State of Alabama

Weatherization Assistance

Program

Operations Manual

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PURPOSE

The purpose of this manual is to provide a comprehensive reference on policies and procedures for the management of the State of Alabama's Weatherization Assistance Program (WAP). It incorporates information contained in federal and state regulations as well as Alabama's WAP State Plan and Weatherization Field Guide. This manual is intended for use by state administrators and WAP Subrecipients to ensure compliance with federal and state regulations and to develop program uniformity. Subrecipients are contractually obligated for adherence to all policies and procedures in this manual.

This manual was designed to address program management requirements by:

- Providing weatherization policies mandated by federal and state government
- Providing required procedures necessary for operation of the WAP
- Providing instruction and examples to clarify requirements and procedures

This manual will be reviewed and revised as needed. Input from Subrecipients is encouraged and considered when making changes to this manual, and each Subrecipient is provided a copy.

INTRODUCTION

The Alabama Department of Economic and Community Affairs (ADECA) – Energy Division is responsible for the administration and management of both the Department of Energy (DOE) Weatherization Funds and Health and Human Services (HHS) Weatherization Funds.

The mission statement for the Weatherization Program is:

> "To reduce energy costs for low-income families, particularly for the elderly, people with disabilities, and children, by improving the energy efficiency of their homes while ensuring their health and safety."

ADECA-Energy Division has developed this manual and is providing it to all community action agencies and county commissions who receive funds to operate weatherization assistance programs in their local areas.

The manual addresses program requirements and federal management circulars as applied to program management by local governments and community action agencies or non-profit organizations who act as weatherization Subrecipients. All persons involved with the administration of weatherization funds received through ADECA-Energy Division should become familiar with the contents of this manual and refer to it for guidance whenever necessary.
Individual circumstances may or may not be covered by this manual, and it is the responsibility and contractual obligation of the Subrecipients to comply with all rules and regulations covered in this manual and those published elsewhere that pertain to the weatherization program. It is the expectation of ADECA-Energy Division that all Subrecipients will utilize sound management techniques in the management of the WAP.

PROGRAM OVERVIEW

Federal Administration

The Department of Energy is the federal office responsible for the administration of the WAP. DOE administers the program in accordance with 10 CFR, Part 440.

State Administration

ADECA is the Grantee for the state of Alabama and is responsible for statewide coordination of the WAP. ADECA administers the WAP through the Energy Division from its central office in Montgomery, Alabama. ADECA-Energy Division's responsibilities include:

- Ensure compliance with federal and state program requirements
- General program administration
- Develop policy initiatives
- Provide payments to Subrecipients
- Monitor fiscal compliance and program administration by Subrecipients
- Provide training and technical assistance

Subrecipient Administration

In accordance with 10 CFR part 440, an entity that receives funds from ADECA-Energy Division to manage a weatherization project is considered a weatherization subrecipient.

ADECA-Energy Division enters into contracts with Subrecipients to perform weatherization services within specified service areas throughout the state. Contracts are for a one year period and identify a per county minimum number of dwellings to be weatherized within a specific period of time. The contract requires all work to be performed in accordance with all regulations, policies, procedures and priorities set forth in this manual and all other contractual documents.

At the local level, the WAP is administered through community action agencies as well as other community-based non-profit organizations. The responsibilities of these agencies include, but are not limited to, the following:

- Conduct outreach and distribution of WAP information
- Determine eligibility and process applications in a timely manner
- Conduct weatherization activities and operate the program within prescribed federal and state regulations

- Maintain and retain all pertinent records to include insurance, materials purchased and labor contracts
- Submit all reports in a timely manner
- Maintain accurate fiscal and programmatic records
- Resolve problems as directed by ADECA-Energy Division
- Provide a fair hearing process for weatherization applicants

FUNDING

The Weatherization Program in Alabama has two principal funding sources: The U.S. Department of Energy and the U.S. Department of Health and Human Services Low Income Weatherization Assistance Program.

U. S. Department of Energy (DOE)

The Weatherization Program is a federal grant program funded by DOE and administered in Alabama by ADECA-Energy Division. ADECA-Energy Division allocates program funds throughout the state by a formula established by federal regulations which takes into account climate conditions and the number of income eligible persons in each county. There is no base allocation to states in the federal formula.

Low Income Weatherization Assistance Program (LIWAP)

The state of Alabama uses LIHEAP funds received from the Department of Health and Human Services to supplement the DOE Weatherization Program.

State Plan

A WAP State Plan is developed annually by ADECA-Energy Division as part of the state's application for federal weatherization funds. The plan is used as the overall guide for program operation and outlines state objectives for the expenditure of funds received. The plan identifies the local Subrecipients contracted to carry out the state's weatherization activities, projects the allocation to be awarded to each Subrecipient and lists the number of units each Subrecipient is expected to weatherize during the grant period.

The plan is submitted to DOE for approval and becomes a part of the state's weatherization contract with its Subrecipients.

SECTION I

MANAGEMENT PROCEDURES FOR WEATHERIZATION SUBRECIPIENTS

PREPLANNING

Preplanning is essential to good program management. Setting goals and assigning duties are good places to start. Many weatherization programs have run into trouble merely because program duties and responsibilities were not clearly identified for agency personnel.

