



STATE OF CONNECTICUT
WEATHERIZATION ASSISTANCE PROGRAM

ARRA ON-FILE PLAN

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ARRA ON FILE PLAN

I. General Description and Eligibility Guidelines

The ARRA Weatherization Assistance Program (ARRA WAP) is a temporary 3 year stimulus program designed to create new green technology jobs and assist low income persons to minimize energy-related costs and fuel usage in their homes. Households with incomes falling within 60% of the state median income guidelines are income eligible to receive weatherization services. The definition of “low income” in accordance with §440.14(b) (9)(xii) that the State has chosen for determining eligibility is at or below sixty percent of the state median income guideline, determined in accordance with criteria established by the Director of the Office of Management and Budget, which is the basis for eligibility for assistance under the Low Income Home Energy Assistance Act of 1981.

The Department uses a single application process for both the fuel assistance and weatherization assistance programs. Through this single application process, client eligibility is established for all energy assistance programs administered by the Department of Social Services (DSS). **Priority is given to clients that are particularly vulnerable, such as the elderly, persons with disabilities, families with children under 6 years old and high energy users.** Subgrantee weatherization staff reviews all files to ensure that clients are income and program eligible. A copy of the energy application and income documentation is included in the client’s weatherization file. In certain situations, dwelling units that were weatherized prior to September 30, 1994 may be revisited. A new audit will be performed to determine if other measures that were not done before, need to be addressed. Up to 100 units may be re-weatherized during the program.

In accordance with §440.14(b) (9)(xiii), children are defined as dependents that are under six years old. DSS has chosen to be consistent with the definition used by the Department of Health and Human Services (HHS) for the LIHEAP Program.

The number of eligible dwelling units within the State of Connecticut in which the elderly reside is estimated to be 30,653.

The number of eligible dwelling units within the State of Connecticut in which the persons with disabilities reside is estimated to be 14,739.

In accordance with §440.16(f) low income members of an Indian tribe will receive benefits equivalent to the assistance provided to other low-income persons within the State of Connecticut.

II. Subgrantees and Selection of New Subgrantees

In accordance with 10 CFR § 440.15, DSS, as the grantee agency, must ensure that:

- (1) each subgrantee is a Community Action Agency (“CAA”) or other public or non-profit entity;
- (2) each subgrantee is selected on the basis of public comment received during a public hearing pursuant to [10 CFR] § 440.14(a) and other appropriate findings regarding:
 - (i) the subgrantee’s experience and performance in weatherization or housing renovation activities;
 - (ii) the subgrantee’s experience assisting low-income persons in the area to be served; and
 - (iii) the subgrantee’s capacity to undertake a timely and effective weatherization program.
- (3) In selecting a subgrantee, preference is given to any CAA or other public or nonprofit entity which has, or is currently administering, an effective program under this part or under title II of the Economic Opportunity Act of 1964.

The State will use the existing community action agency (CAA) network, as well as other entities, to operate the ARRA WAP.

The proposed subgrantees will be based upon the following:

1. CAAs deemed to be in good standing with DSS in regards to CSBG core strengths
2. State Department of Economic & Community Development (DECD)

The proposed ARRA WAP subgrantees are listed below:

- Action for Bridgeport Community Development, Inc. (ABCD) - Bridgeport
- The Community Renewal Team, Inc. (CRT) - Hartford & Middletown
- New Opportunities, Inc. (NO) - Waterbury & Meriden
- The ACCESS Agency, Inc. (ACCESS) – Willimantic
- An additional subgrantee will be chosen for the Greater New Haven service area to ensure that all areas of the state are served.
- Connecticut Department of Economic & Community Development (DECD)

The State reserves the right to alter these service providers and territories if it is determined that a certain area is not being served adequately.

Allocation of funds to the CAA areas is based on the following criteria:

1. Base allocation of \$1,250,000 for ARRA WAP Funds proportionally split between administrative dollars and program dollars.
2. A weighted value of 45 percent is given to the category of agency total materials expenditures, vs. total materials expended;

3. A weighted value of 35 percent is given to the category of agency total units completed; and,
4. A weighted value of 20 percent is given to the category of eligible units, by service area, vs. eligible units statewide, as per census data, less those units previously weatherized.

The period used to determine the allocation of funds is December to November of each year.

Existing subgrantees who are in good standing will receive funding each year unless the subgrantee withdraws or DSS monitoring of the subgrantee indicates serious problems. DSS, through its program and fiscal monitoring, examines the overall compliance of subgrantees with regard to expenditure of grant funds, production, work quality and compliance with federal and state laws, regulations, policies, and procedures. If serious concerns arise, DSS makes a determination concerning the subgrantee's ability to continue providing weatherization services. For example, DSS has determined that additional subgrantee capacity is needed to adequately serve the New Haven area. Selection of a subgrantee will be based on public comment submitted to DSS or offered at a public hearing, in accordance with 10 CFR § 440.15(d). In accordance with 10 CFR § 440.15 (a)(3), the DSS will give preference to existing subgrantees that are currently administering an "effective" program.

In order for an entity to qualify as a new subgrantee, it must:

- be a Community Action Agency (CAA) or other public or nonprofit entity
- be experienced and performed weatherization or housing renovation
- be experienced in assisting low-income persons in the area to be served
- be able to undertake a timely and effective weatherization program
- be in legal and financial compliance with requirements and regulations established under state and federal law
- provide a copy of the most recent annual report and the previous year's financial audit with all management notes and findings
- provide a list of the current board of directors or governing body and a copy of the by-laws and other documents concerning the structure and operation of the organization
- provide proof that the organization has been responsive to the needs of the community by citing the programs and services in the energy or human services area that it has implemented or by otherwise demonstrating that the organization has the potential to provide such services in an efficient and responsible manner
- establish that it has special expertise for providing energy conservation programs, by demonstrating its management and outreach capabilities, technical skills and other qualities that render the entity qualified
- establish that it has experience in housing and construction management programs.
- submit a detailed budget and narrative work plan showing how the project will be carried out. The budget should list all personnel, including volunteer and paid staff, who will be associated with the program. The work plan will detail how the project will be implemented. Potential weatherization subgrantees must also show a production and expenditure plan, specifying whether subgrantee crews, subcontractor or a combination of the two will be used. New subgrantees will be expected to meet or exceed the work plan goals they propose.

Subgrantee Selection

DSS has determined that additional subgrantee capacity is needed to adequately serve the new Haven and Derby areas. The Community Action Agency of New Haven, Inc. (CAANH) is currently the subgrantee for the area and has been identified by the department as an agency that is not in good standing. DSS had required CAANH to complete a corrective action plan and their September 2007 audit indicates that there are significant deficiencies in internal control over financial reporting. CAANH owes DSS \$1,400,000, the Agency on Aging of South Central \$1,400,000 and CAFCA \$272,950 for a total of a little over \$3,000,000. For Fiscal Year 2007 (the last financial statements available) CAANH has negative net assets totaling \$2,939,663. It also has a negative working capital balance of \$3,148,165.

New Opportunities, Inc. the community action agency (CAA) located in Waterbury is a subgrantee in good standing with DSS and serves the Greater Waterbury and Meriden areas, as well as Greater Danbury. The agency has been providing comprehensive holistic services to low-income households with federal and state funding for the past 45 years.

New Opportunities has submitted a plan in which they will assume the lead role to ensure that eligible households continue to receive weatherization services in the area currently covered by CAANH. New Opportunities will partner with the Community Renewal Team, Inc. (CRT) and TEAM, Inc. to provide the ARRA services and they are also in good standing with DSS.

CAANH currently provides weatherization services to the towns within the TEAM service area. This occurred when the federal funding was greatly reduced in 1995. TEAM will now provide ARRA weatherization services to their catchment area consisting of ten towns in the Naugatuck Valley. CRT and New Opportunities will provide ARRA weatherization to the five towns in the CAANH catchment area.

New Opportunities recognizes that CAANH will continue to play a role in the provision of weatherization to eligible households under ARRA. All three agencies will coordinate information and work in collaboration with CAANH on units that have been weatherized and clients to be weatherized to ensure that there are no duplication of services and that households also receive the services. The entities will also work with other partners such as the utility funded programs and the Fuel Oil Conservation Board to leverage the ARRA dollars.

In their plan, New Opportunities has indicated that they will work closely with the Workforce Alliance [WIA Work Force Board], and their Construction Job Funnel to secure low income, unemployed, individuals to work on the crews. They estimate the creation of 15-20 new jobs as the result of establishing crews and newly trained auditors. CRT and TEAM have not finalized the mix of sub-contracting and crews that they will be utilizing for this work. There will be a detailed budget and narrative that will outline how the project will be administered and the actual number of total jobs to be created. All jobs created with the ARRA funds will be local personnel within the catchment areas of CAANH and TEAM.

Temporary Subgrantees

DSS also proposes to retain flexibility to add or change subgrantees, if necessary, to meet ARRA goals. Selection of additional subgrantees will be in compliance with the requirements outlined in 10 CFR § 440.15. Specifically, DSS may add temporary subgrantees to provide overflow capacity and to

assist targeted building portfolios, or to provide additional capacity in a specific geographic region. Temporary subgrantees will be solicited through a selection process, and will be chosen to work on targeted building portfolios or geographic areas. Candidates will be selected based upon their qualifications; ability to manage all responsibilities of a subgrantee; and ability to leverage other resources. These subgrantees will participate in the WAP only through the expenditure of the ARRA funds. Temporary subgrantees will be provided with all necessary training, as detailed in the Training Activities section of this plan.

III. Priorities for Program Services

Clients determined eligible for energy assistance receive, with their notice of eligibility, a weatherization card which they complete and return if they are interested in receiving weatherization services. Cards are filed by town and by date received and are serviced accordingly, or if necessary, by some other plan developed by the subgrantee and approved by the Department of Social Services (DSS). As mentioned previously, priority is given to those clients that are most vulnerable. These include households in which a member who is elderly (60 years and older), disabled or under six years old is present. These also include households that are high energy users (annual heating costs exceed \$2500).

IV. Climatic Conditions:

There are approximately 6000 heating degree days in Connecticut. There is little variation from one end of the state to the other. The WRAP Home check energy audit assigns each town, based on zip code, to either the Bridgeport or Hartford National Weather Station.

V. Weatherization Measures

Weatherization measures are determined by the WRAP Home Check Energy Audit, which is the only energy audit currently approved by the USDOE for use in Connecticut. The audit software models buildings based on the following three (3) major building types:

Building Type Priorities

Type 1: House with Warm Basement (intentionally or unintentionally heated)

Source of Heat Loss	Weatherization Measures Required
Health and Safety conditions	See H & S and Heating System Guidance
Uninsulated Attic (less than R19)	Insulate up to R38 (see guidance)
Sidewalls	Insulate up to R13 (see guidance)
Partially Insulated Attic (R19 or greater)	Add insulation up to R38 (see guidance)
Basement Perimeter	Insulate sills up to R19
Air Infiltration	Infiltration/Airsealing Measures
Single Glaze Windows	Install storm windows
Primary Window in Poor Condition	Install Vinyl Replacement Windows (see guidance)
Primary Door in Poor Condition	Install Replacement Door (see guidance)

Type 2: House with Cold Basement

Source of Heat Loss	Weatherization Measures Required
Health and Safety conditions	See H & S and Heating System Guidance
Uninsulated Attic (less than R19)	Insulate up to R38(see guidance)
Sidewalls	Insulate up to R13 (see guidance)
Partially Insulated Attic (R19 or greater)	Add insulation up to R38(see guidance)
Uninsulated Basement Ceiling	Insulate up to R19, Insulate Heating Pipes/Ducts, Domestic Hot Water Tank as needed (see guidance)
Air Infiltration	Infiltration/Airsealing Measures
Single Glaze Windows	Install storm windows
Primary Window in Poor Condition	Install Vinyl Replacement Windows (see guidance)
Primary Door in Poor Condition	Install Replacement Door (see guidance)

Type 3: Mobile Home

Source of Heat Loss	Weatherization Measures Required
Health and Safety conditions	See H & S and Heating System Guidance
Primary Door in Poor Condition	Install Replacement Door (see guidance)
Uninsulated Belly	Insulate and seal ducts as needed (see guidance)
Air Infiltration	Infiltration/Airsealing Measures
Single Glaze Windows	Install interior storm windows
Primary Window in Poor Condition	Install Vinyl Replacement Windows (see guidance)
Uninsulated Roof	Blow in insulation and coat roof

VI. Weatherization Work

THE FOLLOWING PROCEDURES WILL BE FOLLOWED FOR ALL JOBS EXCEPT WHERE NOTED OTHERWISE:

A. Heating System Guidance

1. Oil-Heating System

a. Clean/Tune/Test and Safety Check

Oil fired heating systems and attached oil -fired hot water heaters, will be cleaned tested, tuned, and then re-tested by a licensed oil burner technician. In conjunction with a clean/tune/test, the technician will have to complete an Oil Burner Combustion Efficiency Report (HUM-120) documenting the Steady State Efficiency of the system. Our objective will be a reading of over 75% efficiency. All single family and multi-family dwellings with their own oil-fired heating system, and all multi-family buildings with oil heat, to be weatherized under the 50% or 66% rule will be tested under the above criteria.

