP Health and Safety that can be spent on a DOE WAP unit.

While Massachusetts WAP Subgrantees have been installing vented bathroom fans under the provisions of the DOE WAP Health and Safety requirements for many years, compliance with ASHRAE 62.2-2010 (now 2013) includes additional requirements to the device installed and the venting system as well as may require multiple devices in some homes. The average cost of ASHRAE 62.2-compliant whole house and/or required spot ventilation (where no fan exists) is $750. The cost of the ASHRAE compliant ventilation systems may be higher than national average costs because the installation requires the involvement of multiple trades and permitting requirements depending on the community and code enforcement officials. The building permit required for the ventilation device would be part of the normal WAP procedure but the fan also requires a licensed electrician and an electrical permit and depending on the installation, an ASHRAE 62.2 compliant duct system installed by licensed sheet metal worker and a required sheet metal installation permit. During the first year of required ASHRAE 62.2-2010 compliance approximately 50% of the homes served require a new ASHRAE 62.2-2010 compliant ventilation device. Most of the homes that were served have additional allowable health and safety needs that must be addressed such as moisture and bulk water issues, carbon monoxide/smoke detectors, combustion systems mitigation.

DHCD and the Massachusetts WAP Subgrantee network have made a deliberate effort to maintain a low APCU for Program
Operations of $4,700 to enable more households to be served with DOE funds than if a higher APCU were implemented. WAP Subgrantees and the low-income families served in Massachusetts have access to significantly more utility-funded efficiency programs than DOE funds. During CY 2014 an estimated $26M will be available for a variety of programs for single and small multi-family (2-4 unit) homes. The utility funds permit similar building shell measures to the DOE WAP but have minimal provisions for health and safety and repair needs. In addition to the DOE funds, Subgrantees can spend up to an average of $4,500 in air sealing and insulation, $4,500 in heating system improvements and additional funds are available for electric base load measure on an eligible home. DHCD also administers a LIHEAP-funded heating system repair and replacement program that provides heating system repairs, maintenance, efficiency improvements and replacements for DOE eligible households. Subgrantees have the ability determine an appropriate balance of DOE funds for cost effective building shell efficiency improvements and related health and safety requirements and utility funds and/or LIHEAP heating system program funds to ensure that each household served receives a complete package of all measures. At this time the DOE health and safety funds are a crucial component of the mix. The WAP Subgrantee Network through the Low-Income Energy Affordability Network (LEAN) is working with the Massachusetts utilities and the regulatory agency, Department of Public Utilities (MA DPU) to access additional utility resources for DOE-like health and safety measures but until more funds are available, DOE funds are important to the mix. While the APCU for Health and Safety is high when compared to the APCU in Program Operations in DOE funds, the actual value of the services received by the household using the combined resources of DOE, utility efficiency funds and LIHEAP heating system improvements is significantly greater.

DHCD will review and track Subgrantee Health and Safety expenditures throughout the grant period. If it appears that a Subgrantee will have unexpended Health and Safety funds, the funds will be reprogrammed to the Program Operations line budget line and additional DOE WAP units will be completed.

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

DEFERRAL POLICY

There are circumstances when it is appropriate for a WAP agency to defer or provide no weatherization service to an otherwise eligible unit or unit as a unit or a potentially dangerous condition is corrected. The health and safety of clients, Subgrantee staff and weatherization contractors is of primary concern. All personnel must maintain a high level of awareness concerning the potential hazards associated with the weatherization process in situations that may involve Health and Safety concerns or other problematic issues. The Massachusetts Health and Safety Guidance outlines many of the specific criteria that would require a deferral of services and provides a "Deferral of Services Notice," to be signed by the local agency and client that outlines the reason for the deferral and conditions that must be remedied before the work can commence. Some of the typical reasons for deferral include, the structural condition of the building, the existence of any number of Health and Safety concerns, (ie excessive mold, sewerage, animal waste, pest infestations), and illegal activities being conducted on the premises. Copies of the Deferral of Services Notice is left with the client, maintained in the Subgrantee client file and provided to DHCD.

The deferral policy does not mean that assistance is never to be provided, but "that services must be postponed until the problems can be resolved and/or other sources of help are found." DHCD requires Subgrantees to act as advocates for clients with health and safety concerns, refer the households to available services and do their best to ensure that problems are resolved so that the weatherization work can eventually be performed. Many WAP Subgrantees within the Community Action Programs network in Massachusetts and the DHCD LIHEAP and CSBG program are actively developing a Benefits Enrollment Coordination (BEC) database that will enable staff to have access to a variety of housing and Health related programs and contacts that will enhance their ability to access help for deferral issues.

When problems of a unique nature exist that are not identified in the Health and Safety Guidance, DHCD staff is consulted by agencies before deciding whether to proceed.

From the MA WAP Policy and Procedures Manual:

DEFERRAL OF SERVICES POLICY: WHEN NOT TO WEATHERIZE

There are certain circumstances when it is appropriate for a WAP agency to defer or provide no weatherization service to an otherwise eligible unit, until an unsafe or ineligible condition is corrected. These situations may involve Health and Safety concerns or other problematic situations, some of which are listed below. In unusual situations not identified below or when other problems of a unique nature exist, the DHCD staff should be consulted before deciding whether to proceed.

The U.S. Department of Energy (DOE) states that the deferral policy should not mean that assistance would never be provided, but "that services must be postponed until the problems can be resolved and/or other sources of help are found." DOE requires that Subgrantees complete the "Deferral of Services Notice" (see sample in Appendix) and provide the client and DHCD with copies when weatherization services must be deferred. Agencies should keep a copy of the deferral form in the client file.
**Policy for Health and Safety Concerns**

The health and safety of clients, Subgrantee staff and contractors is of primary concern. It is important that all personnel maintain a high level of awareness concerning the potential hazards associated with the weatherization process. Subgrantee staff and contractors must familiarize themselves with all the health and safety issues associated with weatherization. Each home to be weatherized must be individually assessed to determine the existence of potential hazards to workers or clients.

The Massachusetts DOE WAP Health and Safety Guidance is the primary tool to be referenced by Subgrantees when determining if it is appropriate to defer a job. It is usually during the energy audit when significant health or safety concerns are identified which the Subgrantee believes may warrant a deferral because weatherization work in the home may worsen the situation and endanger the client, energy auditor or contractor.

DOE and DHCD requires Subgrantees to act as advocates for clients with health and safety concerns to ensure that problems are resolved so that the weatherization work can eventually be performed.

However, in many cases, repairable energy-related Health and Safety hazards may exist in the client home that must be eliminated before or because of the installation of weatherization materials. In those situations, weatherization funds may be obligated to correct these Health and Safety problems. However, agencies must bear in mind that the WAP is not a home rehabilitation program and that the repairs which are undertaken must be those which allow the home to receive weatherization services. Restrictions on the expenditure of program funds are outlined in the Weatherization Technical Manual.

Subgrantees may spend up to a maximum of $2,500 of DOE Health and Safety funds on an individual dwelling unit with an average of $83 in H&S funds per unit for the two year grant period.

**Health and Safety conditions that may cause the deferral include:**

- The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
- 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 cost-effectively. These situations should be referred to a home rehabilitation related program wherever available.
- The house has sewage or other sanitary problems that would further endanger the client and weatherization installers if weatherization work were performed.
- Moisture and/or mold-related problems are severe and cannot be resolved under existing health and safety measures and with available repair funds.
- Dangerous conditions exist due to high carbon monoxide levels in combustion appliances, and cannot be resolved under existing health and safety measures.
- The extent and condition of lead-based paint in the house would potentially create further health and safety hazards.
- In the judgment of the energy auditor, if any condition exists which may endanger the health and/or safety of the subcontractor, the work should not proceed until the conditions are corrected.

**Some other problematic situations that may prompt a deferral of service include:**

- The structure is for sale, the building or dwelling is for sale, or subject to bankruptcy or foreclosure.
- The structure is part of a legal dispute such that the building or dwelling unit where ownership cannot be confirmed due to a legal dispute.
- The building or dwelling is scheduled for demolition.
- The dwelling is being used as a commercial enterprise.
- The building or dwelling is in need of extensive rehabilitation which is beyond the scope of the WAP.
- Illegal activities are being conducted in the dwelling unit.
- The client is uncooperative, abusive, or threatening to the subcontractors, auditors, inspectors, or others who must work on or visit the house, or.
- When a conflict of interest or appearance of conflict exists (such as when the structure is owned, managed or occupied by an employee, board member, officer or relative of a Subgrantee employee), the unit may not receive services unless approval is obtained from DHCD prior to work being started.

The DOE WAP deferral Form is attached.

**Procedure for Identifying Occupant Health Concerns:**

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

Subgrantees and their representatives must take all reasonable precautions against performing work on homes that will subject clients to health and safety risks. During the energy audit process, the energy auditor must make an evaluation of the health of the home's occupants. In cases where a person's health is fragile and/or the weatherization activities would constitute a health or safety hazard, the occupants will be required to leave during the work process or the agency and contractor should not begin the work. Work that is completed should in no way contribute to or create an unhealthy condition in the home. All problems and concerns must be fully documented in the client file.
Documentation Form(s) have been developed (Check Yes or No):

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Clients must be notified of observed hazards, observed health concerns and documented in the “Deferral of Services” form completed and signed and include specific information on steps that need to be taken to resolve the issues identified. The required form is attached.

### Air Conditioning and Heating Systems

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

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<tr>
<th>Concurrence</th>
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<th>Alternative Guidance</th>
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**Funding:** State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.

To the greatest degree possible, Subgrantees must coordinate and utilize funds from the LIHEAP-funded heating system repair and replacement program (HEARTWAP) and available utility funds for heating system work.

**Beyond Scope of DOEWAP:** Describe how the task will be covered if beyond the scope of DOEWAP.

If the required work is beyond the scope of the combined resources of HEARTWAP and utility fund to create a safe condition, the DOEWAP work must be deferred.

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

The resolution of Health and Safety problems identified related to the heating system must be documented as having been completed and determined to be resolved by combustion safety testing prior to weatherization work being completed.

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

Deferral will take place when the mechanical, electrical, and/or plumbing systems are in such a state of disrepair that the installation of a code compliant heating system cannot be installed using available funding sources.

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

All heating system repairs and improvements and replacements must be referred to the HEARTWAP and utility funded programs unless no funds are available.

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

All current WAP Auditors have received training in combustion efficiency and combustion safety testing. Newly hired staff must receive this training prior to completing any audits without a trained staff member. DECD staff will use all site visits as an opportunity to observe and train technical staff as it relates to combustion efficiency and combustion safety testing.

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

Clients will be provided written information about heating system operation and safety. Those receiving new heating systems will be provided the manufacturer’s warranty information and operating instructions.

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

Heating system contractors removing old heating systems shall dispose of them consistent with Massachusetts waste disposal regulations.

**Air Conditioning Installation (as specific to installation as a health and safety measure):** Provide a narrative on implementation protocols of air conditioning repair, replacement, and installation including justification for allowability that includes climate justification with degree days and how to define at-risk occupants.

**DOE funds will not be utilized for air conditioning installations**

**Heating System Installation (as specific to installation as a health and safety measure):** Provide a narrative on implementation protocols of heating system repair, replacement, and installation including justification for allowability that includes climate justification with degree days.

Unless alternative funding is available, DOE funds will not be used for heating system installation. In the rare instance where no alternative funding exists, DOE Health and Safety funding may be used because the Massachusetts average 5600 degree day requirement is evidence that a family needs a warm home that is safely heated during New England winters.
## Appliances and Water Heaters

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

- **Concurrency with WPN11-6**
- **Alternative Guidance**

Replacement of water heaters is allowed on a case-by-case basis with prior approval from DHCD. Repair and cleaning are allowed as health and safety measures to improve venting and combustion characteristics to ensure safety. Replacement of other appliances for such as stoves is not allowable; however, repair and cleaning are allowable Health and Safety costs to resolve CO problems.

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

- **DOE Funds**
- **Beyond Scope of DOE WAP**

If the needed work is beyond the scope or resources of the WAP, the unit must be deferred.

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

- **The WAP auditor must test all combustion appliances to determine that they are operating safely by conducting combustion safety testing including worst case draft for vented appliance and for CO levels in the house gas and ambient air.**

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

- **If the appliance is operating in an unsafe manner and there are insufficient DOE Health and Safety funds available to remedy the problem, the unit must be deferred.**

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

- **If the appliance is operating in an unsafe manner and there are insufficient DOE Health and Safety funds available to remedy the problem, the unit must be deferred.**

### Training Provided
Describe how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training.

- **All current WAP Auditors have received training in combustion efficiency and combustion safety testing. Newly hired staff must receive this training prior to completing any audits without a trained staff member. DHCD staff will use all site visits as an opportunity to observe and train technical staff as it relates to combustion efficiency and combustion safety testing.**

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

- **Clients will be provided written information about combustion appliance operation and safety. Those receiving new DHW systems will be provided the manufacturer’s warranty information and operating instructions.**

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

- **Plumbing contractors removing old water heaters shall dispose of them consistent with Massachusetts waste disposal regulations. Subcontractor contracts with contractors shall contain language requiring proper disposal.**

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

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

- **Concurrency with WPN11-6**
- **Additional Guidance**

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

Asbestos Cement Shingle (ACS) Sidewall protocols developed in conjunction with the MA Department of Environmental Protection shall be used when completing wall insulation of buildings with ACS.

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

- **DOE Funds**
- **Beyond Scope of DOE WAP**

If the needed work is beyond the scope or resources of the WAP, the unit or sidewall insulation measure may be deferred in no other option.

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

- **The following protocol was developed by DHCD and the Massachusetts Department of Environmental Protection (DEP) to address insulating the sidewalls of homes with asbestos cement shingle siding.**
Department of Housing and Community Development
Weatherization Assistance Program

ASBESTOS CEMENT SHINGLE GUIDANCE:

Contractors’ responsibility regarding the removal and reinstallation of Asbestos Cement Shingles

Background

The Massachusetts Department of Environmental Protection’s (MassDEP’s) asbestos regulations (310 CMR 7.15) protect public health and environment by establishing safe handling practices for demolition or renovation activities involving asbestos. This document is intended to provide contractors, working under the Department of Housing and Community Development’s Weatherization Assistance Program, guidance regarding MassDEP’s asbestos regulations. The guidance applies specifically to removing and replacing intact asbestos cement shingles that are in good condition.

Before Starting the Work

Contractors must notify MassDEP on an Asbestos Notification Form ANF-001 prior to commencement of asbestos cement shingle removal.

MassDEP has issued the Department of Housing and Community Development a “Blanket Notification” which allows for contractors to begin work after filing their ANF-001 Form but without waiting for the typical 10-day notification period. Contractors should contact the Department of Housing and Community Development for the Blanket Notification number that will be needed for the Asbestos Notification Form when notifying MassDEP for individual projects.

The Asbestos Notification Form is available on MassDEP’s website at: http://mass.gov/dep/air/asbfom01.htm. The easiest way to file an asbestos notification is to do it online via MassDEP’s website. For additional information about online filing, go to: www.mass.gov/dep/service/compliance/asbfom01.htm. You can visit MassDEP’s website or call 617-774-6888 for additional information about online filing. A notification fee is required when filing an ANF-001. However, owner-occupied residential properties with four or fewer units, cities, towns, counties, districts of the Commonwealth of Massachusetts, municipal housing authorities and other state agencies do not have to pay notification fees.

Handling Practices

If you plan to remove asbestos cement shingles that are in good condition, you do not need to construct a sealed work area and use air cleaning provided you otherwise comply with MassDEP’s asbestos regulations at 310 CMR 7.15 and you adhere to the following handling practices:

1. The asbestos cement shingles should not be broken, sanded, sawed or drilled at any time during removal or subsequent handling.
2. The asbestos cement shingles must be carefully lowered to the ground after removal to avoid breaking the shingles (see 310 CMR 7.15(1)(c)(2)(b).)
3. A drop cloth must be used under the work area. MassDEP recommends that the drop cloth should be a minimum of five feet wide for buildings up to ten feet in height (1 story), and that an additional three feet in width be added to the drop cloth for each additional floor above the ten-foot level. The drop cloth should be periodically cleaned during the removal of the shingles (i.e., pick up and properly package loose shingles) to prevent build-up of debris and overflow onto the ground.
4. All doors and windows of the side of the building where the removal is taking place should be closed and locked.
5. The asbestos cement shingles must be wetted just prior to removal to minimize release of asbestos fibers to the ambient air. Mass DEP recommends that a pump-up type sprayer (“garden sprayer”) be used for this purpose. It will deliver a controlled amount of water and prevent flooding; thereby minimizing slip hazards while working on ladders and drop cloths. A cup (8 oz) of automotive windshield wash, used as a surfactant or wetting agent, should be added to each gallon of water to assist in wetting the asbestos shingles.
6. A bucket of warm soapy water should be maintained at the site for decontamination purposes. Workers hands and faces should be rinsed before any coffee or meal break. All tools should be rinsed off at the end of each workday.

Packaging, Labeling and Disposal

It is understood that the contractors intend to re-apply the same shingle that was initially removed. However, in the event shingles are broken during the removal process and cannot be re-applied, the contractor must properly package, label and dispose of the broken asbestos cement shingle(s).

1. The wetted broken shingle(s) must be placed and sealed in leak-tight containers and properly labeled (see 310 CMR 7.15(1)(e)(1). Mass DEP strongly recommends using cardboard boxes wrapped in two (2) layers of 6-mil poly and sealed with duct tape or fiber drapes with locking lids, which ensures that the waste remains confined in a leak-tight state.
2. Uncleaned asbestos cement shingles should never be bulk loaded into a truck, dumpster or trailer for transport to disposal.
3. Each container of asbestos waste must be clearly identified with an asbestos warning label in accordance with 310 CMR 7.15(1)(e). The label must state:

   CAUTION
   Contains Asbestos
   Avoid Opening or Breaking Container
   Breathing Asbestos is Hazardous to your Health

   The name of the property owner and address of the site of generation should also be on a label on the exterior of the container.
4. Asbestos-containing waste material, including asbestos-cement shingles, are classified as a special waste under the provisions of the Massachusetts solid waste regulations, 310 CMR 19.061. Therefore, asbestos cement shingles must be disposed of at a landfill that is specifically permitted to accept asbestos waste. The best option is to hire a waste hauler or asbestos abatement contractor to transport the asbestos cement shingles to a disposal facility. Many waste haulers and asbestos contractors are familiar with various disposal facilities and frequently transport wastes to out-of-state facilities permitted to accept asbestos waste. The asbestos shingles must be properly packaged and labeled during transport and delivery to the landfill. Asbestos shingles must not be disposed at a transfer station, processing/recycling facility, or municipal waste combustion facility.

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

If the ACS cannot be safely removed and reinstalled consistent with the guidance and insulation cannot be installed through the interior walls the unit may be deferred.

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

If deferral is necessary, the Subgrantee must refer the client to alternative funding sources that are locally available for rehabilitation and renovation (i.e. CDBG).

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

Subgrantee auditors have been trained to identify ACS and WAP contractors trained to DEP standards for temporary removal and reinstallation of ACS and proper disposal consistent with DEP guidance.