The employment needs of individual agencies are varied; therefore, it is virtually impossible for ADECA-Energy Division to provide standard job descriptions for use by all Subrecipients. Each agency should have job descriptions for all agency weatherization staff and contract personnel. However, a checklist is included here which will aid agency directors and program managers in writing job descriptions tailored to meet the needs of their particular agency.

Use the checklist provided in this section and determine who will be responsible for the various duties related to the weatherization program; then prepare a job description which incorporates all duties and responsibilities relevant to each individual job.

If an individual is hired through a contractual arrangement, make certain that his or her duties are specifically identified in the contractual agreement. A minimum production schedule should also be included in such an agreement.

WEATHERIZATION MANAGER'S DUTIES

Duties may include, but are not limited to, the following:

1. Plans and schedules weatherization projects, audits and work crews; reviews cost estimates for materials and supplies; develops project specifications, work plans and personnel/time requirements; prepares contracts for services; reviews work orders and work in progress; approves and conducts final inspections; completes computerized energy audits.

2. Develops, administers, monitors and coordinates annual budget, grants funds and cooperative agreements; researches and develops proposals for additional funding and personnel; gathers and analyzes program statistical data and other information; sets spending limits per weatherization job completions and authorizes expenditures.

3. Maintains detailed project and inventory records; purchases and orders necessary materials/equipment; resolves ordering errors; conducts quarterly inventory audits; coordinates vehicle purchases and maintenance with State departments.

4. Plans, assigns and manages program services and project activities; designs forms and recommends policy changes; monitors and evaluates project/program effectiveness in meeting established objectives; develops quality assurance standards and implements review process; designs forms.

5. Provides direction and consultation to weatherization staff, contractors and private sector landlords on complex technical, procedural and policy issues; makes decisions on difficult health and safety problems, eligibility issues and cost effectiveness of weatherization measures; investigates and responds to complaints from customers, landlords and other agencies.

6. Hires and directs technical, clerical, temporary and full-time staff to provide quality services to citizens and agency staff; prepares performance evaluations; recommends and administers progressive discipline; conducts and/or facilitates staff training and development programs; promotes cooperative team efforts among staff and with other State departments.

7. Develops resources and makes referrals with community, government agencies, private organizations and the public; participates in State and local collaborative partnership projects; staffs advisory councils, task forces and committees.

8. Develops and implements program policies, procedures and guidelines within department and legal standards; develops and implements procedural improvements; recommends policy changes and new programs to higher level management; reviews, interprets and clarifies relevant statutes, regulations and department policies; assists in the development of State policies and strategies to coordinate delivery of cost effective weatherization services.

9. Coordinates and promotes program and project activities; conducts public relations, outreach and energy conservation activities with community, government agencies, private organizations, businesses and the public; reviews and prepares flyers, brochures, newsletter articles, classified advertisement, press releases and correspondence.

10. Prepares, negotiates and monitors service contracts with public and private vendors; determines selection criteria and evaluates contractor performance; prepares and presents quarterly reports to ADECA- Energy Division; submits monthly production report to ADECA-Energy Division along with required BWRs.

PREPARING A JOB DESCRIPTION OR CLASSIFICATION

When preparing a Job Description or Classification, list the requirements your agency will place on each Job Classification.

EXAMPLE

Required Knowledge and Skill

Thorough Knowledge of: Federal, state and agency weatherization regulations, specifications and local building codes; program guidelines, policies, customer health and safety issues; weatherization techniques, materials, tool knowledge and safety rules; weatherization auditing and final inspection regulations; principles and practices of public administration including organization design; budget and grant administration and personnel management.

Working Knowledge of: Participative management theories; eligibility requirement for individuals with limited economic and available resources; community resources; marketing techniques; office equipment, including computer equipment and software programs.

Skill to: Plan and coordinate weatherization programs; develop and utilize program and community resources and available staff; communicate effectively, both orally and in writing; interpret policies and, regulations; develop procedures; gather and evaluate data; direct staff in continuous efforts to improve quality productivity and effectiveness; incorporate team participation in decision making; respond to changes desired by citizens and agency staff; establish and maintain cooperative working relationships with community, private organizations, government agencies, businesses, State departments, employees and the public; use computerized equipment.

Other Requirements

Possession of a valid driver's license. Incumbent must possess and maintain a safe and acceptable driving record throughout the course of employment.

DUTIES RELATED TO WX PROGRAM MANAGEMENT

1. Takes applications.

2. Verifies income eligibility and proof of ownership of applicant and provides documentation of verification in client folder.

3. Prioritizes applications using the required priority point system.

4. Uses the Site Built and Mobile Home Alabama Priority Measures List and the Blower Door to assess the weatherization work that needs to be done on a dwelling and estimates the materials to be used. Units that vary from the standard housing stock are assessed with the National Energy Audit Tool (NEAT) and the Mobile Home Energy Audit Tool (MHEA).