The clean, tune and test shall include:

1. Check for oil leaks;
2. Check chimney base and fuel pipe;
3. Check operation of all controls;
4. Check oil pump pressure;
5. Check barometric damper operation and adjust draft if necessary;
6. Check thermostat operation;
7. Lubricate all motors;
8. Replace filters as necessary
9. Clean pump strainer and inner housing;
10. Replace nozzle and clean electrodes;
11. Clean, brush, and vacuum heat exchanger surfaces thoroughly;
12. Adjust fuel/air for proper combustion.

b. Replacement Oil Burner

If the efficiency remains 75% or less after cleaning and tuning, this measure is allowable. However, the technician must estimate a resulting efficiency above 75% on the combustion efficiency report, and this estimate must be at least 5% higher than the original reading (i.e., if a furnace is tested and the efficiency is 71% and the estimated efficiency of a new burner would be 75%, the new burner should not be installed. The efficiency of the new burner in this unit must be 76% or more).

c. Programmable Thermostats

This modification is optional. It should only be used if the auditor feels that the client will utilize it properly and the lifestyle of the household warrants it.

2. Gas Heating Systems

Dwelling units which have a natural gas or propane fired central heating system will have a Clean/Tune/Test and Safety Check done unless this service has been performed within the previous five (5) years.

This pertains to all single family and multi-family dwellings with their own heating system, and all multi-family buildings to be weatherized under the 50% or 66% rule.

The following procedure must be performed by a licensed technician who must also complete a Gas Combustion Efficiency Report documenting the steady state efficiency of the system.

a. Clean/Tune/Test and Safety Check

1. Check for gas leaks at the main gas valve, the pilot assembly and any accessible line couplings;
2. Check the chimney base, draft diverter and flue pipe for safety problems and check for proper drafts;

3. Check the operation of all controls; including blower speed, fan switch, limit controls and thermostat, and adjust if necessary for optimum efficiency;
4. Clean and adjust the pilot assembly and test pilot safety system;
5. Lubricate all moving parts;
6. Inspect the blower belt and adjust the tension;
7. Inspect the air filter and replace if necessary;
8. Brush and vacuum heat exchanger surfaces and check for evidence of failure;
9. Clean and inspect the burners and adjust for proper flame and combustion; and,
10. Observe at least one complete system cycle and record the final steady state efficiency.

b. Programmable Thermostats:

This modification is optional. It should only be used if the auditor feels that the client will utilize it properly, and the lifestyle of the household warrants it.

3. Emergency Repairs

During the clean/tune/test process the technician may find certain conditions that might make the system unsafe or inoperable. For example the fuel pump or the circulator may be faulty, or the tank may be leaking. Such problems should be handled on the spot if possible, but the additional materials and labor involved must be documented separately on the combustion efficiency report.

Emergency repairs will fall under the health and safety category, which is subject to a \$500.00 average limit for materials.

4. Heating System Replacements

Heating systems can only be replaced if:

- it cannot safely achieve seventy percent (70%) steady state efficiency (with reasonable repairs);
- if the heating system has been red tagged by the gas utility company, and any possible repairs would be too expensive;
- and must also meet one of the following requirements:
 - it screens on the audit within an overall SIR of one or more; or,
 - can be leveraged with other non-federal funds.

A waiver must be submitted to the State for approval to replace the system and procurement procedures must be followed (a minimum of two price quotes). Energy Star Replacement systems are required for installation. Reimbursement for heating system replacements under the DOE or Leveraging programs will be for the material and labor cost plus \$200 program support payment. Heating system replacements are available for owner-eligible units only, because landlords are responsible for providing dependable heating equipment in rental units. Only one heating system replacement per eligible owner occupied building is allowable. In all cases, ownership must be verified prior to the installation of a new heating system. After the system is installed the contractor must do a SSE test, which must be reported on the BWR.

B. Water Heater Guidance

Always inspect the tank to determine type of fuel (oil, gas, electric) and venting requirements.

1. If an unvented gas unit is found, it must be vented by a qualified sub-contractor, before proceeding with insulation or any other measure. This is an allowable health and safety measure.
2. Always obtain occupant permission before reducing hot water temperature setting to 120 degrees Fahrenheit.
3. Insulate hot water tank (gas, electric, oil), **if it is not a newer energy efficient model**, to a minimum of R-6.

Gas-Fired Water Heater

1. Inspect for vent damper and do not insulate gas-fired water heaters so equipped.
2. Determine the location of the pressure relief valve.
3. Determine the location of the burner air inlet, pilot light access plate, and drain valve.
4. Do not install insulation on the top plate.
5. Cut the insulation to clear the burner air inlet, thermostat control, pilot light access plate, drain valve, plumbing pipes, and other necessary access plates.

Oil-Fired Water Heaters

1. If the vent pipe is top-mounted, do not install insulation on the top plate.
2. If the vent pipe is side-mounted, maintain the minimum vent connector clearance specified in the latest edition on NFPA 211, Standard for Chimneys, Fireplaces, and Vents.
3. Cut the insulation to clear the pressure relief valve, thermostat control, flame peep sight, burner access plate, drain valve, plumbing pipes, and other necessary access plates.

Post-Installation Procedures

1. Ensure that the insulation is securely attached with staples and white duct tape.
2. Ensure that required clearances are maintained around vent pipes; and insulation has not been installed on the top of oil-fired water heaters, which have a top-mounted vent pipe, or gas-fired water heaters.
3. Ensure that air inlets, access plates, drain valves, temperature control, and pressure relief valves are not covered by insulation.

Replacement Water Heaters

Failed hot water heaters, that cannot be repaired, can be replaced as an allowable health & safety measure in single family dwellings. The dwelling must be owner occupied and prior approval from DSS is required. Fuel switching is discouraged, but will be considered on a case by case basis, if cost effectiveness can be demonstrated.

Requests must be submitted on the standard DSS Waiver Form and procurement procedures (a minimum of two price quotes) must be followed. Previously weatherized units are not eligible, unless they were weatherized during the current program year and the BWR can be revised.

C. Blower Door Directed Air-Sealing Guidance

All single-family homes, including mobile homes, and all multi-family apartments, must receive a pre and post single point blower door test to document the infiltration rate, in cubic feet per minute, at fifty pascals (cfm 50). Multi point tests are not necessary. This requirement can only be waived if there is justifiable health or building safety concerns. In such cases these concerns must be documented on the BWR. All test results must be documented on the audit data input sheet. Care must be taken to ensure that dwellings are not tightened beyond the minimum ventilation guideline. Refer to the Health and Safety Guidance in this Plan for more detailed information on blower door testing health and safety concerns.

Prioritizing air-sealing work involves an understanding of how air moves through the building envelope. Generally speaking, because of the high exfiltration pressures in the upper areas of the building, due to the stack effect, the attic/living space interface is the area that should be addressed first. Many leakage areas in the attic are actually part of a series leak that may begin in the basement or living area. In most cases, these leaks can be sealed in the attic and there is no need to seal the other areas. Potential leakage areas include: attic accessways, open top plates in interior partition walls, balloon framed buildings, chimney and plumbing chases, kneewall/floor junctions in finished attics and drop soffit ceilings.

There can also be significant opportunities for air-sealing in basements, but care must be taken to ensure that adequate combustion air for appliances is left after the work is done. Refer to the Combustion Safety Procedures in the Health and Safety section of this Plan for more detailed information on checking for adequate combustion air. Large leakage areas in foundation walls, around interior bulkhead doors, basement windows, plumbing chaseways and bathtub cutouts are of particular

concern. Leaking ductwork can also significantly affect the overall air leakage of a dwelling. Refer to Duct Measures section of this guidance for more information.

Opportunities for air-sealing within the living space of a dwelling, besides the obvious include the following: draft-stopper kits for fireplaces, repairing large holes in walls and ceilings, especially those that may be hidden by a suspended ceiling, openings behind built in counters and cabinets, leaky wall outlets and light fixtures.

Materials used must be appropriate to the area being sealed. For example, chimney chases must be sealed with fire retardant materials such as flashing and high temperature caulk. Large openings should be covered with a solid material such as plywood, sheetrock or rigid foam board. These materials must be fastened in place and sealed along the edges. Smaller cracks and holes can be filled with expanding or non-expanding urethane foam or caulk.

Reimbursement for blower door guided air-sealing, unlike other measures that are reimbursed based on actual cost, will be based on an hourly rate of \$105 that will include both material and program support for a two man air-sealing crew.

Of that amount, \$30 will be allocated to the material cost of the job, and \$75 will be allocated to the support cost of the job. The WRAP Audit will determine the maximum amount that can be spent on each job.

The following materials will be included in the hourly rate:

1. Urethane foam
2. Interior caulking
3. Miscellaneous materials for covering large holes such as sheetrock, plywood, flashing, insulation board, cardboard, nails, screws and other hardware.

VII. Material Specifications

All materials must conform to materials specifications, as they appear in the most recent update of Federal regulation 10CFR Part 440 - Appendix A Standards for Weatherization Materials, published February 1, 2002. Any exceptions are noted below in the Materials and Installation Guidance.

In addition, subgrantees that procure \$10,000 or more of the following products must insure that they are composed of the highest percentage of recoverable materials practicable, taking into consideration competition, availability, technical performance and cost:

Cellulose
Fiberglass
Perlite Composite Board
Plastic Foams and Board

VIII. Materials and Installation Guidance

Glass Replacement

All cracked and broken glass separating conditioned space from unconditioned space is to be replaced.

Weatherstripping Doors

The installation of a permanent weatherstrip product which has a minimum effective life of at least five (5) years is required.

Door Sweeps

Rigid or flexible aluminum and vinyl sweeps are required for those doors which separate conditioned living space from unconditioned space.

Electrical Outlet Gaskets

They shall be installed on all outer wall outlets, and interior walls showing evidence of a thermal by-pass. Any commercially available product is acceptable.

Primary Door & Window Replacements

Primary window and door replacements must have a blower door pre- and post- test done on the unit. **In all instances, prior approval must be received from the DSS Energy Services Unit prior to the ordering of windows and/or doors.** The State reserves the right to limit quantities approved.

Primary Door Replacement Guidance

Replacement doors should only be considered for primary doors separating conditioned living space from the exterior. The existing door must be damaged beyond repair.

Replacement doors should not be superior in style or quality to the doors being replaced

All replacement doors should be stained or painted on both interior and exterior sides, including tops, bottoms and jambs.

Storm Window & Door Guidance

Storm windows and doors should be considered when existing storms are damaged beyond repair, or nonexistent. Storm windows should not be considered for multi-glazed, primary windows. Storm doors will require the prior approval of DSS and should not be considered for insulated steel doors.

Primary Window Replacement Guidance

Primary replacement windows should only be considered when the existing primary window is damaged beyond repair, or nonexistent.

Sash Replacement

Sub-grantees shall make every effort to replace damaged wood sash, with the same or comparable materials, if the casing and storm are in good condition. All replacements shall be done in accordance with manufacturer's instructions, and all sash shall be stained or painted on both the exterior and interior sides. New wood sash is not to be installed unless protected by storm windows.

Weatherstripping Windows

This is an optional measure, however, weatherstripping of windows should not take place until primary windows have been repaired where required/needed and properly adjusted.

Window Locks

All primary windows should have window locks installed and properly adjusted where missing or broken.

Primary Door Locks

Door locks should be installed when damaged, broken or missing, on doors leading to unconditioned areas.