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

Clients must be provided information regarding the existence of suspected ACM in the sidewall shingles and advised them of the importance of not disturbing asbestos containing materials, and that precautions will be taken for minimizing breakage and proper disposal of damaged ACS.

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

Most installations will not result in the need for disposal, but when disposal is required, it must be completed consistent with MA DEP requirements.

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**Asbestos in Vermiculite**

Vermiculite may be tested by Asbestos Hazard Emergency Response Act of 1986 (AHERA) prescriptive sampling by a certified testing laboratory to determine if asbestos is present, though according to the EPA sample testing is not always a reliable indicator of the presence of asbestos. Depressurization blow down testing should not be completed. All WAP related workers must utilize appropriate personal and respiratory protection while working in the attic. Clients must be formally notified and instructed not to disturb. If testing indicates that asbestos is present, encapsulation by AHERA certified, licensed professional is allowed if costs are reasonable. Removal is not allowed using DOE WAP funds.

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

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

If beyond the scope of DOE WAP unit will be deferred.

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

If initial inspection indicate suspected vermiculite is present do not disturb area or conduct blow door test until vermiculite is tested by a certified AHERA prescriptive testing. If testing indicates no asbestos, work may proceed. If testing indicates that asbestos is present, encapsulation by AHERA certified, licensed professional is allowed if costs are reasonable.

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

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

Auditors will be trained on how to identify vermiculite.

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

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

N/A No ACM will be removed
### Asbestos - on pipes, furnaces, other small covered surfaces

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

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<td>✔️</td>
<td>Assume asbestos is present in covering materials. Encapsulation may be allowed by an AHERA asbestos control professional under some conditions. Blower door testing must not be conducted if friable asbestos is present. Removal may be allowed by an AHERA asbestos control professional on a case by case basis.</td>
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**Funding:** State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.

DOE funds may be used under some circumstances only with prior DHCD approval. In the case of a heating system replacement, DOE WAP funds will not be used for necessary asbestos abatement.

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

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

The energy auditor will perform visual inspection to identify suspected ACM. If suspected friable asbestos is present the auditor should complete as much of the energy audit as possible without disturbing the ACM. No blowers or depressurization test shall be conducted. WAP work that will not disturb the ACM (attic air sealing and insulation, dense pack sidewall insulation) may be completed. Heating system measures must be referred to HEAT WAP. If abatement is required for a heating system replacement, HEAT WAP funds will be used.

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

If the ACM is in poor condition and area containing the ACM cannot be isolated from WAP work, the unit must be deferred.

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

Deferred units must be referred to alternative rehabilitation or abatement programs.

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

Auditors are/will be trained to identify ACM on pipes, furnaces, boilers and ductwork. MA Licensed Asbestos abatement contractors are the only individuals authorized to disturb ACM.

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

**Disposal Procedures:** Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards. Disposal must be consistent with MA DEP requirements.

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

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

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<td>Remediation of conditions that may lead to or promote biological concerns and unsanitary conditions is allowed including repairing or removing the condition that creates the problem. Addressing bacteria and viruses is not an allowable cost. 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.</td>
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**Funding:** State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category.

DOE funds may be used to repair or remedy.

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

If the problems are beyond the scope of the DOE WAP, the units will be deferred.

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

Visual and sensory (odor) will be used to identify problems. The Subgrantee auditor can complete inspection to the degree that he/she is not exposed to hazardous contaminants such as raw sewage, animal waste/odors decaying garbage. Use of DOE funds to clean-up the results occupants neglect is not allowed. Hazardous conditions must be cleaned up by an appropriate professional entity.

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

If conditions present a health risk to the agency auditor or contractor, the unit must be deferred until the situation is remedied.

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

Units deferred should be referred to local public health departments or rehabilitation program. Elders with problems should be referred to local elder home care agencies.

**Training Provision:** Discuss how training will be provided for the specific health and safety category. Notes: Some health and safety categories, like OSHA, require training.
Subgrantee staff is/will be trained to recognize unsanitary and unsafe work conditions for inspections and contractor’s crews and understand when deferral is needed.

Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education.
Inform client of observed conditions. Provide information on how to maintain a sanitary home and steps to correct deferral conditions. Discuss with elders the availability of assistance.

Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.
Disposal of contaminants must be completed according to state and local requirements.

Building Structure and Roofing

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

Concur with WPN11-6 or
Alternative Guidance
Building rehabilitation is beyond the scope of the Weatherization Assistance Program. Homes with conditions that require more than incidental repair should be deferred.

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

DOE funds may be used for minor repairs consistent with the Incidental Repair category.

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

It work is beyond the scope of DOE WAP the unit shall be deferred.

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

Insulation, must conduct a visual inspection of all areas where WAP work will take place to determine that the area is safe for entry, inspection, and the planned work. Incidental repairs to structure, electrical repairs to structure, and ceiling insulation must be deemed necessary for the performance or preservation of the planned energy conservation measure, properly documented in the WAP Client file, (photographs, written observations) and must be cost effective consistent with DOE requirements.

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

If the need repair work does not meet the requirements for Incidental Repair or costs exceed the ability of the WAP, the unit must be deferred.

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

Deferred units will be referred to locally available rehabilitation programs.

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

Subgrantee auditor will be trained to identify Incidental Repairs, recognize the major repairs are beyond the scope of the DOE WAP, and to understand DOE cost effective requirements.

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

Notify client of structurally compromised areas and other building repairs.

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

All construction debris will be disposed of properly consistent with state and local requirements.

Code Compliance

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

Concur with WPN11-6 or
Alternative Guidance
Correction of preexisting code compliance issues is not an allowable cost other than where weatherization measures are being conducted. State and local (or jurisdiction having authority) codes must be followed while installing weatherization measures. Condensed properties and properties where “red tagged” health and safety conditions exist that cannot be corrected under this guidance should be deferred.

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

DOE funds may be used to address code compliance where weatherization work, related incidental repairs or required Health and Safety work is being conducted. DOE funds cannot be used to remedy preexisting code problems beyond the scope of the weatherization work.

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

If the required work is beyond the scope of the DOE WAP the work must be deferred.

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

The energy audit must conduct a visual inspection and identify needed weatherization work, health and safety requirements and associated Incidental Repairs. The contractor(s) awarded the job shall apply for all required local permits.

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

If code compliance requirements are beyond the scope of the WAP, the unit must be deferred.
Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.

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

Subcontract auditors will be trained in to what code compliance issues may be relevant to the WAP.

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

Clients must be informed of code compliance issues.

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

Construction debris resulting from code compliance shall be disposed of consistent with state and local requirements.

Combustion Gases

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

Concur with WPN 11-6

Alternative Guidance

Proper venting to the outside for combustion appliances, including gas dryers is required. Correction of venting is allowed when testing indicates a problem.

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

DOE WAP funds may be used. If problems are related to the primary heating system, HEARTWAP funds should be used to the greatest degree possible.

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

If combustion gas problems are beyond the scope of the DOE WAP or HEARTWAP the issue will be inspected. Combustion safety testing is required when combustion appliances are present. Inspect venting systems of combustion appliances and confirm adequate clearances and ventilation of the system. Test naturally draft appliances for draft and spillage under worst case conditions before and after air tightening and after all WAP work has been completed as part of the Final Quality Control Visit. Inspect cooking burners for operability and flame quality. Test all combustion appliances and ambient air for CO levels. Document pre and post WAP testing.

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

Deferral shall occur when the conditions related to the scope of the combined resources of the DOE WAP, HEARTWAP and utility-funded program administered by the subcontract.

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

All primary heating system problems should be referred to HEARTWAP and utility funded heating system programs.

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

Subcontract auditors are/will be trained in all areas of combustion safety including combustion efficiency testing, worst case draft testing, carbon monoxide testing, as well as identifying venting and chimney requirements of various types of combustion appliances.

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

Provide client with combustion safety and hazards information, including the importance of using exhaust ventilation when cooking and the importance of keeping burners clean to limit the production of CO. Clients must be informed of the importance of heating system maintenance.

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

Heating systems or venting material removed using DOE or HEARTWAP funds must be disposed of consistent with state and local requirements.

Combustion Gas Problem Discovery: Provide a narrative describing the process to be followed when combustion gas testing reveals health and safety concerns.

The subgrantee auditor and/or inspector must maintain a documented record in the client file of the results of all combustion testing before and past WAP. All call for service related to an appliance service technician or utility must be documented in the client file.

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

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

Concur with WPN 11-6

Alternative Guidance

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

Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety...
**Electrical, other than Knob-and-Tube Wiring**

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**DOE WAP Funds may be used for minor repairs to correct water problems**

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

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

The Subgrantee auditor must complete a visual inspection of the home, gutter and drainage system, and an inspection of the basement/crawlspace for evidence of bulk water problems.

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

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

**Referral should be made when bulk water issues (drainage, standing water)**

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

Subgrantee auditors will be trained to identify drainage issue and evidence of previous water problems.

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

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

Any debris resulting for improvements to drainage systems will be disposed of in accordance with state and local requirements.

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### Electrical, Knob-and-Tube Wiring

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DOE WAP funds may be used for limited K&T wiring improvements to allow insulation installation.

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

If the cost of K&T wiring improvements is beyond the scope of the DOE the unit must be deferred until problems are corrected.

### Standards for Remedy:
Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate.

**Note:** Some health and safety categories, like combustion gases, may require testing.

#### Knob and Tube Wiring Protocol

Subgrantees and contractors are prohibited from installing any type of insulation within 3 inches of active Knob and Tube wiring (K&T) in DOE WAP funded weatherization jobs.

Subgrantees must ensure that a Massachusetts Licensed Electrician performs an electrical safety inspection prior to beginning the weatherization process in all cases where knob and tube wiring is identified. The electrician must provide a written report to the Subgrantee regarding the location of all active and inactive K&T wiring prior to any insulation work being done.

If the knob and tube wiring has been deactivated, but is still in place and the dwelling has been rewired, then insulation may be placed around and in contact with the inactive knob and tube wiring. Insulation may be placed over deactivated knob and tube wiring only after the Subgrantee receives written confirmation from a Massachusetts Licensed Electrician.

Limited replacement of active knob and tube wiring is an allowable DOE WAP repair measure. Rewiring is limited by DOE policy to only that which is necessary to allow for the installation of insulation. DOE policy prohibits the complete rewiring of a home because that would be considered a housing rehabilitation measure and is beyond the scope of the WAP.

If the knob and tube wiring is active in an open attic or basement area, all insulation must be kept at least three (3) inches from the Knob and Tube. Blown insulation must be appropriately dammed to keep the insulation from advancing closer than 3 inches from the Knob and Tube wiring. If the Knob and Tube wiring is active in sidewall cavities or other restricted areas (floored attics) that cannot be accessed, insulation may not be installed in those cavities. All cavities that do not contain active K & T should be insulated.

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

If the K&T upgrade is beyond the scope of the WAP, the unit will be deferred. The need for deferral will be determined by evaluating estimated cost of the upgrade as part of the weatherization job and the cost effectiveness of the work with the repair included.

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

Referrals will be made to locally available home rehabilitation programs.

#### Training/Provision:
Describe how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, may require training.

Subgrantee energy auditors are trained to recognize knob and tube wiring and other potential electrical hazards.

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

Provide information to client on over-current protection, overloading circuits, basic electrical safety/risk.

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

Disposal of debris shall be consistent with state and local requirements.

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**Fire Hazards**

Check for any fire hazards in the building, including clearances of heating appliances and venting systems to combustible materials. Include the guidance on airside draftability from WP 11-6 or other guidance in place provided. Alternatively, all actions are explained and complied with DOE guidelines. Note: Where an Action/Allowability or Testing is "required" or "not allowed" through WP 11-6, the grantee must concour or choose to defer all units where the specific issue is encountered. Allowable items under WP 11-6 leave room for determining if the issue or testing will be addressed and in what circumstances.

**Concur with WP11-6**

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Correction of fire hazards is allowed when necessary to safely perform weatherization.

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

DOE WAP funds may be used to correct fire hazards.

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

If problems are beyond the scope of WAP they will be deferred.

### Standards for Remedy:
Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate.

**Note:** Some health and safety categories, like combustion gases, may require testing.

Check for fire hazards in the home during the audit and while performing weatherization. Energy auditors shall inspect clearances of heat producing devices, appliances and venting systems to combustible to make certain that they are within requirements in the Massachusetts State Building Code and the National Fire Protection Association (NFPA) Manual on Clearances for Heat Producing Appliances. If clients heat with a solid fuel stove, the installation must comply with clearance requirements and chimney cleaned as needed. Work on solid fuel appliance and chimneys must be completed by MA Solid Fuel-Burning Appliance Installer Construction Supervisor License (SFCSL). HEARTWAP funds may be used for solid fuel stove repairs and replacements and chimney repairs.

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

Deferral must occur if the costs of required repairs or upgrades to fire hazards exceed the available funds from WAP and HEARTWAP.

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

Referral will be made to appropriate entities if problems are beyond the scope of the WAP and HEARTWAP.
Formaldehyde, Volatile Organic Compounds (VOCs), and other Air Pollutants

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

Concure with WPN11-6
Alternative Guidance

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

DOE WAP funds can be used to remedy excessive amounts of VOCs.

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

If cost of removal is beyond the ability of DOE WAP to rectify or the client refuses to allow the removal to ensure a safe workplace the unit shall be deferred.

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

The initial energy auditor must include an inspection for volatile organic compounds (VOCs) stored in the home. Typical VOCs found in the home include: cleaning fluids, paints, solvents, herbicides, pesticides, formaldehyde, fuels, and automotive products. Some VOCs are known to be potential irritants to lungs, eyes, and skin. Some VOCs may be carcinogenic. They are frequently stored under sinks, in closets, and basements. Formaldehyde may be found in a variety of building products including plywood, carpeting, and particleboard. Recommend to clients that they move potentially dangerous materials outside into sheds or garages outside the living space or any other area that may intersect with the living space. Basements are not recommended for storage of VOCs.

ASHRAE 62.2-2013 addresses only normal household ventilation requirements and does not ensure adequate ventilation exists if there are high levels of VOCs stored in the home.

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

If the client is unwilling to remove or have removed high concentrations of VOCs or if removal costs are beyond the scope of the DOE WAP the unit must be deferred.

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

Referrals will be made to public health programs that are able to address these issues.

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

Subgrantee auditors are will be trained to identify VOC’s, potential hazards and when removal is necessary.

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

Provide client education materials concerning VOCs and indoor air quality issues such as the EPA’s Care for Your Air Guide to Indoor Air Quality:
http://www.epa.gov/iaq/pdfs/careforyourairguide.pdf

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

Disposal of VOCs when necessary shall be consistent with state and local requirements.

Injury Prevention of Occupants and Weatherization

Workers—Measures such as repairing stairs and replacing handrails.

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

Concur with WPN11-6
Alternative Guidance

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

DOE funds can be used in this category
<table>
<thead>
<tr>
<th><strong>Beyond Scope of DOE WAP:</strong> Describe how the issue will be treated if beyond the scope of DOE WAP.</th>
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<tr>
<td>If repairs required for workers to safely access necessary work area are beyond the scope of the WAP, the unit must be deferred.</td>
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<th><strong>Standards for Remedy:</strong> Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing.</th>
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</thead>
<tbody>
<tr>
<td>The energy auditor and WAP contractor must observe if dangers are present that would prevent weatherization. If WAP work cannot be safely performed, WAP funds may be used to correct the condition if costs are reasonable.</td>
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<tr>
<th><strong>Standards for Deferral:</strong> Describe when deferral should take place for the specific health and safety category.</th>
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<td>If costs to correct safety concerns are beyond the scope of the DOA WAP the unit must be deferred.</td>
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<th><strong>Standards for Referral:</strong> Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies.</th>
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<td>Referrals will be made to locally available home rehabilitation programs.</td>
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**Training Provision:** Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training. |

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<th><strong>Disposal Procedures:</strong> Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards.</th>
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<td>Any debris created by this measure must be disposed of consistent with state and local requirements.</td>
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<th><strong>Lead Based Paint</strong></th>
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<th>Concur with WPN11-6</th>
<th>Follow the Massachusetts Department of Labor Standards (DLS) Lead, Renovation, Repair and Painting Program (RRP), previously administered by the U.S. EPA. In addition to RRP, all weatherization crews working in pre-1978 housing to be trained in Lead Safe Weatherization (LSW) protocols.</th>
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<td>Alternative Guidance</td>
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| **Lead Based Paint Compliance:** Provide a narrative describing how RRP and LSW implementation will be conducted and how the grantee will verify compliance. The explanation should clearly show an understanding that LSW and RRP are separate requirements and both are required to be met. |

**Lead Based Paint Compliance:** Provide a narrative describing how RRP and LSW implementation will be conducted and how the grantee will verify compliance. The explanation should clearly show an understanding that LSW and RRP are separate requirements and both are required to be met. |
Contractors completing work in pre-1978 homes must include a statement signed by the MA Licensed Lead-Safe Renovator-Supervisor who supervised the work on that unit that Lead RRP and LSW requirements and practices were complied with on the DOE WAP unit. This certification must be submitted as part of that company’s invoice for the weatherization work.

DHCD’s DOE WAP Technical Manual includes the following narrative:

Lead paint is a serious health and safety concern when conducting any type of renovation or construction in pre-1978 housing. The DOE has been very proactive in making certain that policies are in place to ensure that weatherization work does not create problems in homes that are served through the program. DOE requires that Lead-Safe practices be used in all buildings that may have lead paint (pre-1978 housing) regardless of the amount that may be disturbed.

Generalized lead paint removal is not an allowable activity under the Weatherization Assistance Program. The information in this guidance is not intended to provide specific information for the proper handling of lead. For detailed information regarding lead paint abatement see Commonwealth of Massachusetts’ Publications 454 CMR 22.00: http://www.mass.gov/ldwd/docs/lead-asbestos/rp-rule/lead-454cmr22-00.pdf and 105 466 CMR: http://www.mass.gov/ecohtml/docs/dph/regs/105cmr466.pdf

In response to the dangers of lead paint in homes, the U.S Environmental Protection Agency (EPA) developed the Lead Paint: Renovation, Repair, and Painting Program (Lead RRP) that became fully effective April 22, 2010. The EPA Lead RRP provides a framework of required training and certification of workers and companies as well as construction and renovation practices that are intended to reduce the exposure of workers and occupants of homes undergoing painting or renovation. Under the EPA RRP requirements companies are required to be Certified Firms and crew chiefs supervising the work must be Certified Renovators. The EPA Lead RRP also provides important required occupant notification and sign-offs for homes undergoing renovation.

Effective July 11, 2010, the Massachusetts Department of Labor Standards (DLS) (formerly, the Division of Occupational Safety) took over the administrative and enforcement requirements of the EPA Lead RRP in Massachusetts. Under the Massachusetts regulations, companies are required to have a Lead-Safe Renovation Contractor License. Entities that were previously EPA Certified Firms were required to apply for a Mass. re-issued license that will be valid for the five year period of the original EPA Certified Firm. Workers must be trained and certified as a MA Lead-Safe Renovator/Supervisor. EPA Certified Renovators are grandfathered to this status.