5. Estimates the cost of the materials and labor that will be required for a dwelling to be weatherized.

6. Is responsible for final inspection and approval of the work done on a weatherized dwelling.

7. Issues written rework order if work or materials on a dwelling do not meet approval.

8. Performs follow-up inspections on dwellings where rework was required.

9. Maintains inventory of materials and equipment purchased with weatherization funds.

10. Advertises and requests bids from contractors and vendors for materials and/ or labor.

11. Is responsible for negotiating with contractors and direct hire people for services and materials to be procured by contractual agreement. This should include providing contractors with training and information regarding program requirements and limitations.

12. Is responsible for the submission of <u>monthly</u> production reports to ADECA-Energy Division along with required BWRs.

13. Prepares and submits invoices to ADECA-Energy Division for reimbursement of weatherization expenditures.

14. Acts as a supervisor for agency weatherization crews and other agency personnel assigned duties under the weatherization program.

15. Maintains client folders and is responsible for completion and retention of all forms contained in such folders.

16. Is responsible for program-related correspondence not requiring a response from the director or board chairman.

17. Other duties as needed or assigned.

APPLICATIONS AND ELIGIBILITY

Agencies selected to administer weatherization programs will be responsible for taking applications from eligible households seeking weatherization assistance. The Application for Weatherization Assistance Form must be used for this purpose. That form will be provided to all administering agencies by ADECA-Energy Division.
The client's application can be entered directly in to the Families, Agencies, Community Services Programs (FACSPro) System or the form may be used to take initial application which will then be used to enter the client into the FACSPro System.

Advertising the program at the local level is the best means of making households aware of the availability of weatherization assistance and obtaining applications. In many cases, the applicants may have been referred for assistance by the local Department of Human Resources, church groups or other social service organizations. Agencies are also responsible for determining the eligibility of program applicants and verification of income.

No dwelling unit may be weatherized without proper written documentation that the income level of the household is at or below 200 percent the poverty guideline when using DOE funds and 150 percent the poverty guideline when using LIHEAP funds as determined in accordance with criteria established by OMB.

Eligibility of a program applicant is based on the total income of all members of the household for the 12-month period prior to weatherization assistance. The total income of the household must not exceed the Poverty Income Guidelines of 200 percent and 150 percent respectively

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*All income should be calculated using gross earnings before deductions.

* Income Guidelines are provided each year as they become available.

PROOF OF OWNERSHIP

Verification of ownership must be obtained for all eligible dwellings, regardless of whether they are owner-occupied or rental properties. The following documents are acceptable proofs of ownership:

- Copy of deed.
- Copy of mortgage or mortgage payment book.
- Real estate tax bill/receipt for address being weatherized.
- Chattel mortgage (trailer mortgage).
- School tax bill/receipt for address being weatherized.
- Statement (preferably written) from local tax assessor's office, county or tribal clerk, or deeds commissioner.
- Mobile home bill of sale (If the bill of sale is not available, a notarized statement from the client may be acceptable.)
- Documentation of Land Grants, Life Tenancy or Life Lease.

The address on the proof of ownership must be the same as the address which the unit to be weatherized is located. Also, whenever a building is to be weatherized and the applicant for weatherization services is not the owner but not a renter, an agreement between the owner and the Subrecipient must be signed before weatherization work can begin. (This case applies often times to situations involving families.)
All renters are subject to Alabama's Rental Policy.

PRIORITIZING APPLICATIONS

The main purpose of the priority point system is to help the administering agency identify the dwellings most in need of assistance. For instance, if an agency has 70 applications on hand and enough funding to complete 40 dwellings, there will be some clients the agency will not be able to serve. Use of the priority system gives the agency a fair and consistent means of evaluating and determining which dwellings can be served. It also alleviates prejudice or favoritism.

To ensure priority is given to elderly/disabled/single family and other high energy-consuming units, the State has established a priority point system.

Most agencies administering the Weatherization Program will have more requests for assistance than can be handled with limited funding. Therefore, Subrecipients are required to rank applications so that priority can be given to eligible households most in need.

Priority Point System

1.	If head of household is disabled	10 points
2.	If head of household is elderly (60 or over)	10 points
3.	Household with children under 18 years of age	10 points
4.	If one or more **other** members of the household is elderly and/or disabled	5 points
5.	For eligible applications held over from the previous contract period because funding was insufficient to cover all requests or contract was terminated before agency could weatherize, points awarded one time only	5 points
6.	If total annual income of household is at or below 100% of poverty guidelines	5 points
7.	LIHEAP client or utility bill is $200.00 or more	5 points

Priority points shall be awarded initially at the time the application is received.

Applications with the highest number of points will be weatherized first. Occasionally, an agency will come across a dwelling that may not rank as high on the point system as others, yet because of some unusual circumstance, such as illness, storm damage or other, the need for weatherization assistance is great, and that dwelling may be weatherized. A Subrecipient may group dwellings having lower priority points with dwellings having higher priority points for program efficiency purposes. However, anytime the agency deviates from the usual procedure of selecting dwellings to be weatherized, a written explanation for the decision should be documented in the client folder.

REWEATHERIZATION

Reweatherization should not occur as a routine practice since many households have never received service. However, revised regulations permits program funds to be used to re-weatherize a dwelling partially weatherized under this or other federally-funded programs before the date of September 30, 1994.

All dwellings previously weatherized under a federally funded program have already been counted and reported as a weatherized dwelling and cannot be counted again.