Attic Insulation

Floors should be insulated to R-38 and kneewalls should be insulated to a minimum of R-11. Horizontal access hatches should be insulated to a minimum of R-19, and vertical access doors should be insulated to a minimum of R-11. Insulate over fold up stairs.

A 3" clearance should be left around all masonry chimneys, metal flues and recessed light fixtures (except type IC fixtures). If loose fill insulation is used, metal blocking must be permanently attached around the above items to a height of at least 4" above the insulation, or mineral fiber blocking may be substituted if it is at least equal in height to the loose fill insulation and it extends at least 24" in all directions.

If live knob and tube wiring is present it must not be covered with insulation. It is an allowable H&S measure to have an electrician replace live K&T wiring to allow for insulation.

In addition, insulated attics must be vented properly. For insulation with a vapor barrier, there should be one square foot of net free venting for every three hundred (300) square feet of attic floor area. For insulation without a vapor barrier, there should be one square foot of net free venting for every one hundred fifty (150) square feet of attic floor area. For the purpose of determining venting needs, low-perm ceiling paint will be considered a vapor barrier.

Basement Insulation

Insulation should be recommended for ceilings above cold basements and crawlspaces, where the air temperature is nearer to the outside temperature during the heating season. They should be insulated to a minimum of R-19, providing there is no evidence of insect infestation, decay, moisture damage or excessive ground moisture. If a vapor barrier is used, it must face the conditioned area above. If clients express concern about fiberglass falling over work or laundry areas, they can be covered with an approved building wrap.

If, during the heating season, the air temperature is nearer to the conditioned living space above, only perimeter insulation should be recommended. In many instances, especially during the warmer seasons, the auditor, with input from the client, may have to make a judgment call.

When in doubt, do not recommend ceiling insulation.

If insulation is installed above crawlspaces or basements with soil floors, a 6 mil (minimum) black polyethylene ground cover must be used as a moisture barrier. In such cases, if there is evidence of excess moisture, the following ventilation guidelines apply:

With a vapor retarder - One sq. ft. of cross ventilation for every 300 sq. ft. of area

Without a vapor retarder - One sq. ft. of cross ventilation for every 150 sq. ft. of area

For joist spaces of 24 inches or less, wire hangers should be spaced 18 inches apart. Over that, wire hanger should be spaced 12 inches apart.

If live knob and tube wiring is present it must not be covered with insulation. It is an allowable H&S measure to have an electrician replace live K&T wiring to allow for the insulation.

Sidewall Insulation

Exterior walls with cavities at least 3 ½” shall be insulated whenever possible with cellulose insulation. The following procedures must be followed before walls are insulated:

1. Check for evidence of water leakage or other moisture problems.
2. Check condition of interior walls.
3. Check the sills in the basement, behind counters and cabinets and other built in fixtures for areas that need blocking.
4. Obtain owner permission

All necessary corrections must be made before proceeding. Access to wall cavities must be made by removal of siding prior to drilling holes through the sheathing. Insulation with superior airsealing qualities shall be used. A minimum density of 3 lbs. per cubic foot is required. The following installation method is required:

Tube Fill Method – One hole per floor in the middle of each stud cavity shall be made. A flexible fill tube long enough to reach the opposite ends of the cavity must

be inserted into the cavity and withdrawn as the cavity fills. Fire-stops and other obstructions will necessitate additional holes.

All holes must be inspected for wiring or plumbing damage. **Insulation must not be installed in cavities with live knob & tube wiring or in cavities which serve as air ducts, or in cavities which contain water pipes, electric space heaters or recessed radiators. Only non-combustible insulation shall be installed in cavities adjoining fireplaces and chimneys. It is an allowable H&S measure to have an electrician replace live K&T wiring to allow for insulation.** Additionally, on multi-story buildings with platform construction, the band-joint area between floors should also be insulated.

Exterior garage walls will not be insulated. Interior garage walls and ceilings adjoining heated areas must be done instead, if not already insulated. Siding and sheetrock must be returned to their original condition as best as possible. Exposed wood on siding must be painted or primed.

Pipe Insulation

Insulation should be recommended for heat and hot water pipes in unheated basements and crawlspaces where ceiling insulation will be recommended, or already exists. Any cold water pipes in these areas in danger of freezing can also be insulated, but as a health and safety measure. If the ceiling will not be insulated, do not recommend pipe insulation.

Pre-formed urethane with an R-value of at least 3.5 is recommended for all standard diameter hot water pipes. Slits should face down and all joints should be securely taped. Faced fiberglass with an R-value of at least 5 is recommended for all steam pipes. Do not remove or insulate over existing asbestos pipe insulation, and do not insulate leaking pipes.

Duct Measures

Inspect all duct runs, including returns to make sure they are connected. Open returns are a potential health and safety hazard that must be addressed. Also check doors leading to rooms with supply registers, but no returns, to make sure they are under-cut enough. Otherwise the system will not be properly balanced and energy will be wasted. Next, check for leaks around the ductwork seams, using smoke, while the blower is on. Large leaks, especially on the return side of the system, should be sealed with a good quality duct tape or mastic.

Insulation should be recommended for all ducts, including returns, in cold basement and crawlspaces where ceiling insulation will be recommended or already exists. Faced fiberglass with an R-value of at least 5 is recommended. It must be fastened with a good quality duct tape or other suitable fastener. If the ceiling will not be insulated, do not recommend duct insulation.

Smoke Detectors

Smoke detectors are an allowable health and safety measure. They should be installed near kitchens, in the basement and in bedroom halls. They should be battery operated and U.L. tested and listed to U.L. Standard 217 and comply with NFPA 72. A client signed disclaimer form is required. Otherwise local codes will prevail.

Carbon Monoxide Detectors

CO detectors are an allowable health and safety measure, but only when one or more of the following conditions exists, and the client does not already have one in good working order:

- Fireplace or woodstove
- Vented heat and/or hot water combustion appliance
- Unvented gas cookstove
- Attached or basement garage

Units must be 120 VAC powered and U.L. tested and listed to 2034-98 and comply with NFPA 720. Battery operated only units will not be allowed, but models with battery back up are acceptable. A client signed disclaimer form is required. They are to be installed according to manufacturer's instructions, at about adult eye level and in or near bedroom sleeping areas only. If the bedroom areas in the home are separated, a second unit can be installed. Prior approval from DSS is required if more than two are needed.

Fluorescent Light Bulbs

Any interior incandescent light fixture that is in use at least 4 hours a day can be retrofitted with a utility or WRAP approved fluorescent light bulb.

IX. Summary of Measures

After Health & Safety measures, for which every unit is checked, the most commonly installed measures are:

- Attic insulation;
- Sidewall insulation;
- Airsealing/infiltration measures;
- Basement/crawlspace ceiling insulation;
- Pipe and duct insulation;
- Storm windows/doors;
- Primary windows/doors

The installation of attic/sidewall insulation and attic/basement air-sealing will be the only measures addressed in the ineligible units weatherized under the 50% or 66% Rule. Ineligible duplex units (side by side) will not be eligible for sidewall insulation. If none of these measures are installed in the building, no credit will be given for the ineligible unit(s).

Connecticut has opted not to address cooling measures and refrigerators since they are addressed in our utility funded low-income programs.

DSS encourages use of renewable energy systems, alternative energy sources, and other "green" practices in its housing and energy programs. DECD, through this initiative, also proposes installation of renewable energy systems and green building materials. It is understood that the installation of renewables will only be permitted when consistent with DOE guidance and justified by an overall

savings-to-investment ratio of 1.0 or higher, or by other allowable considerations. Any materials used must meet the specifications listed in 10 CFR 440, Appendix A, or otherwise be approved by DOE for use in the program.

X. Home Energy Audit

As mentioned previously, the federal WAP regulations govern the expenditure of ARRA WAP funds. These regulations require the use of a DOE-approved energy audit, or priority list, to determine measures to be completed on each job. The audit must prioritize recommended measures by savings to investment ratio (SIR). Except for approved health and safety measures, only measures with an overall SIR of 1 or more can be completed.

DSS proposes to use the CL&P WRAP Home Check Energy Audit for the ARRA WAP program, since it is the only energy audit currently approved by the DOE for use in Connecticut. This audit is also supported by all of Connecticut's major electric and natural gas public utility companies, as mandated by section 16a-46 of the Connecticut General Statutes. This statute requires the companies to provide low-income home energy audits in Connecticut.

DSS may seek DOE approval to amend the current audit or select a new audit to cover multi-family units or to fulfill the requirements of the ARRA program. DSS reserves the right to submit other energy audits to DOE for approval as may become necessary.

XI. Spending Limits per Dwelling Unit

The federal WAP regulations currently allow an average spending limit of \$6,500 per dwelling unit, (previously \$2,500 per unit), which is adjusted annually for inflation. DSS proposes to use the same average limit for the ARRA WAP. DSS also proposes a maximum spending limit, per dwelling unit, of \$10,000. Within that maximum limit, DSS proposes a maximum health and safety spending limit of \$2,500 per dwelling unit. Waivers will be considered for dwellings needing new heating systems. Each subgrantee will be responsible for ensuring that the \$6,500 average per unit is maintained for the units they weatherize.

XII. Eligible Dwellings

The federal WAP regulations will govern the determination of dwelling unit eligibility for the ARRA WAP. Generally speaking, with some exceptions, any single family or multifamily building, not previously weatherized, is eligible to be weatherized, as long as it is not for sale, in foreclosure, or in need of major rehabilitation.

Households must meet all income eligibility requirements for the unit to be weatherized. For two (2) through four (4) unit multifamily buildings, at least 50% of the tenants must be income eligible. For larger buildings, at least 66% of the tenants must be income eligible.

XIII. Energy Savings

Energy savings for homes weatherized in Connecticut this program year are estimated to be **218,250 MBTUs**. This is based on the optional DOE formula of **29.1 MBTUs** times the total number of homes (7,500) to be weatherized.

XIV. Health and Safety

The purpose of the Weatherization Assistance Program first and foremost is to improve the energy efficiency of the dwellings owned or occupied by low-income persons. Therefore it must be certain that the majority of the funds spent on the program will directly result in energy savings.

DSS is also committed to the health and safety of their clients and to that end, will allow an average of up to \$500 per unit in material costs for energy related health and safety repairs, up to a maximum of \$2500 for material and labor in any one job. Because heating system work is so regulated in Connecticut, and because most of these activities will be related to heating system repairs, which on average are more expensive in Connecticut than the rest of the region, DSS strongly feels that a limit less than that will be ineffective. DSS also feels that with this limit, the overall expenditures will still be cost effective. Subgrantees will have the responsibility of managing these health and safety cost limits.

When Subgrantees encounter health and safety problems that cannot be resolved within the scope of these limited resources, they will have to postpone services until the problems are resolved. In all cases, client education and referral to other programs will be an integral part of this process.

Grantee Health and Safety

All costs related to grantee health and safety will be charged to the state administrative or technical assistance cost category.

Crew and/or Contractor Health and Safety

All workers have a right to work in an environment that does not jeopardize their health and safety, whether in the office, the warehouse or the job-site. For more information on worker health and safety, see "Construction Industry OSHA Safety and Health Standards"(29 CFR 1926/1910).

The following general guidelines apply to all subgrantees and their contractors:

1. Each employer must design and implement a training program so that all new employees are given basic health and safety training before they enter the field.
2. Periodic refresher sessions on various safety topics must be held for all employees on a regular basis. A Training Log must be maintained for these sessions to document the subjects covered and who attended.
3. All workers must be trained on the proper use of power tools and equipment, including precautions to prevent injuries to clients, especially children, who might come into contact with them.
4. All power tools and equipment must be protected with GFCI circuit breakers. Damaged or worn electrical cords will not be used.
5. All workers must be trained on the safe use of ladders.

6. Each vehicle and job site must have a first aid kit and all workers must be trained on administering first aid.
7. All crew workers must wear NIOSH N100 rated respirators, and protective eye wear meeting the requirements of ANSI Z-87.1-1968, when applicable.
8. All weatherization vehicles will be properly maintained and inspected regularly to insure safe operation. A maintenance log documenting all service and repairs must kept for each vehicle.
9. A supply of potable water will be kept in all work areas and job sites. Portable water containers will have taps and each worker will have their own drinking cup.
10. Each agency must maintain an OSHA Log #300 to document all accidents. This information can then be used to identify trends and eliminate hazards.
11. Each agency must comply with OSHA HAZCOM requirements. Containers of hazardous materials must be labeled with appropriate warnings. Material Safety Data Sheets (MSDS) for all materials must be kept at all job sites, so that they are readily available in case of an emergency.