A comparison of the EPA Lead RRP and the requirements under the MA DLS Lead RRP can be found here: http://www.mass.gov/ldwd/labor-standards/lead-program/documents/comparison-of-epa-and-dls-rrp-rule-requirements.html.

This guidance is intended to provide Subcontractor staff and contractors working in the weatherization program with general guidelines on addressing lead paint concerns in homes receiving services funded through the DOE WAP. It is not intended to address all the specific requirements of private sector contractors working in the DOE WAP. As Massachusetts Licensed Construction Supervisors and Lead-Safe Renovator/Supervisors, it is each contracting company’s responsibility to stay current with the Massachusetts requirements for licensing, permitting, notification, record keeping and job site safety as it pertains to the operation of their business.

To minimize risks to clients and Weatherization personnel:

Household notification requirements: Prior to beginning renovation, repairs, and painting in pre-1978 housing and child-occupied facilities Subcontractors or the weatherization contractor must provide the occupants with, “Renovate Right Important Lead Hazard Information for Families, Children, Care Providers and Schools” developed by the US Environment Protection Agency (EPA) and the US Department of Housing and Urban Development (HUD). Subcontractor client files must include documentation that the occupants received the pamphlet. The EPA pre-renovation disclosure form included in the pamphlet may be used for this purpose. The signed form must be maintained as a part of the record for that project. The pamphlet can be accessed from the MA DLS Lead RRP website here: http://www.mass.gov/ldwd/docs/lead-asbestos/rp-rule/renovaterightbrochure.pdf

All WAP work that may disturb lead-based paint in pre-1978 homes must be completed by MA Lead-Safe Renovation Contractor Licensed companies using MA Lead-Safe Renovator-Supervisors. All work practices must be consistent with the requirements of the MA DLS RRP. That policy can be found here http://www.mass.gov/leadsafe.

Subcontracts must assume that any paint in homes built before 1978 contains lead unless it has been verified otherwise.

Examples of Lead-Safe practices include (but are not limited to):

- Work area containment to prevent dust and debris from leaving the work area. The containment requirements vary depending on the activities conducted and location of the work. Work on the exterior of the building has additional containment requirements.
- The prohibition of certain work practices like open flame burning and the use of power tools without HEPA exhaust control.
- Thorough clean-up followed by a verification procedure to minimize exposure to lead-based paint hazards.
- MA DLS standards require that a Licensed Lead-Safe Renovator-Supervisor be on the worksite at all times supervising all crew members during the renovation process.

The MA DLS RRP training and certification process for renovators and firms requires many specific protocols for when the RRP requirements must be met and what work practices are required depending upon individual circumstances. The EPA’s “Small Entity Compliance Guide to Renovate Right, EPA’s Lead-Based Paint Renovation, Repair and Painting Program” provides simplified guidance of how and when these regulations apply. The brochure can be accessed here: http://www2.epa.gov/sites/production/files/documents/sobcomplianceguide.pdf Information regarding Massachusetts specific requirements can be accessed at the MA DLS website: http://www.mass.gov/ldwd/labor-standards/lead-program/rrp.html

Additional detailed specifications regarding the health and safety of workers in the construction industry can be found in Construction Industry
OSHA Safety and Health Standards (29CFR 1926/1910) and the specific worker safety requirements in the EPA's "Lead: Renovation, Repair, and Painting Program" (LRPP) Final Rule. See also Section 9.5 Lead- Safe Procedures within the Northern Edition Weatherization Field Guide.

In addition to the Lead RRP program requirements, DOE requires that Lead Safe Weatherization (LSW) practices be conducted at all times when working in pre-1978 housing. All workers (crew chief, crew members, energy auditors and inspectors) must receive Lead Safe Weatherization Training based on a DOE approved curriculum.

DOE LEAD SAFE WEATHERIZATION INFORMATION

Lead Safe Weatherization (LSW) is defined by the U.S. Department of Energy (DOE) as a set of techniques designed to: minimize the production of lead paint dust and chips, prevent the spread of dust and chips, and to include a thorough cleaning of the work area once the work is completed.

U.S. Department of Energy's Policy Regarding Lead-Based Paint in Homes

Lead-based paint dust and other residues are hazards that Weatherization workers are likely to encounter in older homes. HUD estimates that four million homes have significant lead-based paint hazards. Furthermore, Weatherization work may directly disturb lead-based paint, possibly creating hazardous conditions. While the authorizing legislation for DOE's Weatherization Assistance Program (WAP) does not specifically address lead-based paint hazard reduction, DOE's policy is that Weatherization workers must be aware of the hazard and conduct Weatherization activities in a safe work manner to avoid contaminating homes with lead-based paint dust and debris, and to avoid exposing themselves and their families to this hazard.

It is important to remember that WAP's legislated purpose is to install energy efficiency measures in weatherization client's homes in order to lessen their energy cost burden. WAP is not funded to do lead-based paint abatement work, or to do lead-based paint hazard control or stabilization. In the process of weatherizing a home, workers sometimes encounter and have to disturb painted surfaces that are known or presumed to contain lead-based paint. When that happens, DOE funds may be used to minimize the potential hazard associated with the specific painted surfaces that workers are directly disturbing in the course of installing an energy efficiency measure, but DOE funds may not otherwise be used for abatement, stabilization, or control of the lead-based paint hazard that is in the house.

Post-Weatherization Cleanup

Cleanup at the completion of Lead-Safe Weatherization work requires the use of a HEPA vacuum, (a HEPA filter in a standard vacuum is NOT an acceptable alternative) wet cleaning methods, a visual inspection and the collection and disposal of any dust, debris, or chips with the rest of the jobsite waste.

Pollution Occurrence Insurance Coverage

Massachusetts requires WAP Subgrantees to maintain a POI policy adequate to protect against potential incurred liability. Verification of this coverage is completed annually.


Safe work practices must be implemented to minimize exposure to hazards for the customer and the workers, while allowing Weatherization to occur in a cost-effective manner and to not hinder production. The effort required will be based on the hazard, the work specifications, and customer health issues.

CHECK Federal, state, and local regulations.
☐ OSHA has rules for worker safety.
☐ States and local communities may have rules for waste disposal.

To meet the LSW minimum standards, crews and contractors MUST follow the general principles of working clean and working wet. Best practices for working clean and working wet are available in the benchmark LSW procedures and curriculum and should be reviewed and consistently enforced on LSW jobs.

A. Requirements

1. Weatherization Worker Protection

LSW includes these procedures and safety precautions:

- Wear personal protective gear specifically suited for the particular LSW measure. Use at least ½ face respirators with HEPA filters that are approved by the National Institute for Occupational Safety and Health (NIOSH).
- Use disposable overalls (with hood or a disposable painter's cap), gloves (cloth, plastic, or rubber as appropriate), goggles, and disposable shoe/boot covers.
- Keep dust to a minimum and confine dust and paint chips to the work area.
- Clean up area during and after work.
- During Weatherization, wash your hands and face frequently, particularly when leaving the work area and especially before leaving the area for the purpose of eating, drinking, or smoking.
- Before leaving a confined work area, remove your protective clothing and protective shoe/boot covers to avoid exposing others.
• Before leaving a certified work area, and before returning tools and equipment to vehicles, clean all tools to avoid exposing others and creating a lead-hazard to the next Weatherization job.
• Get annual medical exams to check blood lead levels. Do non-lead-related work if your blood lead level gets too high.
• Inform your employer if you develop signs of lead poisoning.

2. Client Notification

Consistent with the EPA and MA DSS RRP Program Subgrantees must provide occupants of the home the EPA brochure, Renovate Right Important Lead Hazard Information for Families, Child Care Providers and Schools. A copy of the signed acknowledgement must be included in the client file.

For occupied homes, the Weatherization staff, crew, or contractor must have an adult tenant or homeowner sign an acknowledgement after receiving the pamphlet. The pamphlet can also be sent by certified mail with receipt to be placed in the client file.

In multi-unit housing, the agency must:

☐ Provide written notice to each affected unit (notice must describe: general nature and locations of the planned renovation activities; the expected starting and ending dates; statement of how occupant can get pamphlet at no charge; or:
☐ Post informational signs (signs must describe general nature and locations of the renovation and the anticipated completion date) and post the EPA pamphlet. (If pamphlet is not posted then agencies are required to provide information on how interested occupants can review a copy of the pamphlet or obtain a copy at no cost from the Weatherization Program)
☐ Delivery to owner/occupant. Owner’s and/or occupant’s signature with acknowledgement or certificate of mailing. The owner/occupant must acknowledge receipt of the EPA pamphlet prior to start of renovation that contains the address of unit undergoing renovation, name and signature of owner or occupant, and the date of signature. It must be in same language as "contract for renovation" for an owner-occupied or the same language as the lease for occupant of non-owner occupied target housing.

If the subgrantee cannot get a signed acknowledgment (either the occupant is not home or refuses to sign the form), then the self-certification section of the form must be signed to prove delivery.

The acknowledgement form must be filed and remain with the client file for three years from date of signature. In addition to providing a copy of the pamphlet to owners and occupants, the subgrantee and or weatherization contractor must discuss the hazards associated with lead-based paint and lead dust, and describe how they will conduct LSW in the home.

B. General LSW Work Practice Standards

☐ Crews and contractors must take steps to protect occupants from lead-based paint hazards while the work is in-progress using appropriate containment strategies.
☐ Occupants, especially young children or pregnant women, may not enter the work site. Occupants are allowed to return only after the work is done and the home has passed a visual inspection.
☐ Occupants’ belongings must be protected from lead contamination. This can be done by removing them from the work area or covering them in protective bags and sealing it to prevent dust from getting on the items.
☐ The work site must be set up to prevent the spread of lead dust and debris.
☐ Warning signs must be posted at entrances to the worksite when occupants are present; at the main and secondary entrances to the building; and at exterior work sites. Signs must be readable from 20 feet from the edge of the worksite. Signs should be in the occupants’ primary language, when practical.
☐ The work area must be contained. If containment cannot be achieved with occupants in the unit (e.g., work will take several days and involves the kitchen, bathrooms, or bedrooms that cannot be sealed off from access), occupants must move out of the unit or the work must be deferred until containment can be achieved.
☐ A Certified Renovator must supervise and inspect Weatherization work of any type and scale to ensure it is being done properly.
☐ Ensure containment does not interfere with occupant and worker egress in an emergency.

C. Containment

Containment is anything that stops any dust or debris from spreading beyond the work area to non-work areas. The level of containment must be determined by the auditor/inspector or supervisor before work is assigned to a crew or contractor.

☐ NEVER - allow residents and pets access to the work area while work is underway.
☐ NEVER - open windows and doors allowing lead dust to float into other parts of the building or outside.
☐ NEVER - allow furniture and other objects to remain in the Weatherization work area while Weatherization work is being performed unless they are covered and sealed in polyethylene sheeting or bags.

Every home and every specific Weatherization measure is unique; therefore the level of containment required will be based on the hazards present, the age of the home, the scope of work activities, and any customer health issues. Although Weatherization jobs require individual assessments, LSW work generally falls into two levels of containment and the related standards are outlined below.

Level 1 Containment

Level 1 Containment is required in pre-1978 homes when less than 6 square feet of interior painted surface per room or 20 square feet of exterior painted surface will be disturbed.

Level 1 Containment consists of methods that prevent dust generation and contains all debris generated during the work process. The containment establishes the work area which must be kept secure.
Measures requiring Level 1 Containment may include:

- Installing or replacing a thermostat
- Drilling and patching test holes
- Replacing HEPA filters and cleaning HEPA vacuums
- Changing Furnace Filter
- Removing caulk or window putty (interior)
- Removing caulk or window putty (exterior)
- Removing weather-stripping

Level 2 Containment

Level 2 Containment is required when Weatherization activities will disturb more than 6 square feet of interior surfaces per room or 20 square feet of exterior surfaces in homes built prior to 1978. Level 2 containment consists of methods that define a work area that will not allow any dust or debris from work area to spread. Level 2 Containment requires the covering of all horizontal surfaces, constructing barrier walls, sealing doorways, covering HVAC registers with approved materials, and closing windows to prevent the spread of dust and debris.

Measures requiring Level 2 Containment may include:

- Drilling holes in interior walls
- Drilling holes in exterior walls, removing painted siding
- Cutting attic access into ceiling or knee walls
- Placing a door in place
- Replacing door jams and thresholds
- Replacing windows or doors
- Furnace replacements

Additionally, Level 2 containment must ALWAYS be used where any of the following is conducted (even if the activities will disturb less than the hazard de minimis levels within the Level 1 category):

- Window replacement
- Demolition of painted surface areas

D. Proper LSW Clean-Up and Debris Disposal

Following the containment standards in the previous section will minimize the level of effort required to properly clean up the job site. All dust, dirt, material scraps, containers, wrappings, and work related debris must be removed from the customer’s home. A HEPA vacuum should be used to clean up the work area. Further cleaning may be necessary based on the hazard.

At the conclusion of the job, once all workers have “cleaned” the work areas thoroughly, Weatherization workers must adhere to the following:

- Safe and Secure Disposal:
  - Bag and gusset-seal all waste in 6-mil. plastic bags.
  - Safely dispose of all waste in accordance with federal, state, and local regulations.

- Visual Inspection Verification:
  - Checking the quality of worksite cleanliness is a two-phase process:
    - Phase 1: Worker visual inspection during the cleaning process; look for any visible paint chips, dust, or debris as you clean, using proper techniques.
    - Phase 2: Supervisor visual inspection after cleanup. There should be no evidence of settled dust following a cleanup effort. If dust is observed, the Weatherization crew must be required to repeat the cleaning.

If work is done outside the house, the grounds around the dwelling and all exterior horizontal surfaces should also be examined visually to make certain that all waste and debris have been removed and that paint chips were not left behind. To comply with the Lead RRP Rule, cleaning verification using EPA-developed cards are required. Specific steps required of the Licensed Renovator/Supervisor during the cleaning verification process are available in the Lead RRP Rule. All individuals completing work or inspecting homes receiving DOE WAP funds must receive training on LSW protocols based on a DOE approved curriculum. Lead RRP training and certification does not preclude the need for DOE LSW Training.

Mold and Moisture

Concur with WPN11-6

Limited water damage repairs that can be addressed by weatherization workers and correction of moisture and mold creating conditions are allowed when necessary in order to weatherize the home and to ensure the long term stability and durability of the measures. Where severe Mold and Moisture issues cannot be
| Funding: State that DOE funds are being used or indicate that alternate funding sources will be used to address this particular health and safety category. |
| WAP Funds can be used for minor repairs and mitigation of water and moisture issues. Mold testing and remediation is not an allowable weatherization expense. |
| Beyond Scope of DOE WAP: Describe how the issue will be treated if beyond the scope of DOE WAP. |
| If major mold problems exist, weatherization must be deferred and the problem is resolved. |
| Standards for Remedy: Describe the standards for remedy of the health and safety category, including testing protocols. Also include when partial weatherization would be appropriate. Note: Some health and safety categories, like combustion gases, require testing. |
| Visual assessment is required of all areas of the home is required. Use of a moisture meter is recommended. Areas with suspected mold must be identified and documented with pictures. If large concentrations of mold in an individual area or throughout the building exist (greater than 20 sq. ft. according to EPA standards), deferral is required. If sources of moisture causing the problem can be identified and mitigated through adequate ventilation, dehumidification, or elimination WAP work can proceed. Provide client with instructions on cleaning existing concerns consistent with EPA recommendations. |
| Standards for Deferral: Describe when deferral should take place for the specific health and safety category. |
| Deferral is required if severe moisture conditions cannot be corrected before weatherization. Units with moderate to severe suspected mold must be deferred. |
| Standards for Referral: Describe when referral should take place for the specific health and safety category. If possible, include associated referral agencies. |
| Clients will be referred to locally available resources for home rehabilitation and healthy homes. |
| Training Provision: Discuss how training will be provided for the specific health and safety category. Note: Some health and safety categories, like OSHA, require training. |
| Subgrantees auditors will be provided training in identifying suspected mold and identifying and determining potential causes of high moisture levels. |
| Client Education: Discuss what specific steps will be taken to educate the client, if any, on the specific health and safety category if this is not explained elsewhere in the State Plan. Note: Some health and safety categories, like mold and moisture, require client education. |
| Provide the client with information, notification and documentation of areas with existing mold issues. Provide the client with the EPA Guide, Mold, Moisture and Your Home: http://www.epa.gov/ia/pdf/1pdf/moldguide.pdf. |
| Disposal Procedures: Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards. |
| Any waste or debris generated through the WAP work will be disposed of in a manner consistent with state and local requirements. |
| Mold Protocol: Provide a narrative describing protocols for addressing mold found in the client’s home. The protocol should include a method of identifying the presence of mold during the initial audit or assessment, notification to the client, and crew training on how to alleviate mold and moisture conditions in homes. |
| The initial inspection of the home must include a thorough mold and moisture assessment, inspection and documentation of any existing problems. Subgrantees must utilize the standard form the Massachusetts WAP Mold Inspection and Release Form included in the WAP Technical Manual, digital photographs and additional narrative as needed to document the problems. Diagnostics using a moisture meter is recommended. Existing mold and/or moisture problems will likely worsen if the home is tightened and inadequate steps are taken to address the underlying issues. If serious mold problems exist, weatherization must be deferred and the problem is resolved. Subgrantees must use the deferral of services policy outlined in this guidance in these instances. Provide the household with educational material such as the EPA Guide, Mold, Moisture and Your Home: http://www.epa.gov/ia/pdf/1pdf/moldguide.pdf. |
| Look for and identify potential moisture and mold problems. Thoroughly investigate to determine the sources of the moisture. In the living space look for evidence of condensation on windows and exterior walls, (stains and/or mold) especially in areas with limited air circulation. Check the bathroom ceilings for dark spotting, determine if existing bath fans (if any) are operable and properly vented to the outside. In the basement/crawlspace check for standing water, open sumps, dirt floors, leaking pipes and drains and water stains on the foundation walls. In attic spaces look for staining on the roof sheathing and rusted or rust-covered roofing nails. Note if staining is consistent throughout the whole attic space or localized. Potential sources of excessive moisture levels in a home include: |
| Dirt crawlspace is no vapor barrier; standing water in the basement or crawlspace; unvented (or defective) combustion appliances; unvented clothes dryers; improperly vented bathroom fans; firewood stored in the basement or living space, excessive house plants; large number of inhabitants in small living space; defective plumbing; defective or non-existent gutters and downspouts; high ground water tables; standing water in basement or crawlspace; leaking roofs, windows, and sidewalks. |

To extent possible within the parameters of the DOE WAP determine appropriate measures to reduce the water and moisture problems by first implementing mitigation measures such as diverting rainwater with gutters and downspouts and grading, repairing leaks in roofs, siding, windows, doors and other building shell components, cover all exposed ground in crawlspace areas with a continuous min. 6 mil polyethylene ground moisture barrier, overlapped and sealed at seams and extend up the foundation a minimum of 6 inches and sealed with an appropriate durable sealant. Provide the client with information about moisture generating activities and suggestion on how to reduce moisture levels. Ventilation to ASHRAE 62.2 standards is required (unless unit is deferred) but the Standard does not take into consideration high levels of background moisture. Additional ventilation at the source may be possible and required. Bath and kitchen fans used as part of ASHRAE compliance can also be operated at a higher CFM rate when needed, to reduce occupant produced (bathing showering cooking) moisture levels. |

### Occupant Preexisting or Potential Health Conditions

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

| Concurrence with WPN11-6 | When a person’s health may be at risk and/or the work activities could constitute a health or safety hazard. |

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<td><strong>If health concerns of the resident(s) as it relates to the WAP work cannot be addressed through the program, the unit must be deferred.</strong></td>
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### Standards for Remedy
- **Describe the standards for remedy of the health and safety category, including testing protocols.**
- **Include when partial weatherization would be appropriate.**
- **Note:** Some health and safety categories, like combustion gases, require testing.