Procedures for reweatherization work:

1. The applicant must fill out a new weatherization application, including all documentation requirements (e.g., income/categorical eligibility, energy information, Homeowner Consent Form, etc.).

2. Before a dwelling can be re-weatherized, the Subrecipient planning to work on such a dwelling must obtain written approval from ADECA-Energy Division.

3. After approval for re-weatherization has been applied for and received from ADECA-Energy Division, the Subrecipient must obtain permission from the homeowner (re-weatherization is not recommended for rental dwellings) before beginning any work on a dwelling. Use the Homeowner Consent Form for this purpose.

4. A Building Weatherization Report (BWR) should be kept for each dwelling re-weatherized.

5. A client folder must be maintained for all dwellings re-weatherized in the same manner as for other clients served except that the client folder should be clearly identified as **REWEATHERIZATION.**

6. Re-weatherization of a dwelling will not be counted as a completed dwelling. It must be considered as re-weatherization and reported as such.

RENTAL DWELLINGS

Weatherization assistance may be provided to families or individuals residing in rental/leased dwellings. Applications from such households should be ranked and verified in the same manner as all other applications. A Subrecipient may not refuse to consider an application submitted by an eligible household occupying a rental dwelling. Applications from such households should be ranked in the same manner as all other applications.

Before weatherizing a rental dwelling, the agency must obtain written permission from the landlord or authorized agent. The **RENTAL RELEASE FORM** can be used for this purpose.

Some discretion must be applied to the weatherization of rental dwellings. The benefits of weatherization assistance shall accrue primarily to the low-income tenants and not the landlord or rental agency.

No undue or excessive enhancement will occur to the value of the dwelling units as a result of weatherization work. Signed statements will be obtained from the owners or their agents certifying that rents will not be raised because of work done because of this assistance unless those increases are demonstrably related to matters other than the weatherization work performed.

Multi-family units may be weatherized if funding permits. 66% of the units must be income eligible to weatherize a multi-family unit with 5 or more units; 50% must be income eligible to weatherize a multi-family dwelling of 4 units or less.

Multi-family units that are 4 units or less must use the National Energy Audit Tool (NEAT).

Multi-family units greater than 4 units must use a DOE approved Multi-family Energy Audit. The audit will be submitted to the Grantee which will in turn submit it to DOE for review and approval before any work can proceed.

No leased/rented dwelling unit shall be weatherized without financial participation from the owners of such buildings. This participation will not be reported as program income. The funds will be expended in accordance with the agreement between the landlord and the weatherization agency. The State requires a financial participation of at least 25% of the total cost of all weatherization related goods and services.

Because the ratio of eligible rental households in relation to owner-occupied dwellings is so great, ADECA-Energy Subrecipients are encouraged to provide weatherization assistance to rental dwellings whenever possible.

*** See the WAP State Plan for ADECA's Rental Policy**

HOMEOWNER CONSENT

Written permission of the homeowner must be obtained before beginning any work on a dwelling. Use the **HOMEOWNER CONSENT FORM** for this purpose.

The **HOMEOWNER CONSENT FORM** is designed to provide a written agreement between the local agency and the homeowner. This agreement must be signed by all involved parties prior to weatherizing the home. The form is to be maintained in the client's file for future reference.

Be sure that the property address is correct and complete. Give a specific location only if the address is a post office box or the address is inadequate to locate the house. Even if a location or directions are given, the complete address of the house is still required.

Completion of this form at the time the application is taken is not advisable because it gives the program's applicant the impression that work on their dwelling will begin within a few days.

It is best to get the form completed shortly before the work is actually started. This will help to eliminate any misunderstanding on the part of the program applicant as to when his/her home will actually be weatherized.

LANDLORD CONSENT

When the dwelling or dwelling units to be weatherized is a rental unit, then the administering agency must obtain the written consent of the landlord or authorized agent before any work is begun.

Use the **Rental Release Form** for this purpose. This form is designed to ensure that the rights of the tenant are not violated after the weatherization work is completed. The form is to be maintained in the client's file for future reference.

CLIENT FOLDERS

A file folder on each client served must be maintained. Each folder is required to contain:

1. **Client File Checklist**
2. Completed **Application for Weatherization Assistance**
3. Copies of all documents used to verify the **total yearly income of the household**
4. A copy of the **head of household's picture identification**, and a copy of all members of the household's **Social Security cards**
5. Copies of all documents used to verify **Proof of Ownership/Tenancy**
6. Completed **Priority Points Worksheet**
7. Completed **Utility Consumption Survey Approval Form** for all energy utilities in the household
8. Completed **Homeowner Consent Form/Rental Release Form**
9. Completed **Warranty for Weatherization Work Form**
10. **Job Order Sheet**
11. Applicable **Priority Measures List** or completed **NEAT/MHEA Energy Audit****
12. **Contractor Invoices**
13. Completed **Contractor's Bid Sheet**
14. Completed **Authorization to Proceed Form**
15. Completed **Health and Safety Checklist**
16. Completed **Client Education Information and Agreement Form**
17. Completed **Building Weatherization Report (BWR)**
18. Completed **Weatherization Final Inspection Report**
19. **Directions to the Home**
20. **Renovate Right Pre-Renovation Form** completed & removed from pamphlet given to client
21. Completed **Mold Inspection and Release Form**
22. Completed **Health and Allergy Concerns Form** (if applicable)
23. **Repayment Guidelines Form**
24. **Historic Preservation Review Form**
25. **Directions to the Home**
26. Adequate **Before and After Pictures**
27. Completed **Home Energy Assessment** with combustion appliance readings
28. Completed **ASHREA 62.2 Worksheet**