Client Health and Safety

In general, before beginning any work, the agency must take into consideration the possible effect of work to be performed on any particular health or medical condition of the occupants. Preferably, this information should be obtained during the client interview portion of the energy audit process. If it is determined that any of the work activities would constitute a health or safety hazard, the occupant at risk will be required to leave the home during these work activities, or the work will have to be postponed.

Potential Hazard Considerations

The following potential hazards must be addressed during the energy audit process:

Moisture and Mold – In general, excess moisture can lead to serious health problems. High levels of indoor relative humidity (over 60% for an extended period of time) encourage the increased growth of molds and germs.

Moisture problems can also cause serious structural damage. The sources of moisture problems vary greatly. They can be caused by rain or ground water penetration, leaking pipes, or inadequate ventilation. Client lifestyles can contribute to these problems.

To help determine the extent of any potential problems, a **Moisture Assessment** will be done on all homes. **This assessment will check for the following conditions:**

1. Water stains or mold in the attic, especially on the underside of roof sheathing
2. Evidence of excessive condensation on windows

3. Water stains or mold on exterior wall surfaces
4. Standing water in basements, or stains indicating periodic flooding
5. Basements with dirt floors
6. Unvented dryers
7. Bathrooms or kitchens that are unvented and show signs of moisture problems

If there is evidence of a serious problem, such as excessive mold, strong odors, standing water, or other unsanitary conditions present, such as raw sewage, **weatherization services will be postponed, until the problems are corrected. These problems will be documented on the “Notice of Postponement of Services Form” and a copy will be provided to the client.** In the mean time, every effort will be made to refer clients to other programs that can assist them in eliminating these problems. **The EPA publication “A Brief Guide to Mold, Moisture and your Home” will be used for the purposes of client education**

If there is evidence of mold or moisture Problems that are not considered serious enough to postpone Weatherization services, the client will be alerted to the situation and the areas in question will be documented on the **“Mold Disclaimer Form”** which the client and the landlord, if applicable, will have to sign, before the job can be started. This form will be kept in the job file. Again, the above mentioned EPA guide will be used for the purposes of client education.

Combustion Appliances and Combustion Gases - The following tests must be done, on all combustion appliances, **with the combustion appliance zone set in winter mode**, before any weatherization work is done:

1. A visual safety check and efficiency test, if possible, on all furnaces and boilers. A visual check of all other combustion appliances, including water heaters and wood stoves, must also be performed. **All rooms with a combustion appliance must be checked for adequate combustion air.** There must be at least 50 cubic feet of combustion air for each 1,000 BTU of combustion input. If not, the area will be considered a confined space, and additional ventilation will be required. See form titled ‘Confined Space Options’.

Any unvented gas water heater or space heater must be vented before doing any weatherization measures.

2. Carbon Monoxide (CO) Testing – All clients must be given a copy of the information fact sheet on carbon monoxide poisoning. **All clients without a working CO monitor will be provided with one and educated on its use and maintenance. A signed disclaimer form must be obtained and kept in the job file.**
 - a. Heating Systems - In all oil and gas (propane included), heating systems, and space heaters, test for CO in the exhaust vent of the appliance after steady state combustion efficiency (5-10 minute warm up) has been achieved. Do not perform the test on wood or coal stoves.

- b. Hot Water Heaters - Same as above
- c. Gas-on-Gas Stoves - In addition to doing the above, turn oven on and test in the exhaust port with the oven door closed. Do not test top burners.
- d. Unvented Gas Ovens - Test in the exhaust port with the oven on and the oven door closed. Do not test top burners.

If in any of the above, the CO reading is above 50 PPM, or above 100 PPM in an unvented gas oven, the auditor must contact a qualified service vendor. As long as the ambient air reading is below 10 PPM, the situation will not be considered a problem, and service should be scheduled using routine CTT procedures.

If ambient air reading is 10 PPM or more, the following procedures must be followed:

- **10 PPM – 35 PPM - Contact the client's fuel vendor immediately to alert them of the problem. If the appliance uses oil or propane, and the client does not have a vendor, or the vendor does not do service work, the auditor must immediately contact a vendor that is qualified to do repairs as soon as possible.**
- **35 PPM – 50 PPM - This will be considered a serious situation! Auditor will advise all occupants to vacate the building.**
- **Above 50 PPM – This will be considered an emergency situation! Fire Department must be alerted immediately.**

The client must also be informed of the potential danger and asked to sign a **CO Disclaimer Form**, which the auditor must also sign and date. A copy is to be given to the client and the original placed in the job file. In most instances, a thorough cleaning and/or adjustment of the appliance will rectify the problem. If after servicing, it is determined that the appliance cannot be repaired and should be replaced, refer to the State Plan for guidance as to what appliances qualify for replacement and the procedures to be followed. If replacement is not allowable, notify the client/landlord in writing. Also refer to the Deferral Standards section if such a situation would be warranted.

3. **Backdraft Testing** – Verify proper venting for all combustion appliances using the following test:

- a. Inspect the condition of all flue pipes, draft hoods, diverters and barometric dampers and check for visible signs of backdrafting.
- b. **Set up combustion appliance zone in winter mode.** Then fire up all appliances at the same time including dryers. Allow 5-10 minutes to establish normal flue draft and then do a smoke test on each appliance to verify that sufficient draft exists.

NOTE: Draft will vary according to seasonal conditions and may be stronger in warmer weather due to smaller temperature differences between inside and outside.

Fire Hazards – All combustion appliance areas must be checked for adequate clearance between combustion appliances, flue pipes and any combustible materials. Clients with wood stoves will be reminded about the potential danger of excess creosote build-up in flues and chimneys. **All clients without a working smoke detector will be provided with one and educated on its use and maintenance. A signed disclaimer form must be obtained and kept in the job file.**

Indoor Air Quality

Blower Door Testing Procedures - Because airsealing can affect indoor air quality, the following guidelines must be followed:

1. All data must be recorded on the audit data input form. A copy will be submitted to DSS with the BWR and a copy will be placed in the job file.
2. A Minimum Ventilation Guideline (MVG) must be calculated for each dwelling. The purpose of the MVG is to prevent the over-tightening of buildings. The Lawrence Berkeley Laboratory Model (LBL) will be used, which considers the number of occupants, number of stories, wind shielding and climate to convert the MVG to CFM50. At best it is a guideline only, that assumes no combustion safety problems exist and that moisture generation is normal. The trained auditor will have to raise the MVG if problems are suspected. If there are any indoor air quality problems that cannot be remedied, no airsealing will be done.

The following procedure will be followed to determine the MVG:

- A. Buildings tightness limits for multi-family building where a single unit is to be compartmentalized will be 2000 CFM50.
- B. Buildings tightness limits for single family detached structures and side-by-side duplexes will be determined by the larger of the following two calculations:
 - a. MVG based on 15 CFM natural air flow per occupant will use the following formula:

$$\text{MVG(CFM50)} = 15 \times \# \text{ of occupants} \times N$$

- b. MVG based on .35 natural air changes per hour will use the following formula:

$$\text{MVG(CFM50)} = .35 \times V \times N/60$$

The following definitions and procedures apply to these calculations:

1. N = LBL Correlation factor from Table 1.
2. V = The volume of conditioned living space expressed in cubic feet.
3. The minimum number of occupants will be 5, even if the actual number is less. Add 1 for every resident smoker. Add 1 for every pet over 75 pounds.

4. When determining the number of stories in the dwelling, count only conditioned living space. Finished basements used as living space will be considered a half story unless over 50% of the walls are exposed above grade. Finished attics used as living space will be considered a half story also unless the volume is greater than 50% of the floor below.
- C. A blower door pretest will be performed and recorded before any airsealing is done. After airsealing is complete, a post-test will be performed under the same pressure configuration as the pretest and recorded. If the pretest is below the MVG no airsealing will be done, and additional ventilation will be considered before any other work is done.

Blower Door Safety Concerns

1. Do not conduct a depressurization test with a wood stove or fireplace burning. Close flue dampers and cover loose ash in the fireplace.
2. Do not conduct a depressurization test when any other combustion appliance is operating. Shut off power or gas before the test is conducted, and make sure appliances are turned back on when testing is completed.

Other Health & Safety Concerns

Asbestos - Inhalation of asbestos fibers can cause lung cancer. Therefore, existing asbestos should not be disturbed during weatherization work. The only exception is asbestos shingles on exterior siding. Removal and replacement is allowed for the purpose of installing insulation. If asbestos insulation covering old pipes and boilers is in good condition, the fibers will not be airborne. In these cases, it will be safe to work in the immediate area. However, if the insulation wrapper is damaged or deteriorated, and it is suspected that asbestos fibers have become airborne, no work is to be done in that area. In these instances, client education will include information about asbestos, and the dangers of airborne asbestos fibers. **Asbestos abatement is not an allowable health and safety measure.**

Dust - Inhaling any kind of dust can be harmful. During weatherization work, especially when blowing insulation, precautions should be taken to minimize exposure to dust. Workers should wear NIOSH, N100 rated, respirators and clients should be isolated from work areas. If this is not possible, or the client has a history of respiratory problems, they should be removed until after the work is complete.

Radon and Soil Gases - Radon, which is a colorless, odorless gas that comes from decaying uranium, and other dangerous soil gases enter homes by seeping up through the ground. These gases are driven by air pressure differentials, so work should never be done that create or increases negative pressures in basements and crawlspaces. Radon testing and abatement is not an allowable health and safety measure.

Formaldehyde and Volatile Organic Compounds (VOC) - Formaldehyde vapors may be slowly released by some new carpets and building materials such as plywood. If there is evidence of excessive VOC fumes, no airsealing work is to be done.

Lead Paint - Lead poisoning is a serious problem, especially in young children and pregnant women. Household paints used before 1978 contain lead. Paint chips or dust from these paints can be inhaled or ingested, which can lead to lead poisoning. Studies have found quantities of lead dust around windows and doors because of the friction caused from constant opening and closing. Once this dust is airborne, it can settle anywhere. Crews working in these areas, of pre-1978 housing, are to assume that lead paint is present and are required to take precautions to prevent contamination of themselves and clients.

The USDOE Minimum Standards for Lead Safe Weatherization (LSW) that were issued September 22, 2008, will be followed at all times. These precautions will include the following practices:

- Residents, especially young children and pregnant women, are to be kept away from the work area.
- HEPA vacuum or wet-clean the immediate work area, before and after work, to remove potentially dangerous lead paint particles and prevent dust from becoming airborne.
- Household items, within the immediate work area, will be removed, if possible, or covered with plastic. The floor in this area will also be covered with plastic (6 ml minimum thickness) and secured with masking tape. Photo documentation of containment setup must be kept in file.
- When working on exterior surfaces, cover the ground beneath including shrubs, out to 5 feet for every 10 feet of wall height, with 6 ml plastic and secure to the foundation with duct tape. Photo documentation of containment setup must be kept in file.
- All painted surfaces that are to be disturbed (sanding, drilling, cutting, etc.) must be thoroughly misted first.
- Workers must remove or clean footwear and remove gloves, or clean hands, if applicable, before leaving the work area, so as not to contaminate other areas. Disposable coveralls and footwear are recommended.
- At the end of each workday, all plastic coverings must be rolled or folded inward to trap dust and debris then removed from the job site and disposed of along with all other construction waste, which must be bagged and sealed before removal from the job site.

As a client education service, all weatherization clients living in pre 1978 housing that may contain lead paint will be alerted to the dangers of lead paint, as part of the client education process that takes place during the energy audit home inspection. Prior to any weatherization work being done on pre 1978 housing, owners and occupants will be provided with the EPA Pamphlet “Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools”. An adult tenant or homeowner must sign an acknowledgement after receiving this pamphlet. This documentation must be kept in file.