- **Subcontractors and their representatives must take all reasonable precautions against performing work on homes that will subject clients to health and safety risks.**
- **During the intake and energy audit process, the Subcontractor must make an evaluation of the health of the home's occupants.**
- **Without requesting specific medical information, the client should be asked if any household members have asthma-like or any respiratory issues or other health concerns that the program should be aware of.**
- **In cases where a person's health is fragile and/or the weatherization activities would constitute a health or safety hazard, the occupants will be required to leave during the work process or the agency and contractor should not begin the work.**
- **Work that is completed should in no way contribute to or create an unhealthy condition in the home.**
- **All problems and concerns must be fully documented in the client file.**

### Standards for Referral
- **Describe when referral should take place for the specific health and safety category.**
- **Deferral will occur when precautions cannot be practically taken to avoid harm to the client or family members.**
- **If it is not possible, include associated referral agencies.**

### Standards for Referral
- **Describe when referral should take place for the specific health and safety category.**
- **If it is not possible, include associated referral agencies.**

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

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

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

### Concur with WPN 11-6
- **Alternative Guidance:**

| Workforce must follow OSHA standards and Material Safety Data Sheets (MSDS) and take precautions to ensure the health and safety of themselves and other workers. MSDS must be available wherever workers may be exposed to hazardous materials. |

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

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

### Standards for Remedy
- **Describe the standards for remedy of the health and safety category, including testing protocols.**
- **Include when partial weatherization would be appropriate.**

### Standards for Deferral
- **Describe when referral should take place for the specific health and safety category.**
- **Deferral will occur when the OSHA required activity is beyond the scope of the DOE WAP.**

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

### Training Provision
- **Discusses how training will be provided for the specific health and safety category.**

### N/A
Grantee and Subgrantee staff will be trained in the importance of PPE. OSHA 10 Job Site Safety Training is required of Grantee and Subgrantee auditors and inspectors. Contractor's crews must attend OSHA 10 Job Site Safety Training. Crew Chiefs must attend OSHA 30 Training. Attendance must be documented and information maintained in local agency records for staff and contractor files. DHCD will continue to provide worker safety training during on-site training completed in conjunction with the BREC Accredited WAP Training Center, the Green Jobs Academy.

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

Information about job site safety and MSDS will be available to clients at their request.

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

Disposal must be consistent with state and local requirements.

**OSHA and MSDS Compliance**: Provide a narrative describing procedures for implementation of OSHA and MSDS requirements related to crew and worker safety, how the 10 and 30 hour training requirements will be met, and what the process is for determining if crews are utilizing good safe work practices according to all requirements (OSHA, OSHA, etc.).

WAP contractors are required to provide WAP Subgrantees with documentation of completion of OSHA 10 for crew members and OSHA 30 for crew chiefs. Information is maintained in the contractor's file at the Subgrantee and reviewed by DHCD staff during monitoring visits. Workers must provide information and receive training on potentially hazardous materials that may be encountered on WAP job sites. Manufacturers Safety Data Sheets (MSDS) as well as appropriate OSHA Safety information must be available at work sites.

During WAP Field visits DHCD staff will inspect in process work to determine that WAP Contractors and their crews are utilizing safe work practices and maintain required MSDS and related information on site consistent with WAP and OSHA requirements.

### Pests

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

Concur with WPN 11-6

**Alternative Guidance**

Pest removal is allowed only where infestation would prevent weatherization. Infestation of pests may be cause for deferral where it cannot be reasonably removed or poses H&S concern for workers. Screening of windows and points of access is allowed to prevent intrusion.

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

DOE WAP funds can be used.

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

If pest infestation is beyond the scope of WAP will be deferred.

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

Subgrantee energy auditors will assess the presence and degree of infestation and risk to worker. Pest infestation that may prevent weatherization activity or potentially lead to the degradation of weatherization materials must be corrected prior to weatherization or the unit deferred. Care should be taken that installed materials are protected from pest infestation. When repairing or filling cracks and holes to the exterior, use a metal mesh filler to prevent future intrusion.

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

If cost for remedy of pest problems are beyond the scope of the program, the unit must be deferred.

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

Referral will be made to locally available home rehabilitation programs and healthy homes and public health entities.

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

Energy auditors will be made aware of pest concerns in housing including the EPA's Controlling Pests at Home information:

http://www.epa.gov/energy/controllingpests/index.htm

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

Provide client with information about identified problems and associate risks. Provide clients with information about pest control such as the EPA's Preventing Pests at Home:

http://www.epa.gov/energy/controllingpests/publication/preventpest.pdf

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

All waste will be disposed of consistent with state and local requirements.

### Radon

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

Concur with WPN 11-6

**Alternative Guidance**

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

Testing is allowed using DOE funds. Full mitigation systems are not.

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

If required measures are beyond the scope of the DOE WAP the unit will be deferred.

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

Radon testing is allowed and recommended in locations with an identified high radon potential. The EPA Radon information and map for Massachusetts is available here: [http://www.epa.gov/rafon/stats/massachusetts.html](http://www.epa.gov/rafon/stats/massachusetts.html). While full radon mitigation systems are not allowed, measures may be taken to reduce levels (ground cover, cover open sumps, patch cracks) and precautions must be taken to reduce the likelihood of making problems worse. Additional information for homeowners can be found in the EPA’s Consumer’s Guide to Radon: [http://www.epa.gov/rafon/pdf/consumerguide.pdf](http://www.epa.gov/rafon/pdf/consumerguide.pdf) and the Citizens Guide to Radon: [http://www.epa.gov/rafon/pdf/citizensguide.pdf](http://www.epa.gov/rafon/pdf/citizensguide.pdf) and the Massachusetts Department of Health and Human Services Public Health Fact Sheet on Radon: [http://www.mass.gov/ehp/docs/programs/environmental-health/radon/educational/overview/radonpublichealthfactsheet.pdf](http://www.mass.gov/ehp/docs/programs/environmental-health/radon/educational/overview/radonpublichealthfactsheet.pdf).

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

If levels greater than 4 picocuries per liter (pCi/L) are indicated by testing that cannot be reduced within the scope of the DOE WAP allowable work will be deferred.

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

Referrals will be made to locally available home rehabilitation and public health programs.

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

Subgrantee energy auditors will be trained on radon issues as they relate to weatherization including what is it, how it occurs and enters homes, what factors make conditions better or worse.

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

Provide clients with information about radon test results and EPA and/or MA fact sheet referenced above.

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

Materials and debris associated with testing or precautions will be disposed of consistent with state and local requirements.

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**Refrigerant**

Concur with WPN11-6

Alternative Guidance

Reclaim refrigerant per Clean Air Act 1990 section 608 as amended by 40 CFR 82, 5/14/93

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

DOE WAP may be used.

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

If beyond the scope of the DOE WAP the unit will be deferred.

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

The DOE WAP does not generally fund refrigerator replacements in Massachusetts because of the availability of utility funding however when completed with DOE or utility funds the contractor is required to dispose of the old refrigerator in accordance with Clean Air Act 1990 section 608 as amended by 40 CFR 82, 5/14/93

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

Deferral will occur when required work is beyond the scope of the DOE WAP or utility funded program.

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

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

Contractors working with refrigerants are required to comply with EPA-approved section 608 type I or universal certification.

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

Clients must be instructed not to disturb refrigerators.

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

Disposal of all refrigerants and refrigerants must be consistent with the Clean Air Act 1990 section 608 as amended by 40 CFR 82, 5/14/93.
### Smoke, Carbon Monoxide Detectors, and Fire Extinguishers

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

<table>
<thead>
<tr>
<th>Concurrence with WPN 11-6</th>
<th>Installation of smoke/CO detectors is allowed where detectors are not present or are inoperable. Replacement of operable smoke/CO detectors not an allowable cost.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative Guidance</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>DOE WAP funds are allowed</th>
</tr>
</thead>
</table>

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

| Installation is not allowed unless other DOE WAP funded measures are part of the scope of work. |

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

| Install smoke and/or CO detectors in units with a combustion appliance or an attached garage where no detectors exist or the existing unit is inoperable or has exceeded the manufacturers expected life of the device. Installation must be consistent with the Massachusetts Building Code. A fire extinguisher is an allowable H&S expense in homes that use a solid fuel appliance. |

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

| Deferral will occur when required work is beyond the scope of the DOE WAP |

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

| Referrals will be made to locally available housing programs and the enforcement entity for CO and Smoke detectors, the local fire department. |

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

| Subgrantees will be trained on the appropriate installation and code requirements for smoke and CO detectors. |

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

| Clients will be provided information on the requirements for smoke and CO detectors and their operation and where applicable on the operation of a fire extinguisher. The MA Department of Public Safety's Fire Services Division has produced a Consumer's Guide to CO Alarm Requirements available here: [http://www.mass.gov/dfrr/uploaded_files/carbon-monoxide-safety-guide.pdf](http://www.mass.gov/dfrr/uploaded_files/carbon-monoxide-safety-guide.pdf) |

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

| Nonfunctioning and outdated detectors removed from DOE WAP homes will be disposed of consistent with state and local requirements. |

**Smoke/CO Detector Installation:** Provide a narrative describing smoke/CO Detector installation parameters and procedures.

| Installations of smoke/CO detectors will be consistent with the requirements of the Massachusetts Building Code and the manufacturer's recommendations. The Massachusetts Code requires a CO detector on each occupied level of the dwelling and on levels of the home with bedrooms, within 10 feet of each bedroom door. |

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

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

<table>
<thead>
<tr>
<th>Concurrence with WPN 11-6</th>
<th>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</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative Guidance</td>
<td></td>
</tr>
</tbody>
</table>

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

| DOE WAP funds are allowed however to the greatest degree possible maintenance, repair, and replacement of primary heat solid fuel appliances should be referred to the HEARTWAP program. |

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

| If the scope of work required is beyond the capacity of the DOE WAP and HEARTWAP the unit must be deferred. |

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

| Solid fuel heating appliance work should be referred to the HEARTWAP Program for services and all work completed consistent with the requirements of that program and the Massachusetts Building Code. |

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

| Deferral will occur when required work is beyond the scope of the DOE WAP and HEARTWAP. |

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

| Referrals will be made to locally available housing programs and the local code officials. |

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

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

Concur with WPN 11-6
Alternative Guidance

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

DOE funds will not be used

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

N/A

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

Standards for Deferral: Describe the standards for deferral of the health and safety category. If possible, include associated referral agencies.

Referrals will be made to locally available housing program and code officials if significant problems exist that cannot be remedied

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

Subgrantee energy auditors will be trained in the requirements of this guidance and identifying unsafe conditions

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

Inform client of hazards and collect a signed waiver if removal is not allowed.

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

All space heaters removed from DOE WAP client’s homes must be disposed of consistent with state and local requirements

Space Heaters, Unvented Combustion

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

Concur with WPN 11-6
Alternative Guidance

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

DOE WAP funds cannot be used to repair an unvented combustion appliance. If the unvented combustion appliance is the sole source of heat, the client must be referred to the HEARTWAP program and a safe effective heating system installed prior to weatherization.

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

N/A

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

Subgrantee auditors that identify an unvented combustion space heater should immediately notify the client that no DOE WAP work will be completed until the unvented combustion appliance is removed and a safe heating system can be installed and refer the client to the HEARTWAP program as high priority weatherization system replacement. The auditor should conduct ambient air CO test and make certain that the home has operable CO detector(s).

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

The use of an unvented combustion space heater requires deferral.

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

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

**Concur with WPN11-6**

| ☑ | Vented space heaters will be treated the same as warm air furnaces |

**Alternative Guidance**

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

If the space heater is the primary heat source, all service and replacements will be completed with HEARTWAP and utility funding. If a secondary heat source or no alternative funds are available DOE funds can be used. If a replacement is needed, the system should be cost tested with an approved DOE Audit to determine if SIR is greater than 1, then completed as an efficiency measure. If not and a replacement is needed for health and safety reasons DOE Health & Safety funds can be used.

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

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

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

If costs to repair or replace exceed the available resources, the unit will be deferred.

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

**Spray Polyurethane Foam (SPF)**

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

**Concur with WPN11-6**

| ☑ | Use EPA recommendations (available online at http://www.epa.gov/energy/guidelines/spray_polyurethane_foam.html), when working within the conditioned space or when SPF foams become evident within the conditioned space. When working outside the building envelope, isolate the area where foam will be applied, take precautions so that flames will not transfer to inside conditioned space, and exhaust flames outside the home. |

**Alternative Guidance**

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

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

| N/A |

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

Check for penetrations in the building envelope. Crews should use sensory inspection inside the home for flames during foam application. If the application of spray polyurethane foam cannot be used safely in accordance with EPA regulations, an alternative insulating/sealing protocol must be used.
### Standards for Referral

**Deferral will occur when precautionary measures cannot be taken to assure the safety of clients or workers.**

**Referral will be made when} outside the resources of the DOE WAP.**

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

Subgrantee energy auditors will be trained on the health and safety issues concerning SPF. Installer will be trained on the use of various types of foam products, including MSDS sheets and required Personal Protective Equipment. DHCD is working with the MA Department of Energy Resources (DOER) on a SPI foam Safety Course that will include presentations or information from MA Department of Public Health, the Department of Public Safety, the Toxics Use Reduction Institute, the Massachusetts Coalition on Occupational Safety and Health, the Spray Polyurethane Foam Alliance (SPFA), the American Chemistry Council, the U.S. Environmental Protection Agency, and the state Board of Buildings, Regulation and Standards.

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

**Disposal Procedures:** Provide disposal procedures or indicate where these procedures can be found in the Plan or Field Standards. Disposal of spray foam containers shall be in accordance with manufacturer’s instructions and state and local requirements. Waste foam will be disposed of consistent with state and local requirements.

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### Ventilation

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

<table>
<thead>
<tr>
<th>Concurrence with WPN11-6</th>
<th>ASHRAE 62.2-2013 is required to be met to the fullest extent possible, when performing weatherization activity. Existing fans and blower systems should be updated if not adequate.</th>
</tr>
</thead>
</table>

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

**DOE WAP funds can be used for compliance.**

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

If existing problems in the home beyond the scope of DOE WAP prevent ASHRAE 62.2-2013 compliance, the unit will be deferred.

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

The Subgrantee auditor must conduct ASHRAE 62.2 evaluation to determine ventilation requirements using ASHRAE tables found in the standard or an approved spreadsheet or web-based tool. Post weatherization products can be estimated to calculate an estimate of the final required ventilation rate but must be adjusted to actual requirements after the need has been determined. ASHRAE 62.2 is a minimum standard and additional ventilation may be necessary and is allowed to address higher concentrations of humidity or pollutants.

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

Deferral will occur when DOE resources are inadequate to address home ventilation requirements as determined by ASHRAE standards and other indoor air quality issues.

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

Unit will be referred to local available home rehabilitation or public health programs.

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

ASHRAE 62.2 training will be provided by WAP energy auditors and inspectors and DHCD Field Staff on the requirements of ASHRAE 62.2-2013 including the basic requirements of the standard, determining minimum ventilation requirements, measuring existing and installed equipment, specifying ventilation systems, verifying installation effectiveness. DHCD will continue training WAP Technical Staff on the requirements of ASHRAE 62.2-2013.

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

Clients will be provided information about the ventilation system operation and use consistent with the requirements of the ASHRAE 62.2-2010 standard.

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

Material waste generated as a result of ventilation device installation will be disposed of in compliance with state and local requirements.

**ASHRAE 62.2 Compliance:** Provide a narrative describing implementation of ASHRAE 62.2, which will be required during the 2012 program year. Grantee must provide justification if making changes to ASHRAE 62.2 specific to their housing stock and local considerations.

Effective the FY 2014 DOE WAP, all units submitted to DHCD for production credit using DOE funds must have documented compliance with ASHRAE Standard 62.2-2013 Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings. A copy of that standard is available for purchase at the ASHRAE website here: [https://www.ashrae.org/](https://www.ashrae.org/). The Standard provides the for minimum building ventilation requirements and replaces previously determined and referenced Building Tightness Limits (BTL), Minimum Ventilation Guidelines (MVG), the previous ASHRAE 62.2-2010 and any other guidelines that delineate an
acceptable minimum building leakage rate or air changes in the DOE WAP.

This guidance is to provide basic requirements for documentation that the provisions of the Standard have been complied with on a unit that is being reported using DOE WAP funds. It will not provide all the formulas and calculations and variables that are part of the Standard. This guidance will provide links to resources for additional information, training resources and compliance tools. DHCD has provided all WAP technical staff with training on the requirements for compliance with ASHRAE 62.2 Standard through the Greens Jobs Academy (GJA), the DOE-funded WAP Training Center. Additional training is available from many different entities. DHCD will also provide ongoing training as needed. DOE WAP Training and Technical Assistance (T&TA) funds can be used to pay for expenses related to additional ASHRAE 62.2-2013 training.

To document compliance of ASHRAE 62.2-2013 Residential Ventilation Standard, the DOE WAP Client file must include at a minimum, a documentation of the calculations used to determine the required mechanical ventilation rate and a completed checklist that itemizes and documents compliance with other requirements of the Standard.

Links to calculation resources and sample compliance checklists are included as part of this guidance.

The basic requirements of ASHRAE 62.2-2013 include:

"A mechanical exhaust system, supply system, or combination thereof shall be installed for each dwelling unit to provide whole building ventilation with outdoor air each hour at no less than the rate specified in Table 4.1a(below) or calculated using Equation 4.1a:"

\[
Q_{ex} = 0.03A_{floor} + 7.5(N_{br} + 1)
\]

Where

\(Q_{ex}\) = total required ventilation rate, cfm
\(A_{floor}\) = floor area of residence
\(N_{br}\) = number of bedrooms (not less than 1)

Additional Local Ventilation requirements:

- All full bathrooms must have a 50 CFM on-demand or 20 CFM continuous fan
- All kitchens must have either a 100 CFM on-demand fan which must be a vented range hood if the flow rate is less than 5 room air changes per hour (ACH) or a fan which delivers 5 ACH.
- If the kitchen or bath does not have the amount of ventilation stated above it must be provided or Normative Appendix A – Existing Buildings of ASHRAE 62.2-2013 must be used for sizing whole house ventilation.