****If an HVAC or DWH is replaced using Program Operations or Health & Safety funds a NEAT/MHEA Energy Audit is required and PML will not be allowed as per PML approved January 21, 2016.**

SECTION II

ACCOUNTING AND FINANCIAL MANAGEMENT SYSTEMS

INTRODUCTION

Accounting is the process of measuring, recording and reporting economic conditions and events. Likewise, financial management is the process of planning, controlling and evaluating the financial aspects of an organization. Subrecipients are expected to maintain accounting and financial management systems that meet these objectives that are more specifically stated in the following paragraphs. Systems that do not meet the standards set forth below will undoubtedly result in the mismanagement of the assistance programs and noncompliance with this manual and federal and state laws and regulations. The ADECA-Energy Division staff and auditors rely on accurate financial information for measuring program performance, and for determining compliance with federal and state laws and regulations. Poor financial management practices usually result in monitoring and audit findings, which can result in costs that have been charged to the federal programs being questioned or disallowed. In the worst case, improper fiscal management could result in termination of federal/ADECA funding.

STANDARDS FOR FINANCIAL MANAGEMENT SYSTEMS

For any and all contracts or grants made by a non-Federal entity under a Federal Award, the non-Federal entity must comply with 2 CFR Part 200, the OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, which the U.S. Department of Energy (DOE) is specifically implementing in 2 CFR Part 910. Subrecipients of DOE grants must adhere to 2 CFR 910 and all of its subparts, including, but not limited to, Subpart B (2 CFR 910.120), General Provisions; Subpart E (2 CFR 910.401), Cost Principles; Subpart F (2 CFR 910.500), Audit Requirements; and all accompanying Appendices. All Subrecipients must maintain financial management systems that provide the following features. These regulations have been adopted by all major federal funding sources to ADECA applicable to community services type programs, i.e., WEATHERIZATION, LIHEAP, CSBG, etc.):

1. Accurate, current, and complete disclosure of all financial transactions.

2. Identification of the source and application of funding for each program activity.

3. Effective control over and accountability for all funds, property, and other assets.

4. Comparison of actual expenditures with budgeted amounts for each grant.

5. Written procedures to minimize the time elapsing between the time funds are advanced by ADECA and the disbursement of these funds by the agency.

6. Written procedures for determining the reasonableness, allowability, and allocability of costs in accordance with applicable federal regulations and/or cost principles.

7. Accounting records that are supported by source documentation such as detailed invoices and time and attendance reports.

8. A method (corrective action plan) to ensure timely and appropriate resolution of audit findings and recommendations.

In order to comply with these standards, management must establish and maintain an internal control

structure. The objectives of the internal control structure are to provide management with reasonable assurance that assets are safeguarded against loss from unauthorized use or disposition, and that transactions are executed in accordance with management's authorization and recorded properly to permit preparation of reports to ADECA and preparation of financial statements in accordance with generally accepted accounting principles. These principles and objectives are discussed in the following portions of this section of this manual.

ACCOUNTING SYSTEM

The following is a discussion of the necessary features of an acceptable accounting system for a typical ADECA-Energy Division Subrecipient. Of course, not all Subrecipient agencies will have identical systems, but certain basic elements must be present. The following discussion is not intended to represent a step-by-step introduction to elementary accounting and, accordingly, readers who are not familiar with the terminology used should consult individuals within their organization who are more knowledgeable in this area. In all cases, ADECA-Energy Division Subrecipient program coordinators should ensure that their agency's accountants have reviewed this information and are aware of its significance.

1. **Fund Accounting** - ADECA-Energy Division Subrecipients are typically either units of local government or nonprofit organizations, and should normally employ fund accounting principles. Fund accounting requires that the proceeds from revenue sources that are legally restricted to expenditures (for a local government) or expenses (for a nonprofit) for specified purposes, such as the weatherization assistance program, be accounted for in a "special revenue fund" for units of local government or in a "restricted fund" for nonprofit organizations. Since ADECA-Energy Division attempts to award grants on an ongoing basis, a single special revenue or restricted fund should be sufficient to properly identify the source of funding by grant. In those cases where a Subrecipient has two grants for the same program (i.e., weatherization) with different federal funding sources (i.e., Energy & FEB) or the same funding source at the same time, care should be taken to properly separate costs between the different sources of funding. In other words, grant costs should always be accounted for in the books of accounts separately. In many instances, grants may overlap the fiscal year-end of the Subrecipient, resulting in the agency's accounting records being closed and reopened in the middle of the grant period. In these cases, the Subrecipient must maintain the records from the two periods in a manner that will provide grant period summarization of transactions and will allow for efficient audit verification.