All weatherization workers and sub-contractors that may potentially come into contact with, or disturb, lead painted surfaces must attend a mandatory day-long “Lead-Safe Weatherization Work Practices” training. This training was especially designed for Connecticut’s Weatherization Program and is based on a training program developed by the University of Connecticut Cooperative Extension System and Environmental Research Institute with funding and approval from the Connecticut Department of Public

Health, the U.S. Environmental Protection Agency and the U.S. Center for Disease Control and Prevention. Sessions are held annually to train new workers and subcontractors. During the 2009-2010 program year all weatherization crews and subcontractors will attend this training because it will include the new USDOE Minimum Standards for LSW that were issued September 22, 2008.

Building Structure – Building rehabilitation is beyond the scope of the Weatherization Program. When homes in poor structural condition are encountered, weatherization services should be delayed until the dwelling can be made safe for crews and occupants. Clients should be referred to the Department of Housing and Urban Development or other programs for assistance with rehabilitation services. Incidental repairs necessary for the effective performance or preservation of weatherization materials are allowed. These limited repairs are listed in the section of this plan titled “Allowable Health & Safety Measures”.

Electrical Issues – The primary energy related health and safety concerns here are insulating homes that contain live knob and tube wiring and identifying overloaded electrical circuits. When these conditions are encountered or suspected, a licensed electrician should be consulted before any work is done. The electrician’s report must document that all circuits have over-current protection, either by circuit breakers or type “S” fuses. A copy of the electrician’s report must be kept in the job file. Electrical inspections and electrical repairs, including those to prevent circuit overloading and to replace or eliminate live K&T wiring to allow for insulation, are allowable H&S measures.

Refrigerant Issues – Standards relating to the replacement and disposal of existing appliances are not applicable to this plan due to the fact that the State of Connecticut has opted not to include cooling measures in the program.

Building Code Compliance Issues – All weatherization related work must comply with applicable State of Connecticut Building Codes. Subgrantees are reminded that if a conflict arises between state and local codes, the local code will prevail.

Allowable Health and Safety Measures:

Any measure listed below is allowable, but subgrantees will be responsible for maintaining an average unit limit of \$500 in materials and a maximum total limit per unit of \$2,500. All health and safety expenditures will be included in the overall average job limits. If the Energy Audit indicates a Savings to Investment Ratio (SIR) of 1 or more for any of these measures, they will be considered regular program expenditures and not charged to Health and Safety.

A. Heating and ventilation system repairs:

1. A C/T/T of the heating system and minor repairs of all combustion appliances, including gas cook-stoves.
2. The venting of unvented water and space heaters.
3. The installation of smoke and/or carbon monoxide detectors and the installation of any combustion safety equipment or device required by building code.
4. Repairs and balancing of distribution systems (heating pipes and ducts).
5. Repairs or cleaning of chimneys and flue pipes.

6. Repairs or replacement if necessary of leaking above ground oil tanks.
 7. The installation of ventilation equipment, including dryer vents, to assure adequate ventilation and moisture control.
 8. Replacement of failed hot water heaters, for owner occupied and eligible units only. Prior approval of DSS is required. Fuel switching is discouraged, but will be considered on a case by case basis, if determined to be cost effective.
- B. Incidental building and electrical repairs necessary to protect the weatherization investment in the unit:
1. The installation of vapor retarders in basements and crawl spaces to contain moisture.
 2. Repairs to roofs, gutters, downspouts, siding and foundations to solve moisture related problems.
 3. Electrical inspections and repairs, including replacing live K&T wiring, to allow for the installation of weatherization materials or the installation of proper sized fuses to prevent circuit overloading.
 4. Insulation of cold water pipes in crawl spaces or other exposed areas in danger of freezing.
 5. Window and door repairs, including glass, glazing, locks, weatherstripping, doorjambs, sill plates/thresholds, pulley repairs, parting beads, side-stops and damaged sash replacement.
 6. Paint, stain and sealers (exterior only).

Deferral Standards

The decision to defer work in a dwelling may be necessary in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved. Subgrantees are expected to assist clients, when possible, with finding alternative sources of help. Good judgment must always be used in dealing with these difficult situations.

All serious health and safety problems encountered that will either prevent or delay the delivery of weatherization services will be documented on the **Notice of Postponement of Services** form, along with possible solutions. The client will be asked to sign this form and it will also be signed and dated by an agency representative. If the client is a renter a copy will also be sent to the landlord.

Deferral conditions may include any of the following situations:

1. The client has known health conditions that would be impacted by the installation of insulation or other measures.
2. 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.

3. The building has sewage or other sanitary problems that would further endanger the client and weatherization installers if weatherization work were performed.
4. The building has been condemned or electrical, heating, plumbing or other equipment has been “red tagged” by local or state building officials or utilities.
5. Moisture problems are so severe they cannot be resolved under existing guidelines.
6. Dangerous conditions exist due to high carbon monoxide levels in combustion appliances and cannot be resolved under existing guidelines.
7. The extent and condition of lead-based paint in the building would potentially create further health and safety problems.
8. The client is uncooperative, abusive or threatening to the auditor, crew, subcontractors or others who must work in or visit the dwelling.
9. In the judgment of the auditor, any condition exists which may endanger the health or safety of the work crew or subcontractor.
10. In the judgment of the auditor, illegal activities are taking place on the property.

CONFINED SPACE OPTIONS

PROVIDE 2 OPENINGS:

HIGH = 12 INCHES FROM CEILING

LOW = 12 INCHES FROM THE FLOOR

1. ROOM TO ROOM

1 SQUARE INCH/1000 BTU'S

2. HORIZONTAL DUCT TO OUTDOORS:

1 SQUARE INCH/2000 BTU'S

3. VERTICAL DUCT TO OUTDOORS:

1 SQUARE INCH/4000 BTU'S

METAL GRILLE = 75% FREE AREA

WOOD GRILLE = 25% FREE AREA

CONNECTICUT WEATHERIZATION PROGRAM

Notice of Postponement of Services

During an audit by a Connecticut Weatherization Provider, _____

Phone # _____, the following health and safety problems were discovered:

Because these problem(s) will prevent us from starting our weatherization work, we have outlined the following required actions. Any help that we can provide will be clearly stated.

The problems listed above do not exclude you from receiving the benefits of the weatherization program. If the above problems can be rectified within sixty (60) days, you will still be eligible for services provided by the Weatherization Program. It will be your responsibility to notify the Provider within the timeframe mentioned above, in writing, that the problem(s) outlined have been eliminated unless the Provider has taken the responsibility for resolving them.

I clearly understand that the condition(s) and problem(s) outlined above prevent my home from being weatherized. I also clearly understand the responsibilities of all parties involved, including my responsibilities and required actions. By signing this document, I understand that I am not giving up my rights to benefits provided by the Weatherization Program, but it is in the best interest of all parties involved that weatherization work not take place until the problem(s) are resolved.

Signed: _____ Date: _____

Provider's Name: _____ Representative: _____ Date: _____

SMOKE/CO DETECTOR DISCLAIMER

This is to certify that I, _____, have had _____
(name of client)
smoke detector(s) and/or _____ carbon monoxide detector(s) installed in my
dwelling unit located at _____, by the

(name of local agency)

I have also been instructed in its/their use and maintenance. *The replacement of batteries and maintenance is my sole responsibility, and not the responsibility of the agency.* Neither the Department of Social Services (DSS), nor the agency listed above, guarantees the performance of the smoke detector(s) and/or carbon monoxide detector. Life expectancies of those detectors vary depending on the manufactures' specifications. Generally, they are 5 years or less.

I understand that the life expectancy of this detector(s) is 5 years or less and that replacement, when necessary is my responsibility.

Signature of Client

Date

I certify that I have installed _____ **working smoke detector(s)** in the dwelling unit listed above in the following area(s):

I certify that I have installed _____ working carbon monoxide detector(s) in the dwelling unit listed above in the following area(s):

I have also instructed the client on its (their) proper use/maintenance.

Signature of Installer

Date

CARBON MONOXIDE

CARBON MONOXIDE is a product of incomplete combustion of fossil fuels.

When combustion appliances such as:

- * Heating Systems
- * Stoves; and,
- * Hot Water Heaters

are dirty, or not tuned properly, they can produce carbon monoxide.

Carbon Monoxide is dangerous because it is invisible and odorless. Victims of carbon monoxide poisoning often have no warning that they are in danger until it is too late!

In small concentrations it can cause flu like symptoms such as:

- * Nausea;
- * Headaches;
- * Chronic Fatigue; and,
- * Dizziness.

Larger concentrations can cause unconsciousness and even death.

IF YOU EXPERIENCE ANY OF THE SYMPTONS LISTED ABOVE CONTACT YOUR GAS COMPANY OR OIL COMPANY IMMEDIATELY!

XV. Rental Procedures

The State of Connecticut, in accordance with 10 CFR Part 440.22(b) (3), has established procedures to ensure that benefits of weatherization assistance in rental units accrue primarily to the low income tenants residing in those units. Connecticut has opted to include the weatherization of shelters and select public housing units in the ARRA program.

Section 440.22(b) (3) (i) and (ii) - Landlords shall not increase the rent paid by the eligible tenants of a rental unit that has received weatherization services for a period of two years from the date the weatherization work is completed, unless the landlord/property owner can document that the increase is due to factors other than the weatherization assistance performed. Tenants sign and receive a copy of the agreement, and therefore are aware of the conditions of the document. Landlords will also agree to charge the same rent to all successor tenants up to the two year period covered by the Weatherization Agreement.

Section 440.22(b)(3)(iii) - The Rental Agreement specifies conditions regarding evictions and/or rent increases as a result of the weatherization work that is done. If a complaint is filed, the agency will have the property owner/landlord verify that such actions are justifiable. Legal Services is available to assist low income households in ensuring that the agreement is reinforced.

Section 440.22(b)(3)(iv) - Other than Health and Safety measures, weatherization work performed on all dwelling units is based on the Savings to Investment Ratio (SIR) of a DOE approved energy audit. Measures installed must have an overall SIR of one or more, and this restricts the amount of enhancement that may occur.

Section 440.22(c) - The agreement between the local agency and the property owner/landlord covers issues dealing with eviction of eligible tenants from the property. As previously mentioned, the tenant will also receive a copy of the agreement. In signing the agreement, the property owner/landlord also agrees that the property is not, or will not be for sale within six months of the date of the agreement. If the property is listed for sale, no weatherization work will be done.

Section 440.22(d) - The State will seek financial participation from property owners/landlords. Property owners/landlords will be asked to contribute twenty percent (20%) of the material cost toward the weatherization of the eligible rental unit. The maximum amount of the contribution will be \$500 per eligible unit. In buildings weatherized under the 50% or 66% Rule, The owner share of the cost of this work shall be 20% of material costs or a maximum of \$500 per eligible unit, whichever is lower. Property owners who are eligible for weatherization assistance will not be required to make contributions. Under exigent circumstances, the State reserves the right to waive the requirement regarding contributions, on a case by case basis.

Section 440.22(e) - As stated above, Legal Services is available to assist clients who may have disputes with the property owner/landlord regarding eviction or rent increases.

WEATHERIZATION AGREEMENT

This agreement is made and entered into between:

(Legal name of local program operator)

hereinafter referred to as the "Local Agency" and

(Name of Property Owner)

WHEREAS it is in the mutual interest of the parties referred to above to enter into agreement for the provision of weatherization;

AND WHEREAS the local agency, has been awarded a Weatherization Contract, under the "Energy Conservation in Existing Buildings Act of 1976, 42 U. S. C. 6861 et seq., enacted as Title IV of the Energy Conservation and Production Act, Pub. L. 94-385, 90 Stat. 1150 et seq., and amended by Title II, Part 2 of the National Energy Conservation Policy Act, Pub. L 95-619, 92 Stat. 611 et seq., and by the Energy Security Act. Pub. L. 96-294, 94 Stat. 611 et seq., from the State of Connecticut, Department of Social Services (DSS);

AND WHEREAS the local agency has agreed to conduct and implement a program of weatherization assistance, as approved by the United States Department of Energy (USDOE), and the State Connecticut, Department of Social Services (DSS).