Other requirements include:

- Attached garages must be adequately sealed from living space to prevent migration of contaminants
- Clothes dryers must be vented to exterior (except condensing dryers must be piped to a drain)
- Installed fans must comply with some rating requirements in accordance with the airflow and sound ratings procedures of the Home Ventilating Institute (HVI 915)
  - Whole house or continuous ventilation fans: maximum 1.0 sone
  - Intermittent local exhaust fans: maximum 3 sone
    - Existing fans used to satisfy ventilation requirements are not subject to some requirements
- Air flow of whole house fan must be verified by actual measurement
- House must be prescriptively sealed between living space and attic and crawlspace.
- Adequate combustion air must be provided for combustion appliances
  - Where atmospheric vented appliances are inside occupied space, additional requirements if two largest exhaust fans have flow rate > 15cfm/100 square feet of floor area.
- Carbon Monoxide detection or warning equipment must be installed in homes with combustion appliances
- The ventilation system design for the building must be documented and system use information provided to the occupants.
- Readily accessible controls must be provided to the occupant and must be appropriately labeled
- Provides sizing procedures of ventilation devices and ducting
- Outlines equipment parameters
- Requires that the installed system be tested and verified

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Table 4.1a from ASHRAE 62.2-2013

<table>
<thead>
<tr>
<th>Floor Area (ft²)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>501-1000</td>
<td>30</td>
<td>38</td>
<td>45</td>
<td>53</td>
<td>6</td>
</tr>
<tr>
<td>1001-1500</td>
<td>60</td>
<td>68</td>
<td>75</td>
<td>83</td>
<td>90</td>
</tr>
<tr>
<td>1501-2000</td>
<td>75</td>
<td>83</td>
<td>90</td>
<td>98</td>
<td>105</td>
</tr>
<tr>
<td>2001-2500</td>
<td>90</td>
<td>98</td>
<td>105</td>
<td>113</td>
<td>120</td>
</tr>
<tr>
<td>2501-3000</td>
<td>105</td>
<td>113</td>
<td>120</td>
<td>128</td>
<td>135</td>
</tr>
<tr>
<td>3001-3500</td>
<td>120</td>
<td>128</td>
<td>135</td>
<td>143</td>
<td>150</td>
</tr>
<tr>
<td>3501-4000</td>
<td>135</td>
<td>143</td>
<td>150</td>
<td>158</td>
<td>165</td>
</tr>
<tr>
<td>4001-4500</td>
<td>150</td>
<td>158</td>
<td>165</td>
<td>173</td>
<td>180</td>
</tr>
<tr>
<td>4501-5000</td>
<td>165</td>
<td>173</td>
<td>180</td>
<td>188</td>
<td>195</td>
</tr>
</tbody>
</table>

According to the Standard Section 4.1.2 Infiltration Credit: "If a blower door test has been done then a credit for estimated infiltration may be taken using the following procedure...."

Determine an Effective Annual Average Infiltration Rate (Q_{in}) using one of two approved methods; the ASTM or CGSB Procedures which are outlined in detail in the Standard. After series of complex calculations the formula becomes:

\[ Q_{in} = Q_{tot} - Q_{ref} \]

Where

- \( Q_{in} \) = required mechanical ventilation rate, cfm
- \( Q_{tot} \) = total required ventilation rate
- \( Q_{ref} \) = may be no greater than 2/3 \( Q_{in} \) : (see Normative Appendix A for exceptions for existing Buildings)

While the calculations to determine the \( Q_{in} \) outlined in the Standard are complex, available spreadsheets and web-based calculators incorporate the formulas simplifying the process of determining the "infiltration credit".

The WAP is dealing with only existing occupied homes. Many will not have whole house mechanical ventilation systems or the required kitchen or bath ventilation systems that satisfy the local ventilation requirements of the Standard, if there were no other options, WAP would be installing multiple ventilation devices in most homes. The Standard provides alternative compliance path, the Normative Appendix A — Existing Buildings.

The Appendix A - Existing Buildings allows the calculation of the ventilation deficits from each of the required areas (whole house, bathroom(s) and kitchen) as well as provides an additional infiltration credit, ... “If the airtightness of the building envelope has been measured, the required mechanical ventilation rate may be reduced as described in Section 4.1.2”.

The PowerPoint Presentation titled ASHRAE 62.2 for WAP on the WAP TAC website here: [http://weptac.org/WAP-Standardized-Curricula/ASHRAE-62222/](http://weptac.org/WAP-Standardized-Curricula/ASHRAE-62222/) (titled PPT_ASHRAE 62.2 for WAP) and the additional materials from that website provide information for understanding what is expected and required to ensure compliance. In addition, the presentation and workbook provided at the GIA Training provide a very thorough explanation on the use of the formula and the requirements of the Alternative Compliance Supplement. The files on the CD provided to training attendees also provide a number of useful resources. When using existing fan flow in the alternative compliance supplement, the existing flow rate must be verified by measurement. The infiltration credit within the alternative compliance supplement must be based on an accurate measurement consistent with ANSI/ASHRAE 136.

Calculation resources include:

Paul Raymer of Heyoka Solutions, LLC ([http://www.heyokasolutions.com/](http://www.heyokasolutions.com/)) offers comprehensive combination classroom and hands on training on ASHRAE 62.2 and his website offers an Excel based calculation tool. The worksheet tool must be
purchased from the website:

Rick Karg, of R.J. Karg Associates (http://www.karg.com/) a long time WAP trainer, has developed compliance calculators: a no-cost web-based tool (RED Calc Free) available at the Residential Energy Dynamics website (http://www.residentialenergydynamics.com/). The Zip Test Pro³ (http://www.karg.com/software.htm) is a comprehensive Building & Energy Diagnostics Software designed to be used with the Texas Instruments TI-89 Titanium calculator. The software can be purchased independently or as a complete package installed on the TI-89. ResVent 62.2, an App available for iPhone and iPad can be purchased ($20) from the App Store (no Android version available). ResVent currently does not have an update to provide 62.2-2013 but the update should be available in the near future.

The Energy Conservatory, (http://www.energyconservatory.com/) manufacturer of the Minneapolis Blower Door has a module in the TECTITE software (http://www.energyconservatory.com/software) that provides ASHRAE 62.2-2010 compliance calculations.

All website resources along with the WAP TAC Training Curriculum listed above and the Data Files on the GIA CD offer considerable information and tools to assist in understanding the requirements of ASHRAE 62.2-2013 and what is necessary for compliance. The compliance tools will determine the whole building continuous ventilation required according to the Standard. Continuous operation of the whole house fan is the preferred method because it is more efficient from an energy use perspective and the lower CFM will reduce the possibility of house depressurization (and possibility of combustion appliance back-drafting). The Standard does allow intermittent operation of the fan provided that the CFM requirement is fully satisfied every four hours. The calculations will provide necessary information to determine if the house needs additional ventilation, what size device is needed and the run time necessary (continuous or intermittent and if intermittent, how long).

A print-out from any of these spreadsheets or a manual calculation in the client file will satisfy the requirement to document the proper sizing, flow and rate of an installed mechanical ventilation system.

Once the required ventilation rate has been determined, mechanical ventilation must be installed that can deliver the required rate and be verified through measurement. That requires the installation of a mechanical ventilation system with appropriate controls and a well designed and installed duct system that terminates outside the building. The system must have controls that are readily accessible to the occupants. New mechanical ventilation devices that are continuously operated or used for whole house ventilation must be rated at 1 sone or less; intermittent devices for spot ventilation must be 3 sones or less. If existing fans are used as part of the required mechanical ventilation, their flow performance must be measured but they are not subject to sone ratings.

There are several design systems that can be used to provide the necessary mechanical ventilation including exhaust only systems, supply only systems, balanced systems, (supply and exhaust) heat recovery ventilator (HRV) Energy Recovery Ventilator (ERV) and Supply to an existing air handler system. Each has their own advantages and disadvantages as well as significant variations in cost to install, operate and maintain. Which design is chosen depends on the individual circumstances of the building and ventilation needs. In many cases the simplest system with the lowest cost will be a high performance, well controlled exhaust system using a bath fan for required spot ventilation and whole house ventilation or as exhaust only in conjunction with a passive supply vent. The cost of an HRV or ERV and necessary ductwork and wiring may be cost prohibitive in the program. A supply only system unless connected directly to ductwork is typically not appropriate in cold weather climates.

The most common installation in the WAP in Massachusetts will likely be some variation of an exhaust only system (possibly with a passive intake supply), either a surface mounted ducted fan or an inline fan with single or multiple exhaust points. The location of installation and design decisions must be based on the specific needs of the home, accessible space for installations, ability to vent to the outside and cost of the installation.

When a new ventilation device is installed it must be an efficient, high quality unit and have a control system that is designed and rated for ASHRAE 62.2-2013 compliance (sone rating, variable speed capability, low electrical usage). Many new fans have timing and flow rate controls built into the unit, simplifying wiring requirements and use 6" exhaust ductwork to reduce the
flow restrictions the can be problematic with 4" duct systems.

The installation of the mechanical ventilation must be consistent with the standards outlined in Section 6: Ventilation of the DOE/NREL Standard Work Specifications (SWS) Tool. (https://sws.nrel.gov/spec/6). The installation must comply with Massachusetts Building Code requirements.

The proper ducting of the exhaust fan to the outside is necessary to ensure that the device delivers the required performance. The ASHRAE Standard provides specification for prescriptive duct sizing.

**ASHRAE 62.2-2010  TABLE 5.3  Prescriptive Duct Sizing**

<table>
<thead>
<tr>
<th>Duct Type</th>
<th>Flex Duct</th>
<th>Smooth Hard Duct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fan Rating in CFM</td>
<td>50</td>
<td>80</td>
</tr>
<tr>
<td>Diameter</td>
<td>Maximum Duct Length in feet</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>3&quot;</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>4&quot;</td>
<td>56'</td>
<td>4'</td>
</tr>
<tr>
<td>5&quot;</td>
<td>NL</td>
<td>81'</td>
</tr>
<tr>
<td>6&quot;</td>
<td>NL</td>
<td>NL</td>
</tr>
<tr>
<td>7&quot;</td>
<td>NL</td>
<td>NL</td>
</tr>
</tbody>
</table>

This Table assumes no elbows. Deduct 15 ft of allowable duct length for each elbow. X= not allowed, any length of duct this size will exceed rated pressure drop NL= no limit on duct length of this size.For duct runs longer than 125 feet consult the full Table 5.3 in the ASHRAE 62.2 Standard

- Determine the duct material that will be used for the installation (smooth hard preferred).
- Identify the fan rating(s) used to provide whole-building and local ventilation exhaust (cfm).
- Select the column that corresponds to the required fan rating for the system. If the required fan rating (airflow cfm) is not shown on the chart and falls between columns, use the next highest fan rating column for determining the duct length and diameter. The Table is not applicable to fan ratings greater than 125 cfm.
- Select the preferred duct diameter to determine the corresponding maximum allowable duct length from the fan rating column for each exhaust fan.
- If the allowable length of (straight) duct is not sufficient for the design, select the next higher diameter of duct, and reca lculate the allowance. An "NL" in the table indicates that any length of duct for that diameter is in compliance. Any elbows in the duct system are the equivalent of 15 feet of straight duct.

Provided that it is approved by DOE, DHCD will allow the following exception to the ASHRAE 62.2-2013 Standard:

- If the whole-building minimum ventilation requirement is 15 CFM or less, the energy auditor may make an educated decision on whether or not to install a whole house ventilation system. The reasons for not installing a ventilation system when the minimum CFM requirement is between 1 and 15 shall be documented in the client file. This decision shall be based on all of the following criteria:
  - A moisture assessment of the dwelling,
  - An indoor air quality assessment of the dwelling,
  - The health of the occupants, and
  - Other factors deemed significant by the energy auditor.

If the whole building minimum ventilation requirement is greater than 15 CFM, a system supplying the minimum ventilation airflow must be installed.

Subgrantees must also determine an appropriate work sequence to minimize the requirement of additional visits to the home or determining that mechanical ventilation is required after all work is completed resulting in the need to install a fan after the attic has been air sealed and insulated. A potential work sequence could include: The initial audit includes information about existing fans, (including measured flow) and determine the maximum ventilation requirements under "as is" conditions including the existing infiltration rate. The auditor can then determine an estimated post weatherization infiltration rate. The
mechanical ventilation system is installed prior to insulation being added and sized based on the estimated needs of the post weatherized home. After all weatherization work is completed and the actual final CFM is determined the mechanical ventilation requirement is calculated and the fan set to provide that requirement. Verification of the flow rate is documented. Combustion safety testing must also be completed with the fan operating to ensure proper operation and venting of combustion appliances.

Measurement of the flow rate of existing fans and verification of the flow rate of installed fans is a required element of the Standard. The measurement must be completed with instrumentation that will provide an accurate CFM flow of the fan. Several commercially available products are available to document this requirement including The Energy Conservatory's (TEC) Exhaust Fan Flow Meter and Duct testing equipment manufactured by TEC and Retrotec, used in conjunction with a digital manometer.

Customer education about the need and purpose of ventilation and specific information about the system installed are part of the requirements of the Standard. The final steps must include providing the occupants:

- Information on ventilation systems installed
- Instructions on proper operation and maintenance of the ventilation system
- Information on controls (which shall be labeled as to their function)

To document compliance with ASHRAE 62.2-2013 Residential Ventilation Standard, the DOE WAP Client file must include at a minimum, a documentation of the calculations used to determine the required mechanical ventilation rate and a completed checklist that itemizes and documents compliance with all requirements of the Standard. A variation of the sample checklist provided by the WAP TAC website follows.

<table>
<thead>
<tr>
<th>Window and Door Replacement, Window Guards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comply with WPN1-6? Yes</td>
</tr>
<tr>
<td>Alternative Guidance</td>
</tr>
<tr>
<td>Window and Door Replacement, repair, or installation is not an allowable health and safety cost but may be allowed as an incidental repair or an efficiency measure if cost justified</td>
</tr>
</tbody>
</table>

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

DOE WAP Health and Safety funds cannot be used unless extenuating circumstances exist as related to other allowable health and safety measures. Prior DHCD approval is required.

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

Window and door work beyond the scope of the WAP will be referred to locally available home rehabilitation programs.

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

Windows and door replacement cannot be installed with DOE WAP Health & Safety funds unless extenuating circumstances exist related to another allowable health and safety measure. All other replacement, repair, and installation must meet SIR guidelines based on a DOE approved audit.

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

Deferral will be necessary if the required work is beyond the scope of the WAP and available utility funding.

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

Units will be referred to local rehabilitation programs.

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

WAP auditors and inspectors will be made aware of the guidance.

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

Clients will be provided required notification if Lead Paint RRP or LSW apply.

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

Debris generated will be disposed of consistent with state and local requirements.

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ASHRAE 62.2–2013 Residential Ventilation Standard

Auditor/Inspector Check List

All boxes must be checked or marked N/A.

☐ The dwelling unit is a single family or multifamily residential building of three stories or less above grade, including manufactured and modular housing.

☐ For a continuously operating system, calculate the whole building ventilation rate.  
\[ Q_{\text{fm}} = 0.01A_{\text{floor}} + 7.5 \times (N_{\text{ex}} + 1) \]:   
   Table 4.1a:   
   Spreadsheet or Software:   
   Verification included   

☐ The planned ventilation strategy includes: (check applicable circle)  
   o a mechanical exhaust system  
   o a mechanical supply system  
   o a combination thereof; a balanced system with supply and exhaust air (e.g. HRV or ERV)

☐ All bathrooms have fans rated at 50 CFM on-demand or 20 CFM continuous.

☐ The kitchen has a fan rated at 100 CFM on-demand or SACH based on kitchen volume. If the kitchen fan delivers less than SACH, it is a vented range hood.

☐ All whole building fans installed are rated 1 sone or less.

☐ All local occupant controlled fans installed are rated at three sone or less.

☐ All clothes dryers are vented to exterior.

☐ Adjoining garage(s) are sufficiently air sealed from the living space to prevent migration of contaminants.

☐ The building is adequately air-sealed between living space and attic and crawlspace.

☐ The whole building fan providing IAQ ventilation air operates automatically without requiring occupant intervention.

☐ If the fan providing the IAQ ventilation air is set to cycle on & off, the entire on/off cycle is completed within four hours.

☐ The delivered ventilation rate meets the formula outlined in the curriculum.

☐ All fan controls are readily accessible and properly labeled.

☐ Required Client Education Information and Materials has been provided.

☐ CO Alarms are installed as required.

Table 4.1a from ASHRAE 62.2-2013

<table>
<thead>
<tr>
<th>Ventilation Air Requirements, cfm</th>
<th>BEDROOMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor Area (ft²)</td>
<td>1</td>
</tr>
<tr>
<td>501-1000</td>
<td>30</td>
</tr>
<tr>
<td>1001-1500</td>
<td>60</td>
</tr>
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<td>1501-2000</td>
<td>75</td>
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<tr>
<td>2001-2500</td>
<td>90</td>
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<tr>
<td>2501-3000</td>
<td>105</td>
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<tr>
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<td>120</td>
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<tr>
<td>3501-4000</td>
<td>135</td>
</tr>
<tr>
<td>4001-4500</td>
<td>150</td>
</tr>
<tr>
<td>4501-5000</td>
<td>165</td>
</tr>
</tbody>
</table>
MASSACHUSETTS WEATHERIZATION ASSISTANCE PROGRAM
NOTICE OF DEFERRAL OF SERVICES

Agency _______________________________ Energy Auditor _______________________________

Client Name __________________________ Phone # _________________________________

Address __________________________________________________________________________

Date of Inspection _______________________

During an inspection by the above named Weatherization Subgrantee, the following Health and Safety problem(s) were noted:

__________________________________________________________________________________

__________________________________________________________________________________

__________________________________________________________________________________

The problem(s) listed above do not exclude your household from receiving the benefits of the Weatherization Program. When the above condition(s) are rectified, your household may still receive services, provided the household is still eligible and there is funding available.

_________ I (client initials) understand that the above condition(s) prevent my home from being weatherized at this time.

_________ It is my (client initials) responsibility to contact the agency when the problem has been corrected.

_________ Subgrantee will assist and contact alternative funding sources for a referral.

If a request for alternative funding sources is checked, list the possible sources and contact persons:

Source _______________ Contact Person _______________ Date _______________

Source _______________ Contact Person _______________ Date _______________

I (the client) clearly understand that the condition(s) outlined above prevent my home from being weatherized at this time. I also understand the responsibilities of all parties involved, including my responsibilities. By signing this document, I understand that I am not giving up my rights to my benefits provided by the Weatherization Program. It is in the best interests of all parties involved that weatherization assistance not take place until the problem(s) are resolved.

_________ (Client Signature) _______________ (Date) _______________

_________ (Agency Representative Signature) _______________ (Date) _______________

Copy to DHCD/ECU
Massachusetts Weatherization Assistance Program
Mold Inspection and Release Form

Mold can be a problem in any home, but especially in those where an excessive amount of moisture or humidity is present. In addition, if there are several people, pets, plants, or fish aquariums present, conditions exist for mold growth. (Agency) may not provide direct mitigation of existing mold problems. An assessment of your home included a visual check for mold.