2. **Basis of Accounting** - Generally accepted accounting principles require the use of the accrual basis of accounting by nonprofit organizations and the use of the modified accrual basis of accounting by units of local government. The differences between these bases of accounting relate primarily to the recognition of revenue, which is not a major issue in accounting for ADECA-Energy Division programs activities. Otherwise, the two bases of accounting require costs to be generally recognized on the accrual basis, i.e., when the related obligation is incurred. While some Subrecipients may have accounting systems that properly accrue obligations, others maintain cash basis accounting systems where costs are recognized only when payments are made. Cash basis accounting is acceptable for ADECA-Energy Division grants for interim reporting purposes (monthly reimbursement reports), but Subrecipients should accrue all obligations incurred at the close of a grant period.

3. **Basic Accounting Records** - All Subrecipients must maintain double entry accounting records. The use of simple cash records, such as checkbooks or cash transaction spreadsheets, *is not* an acceptable alternative to this requirement. For an accounting system to be adequate, the following items, at the absolute minimum, must be in use:

   a. **General Ledger** - A self-balancing set of accounts for the assets, liabilities, revenues, expenditures, and fund balance of each ADECA-Energy Division grant program.

   b. **Cash Receipt Journal** - A record of cash received for the ADECA-Energy Division funds showing the name of the party from whom the funds were received along with the date, receipt number and amount of funds, and indicating the general ledger account(s) affected by the transaction. The cash receipt journal should provide for individual receipts to be summarized by account and the total amount received in the grant period must agree to the balances in the general ledger.

   c. **Cash Disbursements Journal** - A record of cash payments made from ADECA-Energy Division grant funds showing the name of the party to whom the payment was made, along with the date, number and amount of the check issued to make the disbursement, and indicating the general ledger account(s) affected by the transaction. The cash disbursements journal should provide for individual payments to be summarized by each account and the total amount paid in the grant period should agree to the balance in the general ledger.

   d. **General Journal** - A record of entries made to the general ledger for non-cash transactions and other adjustments showing the date of the entry, the general ledger accounts affected, the amounts involved and giving a brief explanation of the purpose of the entry. All general journal entries should be numbered so that they can be cross-referenced to the general ledger postings. In addition, all supporting documents concerning the journal entry should be attached to the entry for filing.

   In addition to these basic accounting records, Subrecipients must also maintain other subsidiary records for items such as time and attendance reporting, inventories and property, as applicable. These subsidiary records and related systems are discussed in other sections of this manual.

4. **Maintenance of Accounting Records** - Subrecipients should employ individuals as bookkeepers who possess adequate training and/or experience to maintain the accounting records properly. At a minimum, the following procedures and practices should be observed:

   a. Entries should be made to the journals as transactions occur, at least daily. This includes recording "due to" and "due from" transactions. Interfund "due to" and "due from" accounts must be separately identified in the financial statements and reconciled each month. Please note that cash may not be used, even temporarily, for non-grant related purposes, i.e., cash short falls of other grants except for CSBG funds. CSBG funds can be used for short falls in funds for other federal programs. The expenditure must be documented in the books of accounts of the federal fund where the short fall occurred and then transferred to the CSBG accounting records.

b. Documents supporting the entries in the journals should be filed in an organized manner with adequate cross-referencing to provide a clear audit trail. All journals and other subsidiary journals should be closed and balanced at the end of each month.

c. At the end of each month, the general ledger should be posted with the summarized total from the various journals.

d. The bank account should be reconciled to the general ledger cash account each month, and journal entries should be made for any necessary corrections.

e. The general ledger should be adjusted each month by journal entry for any non-cash transactions, such as allocations of indirect costs, accruals, prepayments, etc., as applicable in the circumstances.

5. **Financial Reporting** - The Monthly Expenditure Reports submitted to ADECA-Energy Division for reimbursement of costs incurred by Subrecipients are the primary form of financial reporting in this program; however, Subrecipients are also required to submit monthly reports on production and expenditures. Subrecipients should attempt to submit monthly expenditure reports in a manner that results in no overlap of month-ends, so that the monthly expenditure reports can be prepared by simply summarizing all reports submitted for that period. Otherwise, Subrecipients should prepare the monthly reports from the month-end to month-end change in their general ledger expenditure accounts, realizing that the total of the monthly reports should agree with the total of the reimbursement report for the same period.

Subrecipient managers (executive, fiscal, and program) must ensure that applicable monthly financial reports are submitted to ADECA-Energy Division timely. Monthly Expenditure Reports are to be submitted to ADECA-Energy Division by the 10th calendar day of each month. Submission of these reports immediately after the end of the month not only will ensure compliance with ADECA-Energy Division and program regulations requirements but also will improve the agency's cash flow which will enhance the agency's ability to pay bills timely. Cash flow is very critical in most agencies; therefore, timely financial reporting to ADECA-Energy Division should be a priority to all managers.