IN ACCORDANCE WITH THE ABOVE, THE LOCAL AGENCY AGREES:

- (A) That it will provide weatherization services, as specified by the energy audit within allowable program dollar amounts. In buildings being weatherized under the 50% or 66% Rule, services other than attic and sidewall insulation may be restricted to the eligible unit(s).
- (B) That it will provide these services for eligible weatherization client(s) living at:

(name of street)

(town)

(zip)

THE PROPERTY OWNER FURTHER AGREES:

- (i) To grant permission for the local agency and its authorized representatives to enter upon the owner's property for the purpose of determining, installing weatherization measures, and evaluating the weatherization work provided from the date of execution of this agreement.
- (ii) To grant permission for DSS, USDOE, and the Comptroller General of the United States, or any of their duly authorized representatives, access to the property referred to on page 1, for the purpose of evaluating, reviewing, and making an audit on the weatherization assistance provided by the local agency.

- (iii) To have all recommended measures as specified by the energy audit installed within allowable program dollar amounts, unless the local agency determines that a certain measure(s) should not be done.
- (iv) To accept responsibility for any construction waste, that may contain leaded materials, which will be generated from my property during the weatherization work. Before the waste is disposed, will safely store it so that it is not accessible to others and does not contaminate the ground or area around it.
- (v) And certify that the dwelling is not currently under foreclosure, or for sale, nor will be for sale within six months of the date of this agreement.

FOR DWELLINGS NOT OWNER-OCCUPIED, THE OWNER FURTHER AGREES:

1. That there will be no eviction or removal of tenants, from the date the weatherization work is completed, so long as every on-going obligation and responsibility owed to the owner is complied with.
2. That if the tenant is leasing a low income federally subsidized apartment, then that rental contract agreement shall be in effect.
3. That there will be no increase in the rent paid by the tenants for a period of two years from the date the weatherization work is completed, unless the property owner can document that the increase is due to factors other than the weatherization assistance performed under this agreement.
4. The present rent being paid by the tenant is \$_____.
5. That the same rent will be charged to any successor tenant up to two years from the date of the last signatory, except as specified in number 3.
6. That the owner share of the cost of this work shall be 20% of material costs or a maximum of \$500 per eligible unit, whichever is lower. The local agency will notify the property owner of the final amount and the measures to be installed, based on an energy audit of the dwelling unit.

THIS AGREEMENT SHALL BECOME EFFECTIVE AND BINDING, EXCEPT AS THERWISE STIPULATED, FROM THE DATE OF SIGNATURE OF THE LAST SIGNATORY. For buildings built prior to 1978, signatures of owner/authorized representative and tenant, if applicable, also signify receipt of EPA pamphlet "Renovate Right: Important Lead Hazard Information for Families, Child Care Providers and Schools".

By: _____ Date: _____
 Owner or Authorized Representative

By: _____ Date: _____
 Tenant/Weatherization Client

By: _____ Date: _____
 Authorized Local Agency Signatory

XVI. Program Management

Overview

The ARRA Weatherization Assistance Program for Low Income Persons is administered by the State grantee, the Department of Social Services. The Weatherization Assistance Program Manager is Carlene Taylor, Program Administration Manager. The Program Administration Manager reports to Pamela A. Giannini who is the Director of the Bureau of Aging, Community and Social Work Services. The Program Administration Manager is operationally responsible for the Department's Weatherization Assistance Program, which falls under the Division of Community, Energy and Refugee Services. The Bureau of Aging, Community and Social Work Services is under the oversight of the Deputy Commissioner of Programs.

The Weatherization office also has a connection with the State Energy Office at the Office of Policy and Management (OPM) through representation on the Policy Advisory Council (PAC).

XVII. Administrative Expenditure Limits

Total Administrative expenditures (State and Subgrantee) will not exceed 10% of grant funds. State Administrative expenditures will not exceed 5% of grant funds. This program year, all subgrantees under contract to operate the Weatherization Assistance Program will receive allocations exceeding \$350,000 and therefore will not be eligible to receive an additional 5% in administration funds.

XVIII. Employment Created and Retained

The plan includes new efforts to ensure that weatherization assistance will increase the State's activities related to the development of a "green workforce." These efforts include those aimed at providing skilled workers who subgrantees may hire with the increased funding available through the ARRA.

Some CAAs will be partnering with utility companies, cities and the local community colleges and technical high schools to train persons in "green" technology. One such project will be between ABCD and the City of Bridgeport. In that project, people trained by ABCD to work in the weatherization program will have the necessary skills to enter a private sector, energy-related business and work in jobs relating to lowering dependence on fossil fuels and reducing greenhouse gas emissions and air pollution in the greater Bridgeport area.

As required under the ARRA, the plan describes the State's strategy for the use of ARRA funds. In most respects the plan is consistent with the Weatherization Program Year 2009 plan that was previously submitted for the WAP funding allocations. The plan describes DSS's strategy for adding temporary subgrantees and increasing the weatherization workforce, through coordinated workforce development and training programs, and to utilize ARRA funds in an effective manner within the time allowed.

Coordination among state agencies that administer energy, housing and human service programs has increased significantly and been an integral part of the planning for the expanded three-year program. Some of the agencies and organizations involved include the Connecticut Departments of Social Services (including the Bureau of Rehabilitation Services), Economic and Community Development, and Labor; the Connecticut Housing and Finance Authority; the Office of Workforce Competitiveness; the Workforce Investment Boards; the Institute for Sustainable Energy; WorkPlace, Inc.; the Connecticut Community and Technical Colleges; the CAAs; Jobs Funnel Programs; and the Governor’s Office.

Detailed plans for program implementation will continue to be worked out in the next several weeks. There are model programs in Connecticut with similar job skill requirements that successfully recruit, train and place individuals in apprenticeship positions and prevailing wage jobs in their region. Additionally, mechanisms for sustainable jobs and career- ladder opportunities, based on experience and training, are included in the program planning. DSS intends to distribute the ARRA funds in ways that will increase job opportunities and provide specialized training for and access to jobs during this economic downturn. The goal is that these jobs will continue or that the skills obtained through these jobs will be transferable and marketable in the “green” job market of the future.

As previously mentioned, recruitment will target a diverse population – some skilled and some new to the workforce – focusing on low- income individuals, displaced and unemployed workers, persons with disabilities, veterans and older workers. Below is a list of positions that DSS anticipates will be created or retained as a direct result of the additional funding under the ARRA for the WAP:

<u>EMPLOYMENT ESTIMATES – CREATED & RETAINED</u>	<u>3 YR GOAL</u>
Crew Workers/Installers (agency & contractor)	270
Crew Chiefs - Job Site Supervisors	50
HVAC Contractors	25
Energy Auditors	45
Inspectors	30
Intake/Eligibility	60
Client Education Specialists	10
Local Agency Coordinators	25
Technical Monitors - On-site Monitoring/Oversight	15
Program Administration & Desk Monitoring/Oversight	15
Fiscal Administration & Financial Oversight & Audit	24
Trainers/Teachers/Technical Assistance	30
Equipment, Material & Supply Providers & Transportation	25
Operation and maintenance of vehicles and equipment	6
Inventory Control	10
	640

The above numbers, totaling 640, are initial estimates based on the percentage share of funding for Connecticut multiplied by the total anticipated national employment goals for the ARRA WAP. as identified in a DOE presentation on Jan 2, 2009. It includes estimates from DSS. DSS has been working with the Workforce Investment Boards and the Office of Workforce Competitiveness to develop more accurate estimates of the jobs to be created and retained. This information should be available within a short period of time.

XIX. Monitoring Approach

Field Monitoring

To meet the current needs of program oversight, DSS utilizes two experienced Program Specialists to monitor subgrantee activity. They are assigned to specific agencies on a rotating basis and report directly to the WAP Program Manager. They are responsible for monitoring all aspects of the WAP, including, but not limited to, the following: financial and program management; operating procedures; file reviews; inspection of work in process and completed jobs; procurement procedures; inventory control; operation and maintenance of vehicles and equipment; and, adequacy of coverage of service areas.

DSS is committed to ensuring that the integrity of the program is maintained and plans on acquiring four additional durational staff to provide oversight and technical assistance to the subgrantees during the ARRA contract period. The staff will be expected to be knowledgeable about the program and will undergo the same certification and training that is required for all subgrantee field staff. Out of these four, two staff persons will be assigned to provide monitoring and technical assistance to DECD.

Monitoring visits will be made to each subgrantee or its contractor agency on at least a monthly basis. Regular monitoring visits usually consist of client file reviews and inspections of completed units, to ensure quality of work and client satisfaction. The annual comprehensive monitoring visits are more detailed, and include the broad categories mentioned above. Additional visits will be made to provide training and technical assistance in response to observations from monitoring visits or to provide assistance on new requirements or changes in program operation.

If DSS cannot hire durational staff, it may need to use qualified contractors to conduct monitoring activities and ensure compliance with the ARRA. The graph below indicates the number of file reviews and on-site inspections that will be required based on the total number of units to be weatherized. (See attached Monitoring Report Form). Annual major monitoring visits are more detailed, and include the broad categories mentioned above (see attached Subgrantee Monitoring Instrument).

Fiscal Monitoring

A fiscal staff person is currently assigned to the Community Energy and Refugee Services Division to process the monthly financial reports provided by each subgrantee and complete reports for submittal to DOE, DSS and the subgrantees. The fiscal staff person also performs the fiscal monitoring portion of the annual comprehensive monitoring of each subgrantee to ensure adequate financial management control. The procurement procedures are also reviewed to ensure that materials meet federal specifications and are cost effective (see attached Fiscal Monitoring Instrument).

A Building Weatherization Report (BWR) is completed for each unit that is weatherized and inspected and is submitted to DSS with the subgrantee's monthly fiscal report. The fiscal staff person reviews each BWR to check for compliance with the standards of the energy audit, demographic information and the expenditures reported and match back to the fiscal report. To meet the requirements of ARRA, DSS expects to acquire two additional durational fiscal staff persons, one of whom would be assigned to the DECD contract.

ARRA Requirements of Separate Accounts

The ARRA requires that DSS set up separate accounts for all ARRA funding and track all aspects of this program separately from the standard WAP. DSS is committed to doing this and has already initiated these accounts in the CORE system.

Each subgrantee and subcontractor will be required to keep the ARRA funds in separate accounts; any co-mingling of funds will be strictly prohibited. DSS' Quality Assurance Division recommends that any subgrantee or contractor chosen to receive the funds be required to segregate the funds in checking accounts that are completely separate from the regular operational accounts. The ARRA WAP funds should not be co-mingled with any other agency funds. If subgrantees or contractors are unable to adhere to these requirements, they will not be eligible for participation in this program. This requirement will be made a part of their contracts.

DSS will acquire a durational Accounts Examiner who will be assigned to the Quality Assurance Division. The Accounts Examiner will ensure that the ARRA requirements concerning transparency and accountability are met. This person will be responsible for auditing financial transactions in the funding and payment cycles, and ensuring that the federal and state Single Audit Requirements are met.

XX. Training and Technical Assistance Approach

The DSS Weatherization Assistance Program staff meets with the subgrantee Directors on a monthly basis to discuss program issues and also to determine and plan training activities. Staff from CL&P's Weatherization Residential Assistance Partnership (WRAP) Unit and the UI Helps Program also participate in this process.

Each subgrantee also receives T&TA funds in their annual budget allocation, and are encouraged to explore training and technical assistance opportunities that would specifically benefit their own staff and subcontractors. Requests must be submitted to DSS in writing for prior approval.

The only statewide certification requirement for weatherization staff and subcontractors involves the use of the WRAP HomeCheck energy audit, which is the auditing tool approved for use in Connecticut's Weatherization Assistance Program by the USDOE. All auditors must complete an extensive training program and pass a final exam before they can do energy audits for the program. This training uses the text book, "Residential Energy" by John Krigger and Cris Dorsi as a guide and covers all the basic principles of residential energy use, conservation, building construction, combustion efficiency, health and safety checks and the overall audit process.

Client education is one of the most important parts of the audit process because it has been proven to significantly increase the potential for energy savings in the homes that are weatherized. All auditors and inspectors are trained in effective techniques of client education.