During (Agency) energy audit on (DATE: ________), our auditor/estimator identified mold growth in the following room(s):

☐ Living/Bedroom Areas  ☐ Bathroom Areas
☐ Laundry Areas  ☐ Combustion Areas
☐ Crawlspace Areas  ☐ Attic Areas
☐ Basement Areas  ☐ Other Location

Other Location: __________________________

☐ Moldy or musty odors are an indicator that there may be hidden mold growth. Moldy or Musty Odors: ☐ Are present. ☐ Are not present.

The US Department of Energy generally does not allow Weatherization agencies to mitigate mold problems, but some actions associated with a cost-effective energy saving measure may be taken to reduce moisture problems. The (Agency) will take the following measures that may help to mitigate existing moisture problems:

☐

☐

☐

☐

Please check off and then sign one of either the Notification or Disclaimer below:

☐ Moisture Disclaimer: I have received information concerning moisture and mold conditions in my home, including the EPA booklet "A Brief Guide to Mold, Moisture, and Your Home" http://www.epa.gov/iaq/molds/images/moldguide.pdf (if mold conditions have been identified) and I will take steps to reduce excessive moisture. I agree to hold (Weatherization Agency) harmless for any future moisture or mold problems that are not associated with the weatherization work. (Maintain this copy in the client file.)

Weatherization Client __________________________ Date ____________
Agency Energy Auditor/Estimator __________________________ Date ____________

☐ Deferral Disclaimer: Advise the client that the (Agency) cannot cost effectively resolve the identified mold or moisture. Document who will be responsible for the corrective action. Explain and list the conditions that justify the agency to “DEFER” the work and have the client sign and date in the space below indicating agreement to planned action. Maintain this copy in the client file.

Weatherization Client __________________________ Date ____________
Agency Auditor/Estimator __________________________ Date ____________
March 5, 2015

Kristin L. Johnson, MFS
Grants Management Specialist
U.S. Department of Energy
Golden Field Office

Ms. Johnson,

This is in regard to the request for confirmation of the use of Department of Energy Weatherization Assistance Program (DOE WAP) funds from Massachusetts DOE WAP Formula Grant DE-EE0006160. As the Program Manager for the WAP Grantee, the Massachusetts Department of Housing and Community Development (DHCD) I confirm that:

1. The costs contained in the Other Direct cost category in the FY 2015 Budget are not also being charged to any other Direct or Indirect Cost Category.

2. All costs proposed in the FY 2015 Budget are being used only in support of the DOE WAP and all costs will be segregated consistent with grant requirements.

3. The Cost Allocation Plan submitted for Indirect Costs will be, followed during the grant period.

Please let me know if you require any additional information.

Thank-you,

David Fuller,
Manager Energy Conservation Unit
DHCD/DCS

The Commonwealth of Massachusetts
Office of the Comptroller
One Ashburton Place, Room 901
Boston, Massachusetts 02108

To: Chief Fiscal Officers
From: Martin J. Benison, Comptroller
Date: June 23, 2014
Subject: Approved FY2015 Fringe Benefit and Payroll Tax Rates

Executive Summary

The purpose of this memo is to notify departments of the approved fringe benefit and payroll tax rates for FY2015. The U.S. Department of Health and Human Services has approved the fringe rate of 27.27% and a payroll tax rate of 1.89%.

Comptroller Memo FY2016-01, dated February 3, 2014, advised departments that a fringe benefit rate of 27.27% and a payroll tax rate of 1.89% had been submitted to the U.S. Department of Health and Human Services for approval. The early notice was to assist departments in planning for FY2015. The U.S. Department of Health and Human Services has approved the fringe rate of 27.27% and a payroll tax rate of 1.89%.

These rates have been calculated with the concurrence of the Secretary of the Executive Office of Administration and Finance and the U.S. Department of Health and Human Services. Please see Administrative Bulletin ANF 95.

The following components comprise the approved FY2015 fringe benefit rate:

<table>
<thead>
<tr>
<th>Component</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Insurance</td>
<td>18.6%</td>
</tr>
<tr>
<td>Retirement</td>
<td>10.2%</td>
</tr>
<tr>
<td>Terminal Leave</td>
<td>0.92%</td>
</tr>
<tr>
<td>Total</td>
<td>27.27%</td>
</tr>
</tbody>
</table>

This rate is applicable for both the state "ED" rate used to assess fringe benefit costs on all state funds, other than the General Fund, pursuant to M.G.L. Chapter 25, § 6D, and the "EB" rate used to assess fringe benefit costs on federally supported programs pursuant to M.G.L. Chapter 25, §6B. This rate is applied to salaries extended under grant codes A01, A07, A08, and A11 for the determination of fringe benefit costs.

Because the costs of terminal leave salaries are allocated through the fringe benefit rate, A12, Sick Leave-Buy Back, A13, Vacation-In-Lieu, and A21, Payments for Deseased Employees object codes are no longer considered as direct costs on federally supported programs whether incurred on Federal grants, contracts or state appropriations subject to Federal reimbursement.

The following components comprise the approved FY2015 payroll tax rate:

<table>
<thead>
<tr>
<th>Component</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>0.26%</td>
</tr>
<tr>
<td>Universal Health</td>
<td>0.03%</td>
</tr>
<tr>
<td>Medicare Tax</td>
<td>1.25%</td>
</tr>
</tbody>
</table>

This rate is applicable to all account types pursuant to M.G.L. Chapter 151A, sections 14C and 14D for unemployment and universal health insurance, respectively, and M.G.L. Chapter 75A, sections 5, 7 and 9 for Medicare insurance. The rate is applied to regular and contract employees and is assessed to all AA and CC object codes with the exception of A28, A60, CC6, C60, C76, C83, and C85.

All fringe benefit and payroll tax assessments determined by these rates will be charged to object code ID's at the close of each accounting period.

Please note that certain expenditures made under Interdepartmental Service Agreements (ISA) may trigger an assessment of fringe benefit and payroll tax costs to the ISA child account and both the Buyer and Seller Departments are responsible for ensuring that these amounts are adequately funded in the ISA and identified in the ISA budget.

Questions regarding this memo's rates may be directed to Taneka Simmons at (617) 973-2909.

Enc. FY2015 Fringe Agreement.pdf

Fax: MMAARS Liaisons
Payroll Directors
General Counsels
Internal Distribution

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☐ Yes
☐ No

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The DHCD Energy Conservation Unit will hold a preliminary planning meeting to discuss the development of the Stan Plan/Grant Application for the FY 2015 Department of Energy (DOE) Weatherization Assistance Program (WAP).

The meeting will be held:

Friday, January 30, 2015, 10:30 AM
South Middlesex Opportunity Council (SMOC)
Board Room
7 Bishop Street, Framingham, MA

DOE released the FY 2105 DOE WAP Grant Guidance and Grantee Allocations on Friday January 16, 2015. The proposed FY 2015 allocation for Massachusetts is $5,426,620, an increase of approximately $300,000 from FY 2014. The FY 2015 will be administered as a single contractual program year from April 1, 2015-March 31, 2016.

DHCD is proposing to administer the WAP with the existing group of Subgrantees and Subcontract agencies using the current allocation formula. DHCD will initiate a discussion on an appropriate average cost per unit (ACPU) for Program Operations and an ACPU for Health and Safety. The FY 2015 DOE maximum allowable ACPU for Program Operations is $7,105. DHCD expects that the Massachusetts average will be lower. The ACPU for Health and Safety cannot exceed 15% of the ACPU for Program Operations unless a Grantee can provide justification based on the past few grant years expenditures. Statewide, the actual average cost for Health and Safety for the 2013-2014 is below $300; the budgeted average is $583. DHCD will budget administrative expenses on a per unit basis to ensure that Subgrantees receive no less than 5% of the total available funding consistent with DOE CFR Part 440.18 (e). The FY 2015 Allocation provides adequate Training and Technical Assistance funds so that DHCD will be able to provide funds both to WAP Subgrantees as well as the assist the Green Jobs Academy in providing the WAP related staff and contractor training required in DOE Weatherization Program Notice 15-4, Quality Work Plan Requirement Update.

Each year for the past few years, DOE has continued to increase the specific information required by Grantees in the State Plan, increased the scrutiny and review of the Plan by multiple levels of staff within DOE, and increased the technical scope of the program. To provide Subgrantees with information about the expectations, I have
included a link to the Grant Guidance and Application Instructions. Since combined they are lengthy documents and I expect no one will read them, here are a couple of the excerpted highlights directly from the Application Instructions:

Section V.5.3 Final Inspection:

Grantees must ensure that all Subgrantee final inspections for completions reported in Program Year 2015, and beyond, are performed by certified Quality Control Inspectors as outlined in WPN-15-4 and as stated in the DOE approved written Grantee Quality Control Inspection Policy.

- Grantees will provide an explanation of the process that will be used to ensure that there are a sufficient number of certified Quality Control Inspectors in place to comply with the requirements outlined in WPN 15-4 Section 3.
- Grantees will provide a copy of relevant policies and procedures that will govern the quality control inspection process in accordance with WPN 15-4 Section 3 and outline disciplinary actions for inadequate inspection practices. This should include a description of how the inspector is related to the work being done on the home (i.e. did they also audit the home or are they an independent third-party?) as well as the percentage of homes that will be included in the Grantee monitoring process.
- Grantees will provide copies of the inspection forms that will be used by grantee monitors to ensure that work is completed in accordance with the work quality requirements outlined in WPN 15-4 Section 1.

Section V.8.3 Monitoring Activities:

Grantees must ensure that all Subgrantee final inspections as well as Grantee technical monitoring for completions reported in Program Year 2015, and beyond, are performed by certified Quality Control Inspectors as outlined in WPN 15-4 Section 3 and as stated in the DOE approved written Grantee Quality Control Inspection Policy.

Section V.5.1 Technical Guides and Materials

Grantees must provide title and issue date for the documents used by Grantee and the Subgrantees to determine work to be done. Grantee must ensure that, for the entire Program Year 2015, all technical guides and materials meet the specifications, objectives and desired outcomes outlined in the Standard Work Specifications for Home Energy Upgrades (SWS) (refer to WPN 15-4, Section 1, for additional details). These documents may include field guides, program updates, procedures manuals, standards documents, etc.

- Grantees will provide an electronic link to, or an electronic copy of, their current field guides and standards that have been reviewed and approved by DOE for alignment with the SWS, as outlined in WPN 15-4.
  - If the Grantee anticipates beginning the Program Year before finalizing their field guides and standards, a timeline and plan for completing these documents must be approved by the DOE Project Officer prior to submission of the Application package. This timeline must be included in the Application package
- Grantees will provide documentation of the process for distribution of the field guides and standards to subgrantee agencies and direct hire contractors. (i.e. how will the grantee ensure that these materials are received by the appropriate parties?)

Provide a statement that all Subgrantee agreements and vendor contracts, active in Program year 2015 and beyond, will contain language which clearly documents the SWS specifications for work quality outlined in WPN 15-4, Section 2.
Grantee must include a statement declaring all work is being performed in accordance to the DOE-approved energy audit procedures and 10 CFR 440 Appendix A.

- Grantees must provide language to be included in Subgrantee contracts that outlines the expectations for work quality and instructs the Subgrantee to include these expectations in any contracts entered into with contractors and vendors.

- Grantees must provide a description of the mechanism that will be used to confirm that these expectations are understood and agreed to by any individual or organization performing work with WAP funds. (i.e. will the Subgrantee provide a signature on the contract documents as verification?)

In addition to discussing the specifics of the FY 2015 State Plan, DHCD will discuss and address issues around the new WAP Priority Measures Lists released in WAP-IM 2015-001, Weatherization Assistant, (NEAT and MHEA), ASHRAE 62.2-2013 compliance, Incidental Repairs using DOE WAP funds, QCI Training and certification process, WAP contractor training, status of the tablet-based data collection format, monthly reporting and BWR issues, Client Outreach and Priority requirements in DOE, and DOE WAP unit production and expenditures through the program year.

We look forward any and all input on all of the issues. Please contact DHCD WAP staff if you have any questions, comments or want to add any items to the discussion.
INFORMATION MEMORANDUM
WAP-IM-2015-005

TO: WAP and HEARTWAP Subgrantee Executive Directors
    WAP and HEARTWAP Subgrantee Energy Directors

FROM: David Fuller, Manager, Energy Conservation Unit
      DHCD/DCS

SUBJECT: NOTICE OF PUBLIC HEARING FOR THE FY 2015 U.S. DOE
         WEATHERIZATION ASSISTANCE PROGRAM

DATE: February 4, 2015

The Department of Housing and Community Development/Division of Community Services will convene a Formal Public Hearing to receive public comment on the proposed FY 2015 U.S. Department of Energy/Weatherization Assistance Program (DOE/WAP) State Plan. All interested parties are encouraged to attend and offer public testimony.

The details of the Public Hearing are as follows:

DATE: February 20, 2015
TIME: 10:00 A.M.
LOCATION: 100 Cambridge Street
           2nd Floor, Conference Room A
           Boston, Massachusetts 02114

Written comments will be accepted through Friday, March 6, 2015 and should be addressed to:

David Fuller, Manager, Energy Conservation Unit
Department of Housing and Community Development
Division of Community Services
100 Cambridge Street, Suite 300
Boston, MA 02114

Details on recommended changes to the FY 2015 WAP to follow in a separate memo.
INFORMATION MEMORANDUM
WAP-IM-2015-007

TO: WAP and HEARTWAP Subgrantee Executive Directors
    WAP and HEARTWAP Subgrantee Energy Directors

FROM: David Fuller, Manager, Energy Conservation Unit
      DHCD/DCS

SUBJECT: FY 2015 DOE WAP STATE PLAN

DATE: February 19, 2015

Subgrantees have previously been issued notice of the DOE WAP Public Hearing scheduled for Friday February 20, 2015 at 10:00 in the 2nd Floor Conference Room A, 100 Cambridge Street, Boston MA 02114. This memorandum serves to provide information and a summary about the structure and content of the FY 2015 State Plan that DHCD will propose at the hearing. We encourage your attendance and testimony. Written comments will be accepted through Friday March 6, 2015.

DHCD received notice of the proposed FY 2015 DOE WAP grant award funded at $5,426,620. DHCD is proposing to use the existing group of WAP Subgrantees and subcontract agencies to administer the grant and the allocation will be based on the existing funding formula.

Included with this memorandum is a draft spreadsheet that outlines the proposed Subgrantee allocations and unit production goals. DHCD is proposing an average cost per unit (ACPU) of $4,700 in DOE Program Operations, a $625 ACPU for Health and Safety, $14,000 per agency in Training & Technical Assistance (T&TA) funds. Administrative funds will be awarded on a per unit basis to ensure that Subgrantees receive no less than 5% of the available funds. This funding scenario results in $370 per unit for admin. DHCD is proposing to provide SMOA an additional $200,000 in T&TA for the Green Jobs Academy training center to provide ongoing Tier 1 training for WAP technical staff members and contractors working in the program. DHCD plans to continue the $35,000 Leveraging Grant to Action Inc. Liability Insurance will be funded at $8,000 per Subgrantee and Financial Audit at $10 per unit. All of this information is subject to change.

DHCD is proposing to maintain the maximum allowable costs of all installed measures at $10,000 (energy conservation, Incidental Repairs and Health and Safety). Included in the total; maximum allowable Incidental Repairs costs of $2,500 and maximum of allowable Health and Safety costs of $2,500.
The most significant change in the operation of the DOE WAP during the FY 2015 is the implementation of DOE’s Quality Work Plan Requirements. The FY 2015 Grant Guidance requires that Grantees outline their plan to “ensure that all Subgrantee final inspections for completions reported in Program Year 2015, and beyond are performed by certified Quality Control Inspectors as outlined in WPN 15-4 and as stated in the DOE approved written Grantee Quality Control Inspection Policy.” Since many potentially good QC Inspectors candidates will not be fully certified by the time the initial FY 2015 units are ready for inspections, and some otherwise qualified individuals may have difficulties with the written component of the QCI certification exam, DHCD plans to request permission to authorize Subgrantee staff who have completed Tier 1 Quality Control Inspector training and have passed the field component of the certification exam but have not passed the written exam, be allowed to complete quality control inspections while DHCD provides additional training and assistance to help those staff members achieve certification. DHCD will likely be required to put a timeline on this proposal with.

DHCD will also permit certified QC Inspectors to complete final inspections on homes that he/she did the initial audit. These units will be subject to an increase in Grantee monitoring requirements.

The WAP Priority Measures Lists released in WAP-IM-2015-001 will continue to be in effect for the FY 2015. Subgrantees are reminded that a full DOE-approved audit must be completed for homes that do not fit the Priority Lists, measures are completed that are not part of the lists or Incidental Repair costs on a unit that exceed $1,500. The Massachusetts Weatherization Field Guide and the linked DOE/NREL Standard Work Specifications will be the primary technical guidance along with the requirements provided to weatherization contractors during the WAP Contractor Procurement, the requirements of the IECC 2012 and any other updates or guidance released by DHCD. DHCD is in process of updating the WAP Technical Manual and plans to issue the update early in the FY 2015 program year.

A draft of the FY 2015 State Plan will be posted on DHCD’s website. Please contact DHCD Weatherization staff if you have any questions.
DOE WEATHERIZATION ASSISTANCE PROGRAM
SUBGRANTEE ASSESSMENT PROCESS and PROCEDURES

ASSESSMENT PURPOSE

The Department of Housing and Community Development/Division of Community Services/ Energy Conservation Unit (DHCD/DCS/ECU), is the U.S. Department of Energy’s Weatherization Assistance Program (DOE WAP) Grantee in Massachusetts. As such, it is mandated to conduct an annual Program Assessment of all MA DOE WAP Subgrantees. The purpose of the Program Assessment is to complete a comprehensive review of the Subgrantees’ program operations which include the administration, management, technical, and fiscal components of their DOE WAP.

Most WAP Subgrantees also administer the Heating Emergency Assistance Retrofit Task Weatherization Assistance Program (HEARTWAP) which is Massachusetts’ heating system repair and replacement program and since HEARTWAP shares staff with the DOE WAP, examining the coordination of the WAP and HEARTWAP operations is an integral part of the review process.

ASSESSMENT PROCESS

The Program Assessment is generally a one-day visit, conducted by members of the ECU staff with experience in all facets of the DOE WAP and HEARTWAP. However, ECU prepares for the visit throughout the year with close contact and frequent technical monitoring of all Subgrantees. The fiscal component of the Assessment is conducted separately by the Division of Community Services’ Financial and Compliance Unit.