Besides the monthly expenditure reports submitted to ADECA-Energy Division Subrecipients should be sure to submit all other types of financial reports in a timely and complete manner so as to avoid penalties and interest that would adversely affect the agency and the ADECA-Energy Division programs. In this regard, Subrecipients should be aware of the requirements of the Internal Revenue Service for the submission of a Form 1099 for each individual or unincorporated business to which the agency pays $600 or more for goods or services (excluding salaries and wages paid to employees and contract employees) within one calendar year. This requirement will relate primarily to payments made to independent contractors, and Subrecipients should obtain a tax identification number from all such workers when they are hired. The penalty for failure to submit a Form 1099 for such payments, or any similar penalty, is not an allowable cost for federal funded programs.

INTERNAL CONTROL STRUCTURE

Internal control comprises the plan of organization and all the coordinated methods and measures adopted within an organization to safeguard its assets, check the accuracy and reliability of its accounting data, manage federal award (financial assistance) programs in compliance with applicable laws and regulations, promote operational efficiency, and adherence to prescribed managerial policies. Internal control can be divided into two categories: accounting control and administrative control.

Administrative controls are generally those policies and procedures in place to administer federal programs and to prevent noncompliance with applicable federal laws and regulations. Administrative controls are also those concerned with operational efficiency and adherence to managerial policies, and usually relate only indirectly to the financial records.

Accounting controls are concerned with, and directly related to, safeguarding of assets and the reliability of financial records. They generally include such controls as the system of authorization and approval, separation of duties between those responsible for recordkeeping and accounting reports and those responsible for operations or asset custody, separation of duties among authorization, recording and custody, and physical controls over assets.

It is the responsibility of each Subrecipient to institute and maintain systems of internal control structure that meet the following objectives to the greatest degree possible, realizing that control procedures must be cost-beneficial:

- **Classification** - Transactions recorded in the journals, ledgers and financial statements must be properly classified for fair presentation.

- **Authorization** - In order to safeguard assets, transactions must be properly authorized.

- **Valuation** - Errors must be prevented in calculating, recording and summarizing transactions in various stages of the recording process for fair presentation.

- **Existence** - All recorded transactions must be valid. The system cannot permit the inclusion of fictitious or nonexistent transactions.

- **Understatement** - All existing transactions must be recorded. The controls must prevent the omission of actual transactions from the records.

- **Timing** - Transactions must be recorded in the period of occurrence.

- **Summarization and Transfer** - The system must include controls to make sure postings to source journals are properly summarized and transferred to the general and subsidiary ledgers.

BUDGETS

All ADECA-Energy Division grants with Subrecipients contain a budget that sets forth the total amount of the subgrant for the grant period and specifies the components of this amount by the major cost categories: administration, program operations, insurance, audits, T&TA, H&S, etc.

COST PRINCIPLES

Subrecipients must comply with the applicable federal regulations and cost principles in 2 CFR Part 200: Subpart E Cost Principles, 2 CFR 910, and 10 CFR Part 440 to ensure that the total costs charged to ADECA-Energy Division grants are composed of the total allowable direct costs plus the allocable portion of allowable indirect costs, less any applicable credits.

Allowable Costs

Allowable costs must meet the following general criteria:

1. Be **necessary and reasonable** for proper and efficient administration of the program and be appropriately allowable to the ADECA-Energy Division program as either direct or indirect charges.

2. Be authorized or not prohibited under any applicable state or local laws.

3. Conform to any limitations or exclusions set forth in this manual as to types or amounts of cost items.

4. Be consistent with policies, procedures and any federal regulations that apply uniformly to both federally assisted and other activities of the agency.

5. Consistent treatment through application of generally accepted accounting principles appropriate to the circumstances.

6. Be **adequately documented.**

Allocable Costs

Costs may be allocated in accordance with the benefits received. Specific costs can be allocated to the program if they are treated consistently with other costs incurred for the same purpose in like circumstances and if they:

1. Are incurred specifically for the subgrant/grant.

2. Benefit both the subgrant and other work and can be distributed in reasonable proportion to the benefits received.

3. Are necessary to the overall operation of the organization, although a direct relationship to any particular cost objective cannot be shown.

Any cost allocable to a particular program may not be shifted to another program except CSBG to overcome funding deficiencies or to avoid restrictions imposed by law or by the terms of a subgrant/ grant. Please note that the CSBG program funds can be used to pay for the shortages resulting from budget limitations and/or grant limitations on other federal programs. Costs would have to be documented in the books of accounts for the program where the short fall occurred and subsequently booked and transferred to the CSBG account so that a clear audit trail is established. **Subrecipients may**

not, in any circumstance, use revenue available or budget amounts as a basis for cost allocation.

Subrecipients who charge their ADECA-Energy Division grants for the allocable portion of their agency's allowable indirect costs must have either a federally approved indirect cost rate or must develop a formal allocation plan prior to the submission of such charges and must submit a copy to ADECA-Energy Division. If the Subrecipient has never received a federally approved indirect cost rate a certification must be submitted stating this.

Applicable Credits

Applicable credits refer to those receipts or reduction of expenditure-type transactions which offset or reduce expense items allocable to the weatherization program. Examples of such transactions are: purchase discounts, rebates and allowances, recoveries or indemnities on losses, sale of publications, equipment and scrap, income from personal or incidental services, and adjustments of overpayments or erroneous charges.

METHOD OF PAYMENT

Procedures for determining costs that are reasonable and allowable in accordance with the provisions of 2 CFR Part 200 Subpart E.