**XXI. WEATHERIZATION ASSISTANCE PROGRAM
SUBGRANTEE MONITORING INSTRUMENT**

Agency: _____ **Date:** _____
Location: _____ **Monitor(s):** _____

AREAS COVERED

- A. AGENCY PROFILE**
- B. PROGRAM OPERATING PROCEDURES**
- C. CLIENT FILES/JOB SITE INSPECTIONS**
- D. MONITORING/T&TA**
- E. INVENTORY CONTROL/VEHICLES/EQUIPMENT**

A. AGENCY PROFILE

Name: _____

Address: _____

Telephone: _____

Agency's complete legal name: _____

Number of Weatherization Facilities other than main Weatherization office:

<u>Location (address)</u>	<u>Purpose</u>
_____	_____
_____	_____
_____	_____
_____	_____

List principal agency and Weatherization officials:
(Obtain Table of Organization)

<u>NAME</u>	<u>TITLE</u>	<u>PHONE#</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

SIZE, TYPE, AND SCOPE OF ORGANIZATION

Type of organization (Check only one):

- CAA, non-profit corporation
- CAA, local government agency
- Non CAA, non-profit corporation
- Non CAA, agency of local government
- Other (Specify) _____

Service area (e.g., cities, counties and congressional districts)

Does Executive Director receive a periodic report on the status of the Weatherization Program? yes
___ no ___ Frequency _____

Describe the contents of the report: _____

Does the Weatherization Coordinator have any reporting system that gives him/her the status of the program?

Briefly describe: _____

For agency budget(s) being monitored, supply the following information:

	<u>DOE</u>	<u>OTHER</u>
Contract/Grant/Number	_____	_____
Beginning Date	_____	_____

DOE

OTHER

Ending Date	_____	_____
Administration	_____	_____
Materials	_____	_____
Program Support	_____	_____
Liability Insurance	_____	_____
T&TA	_____	_____
Other	_____	_____
TOTAL:	_____	_____

DOE

OTHER

Completion Goal	_____	_____
Per Unit Expenditure Limit	_____	_____
Support	_____	_____
Materials	_____	_____
Comment:	_____	

For actual expenditures and production for the period being monitored, supply the following information:

DOE

OTHER

Actual Expenditures as of:	_____	_____
Materials	_____	_____

DOE

OTHER

Program Support _____

Liability Insurance _____

T&TA _____

Other _____

TOTAL: _____

DOE

OTHER

Goals to Date _____

Actual Completions _____

Number that received
blower door airsealing _____

Average per Unit Expenditure _____

Support _____

Materials _____

Comment: _____

What percentage of total expenditures to date has actually been spent for materials during the current contract period? _____

How has the subgrantee performed thus far in this program year?

Comment: _____

DOE

OTHER

Goals for Previous Year _____

Actual Number of Completions: _____

% of contract spent _____ Average H & S Material expenditure _____

Is this agency operating other programs in conjunction with the weatherization program?
yes no

If yes, what is the program? How is it funded and are weatherization crews doing the work? _____

Are there property owners/landlords who have refused to sign the Weatherization Agreement? yes no If yes, number who refused _____

Are there property owners/landlords who have refused to make a contribution?
yes no If yes, number who refused _____

Has agency received contributions for all rental units weatherized? yes no

Number of Rental Units Weatherized _____ Amount of Contributions _____

Comment: _____

B. PROGRAM OPERATING PROCEDURES

Does the Weatherization program serve clients throughout the entire geographic service area? yes no

Comment: _____

Does the agency use DSS's card priority system? yes no

Are other systems also used to obtain clients? yes no

Comment: _____

How many clients are currently on the agency's waiting list? _____

Comment: _____

What is the average waiting period between audit and completion of work?

Estimated Average _____

Actual Average _____

Are the cards remaining from the previous year carried forward? ___yes ___no

FIELD WORK PROFILE

How many auditors does the agency employ?

<u>Name</u>	<u>% of Time</u>
_____	_____
_____	_____
_____	_____

Comment: _____

What is the average number of audits per day, including travel and paperwork? _____

What training have auditors received?

- ___ RCS certification
- ___ Training by State Office
- ___ Training courses in energy audits
- ___ In-house training
- ___ Other: _____
- ___ No specific energy audit training

Comment: _____

Who schedules the work crews?

Position: _____

Who makes final inspections of completed jobs?

<u>Name/Position</u>	<u>% of Time</u>
_____	_____
_____	_____

Comment: _____

Has the agency done 100% inspections? ___yes ___no

Comment: _____

Does the agency and its subcontractors follow LSW practices and if so, are containment setups documented with photos? ___yes ___no

Comment: _____

If the same person does more than one of the following: Energy Audit; material installation; final inspection; how does the agency guard against a conflict of interest?

If an inspection finds that “reworks” are required, what are the agency’s processes and procedures? (Check all that apply)

- Separate form used
- Notes of original job order
- Additional costs not noted
- Re-inspection occurs sometimes
- Inspector makes minor corrections during inspections
- Other _____
- Percentage of “rework” observed in sample of client files

GENERAL STAFFING PATTERNS (CURRENT)

Weatherization work is done by:

	<u>Crews Only</u>	<u>Contractors Only</u>	<u>Crews and Contractors</u>
General Heat Waste/Air Sealing	_____	_____	_____
Insulation/Attic	_____	_____	_____
Insulation/Wall	_____	_____	_____
Insulation/Floor	_____	_____	_____
Storm Windows/Doors	_____	_____	_____
Repairs (General Carpentry)	_____	_____	_____
Other	_____	_____	_____
Heating Systems	_____	_____	_____
Total - # Current Crew Leaders	_____		
Total - # Current Workers	_____		
Vacancies (if any)	_____		

Comment: _____

PRIVATE CONTRACTING PATTERNS

If the agency uses private contractors does it have:

- Written bid package on file
- Written procedures and standards which the contractor must follow
- Signed contract between the agency and the contractor(s)

How is evaluation of contractors' performance conducted:

- Inspect work-in-process
- Inspect completions
- Client sign-off
- Other _____
- None

Does agency keep track of total payments to vendors/contractors? yes no

List names of vendors/contractors and total payments to date:

_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

List names of vendors/contractors and total payments to date:

_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

Are contractors paid only after inspections and acceptance of work? yes no

Comment: _____

C. CLIENT FILES/JOB SITE INSPECTIONS

SAMPLING PROCEDURES

Total number of files reviewed during monitoring:

- DOE
- OTHER
- OTHER
- Sample Size

FILE CONTENTS

(See monitoring report forms for file reviews and on-site inspections.)

D. MONITORING REPORTS/T&TA

MONITORING

Grantee monitoring reports during period being monitored:

Date(s) of Visit

Date of Monitoring Report

Comment: _____

Did the most recent grantee monitoring report require any corrective actions on the part of the subgrantee? ___yes ___no

Comment: _____

Have all corrective actions required by the grantee been accomplished? ___yes ___no

If not, explain: _____

Was response to monitoring report provided in a timely manner? ___yes ___no

Comments: _____

TRAINING & TECHNICAL ASSISTANCE

Were T&TA funds passed through to subgrantee? ___yes ___no

If not, how was T&TA received? _____

If yes, how are subgrantee funds spent?

- _____ Regional Training
- _____ Formal classroom
- _____ Conference
- _____ Sending employees to training center

_____ Other (specify) _____

In what areas does the subgrantee feel that additional T&TA is needed? _____

E. INVENTORY CONTROL

Specify methods utilized to store materials:

_____ No storage, contractor supplies all materials

_____ One agency warehouse

_____ Other _____

If agency uses a warehouse:

Is the space adequate for the program's needs? ___yes ___no

Is location reasonably accessible for the weatherization program staff? ___yes ___no

Is it adequately secured? ___yes ___no

Comments: _____

Does the agency have an inventory control system that makes it possible to track materials used on an individual unit back to the point of purchase? ___yes ___no

Comments: _____

What type of daily records are maintained to account for material in and out of the warehouse?

Are the results of the physical inventory compared to inventory records? ___yes ___no

How often? _____

What percentage of variance was there after most recent physical inventory?

Item _____ % _____

Item _____ % _____

Segregation of duties in inventory management:

<u>Name/Position</u>	<u>Responsibility</u>
_____	Signs purchase orders
_____	Maintains inventory records
_____	Takes physical inventory
_____	Reconciles inventory with records

Comments: _____

What are the procedures for disposal of obsolete or damaged materials?

VEHICLE/EQUIPMENT INVENTORY

Does the agency keep a mileage and maintenance log for each vehicle? ___yes ___no

Comments: _____

Vehicles used in weatherization:

_____ Trucks (one or more)
_____ Step Vans
_____ Pick-up trucks
_____ Cars or station wagons
_____ Other

Have any weatherization program vehicles or major equipment been purchased within the last year?
___yes ___no

Have any vehicles been rented or leased, using weatherization contract/grant funds in the past year?
___yes ___no

Was DSS permission given for all purchases? ___yes ___no

Does the agency carry adequate insurance to cover vehicles and equipment? ___yes ___no

Are vehicles and equipment adequate for the needs of the program? ___yes ___no

Comments: _____

Where are vehicles parked overnight and are tools and equipment left in them?

XXII. DEPARTMENT OF SOCIAL SERVICES
FISCAL MONITORING

DATE: _____

AGENCY: _____

**AGENCY
REPRESENTATIVE(S):** _____

DSS MONITOR: _____

FINANCIAL MANAGEMENT CHECKLIST

I. General

yes no

- ___ ___ 1. Are the duties of agency key employees defined?
- ___ ___ 2. Is there an organizational chart which sets forth the actual lines of responsibility?(Request Table of Organization)
- ___ ___ 3. Are written procedures maintained covering the recording of transactions?

 - ___ ___ a) Covering an accounting manual?
 - ___ ___ b) Covering a chart of accounts?
- ___ ___ 4. Do the procedures, chart of accounts, etc., provide for identifying receipts and expenditures of program funds separately for each grant/contract?
- ___ ___ 5. Does the accounting system provide for accumulating and recording expenditures by grant and cost category shown in the approved budget?
- 6. Does the agency maintain a policy manual covering:

 - ___ ___ a) Approval authority for financial transactions?
 - ___ ___ b) Guidelines for controlling expenditures, such as purchasing requirements and travel authorizations?
- ___ ___ 7. Are there procedures governing the maintenance of accounting records?

 - ___ ___ a) Are detailed records for accounts payable and accounts receivable balanced with control accounts on a regular basis? (List the types of detailed records and the timing of reconciliation procedures.)

yes no

- _____ _____ b) Are journal entries approved and explained or supported?
- _____ _____ c) Do accrual accounts provide adequate control over income and expense?
- _____ _____ d) Are accounting records and valuable secured in limited access areas?
- _____ _____ 8. Are duties separated so that no one individual has complete authority over an entire financial transaction? (Document the segregation of duties or lack thereof affecting accounting system application.)
- _____ _____ _____ Cash Request
- _____ _____ _____ Logging of Payments
- _____ _____ _____ Disbursement Authorization
- _____ _____ _____ Account Reconciliation
- _____ _____ _____ Bank Reconciliation
- _____ _____ _____ Check Writing
- _____ _____ _____ Check Signing
- _____ _____ 9. Does the agency use an operating budget to control funds by activity?
- _____ _____ 10. Are there controls to prevent expenditure of funds in excess of approved, budgeted amounts? For example, are purchase requisitions reviewed against remaining amount in budget category?
- _____ _____ 11. Has the agency's financial records been audited within the past two years?
Audit period: _____ to _____
Audit findings: _____
- _____ _____ 12. Has the agency obtained fidelity bond coverage for responsible officials? (Indicate the officials covered and the amounts of coverage.)

yes no

- ___ ___ 13. Has the agency obtained liability insurance coverage?
- 13a. Has the agency obtained pollution occurrence insurance coverage?
- ___ ___ 14. Has the agency obtained vehicle insurance?
- ___ ___ 15. Does the agency have a cost allocation plan or a negotiated indirect cost rate? Describe methodology.
- _____
- _____
- ___ ___ 16. Does the agency maintain records for three years?

II. CASH RECEIPTS

- ___ ___ 1. Are cash receipts recorded by funding source?
- ___ ___ 2. Is he/she responsible for non-cash accounting records, such as accounts receivable, the general ledger, or the general journal?
- ___ ___ 3. Are receipts deposited daily and intact?
- ___ ___ 4. Has the agency established procedures to minimize the time elapsing between the transfer of funds from the Federal government and their disbursement?

III. PROGRAM RECEIPTS FROM THE FEDERAL/STATE GOVERNMENT

- ___ ___ 1. Does the agency have contract agreements providing for funding under requests for advance payments?
- ___ ___ 2. Does the agency have procedures, including cash requirement projections, minimizing the time between the transfer of funds from the government and their disbursement?
- ___ ___ 3. Does the agency's calculation of Government funds required consider updated estimated of allowable program costs?