The Program Assessment begins well before the day of the visit. DHCD’s ongoing On-Site Monitoring Process is an integral part of the annual Subgrantee Assessment and enables DHCD to stay current about any program operation challenges, the quality of weatherization services and technical compliance with all programmatic requirements. Prior to the Program Assessment which is done on-site at the Subgrantee, ECU staff examines the year’s DHCD technical monitoring visit reports which include extensive on-site inspections of completed weatherization work and reviews the Subgrantee’s monthly reports for accuracy. Current expenditure and production levels are pulled from the reporting database to determine where the Subgrantee sits in relation to meeting all programmatic goals in the active program year. For the program year being assessed, the frequency of completed conservation measures is extracted from the reporting database to make certain that conservation priorities are maintained. In addition, the Subgrantee’s previous annual Program Assessment Report is reviewed so that those conducting the current Program Assessment are aware of old issues to recheck their resolution as needed. To ensure accuracy of reporting and appropriate expenditures, all Building Weatherization Reports (BWRs) submitted since the previous Program Assessment are also reviewed prior to visiting the agency.
The actual Program Assessment begins with an Entrance Conference at the Subgrantee office with relevant Subgrantee staff. The ECU Assessment team explains the parameters of the process and what will be required of the Subgrantee staff. The Assessment team shares the responsibility for various assessment tasks. The Conservation Program’s general administrative issues are reviewed in an interview with the Subgrantee’s Energy Program Manager. File review includes both client and contractor files. Client files are targeted for an extensive review of documentation including, but not limited to: signed and dated work permits, complete energy audits with required Health and Safety testing, signed and dated quality control visit reports, certified eligibility documentation, etc. Weatherization contractor files are examined to confirm that each has an active subcontract with the Subgrantee along with all required licenses, professional training certificates, mandated minimum insurance coverage, debarment statements, etc.

The results of the completed Program Assessment are compiled in a Final Report and mailed to the Subgrantee’s Executive Director in a format of Findings and Corrective Actions/Recommendations. The Subgrantee then has approximately three weeks to respond to the Findings and to institute the required Corrective Actions.

**SPECIFIC AREAS REVIEWED:**

A) **DOE WAP PROGRAM ADMINISTRATION**

- Review and report on the DOE WAP contract for service between the Lead Agency and its subcontract agencies (where relevant.)
- Review and report production and expenditures from the most recently completed grant year to ensure that the production goal was attained and grant funds and statistical data were accurately reported.
- Review and report production for the current grant period to ascertain the subgrantee’s adherence to their monthly production schedule.
- Review Training and Technical Assistance expenditures to determine that they were spent in an appropriate manner.
- Review and comment on any significant development or undertaking by the Subgrantee.
- Request that Subgrantee staff provide the following documents which help ensure that subgrantee staff have the necessary information to competently administer the WAP:
  - WAP Technical Manual
  - Massachusetts Weatherization Field Guide
  - Standard Work Specifications
  - HEARTWAP Program Scope of Services
  - WAP State Plan
  - ECU Information Memoranda
  - WAP and HEARTWAP On-Site Visit Reports
  - Subgrantee Pollution Occurrence Insurance Certificate
  - Any other relevant ECU Program Guidance

B) **STAFFING**

- Review the Subgrantee’s Conservation Program staff and staffing patterns.
• Identify the funding sources for those positions to determine that adequate staff resources are available for competent program operation.
• Request and identify agency staff technical, management or programmatic training needs.

C) **UTILITY COORDINATION/LEVERAGING**

• Review the Subgrantee’s most recent leveraging report.
• Request information on the agency’s gas and electric utility conservation programs, housing rehabilitation programs, and landlord, client, or contractor contributions.
• Evaluate the Subgrantee’s coordination of DOE funding with known available programs.
• Ensure that all available supplemental funding sources, i.e. funds from investor-owned public gas and electric utility companies, are being maximized for the ultimate benefit of low-income clients.

D) **CLIENT PRIORITY SYSTEM**

• Review the Subgrantee’s LIHEAP Client List ranked by demographic priority points to ensure Subgrantee compliance with its use as ECU’s Client Priority System tool—that is, the basis for selecting clients to receive DOE WAP services.
• Review the previous year’s WAP Final Report and the most recent monthly reports to determine percentage of clients served within prioritized client demographic categories.

E) **CLIENT FILE and BUILDING WEATHERIZATION REPORT (BWR) REVIEW**

• Using the BWRs printed from ECU’s reporting database, review BWRs for accurate and appropriate statistical and expenditure information. Compare the information on the BWR with information in the corresponding client file.
• Review a targeted selection of Client Files based on the BWR review. Determine that programmatic and technical concerns are properly addressed in the file. The review of the client file will include, but not be limited to determining the accuracy of the following:
  o LIHEAP Eligibility Documentation
  o Signed and Dated Work Permit
  o Properly Executed Tenant/Landlord Agreement
  o Accurate, Complete Energy Audit (with required Health and Safety testing)
  o Contractor Work Write-up/Purchase Order
  o Itemized Contractor Invoice
  o Lead RRP Notification (if applicable)
  o Signed and Dated Quality Control Visit Report (with required Health and Safety testing)
  o Building Weatherization Report (computer generated)
• Files not in compliance with program requirements will be cited and deficiencies noted in the Program Assessment report to the Subgrantee. Corrections must be completed by Subgrantees within 3 weeks following the date of the report and documented in the Subgrantee’s written response to the Program Assessment report.
F) CONTRACTOR MANAGEMENT

- Request information from the WAP Coordinator or Fiscal Officer regarding Program Operations payments made to all WAP Contractors since the last Program Assessment (or for the current grant period).
- Review the payments and determine the percentage of the overall expenditures to each contractor. Program requirements direct that no individual contractor receive more than 33% of the overall expenditures, unless a waiver is granted by ECU.

G) CLIENT EDUCATION

- Evaluate the Client Education component of the WAP Subgrantee. This will be based on an interview with the WAP Energy Auditors, printed materials available, and the observations made by ECU over the course of the program year during on-site visits to client homes with Subgrantee staff.

H) FIELDWORK

- Review all ECU On-Site Visit Reports for the previous year to provide information about the quality of work completed by the weatherization contractors.
- Evaluate the quality and completeness of the Energy Audit Package, the Energy Audits, Job Write-up/Work Orders, and Quality Control Inspections as part of the Client File Review to assess the technical component of the WAP.
- Review the ECU database of reported Energy Conservation Measures and report the Frequency of Measures completed during the most recently completed and current grant periods.
- Determine that appropriate priority conservation measures are completed when compared to the type of housing stock and available leveraging conservation opportunities.

I) CONTRACTOR PROCUREMENT/ CONTRACTOR FILES

- Review the most recent WAP Contractor Procurement and determine that the advertisement, Request for Proposal, and Contract for Services Package are consistent with Programmatic requirements as outlined in the ECU Procurement Guidance.
- Request a list of WAP Contractors that were mailed RFP Packages (minimum 10 required).
- Review the RFP's that were returned and the contractor negotiation and selection process to ensure compliance with procurement requirements.
- Review all active WAP Contractor files for the following required information:
  - A WAP Contract for Services with all required attachments (including SWS acknowledgement) signed by the contractor and an authorized Subgrantee representative.
  - Current Certificate of Insurance with minimum required coverage.
  - Current Home Improvement Contractor Registration.
  - All applicable licenses up-to-date (Construction Supervisor, Insulation Specialty)
  - MA Lead RRP License
  - DOE WAP Lead-Safe Weatherization Training Certificate.
  - OSHA Training
J) REPORTING

- Prior to the Program Assessment, consult with the DCS Finance and Compliance Unit Staff and the ECU Program Coordinator to ascertain the timeliness and accuracy of the Monthly and Final Reports.
- Consult with Subgrantee staff if problems exist in either accuracy or timeliness of reports.

K) REWEATHERIZATION

- Review the Subgrantee’s system of determining if an address had been previously weatherized to ensure that the system is accountable and can trace the weatherization history/status of an address.
- Track 10-12 jobs from the current grant period to determine the address’ Reweatherization status. When an address had been previously weatherized confirm that it had been properly identified as such on the BWR and had been reweatherized in compliance with program regulations.

L) DOE WEATHERIZATION COORDINATION WITH HEARTWAP

Review the Subgrantee’s system of referring and coordinating HEARTWAP work (heating system work) and WAP work between both programs to maximize client benefits and work towards whole home solutions to energy
# DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
## DIVISION OF COMMUNITY SERVICES/ENERGY CONSERVATION UNIT
### WEATHERIZATION ASSISTANCE PROGRAM ON-SITE REPORT

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<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Agency Person Present</th>
<th>Title</th>
<th>Present at:</th>
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<tbody>
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## IN AGENCY REVIEW

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<tr>
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<tbody>
<tr>
<td>Weatherization Priorities</td>
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<td>Client Priorities/Outreach</td>
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<td>Building Weatherization Report</td>
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<td>Energy Staff Training/Requirements</td>
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<td>Agency Follow-up to DHCD/ECU Callbacks</td>
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## CLIENT FILE REVIEW

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<tr>
<th>Attic Inspection Form</th>
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<tbody>
<tr>
<td>BWR</td>
</tr>
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<td>Historic Preservation Status Documentation</td>
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<td>Asbestos Notification Form (if required)</td>
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<td>ASHRAE Checklist/Calculation Sheet</td>
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<td>In-Process Inspection (signed &amp; dated)</td>
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<td>Work Order</td>
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| X – Acceptable  F – Not Acceptable  IP – In Process  NA – Not Applicable |
|-----------------------------|-----------------------------|-----------------------------|

## COMMENTS/RECOMMENDATIONS:
## MEASURES

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## COMMENTS / OBSERVATIONS

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**Certificate of Insulation:**

**Client Satisfaction:**

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## Building Diagnostic Tests

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<td>Basement</td>
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<td>Other</td>
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<th>CO Draft Spillage</th>
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<th>Duct Leakage</th>
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**COMMENTS / OBSERVATIONS**
## Contractor On-Site Requirements

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<th>Item</th>
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<tbody>
<tr>
<td>DOE LSW/LEAD RRP Practices being performed</td>
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<tr>
<td>Asbestos Notification Form (if required)</td>
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<tr>
<td>Building Permit</td>
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<td>Crew Chief – DOE LSW – RRP</td>
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<td>Crew Chief – CSL</td>
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<tr>
<td>Crew – LEAD RRP</td>
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<tr>
<td>Crew – OSHA 10</td>
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<td>SWS Manual – WAP Field Guide – on site</td>
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<td>DHCD Technical Manual – on site</td>
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<tr>
<td>SWS- WAP Field Guide – on-line access</td>
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<td>General Safe Work Practices</td>
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<td>Standard Work Specifications being met</td>
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<td>Cellulose Machine – Tested or last date of test</td>
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<tr>
<td>Blower Door – Proper use/Acceptable condition</td>
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**COMMENTS / OBSERVATIONS**


COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT

In the Matter of:

Public Hearing:

MASSACHUSETTS STATE WEATHERIZATION PLAN
FOR FISCAL YEAR 2015
U.S. DEPARTMENT OF ENERGY
WEATHERIZATION ASSISTANCE PROGRAM

Friday
February 20, 2015

Department of Housing and
Community Development
100 Cambridge Street
Conference Room A
Boston, Massachusetts

The above entitled matter came on for hearing,
pursuant to Notice, at 10:00 a.m.

BEFORE:

DAVID FULLER, Manager
Energy Conservation Unit
Department of Housing and Community Development
Division of Community Services
100 Cambridge Street, Suite 300
Boston, MA 02114
(617) 573-1000

APEX Reporting
(617) 269-2900
<table>
<thead>
<tr>
<th>SPEAKERS</th>
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<tr>
<td>David Fuller</td>
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<tr>
<td>John Wells</td>
<td>17</td>
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<tr>
<td>Peter Wingate</td>
<td>21</td>
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<tr>
<td>Elliot Jacobson</td>
<td>27</td>
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<td>Liz Berube</td>
<td>28</td>
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PROCEEDINGS

(10:03 a.m.)

MR. FULLER: Good morning and welcome to the Public Hearing for the 2015 US Department of Energy Weatherization Assistance Program.

My name is David Fuller. I'm the Manager of the Energy Conservation Unit within the Department of Housing and Community Development's Division of Community Services. And I'm representing the Massachusetts Weatherization Assistance Program's grantee.

If you haven't already, please sign the attendance sheet, including your name, who you're representing and indicate if you'd like to provide testimony this morning. We'll request individual testimony in the order signed in.

There are printed copies of the Draft State Plan available at the front at the desk over here.

We are here today to accept testimony regarding the Massachusetts State Plan for the FY2015 US Department of Energy Weatherization Assistance Program. Public comment will be received through Friday, March 6th.

Subgrantees, subcontract agencies, members of the WAP Policy Advisory Council, LEAN and other interested parties were provided notice of this public hearing. A Draft of proposed State Plan has been posted on DHCD's website and a link was provided to the WAP Network and
interested parties.

I would like to acknowledge the support and assistance provided in the development of the DOE's Weatherization Assistance Program State Plan by Leverett Wing, the Associate Director for the Division of Community Services, Louis Martin, Deputy Associate Director for DCS, Maureen O'Rourke, Program Coordinator for the Energy Conservation Unit. I also want to acknowledge the work of the unit's technical staff, Wesley James, Robert Guenther and Jamie Canning, and my appreciation for the DHCD Finance Division staff, Dharam Dixit and Peter Rondeau, who keep the funds flowing and ensure fiscal accountability of the program in Massachusetts.

I'd also like to commend the Massachusetts Weatherization Assistance Program Subgrantee Network and their staff for their continued commitment to the energy needs of low income residents in the commonwealth and the Weatherization Program's Energy Policy Advisory Council for their input.

The Weatherization Assistance Program's mission is to reduce heating and cooling costs for low income families, particularly for the elderly, people with disabilities and children, by improving the energy efficiency of their home while ensuring their health and safety.

The program was created in 1976 to assist low
income families who lack the resources to invest in energy efficiency improvements to their homes.

During the past 39 years, the WAP has provide comprehensive weatherization services to over 200,000 homes in Massachusetts with federal and state funds. Low income families will save an average of approximately 25 to 30 percent in reduced energy costs each year in a more comfortable, healthier, weatherized home.

Nationally, the program has been a leader in developing cost effective energy efficiency retrofit protocols for existing homes.

The Department of Energy released the 2015 formula grant funding announcement and grantee allocations in late January 2015 based on a national WAP award of just over $193,000,000. This amount, while still less than the pre-Recovery Act funding, is an increase from the two previous years. And DOE and advocates for the program in Washington are to be commended for their efforts at obtaining an increase during these difficult budget times.

Massachusetts's allocation for FY2015 funding is $5,426,620.

DHCD notified the WAP Network of local agencies as soon as the funding was available, and had discussions in a variety of forums and meetings with subgrantees and other stakeholders. DHCD held a planning meeting on January 30,
2015 to discuss the development of the State Plan with weatherization subgrantees. DHCD has also met with representatives of the Low Income Energy Affordability Network, LEAN, about the development of the plan.

DHCD is proposing to continue the allocation of the DOE weatherization units to subgrantees based on the existing formula. Consistent with DOE 10 CFR 440.15, DHCD is planning on maintaining the existing Subgrantee Network as all participants conform to the requirements of that regulation. And through regular programmatic monitoring, DHCD has determined that they're operating an effective weatherization program.

We'll issue 12 month contracts for the operation of the 2015 program year, April 1, 2015 through March 31, 2016.

As a result of the discussions with the WAP subgrantees, DHCD is proposing an average cost per unit of $4700 in DOE program operations for the 2015 program. DHCD is proposing an average cost per unit of $625 in DOE allowable and required health and safety measures.

Based on these averages, the minimum unit production for the FY 2015 is 740.

The program operations average cost is substantially lower than the DOE allowable maximum of $7105. This lower average allows subgrantees to provide DOE WAP
services to more houses than would otherwise occur, and
allows our subgrantees to leverage available utility funds
to assist those households.

Consistent with subgrantee requests, DHCD is
proposing to maintain the allowable maximum DOE WAP
expenditure for all work completed on an eligible unit at
$10,000. Included in that maximum, DHCD is also proposing
to maintain the maximum incidental repair costs, $2500, and
a health and safety maximum of $2500. DHCD recognizes that
these high maximums in a relatively small grant will require
the subgrantees carefully monitor their average cost per
unit and make certain that they meet their required
production goal.

The proposed average cost per unit will enhance
subgrantees's ability to provide an appropriate balance of
DOE WAP funds with available utility energy efficiency
funds. And the higher maximums will allow subgrantees to
serve those clients in communities with no utility funds
available with full weatherization services.

Administrative funds will be awarded on a per unit
basis in such a manner to ensure that subgrantees receive no
less than 5 percent of the available funds consistent with
DOE CFR part 440.18(e). In the proposed allocation, the
administrative allocation is $370 per unit for the FY 15.
The financial audit category for 2015 will be budgeted at
$10 per unit.

DHCD is proposing liability insurance line item at $8000 per weatherization subgrantee to assist in the procurement of liability insurance and increases in the cost of DOE required pollution occurrence insurance.

The most significant changes coming during the 2015 DOE WAP involved requirements related to training and technical assistance. In weatherization program notice 14-5 and 15-5, the Quality Work Plan requirements, DOE outlines four required components the states must address in their 2015 plan.

Section 1 of the Quality Work Plan requires that all DOE funded work be completed in compliance with the requirements of the Standard Work Specifications developed by the Department of Energy and National Renewable Energy Lab. The SWS's are a comprehensive delineation of required standards for inspections and installations in the WAP.

The Quality Work Plan requires state grantees to provide clear guidelines to subgrantees and installers of the standards that are required in the WAP. It also requires that all field guides, technical manuals and guidance be aligned with and reference the Standard Work Specifications.

To satisfy this requirement, DHCD and the WAP Training Center, the Green Jobs Academy, worked with Saturn
Resource Management to produce a field guide that is linked to the Standard Work Specifications. The field guide is available as a spiral bound printed version that has been distributed to WAP subgrantees, and a pdf file that is hyperlinked to Standard Work Specifications.

The pdf file can be installed on laptops or desktop computers, as well as, as we work to automate data management of the Weatherization Program to tablets, used by energy auditors and inspectors in the field.

Section 2 of the Quality Work Plan outlines requirements that there be a clear written documentation in all awards and contracts from the grantee to subgrantee, and contracts with subgrantees and other entities working in the program, of the required compliance with the Standard Work Specifications and DOE work quality standards. DHCD has required subgrantees to include this language in their contracts with WAP contractors and both subgrantees and contractors to sign acknowledgments of these requirements.

Section 3 provides the requirements for inspection and monitoring of work using guidelines and standards. This section requires that all quality control inspections completed on DOE funded jobs are completed by individuals that demonstrated competency by certification as a Home Energy Professional Quality Control Inspector by the start of the 15 program year. It also requires grantee monitoring
to be completed by Certified Quality Control Inspectors.

In the 2015 grant guidance, DOE requires that
grantees outline in their plan, "to ensure that all
subgrantee final inspections for completions in the program
year 2015 and beyond are performed by Certified Quality
Control Inspectors as outlined in WPN 15-4 and as stated in
the DOE approved written quality control inspection policy."

The certification of Quality Control Inspectors
consistent with the requirement of the Home Energy
Professional Certification Model has been the most
challenging component of the Quality Work Plan. DOE has set
a very high standard with this new national professional
level certification.

Since many potentially good QC inspector
candidates will not be fully certified by the time the
initial FY 2015 units are ready for inspections, and some
otherwise qualified individuals may have difficulty with the
written component of the QCI certification exam, DHCD plans
to request permission to authorize subgrantee staff, who had
completed a Tier 1 Quality Control Inspector training, and
who have passed the field component of the certification
exam, but not passed the written exam, be allowed to
complete quality control inspection while DHCD provides
additional training and assistance to help those staff
members achieve certification.
DHCD will likely be required to put a time line on this proposal.

Coincidentally, six WAP candidates are taking their written QCI test today, including two of DHCD's technical field representatives.

DHCD will also permit certified QC inspectors to complete final inspections on homes that he or she did the initial audit. These units will be subject to an increase in grantee monitoring requirements.

Section 4 of the Quality Work Plan outlines requirements for grantees to provide training to implement and maintain guidelines and standards, as well as defining the requirements of that training. This section requires grantees to provide a training plan that must include comprehensive training for all WAP workers that are aligned with the NREL Job Task Analysis, the JTA's, for the position in which the worker is employed.

The guidance goes on to describe Tier 1 training as comprehensive occupation specific training that follows a curriculum aligned with the JTA. This training must be delivered by a training program that is accredited by a DOE approved organization for the JTA being taught.

Tier 2 training is described as single issue, short term to address, identify deficiencies. The training plan must ensure that all workers receive regular Tier 1
training.

We are fortunate in Massachusetts to have a DOE and IREC accredited training center that can provide Tier 1 training. The training is done at the Green Jobs Academy. It's a subsidiary of the Massachusetts WAP subgrantee, South Middlesex Opportunity Council or SMOC.

During the 2015 and beyond in the DOE WAP, SMOC and the Green Jobs Academy will be an important component of how the WAP in Massachusetts is able to address DOE training and certification requirements.

DOE, in recognition of the significant training and certification requirements in the Quality Work Plan, provided grantees with the maximum allowable training technical assistance funds during both the 2014 and 15 grants and encouraged states to utilize the T&TA funds for their intended purposes.

During this program year, DHCD is proposing to award $14,000 in T&TA funding for each subgrantee and subcontract agency in the service area. This proposed award will provide each agency with funds to cover costs related to required WAP software package and improvements and updates and will provide some of the funding needed to attend required optional training activities.

DHCD will also assist subgrantees in identifying online training resources for staff. Further, DHCD proposes
to award an additional $200,000 in FY2015 T&TA funds to SMOC
and their DOE funded Green Jobs Academy to support the
training and certification needs of Massachusetts WAP
Network.

As a DOE and IREC accredited training center, the
Green Jobs Academy is one of the few entities in New England
able to provide the training and coordinate the
certification for the DOE quality control inspector
requirements. Green Jobs will also continue and expand
their training schedule to include a variety of WAP related
required training programs, including DOE lead safe
weatherization, lead RRP training, OSHA job site safety,
ASHRAE 62.2 compliance, combustion safety, CAZ testing,
energy auditing, basic and advanced blower door training and
pressure diagnostics. Crew and crew chief training will
also be available.

DHCD will also work with Green Jobs Academy to
develop onsite training protocol for WAP contractors to
provide needed and required Tier 1 training, while
minimizing the down time for the contracting company.

SMOC/Green Jobs has also served as a coordinator
with the WAP subgrantees, DHCD and the WAP software
provider, Community Software Group, to develop a
standardized energy audit data collection form for use on
mobile tablet devices as we attempt to automate and improve
efficiency and data management. The form should be available for the start of the 2015 grant period.

They'll also develop a standardized quality control form that satisfies DOE requirements of a linkage to the Standard Work Specifications. Both will be available in a tablet or a laptop based format as well as paper forms.

DHCD and the WAP Network will also develop a WAP managers programmatic oriented training based on DOE NREL's job task analysis for that position, the Department of Energy's draft quality management plan and best practices from the Weatherization Network to provide WAP program managers with information and training about DOE regulatory and guidance requirements and best practices in grant and contractor management.

In December 2014, DOE re-authorized the Massachusetts Weatherization Assistance Program's priority measures lists that were developed using the National Energy Audit and the Manufactured Home Energy Audit energy audit tools. DHCD released these new priority lists in WAP IM 2015-001.

The use of these priority lists, as an alternative to requiring individual payback calculated energy audits on each home will save time and improve energy auditor productivity. Subgrantees are free to complete a full audit on any home and are required to do so in certain

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circumstances outlined in the memorandum.

DHCD is updating the WAP Technical Manual to comply with DOE's requirements that it be linked to the Standard Work Specifications, and for compliance with IECC 2012 and identified best practices. Subgrantees will be notified when the updated manual is available. And it will be posted on DHCD's website.

DHCD plans to continue to support the Massachusetts Weatherization Network's highly successful Utility Low Income Energy Efficiency leveraging strategy that has allowed utility funds to supplement the DOE program for many years. This leveraging capacity is very important for the households we serve in the context of the high fuel costs in the northeast and uncertainties of federal budget for energy efficiency for low income families.

We would like to commend the commonwealth's investor owned utilities and energy efficiency program providers for their continued support and commitment to reducing the energy burden of low income rate payers.

During 2014, the Massachusetts Utility Low Income Energy Efficiency Programs contributed over $36,000,000 to low income rate payer efficiency programs available to the WAP Network for single and small multi family homes, and another well over $35,000,000 for large multi family programs. Similar levels of funding are available for 2015.
DHCD is again proposing to award a grant in the amount of $35,000 to Action, Incorporated to continue to represent the Weatherization Network in negotiations with individual utilities, to attend public hearings and meetings sponsored by the Massachusetts Department of Public Utilities and represent the Massachusetts WAP Network in related forums.

Finally, I want to express my most sincere gratitude and congratulations to Elliot Jacobson. Next week, at the National Association for State Community Service Programs Conference, Elliot will be awarded the Jean Diggs WAP Champion Award for his dedication and service as an effective leader and low income advocate to the Weatherization Assistance Program.

I have known and worked with Elliot for many years while here in Massachusetts. And we all know he is one of the primary reasons that our utility funded efficiency programs continue to grow and provide excellent service to thousands of families.

He's also well known nationally through his membership on the DOE State Energy Advisory Board where he has strongly advocated for the Weatherization Program and adequate funding through times when it appeared that DOE was ready to give up on the program.

It's appropriate that he's receiving an award
named after Jean Diggs. Jean retired a couple of years ago from the Department of Energy where she tirelessly advocated for the Weatherization Program.

Congratulations and thank you, Elliot.

We are now ready to accept testimony from those in attendance. In accordance with the notice of the public hearing, DHCD will accept written comments through Friday, March 6th.

First up, John Wells.

MR. WELLS: Good morning. My name is John Wells and I'm the Vice President for Energy Services at ABCD in Boston. And we are happy to provide testimony today in support of the 2015 DOE Weatherization state plan.

It's very nice to see weatherization going in the right direction in terms of funding, because again, it continues to be the program that provides the basis for all the other efficiency work that the subgrantees and LEAN accomplished throughout the state of Massachusetts.

And of course, we also support the continuing $35,000 to Action for leveraging to continue this effort. I mean, who would have imagined that that little $35,000 over the last maybe 20 years has resulted in millions and millions and millions of dollars of efficiency leveraged through the utilities. That's what it was set up for.

And if you ever wanted to get an analysis of sort
of a cost of benefit ratio of an investment for figuring out
how to leverage a program into something successful, I
think, this would probably be the winner.

But, you know, it's really good to see. Because
again, these programs are thriving because of DOE, and of
course the corollary program, HEARTWAP. And it's good to
see that we're going to be adequately funded for at least
this year.

I do have a few things to say about the QCI
process. So, the first thing I want to say is that SMOOC,
the Green Jobs Academy, and particularly Paul Jackson,
deserve a lot of credit for running a fantastic training
program.

We sent four of our staff there for a week. And
I've heard from others as well, the training that was
offered at that program is excellent. And there was a lot
of things that our staff came back with as, you know, really
a benefit to expand their skills looking at houses and that
sort of thing.

However, having said that, it seems like there's a
critical component of the curriculum that is missing.
Because when the auditors took the exams, there was a pretty
high percentage of questions, maybe as many as half, that
had to do with so called soft skills. And when you look at
the curriculum that was provided for that week, which our
staff took off for the week we paid for, we lost all that production time, there was really not an adequate or not even a gesture for the amount of information you would need to take those questions on that exam when it came to the soft skills.

And I've seen some of the questions since. And it seems to me that, first of all, the QCI inspection is really going to end up being a credential for the staff. And so, I want to make it clear, we're not against QCI or that credential.

But, what we would like to see is, if there are -- and clearly within that credential, there are several roles that are defined. You can be a third party inspector. You can be an integral team member. You can be doing a for profit inspection, a non profit inspection, etcetera.

These are different roles that a QCI inspector would have if he took that credential to any state in the country. And that needs to be a component of the curriculum.

And I don't think it's quite reasonable, and I believe this is an oversight, that someone should take an exam for material they were never trained for or they were never familiar with.

I guarantee you that, if that component can be offered, where someone understands the difference between a
third party inspector and a good team member, etcetera, that
our auditors will pass with flying colors.

I don't know how that problem is going to be
solved short term. But, it needs to be done.

I know that our auditors want to go back and take
that exam again. But, I'm reluctant to have them do that,
and to pay for it, until they receive that training, because
it's going to be the same thing over and over.

It's sort of like, you don't send someone to a
math exam and throw in questions about Shakespeare. I mean,
if they want to do that test, then give them the material to
do that test.

So, I believe that this is something that could be
solved. And I don't believe that SMOC, as the certified
Green Jobs Academy, were also given the proper tools to
train the QCI inspectors in the manner that they are able to
take the exam.

And so, that's something that needs to be done.
And I believe that, once done, by far, the majority of our
auditors in the state will be able to have that exam, have
that credential, which will actually help them in their
careers. And we can move on and get down with our business.

So, that's what we have to say about it. Thank
you very much.

MR. FULLER: Thank you, John.
Peter Wingate.

MR. WINGATE: Thank you and good morning. My name is Peter Wingate. I'm Energy Director for the Franklin, Hampshire and North Quabbin Regions, Inc in Greenfield and Co-Chair of the Massachusetts Energy Directors Association, also known as MEDA. Thank you for the opportunity to provide the MEDA testimony for the DOE 2015 program.

First, I would like to thank DHCD, and especially, David Fuller and the rest of the staff involved with the Weatherization Assistance Program and the fiscal staff. Thank you, David Fuller for bringing that up. I think, we often don't give them the credit they deserve. The network respects and applauds the hard work they continue to put into this program.

We have looked over the proposed state plans involving unit allocations, program maximums and averages and the use of training and technical assistance funds and are in agreement with what is proposed. The allocation of these funds to the agencies and training funds to the Green Jobs Academy is seen as a good plan.

We also agree with the plan to fund Action, Inc of Gloucester with funds to facilitate the ongoing leverage activities in Massachusetts. In fact, Massachusetts leveraged over $70,000,000 in utility funding last year, in large part, due to the structure of the DOE WAP program.
We need to ensure that the ability to leverage these funds and provide incredible service to thousands of households every year is not jeopardized by new DOE regulations.

Massachusetts has always been committed to high quality work. I have personally been involved with the program since 1987 across four different service territories in the state. I can say that I have seen and continue to see the commitment to quality.

In that light, we now face new rules and guidelines from DOE about QCI certification and a continued misplaced emphasis on ASHRAE standards.

Let's start with the QCI process. Thank you again to the Green Jobs Academy for instituting a great training program. This gives Massachusetts WAP agencies access to the required training.

However, the written test, as administered through BPI is fundamentally flawed. Many questions on the exam are not relevant to the work that is done in Massachusetts. The test needs to be reviewed and rewritten.

The test, as it is now, is not a good indicator of ability. In fact, it does not even reflect the most current weatherization process and does not reflect the Standard Work Specifications.

This test structure and design is punitive as
opposed to productive. MEDA would be glad to help identify
appropriate people to help BPI rewrite this test.

Furthermore, for anyone unlucky enough to not pass
the written test, the process for retaking the exam takes
time and money away from providing the services we are
charged with delivering. This strikes me as a scheme to
fleece agencies out of valuable funds more so than to
enlighten or train technicians.

In fact, incorrect answers are not revealed to the
participants. Speaking very plainly, this is unproductive
at best.

As a former technician who took great pride in
learning new techniques, I say that making it a guessing
game as to what is correct and what is not correct is
fundamentally flawed.

Let's switch our focus to getting things right as
opposed to pondering in the dark about what may be wrong.
Our technicians and our clients deserve better.

Having said all that, please recognize that
Massachusetts is in the process of working our way through
the QCI certification for our technicians and does have a
pathway for success.

Even as we speak, a technician from my office and
other offices across the state are taking the written exam.
Massachusetts is complying with the regulations. We do ask
that DOE recognize that it is a process and getting it done well is more important than getting it done fast.

Structural obstacles impede the process. For instance, it is my understanding that there is only one person certified to administer the field test in Massachusetts. This is a bottleneck that needs to be recognized.

Now, ASHRAE. The ASHRAE 62.2 standards are meant for new home construction. This is not the market segment we work in.

As I stated last year, the network is better off with this training and the knowledge we have and see the benefit of this knowledge as another tool that are resources when we encounter different situations in the homes where we work. However, the use of a new construction standard on homes that in Massachusetts could be a century or more old is not always a good fit and should be reexamined.

The Weatherization Assistance Program continues to be strong. Massachusetts will continue to run a very good and accountable program. For the clients we serve, energy burden negatively impacts their lives.

Funding for future years continues to be imperative. We have provided service to many households in Massachusetts, but there are so many more yet to be served.

Weatherization is a fantastic program. Homes
receiving WAP services use less energy, are healthier, and emit less carbon. WAP also provides good jobs for skilled professionals.

MEDA calls upon our funders in the Department of Energy for continued support. We have helped so many, and there are so many left to serve.

MEDA also hopes that the state plan is approved as quickly as possible so we can start the program April 1st. Delays in approval the past couple of years have created delays in service and has created confusion for our clients.

Thank you for the opportunity to talk with you. MEDA and each of the agencies providing weatherization in Massachusetts looks forward to providing these services in DOE 2015 and beyond.

I'd like to have that close my MEDA testimony. I'd like to take just a moment and speak personally for myself and for Community Action based out of Greenfield.

I had the opportunity to be on a panel looking at some of the QCI processes with the DOE. And one thing I did note that really struck me was, first of all, that we have people at DOE who are taking this very seriously and really want to do a good job and am convinced are going to do a good job. I do hope that they recognize that Massachusetts has a plan in place that really uses the very valuable DOE funding as the backbone to generate all the leveraging
opportunities that we've done.

But, I do have concerns about some of the QCI process, some of the new things coming around that is taking time out of being in the field, out of doing work for clients, and is putting people in classrooms. Some of it is good classroom work. Some of it, which is very beneficial, which we've always supported.

But, some of it seems like it's trying to figure out a way to pass a flawed test. That doesn't strike me as a good use of time.

If you look at the funding levels from DOE, and they are increasing, and we appreciate that, but for my agency, the amount of funding we're getting this year doesn't even quite pay for one full time staff member. We have 12 people on staff.

I'm not saying that to diminish the DOE funding, because again, that's really the backbone of everything we do. But, again, I'm just hoping that DOE will take that into consideration as they look at our state plan and recognize that we have a mechanism in place to use the DOE as the delivery process to initiate and leverage all the funds that we have.

Other than that, I want to again thank David Fuller and everybody on his staff. I am going to say, I believe, he's going to have one staff who may be retiring
this year. I do want to wish him well and Massachusetts
Energy Directors Association has really respected and
enjoyed working with Wes James if that story is true.

And thank you very much.

MR. FULLER: Thank you very much, Peter.

Elliot Jacobson.

MR. JACOBSON: Elliot Jacobson, Vice President
Action for Energy, Chair of LEAN, and I'm also, as was
referenced earlier, on the DOE Advisory Board.

In that context, I first want to thank everybody
in this room for this award that really was -- I feel was
awarded to our network for what we've accomplished over the
last 30 or 40 years. And that includes everybody at the
agencies and state offices and utility companies that came
together to create what we think is the best program in the
country.

So saying that, thank you. It's nice. And Liz
asked me if I was getting a car. I don't know about that.
But, I'll find out next week.

But, getting onto the substance, I want to support
both what John and Peter had to say, every word basically.
I'm totally in support of what they said. And pay
attention, particularly, to the last part of Peter's
testimony.

Saying that we have created the best program in
the country is not really hyperbole. It's really true. And what we need to impress upon DOE is that, all these things that were added to the protocols and certifications, while they are based in making the program more accountable, which is good, do create obstacles for us to keep this model running efficiently.

Next week, I'll be at a meeting with the Department of Energy people. And I plan to use the kind of testimony that was brought here today to try to convince them of that.

DOE always uses us as the example when they're talking with other states. So, what I'm trying to impress on them, if you want to take us as an example, you should look at the solutions that we've crafted here and perhaps think about that, and not try to hold us to notions of how to make programs better across the country.

So, that's what I plan to do. And I guess, that will sum up my testimony.

Thank you and thank everybody.

MR. FULLER: Liz Berube.

MS. BERUBE: Good morning. My name is Liz Berube, the Assistant Executive Director at Citizens For Citizens, the communication action agency servicing the greater Fall River and Taunton area. As well as a member of MASSCAP's Energy Policy Committee. Please accept this testimony as it
I would like to second and third the testimony as provided by the Massachusetts Energy Directors Association and my colleagues who have more than 100 years of experience in all of the energy programs.

The weatherization provided by the network of agencies in Massachusetts does important work throughout the state. We are glad to see an upturn in funding for this important program.

As someone who has been very involved with fuel assistance for many years, I can attest to the fact that the weatherization work done with DOE funds helps stretch the fuel assistance benefits for all of our most needy households.

I am concerned about the new federal regulations around certification. My understanding is that Massachusetts is implementing a plan to comply with all the rules.

Massachusetts has a strong history of leading the nation in the field of weatherization. And I am sure we will rise to the occasion.

However, it does worry me that the process includes testing that does not seem to be up to reasonable standards of fairness. Today, I have two extremely qualified auditors taking the test. And I am quite nervous.
that, although they are experts in the field, they may not
pass due to unfair questions.

I agree with MEDA that the written exam process be
studied and revised appropriately.

Citizens For Citizens looks forward to working
with the DHCD staff again in the upcoming program. We
appreciate the hard work and dedication that comes from our
state office. They provide the backbone for a successful
DOE program and for the ability for the network to leverage
millions of dollars on top of the federal funds for energy
efficiency.

Thank you for the opportunity to testify.

MR. FULLER: Thank you, Liz.

Is there any additional testimony at this point?

No.

Then, that is the conclusion of the DOE public
hearing for 2015. Thank you all for coming.

(Whereupon, at 10:42 a.m., the public hearing was
concluded.)
CERTIFICATE OF REPORTER AND TRANSCRIBER

This is to certify that the attached proceedings before the: DEPT OF HOUSING & COMMUNITY DEVELOPMENT
In the Matter of:

MASSACHUSETTS STATE WEATHERIZATION PLAN
FOR FISCAL YEAR 2015
U.S. DEPARTMENT OF ENERGY
WEATHERIZATION ASSISTANCE PROGRAM

Place: Boston, Massachusetts
Date: February 20, 2015

were held as herein appears, and that this is the true, accurate and complete transcript prepared from the notes and/or recordings taken of the above-entitled proceeding.

Maryann Rossi
Reporter
02/20/15
Date

Maryann Rossi
Transcriber
03/05/15
Date

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