IV. PROCUREMENT

yes no

- ___ ___ 1. Does the agency have a code or standard of conduct that governs the performance of its officers and employees in the awarding of contracts using federal funds?
- ___ ___ 2. Does the agency have records of all procurement activities?
- ___ ___ 3. Do the records and files include basis for vendor selections or rejection? Basis for cost or price?
- ___ ___ 4. Does the agency have State approval for all non-competitive contracts?
- ___ ___ 5. Are these procedures to ensure procurement at competitive prices? (Describe the procurement procedures for both materials and labor.) _____

V. CASH DISBURSEMENTS

- ___ ___ 1. Are prenumbered purchase orders used for all items of cost and expense?
- ___ ___ 2. Are purchase orders controlled and accounted for by prenumbering and keeping a logbook? (Describe method?) _____

- ___ ___ 3. Is there an effective review by a responsible official following prescribed procedures for program coding, pricing and extending vendors' invoices?

yes no

- _____ _____ 4. Are costs reviewed for charges to direct and indirect costs centers in accordance with applicable grant agreements?
- _____ _____ 5. When accrual accounting is required, does the agency have adequate controls, such as checklist for statement closing procedures, to insure that open invoices and uninvoiced amounts for goods and services received are properly accrued or recorded in the books or controlled through worksheet entries?
- _____ _____ 6. Is there adequate segregation of duties in that different individuals are responsible for (a) purchase, (b) receipt of merchandise or services, and (c) vendor approval?
- _____ _____ 7. Is the purchasing function separate from accounting and receiving?
- _____ _____ 8. Is the purchasing agent required to obtain additional approval on purchase orders above a stated amount? (Indicate the amount.) _____
- _____ _____ 9. Does the agency have a receiving function to handle receipt of all materials and equipment?
- _____ _____ 10. Are supplies and equipment inspected and counted before acceptance for use?
- _____ _____ 11. Are quantities and descriptions of supplies and equipment checked by the receiving department against a copy of the purchase order or some other form of notification?
- _____ _____ 12. Is a logbook or permanent copy of the receiving ticket kept in the receiving department?
- _____ _____ 13. Is control established over incoming vendor invoices?

yes no

- ___ ___ 14. Are receiving reports matched to the vendor invoices and purchase orders, and are all of these documents kept in accessible files?
- ___ ___ 15. Are charges for services required to be supported by evidence of performance by individuals other than the ones who incurred the obligations?
- ___ ___ 16. Are extensions on invoices and applicable freight charges checked by accounts payable personnel?
- ___ ___ 17. Is the program to be charged entered on the invoice? (Check against the purchase order and approved budget.)
- ___ ___ 18. Are checks adequately cross-referenced to vouchers?
- ___ ___ 19. Are the individuals responsible for accounts payable other than those responsible for cash receipts?
- ___ ___ 20. Are accrual accounts kept for items which are not invoiced or paid on a regular basis?
- ___ ___ 21. Are all disbursements properly supported by evidence of receipt and approval of the related goods and services?
- ___ ___ 22. Are blank checks signed?
- ___ ___ 23. Are unissued checks kept in a secure area?
- ___ ___ 24. Are bank accounts reconciled monthly?
- ___ ___ 25. Are bank accounts and check signers authorized by the Board of Trustees?
- ___ ___ 26. Are petty cash vouchers required for each fund disbursement?
- ___ ___ 27. Is the petty cash fund kept on an imprest basis?

yes no

- _____ _____ 28. Are checks controlled and accounted for with safeguards over unused, returned and voided checks?
- _____ _____ 29. Is the drawing of the checks to cash or bearer prohibited?
- _____ _____ 30. Do supporting documents, such as invoices, purchase orders and receiving report accompany checks for the checks signers' review?
- _____ _____ 31. Are vouchers and supporting documents appropriately canceled (stamped or perforated) to prevent duplicate payments?
- _____ _____ 32. If check-signing plates are used, are they adequately controlled (i.e., maintained by a responsible official who reviews and accounts for prepared checks?)
- _____ _____ 33. Are two signatures required on all checks over stated amounts? (Document the procedures followed.)
- _____ _____ 34. Are bank accounts reconciled monthly and are differences resolved? (If not, what are the procedures?)
- _____ _____ 35. Petty cash disbursements:
- _____ _____ a) Is petty cash reimbursed by check, and are disbursements reviewed at that time?

yes no

- _____ _____ b) Is there a maximum amount, reasonable in the circumstances, of payments made in cash? (Indicate the amount: \$_____)
- _____ _____ c) Are petty cash vouchers written in ink to prevent alteration?
- _____ _____ d) Are petty cash vouchers canceled upon reimbursement of the fund to prevent their reuse?

VI. *PAYROLL*

- _____ _____ 1. Are written authorizations on file for all employees, covering rates of pay, with holdings and deductions?
- _____ _____ 2. Does the organization have written personnel policies covering hiring procedures, promotions and dismissals?
- _____ _____ 3 Is the distribution of payroll charges based on documentation prepared outside the payroll department?
- _____ _____ 4. Are payroll charges reviewed against program budgets, and are deviations reported to management for follow-up action?
- _____ _____ 5. Are adequate time keeping procedures, including the use of time clocks or attendance sheets and supervisory review and approval and time by finding source, employed for controlling paid time?
- _____ _____ 6. Are payroll checks prepared and distributed by individuals independent of each other?
- _____ _____ 7. Are other key payroll and personnel duties, such as time keeping, salary authorization and personnel administration adequately separated?

yes no

- ___ ___ 8. Are there procedures to control time and attendance reporting?
- ___ ___ a) Are time cards or attendance sheets used?
(Indicate the method:_____)
- ___ ___ b) Is supervisory approval of time and attendance reports required?
- ___ ___ 9. Are there procedures to insure that employees are paid in accordance with approved wage and salary rates?
- ___ ___ 10. Is the distribution of payroll charges compared to the approved budget?
- ___ ___ 11. Are wages paid at or above the Federal minimum wages?

VII. PROPERTY AND EQUIPMENT

- ___ ___ 1. Is there an effective system of authorization and approval of capital equipment expenditures?
- ___ ___ 2. Are accounting practices for recording capital assets reduced to writing?
- ___ ___ 3. Are detailed records of individual capital assets kept and periodically balanced with the general ledger accounts?
- ___ ___ 4. Are executive authorizations and approvals required for originating expenditures for capital items?
- ___ ___ 5. Are expenditures for capital items reviewed for grantor approval before funds are committed?
- ___ ___ 6. Are supplemental authorizations, including those of the grantor agency, required for expenditures in excess of originally approved amounts?

yes **no**

___ ___ 7. Does the agency charge depreciation or use allowances on property and equipment against any grant program which it administers?

___ ___ 8. Are detailed property records checked annually by physical inventory?

___ ___ 9. Are there procedures governing the disposition of disposition of property and equipment? (Describe procedures.) _____

10. Do the property records include:

___ ___ a) Description

___ ___ b) Manufacturer's serial number or inventory ID number

___ ___ c) Identification of the grant/contract funds which purchased equipment

___ ___ d) Percentage of federal funds used to purchase equipment

___ ___ e) Acquisition cost

___ ___ f) Location, use and condition of equipment

VIII. INVENTORY CONTROL

___ ___ 1. Does the system provide an information mechanism to track materials from the purchase order to the client file?

___ ___ 2. Is the inventory maintained on a daily basis?

___ ___ 3. Is a physical reconciliation done periodically?
Frequency: _____

yes no

- _____ _____ 4. Is there an adequate segregation of responsibility for inventory management?
- _____ Purchase Materials
_____ Receives Materials
_____ Maintaining Inventory Records
_____ Reconciles Inventory Records

IX. SUBCONTRACTING

- _____ _____ 1. Is there a clear, accurate and detailed description of the items to be procured?
- _____ _____ 2. Have minimum criteria for bidders been established?
- _____ _____ 3. Is there a written method for evaluating bids?
- _____ _____ 4. Does the bid package include the following:
- _____ _____ a) Closing date and time
- _____ _____ b) Opening date and time
- _____ _____ c) Name of subcontracting office (someone other than WAP Director)
- _____ _____ d) Date and time of bidders conference
- _____ _____ e) Documents which comprise the bid package
- _____ _____ f) The right of the agency to accept or reject any or all bids
- _____ _____ g) The period of the subcontract
- _____ _____ 5. Is there a specific format in which bids are to be submitted? (Optional)
- _____ _____ 6. Are duties separated so that no one individual has authority over procurement, purchasing and receiving? (Document the segregation of duties or lack of.)
- _____ Management of solicitation
_____ Receives bids
_____ Analyzes bids
_____ Awards subcontract

- _____ Signs Subcontract
- _____ Purchases materials
- _____ Authorizes subcontractor work
- _____ Receives materials
- _____ Inspects subcontractor's subcontract

yes no

- | | | | |
|-------|-------|-----|--|
| _____ | _____ | 7. | Is someone other than the WAP Director responsible for handling the solicitation? |
| _____ | _____ | 8. | Is the solicitation advertised in a manner to notify all potential bidders? |
| _____ | _____ | 9. | Are all requests for information documented and responses provided to all individuals requesting bid packages? |
| _____ | _____ | 10. | Is there an attendance record kept and minutes of the bidders conference? |
| _____ | _____ | 11. | Is documentation kept of the firms and individuals requesting bid packages? |
| _____ | _____ | 12. | Is there an incoming log to document the receipt of all bids? |
| _____ | _____ | 13. | Are bids maintained in a secured location, unopened until the bid opening? |
| _____ | _____ | 14. | Is there an individual designated to insure all bids meet the minimum requirements? |
| _____ | _____ | 15. | Are all non-responsive bidders notified immediately of their eligibility? |
| _____ | _____ | 16. | Is an abstract of offerors prepared by the evaluation panel? |
| _____ | _____ | 17. | Does the agency have a written procedure for requesting sole source approval in the event that only one bid is received? |

yes no

- ___ ___ 18. Is procedure for notifying the unsuccessful bidders in a timely fashion?
- ___ ___ 19. Is there a procedure for providing debriefing sessions?
- ___ ___ 20. Does the agency have a written procedure for protests?
- ___ ___ 21. Is someone other than the WAP Director and the individual managing the solicitation responsible for handling the subcontract protests?
- ___ ___ 22. Does the accounting office maintain the official bid file?
- ___ ___ 23. Does the bid file include the following:
- ___ ___ a) Approval to subcontract
 - ___ ___ b) Bid package
 - ___ ___ c) Advertisement documentation
 - ___ ___ d) List of individuals and firms requesting the bid package
 - ___ ___ e) List of individuals attending bidders conference
 - ___ ___ f) Record of questions and responses at bidders conference
 - ___ ___ g) Written requests for information and responses
 - ___ ___ h) List of evaluation panel members
 - ___ ___ i) Bids received
 - ___ ___ j) Abstract of offerors
 - ___ ___ k) Work papers of the evaluation panel
 - ___ ___ l) Rejection letters
- ___ ___ 24. Does the accounting office maintain the official subcontractor file?
- ___ ___ 25. Does the subcontractor file contain the following information:
- ___ ___ a) Bid
 - ___ ___ b) Letter of intent to subcontract
 - ___ ___ c) Certificate of insurance
 - ___ ___ d) Subcontract

yes no

- | | | | |
|-------|-------|-----|--|
| _____ | _____ | e) | Approved supplier list, if applicable |
| _____ | _____ | f) | Memos of performance |
| _____ | _____ | g) | Evaluations o performance |
| _____ | _____ | h) | Correspondence |
| _____ | _____ | i) | Close-out documentation |
| _____ | _____ | j) | Evidence of non-discrimination |
| _____ | _____ | 26. | Are individuals designated who can authorize work orders and change orders? |
| _____ | _____ | 27. | Is there an individual designated to insure that subcontractor adheres to all terms of the subcontract? |
| _____ | _____ | 28. | Is there more than one individual responsible for approving subcontractor claims? |
| _____ | _____ | 29. | Is there an individual designated who is responsible for reviewing all jobs to insure all work is completed? |
| _____ | _____ | 30. | Is there a procedure for insuring that all claims have been submitted by the subcontractor and processed by the accounting department? |