The Subrecipient will be paid on an advance payment basis provided that it maintains a cash management plan, maintains or demonstrates the willingness and ability to maintain both written procedures to minimize the transfer of funds and their disbursement by the Subrecipient and financial management systems that meet the standards for fund control and accountability in accordance with 2 CFR §200.305. If the advance requested exceeds thirty (30) days, the subrecipient must provide a written explanation with the invoice requesting advance funds and is subject to approval by the Department. Source documentation and a follow-up invoice must be submitted to account for the actual expenditures made against advances.

The Subrecipient will be paid on a reimbursement basis when the above requirements for advances cannot be met, the federal awarding agency has a specific conditions per 2 CFR §200.305, or the Subrecipient requests, in writing, payment by reimbursement.

All invoices shall be prepared in the invoice format provided by the Energy Division of the Department and must be accompanied by copies of all pertinent source documentation. The final invoice shall be due no later than thirty (30) days after the termination or expiration of this Agreement.

The subrecipient should only request advanced funds that will be expended within thirty (30) days. Every attempt to expend advance funds in a timely manner must be made. Any advanced funds not utilized thirty (30) days after receipt must be refunded to the Department. If advanced funds are not expended within the thirty days the subrecipient may submit a written request along with documentation which explains why advanced funds were not spent and how and when funds will be spent. If request is denied funds must be returned immediately.

Comparison of actual outlays with budgeted amounts for each grant, and which relate financial information with performance/productivity data, including the production of unit costs information.

Invoicing as closely as possible to the time of making disbursements in accordance with 2 CFR §200.305 (b).

Subrecipients shall promptly remit to the Department interest earned on advances. The Subrecipient may keep interest amounts up to $500 per year for administrative expense in accordance with 2 CFR §200.305 (b), (9).

All unexpended grant funds shall be returned to the Department as soon as possible after the termination date, but not to exceed thirty (30) days.

CLASSIFICATION OF COSTS

There is no universal rule for classifying certain costs as either direct or indirect in any financial management system. It is essential, however, that each item of cost to a grant be treated consistently either as a direct or indirect cost.

Direct Costs: Direct costs are those costs that can be identified with a particular cost objective, i.e., a particular grant. Typical direct costs chargeable to a grant include:

- Salaries and wages including fringe benefits of employees working specifically on the program.
- Services contracted to accomplish specific grant objectives (direct labor contractors, i.e., "direct hires").
- Materials and supplies purchased directly for use on a specific grant.
- Equipment purchased and used directly for a specific program.
- Communication costs such as long distance telephone call identifiable with a specific grant.
- Other items of costs incurred specifically to carry out the grant agreement.

Indirect Costs: Indirect costs are costs of an agency not readily identifiable with a particular grant but necessary to the general operation of the agency (administration) and the conduct of the activities it performs. Typical indirect costs include:

- Salaries and wages including fringe benefits of various levels of management that do not work specifically on objectives of a grant (indirect-labor costs)
- Accounting
- Data processing
- Office space
- Utilities (telephone, electric, gas, etc.)

COST ALLOCATION PLAN

A cost allocation plan is a written description of the method by which allowable joint costs are identified, accumulated, and distributed to the grants which benefit from the service. All costs included in the plan will be supported by formal accounting records which will substantiate the propriety of eventual charges. See 2 CFR Part 200, the OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, which the U.S. Department of Energy (DOE) is specifically implementing in 2 CFR Part 910. Subrecipients of DOE grants must adhere to 2 CFR 910 and all of its subparts, including, but not limited to, Subpart B (2 CFR 910.120), General Provisions; Subpart D (2 CFR 910.350), Post Federal Award Regulations; Subpart E (2 CFR 910.401), Cost Principles; Subpart F (2 CFR 910.500), Audit Requirements; and all accompanying Appendices.)

The cost allocation plan of the agency should cover all joint costs of the agency. The allocation plan should contain, but not necessarily be limited to the following:

- The nature and extent of services provided and their relevance to the various grants.
- The items of expenditure (local governments) or expense (nonprofit) to be included.
- The methods to be used in distributing costs.

For those agencies who receive funds directly from federal agencies, annual indirect cost proposals may have to be negotiated with the cognizant federal agency (usually the federal agency with the largest funding to the Subrecipient). Local government and nonprofit units who do not receive any direct federal funding must also develop written cost allocation plans to allocate indirect cost and maintain them on file for audit and submit a copy to ADECA-Energy Division.

RETENTION OF RECORDS

Financial records, supporting documents, statistical records and all other records pertinent to a weatherization grant award shall be retained for a period of three years from the date of submission of the final expenditure report or, for awards that are renewed annually or quarterly, from the date of the submission of the quarterly or annual financial report. In all other cases, the day the grantee or Subrecipient submits its final expenditure report is the starting date of the retention period.

If any litigation, claim or audit is started before the expiration of the three-year period, the records must be retained until all litigation, claims or audit findings involving the records have been resolved and final action taken.

The retention period for real property and equipment records begins on the day the property or equipment is disposed of, replaced and/or transferred.

When the records are transferred to or maintained by the grantor or federal sponsoring agency, the 3-year retention requirement is not applicable to Subrecipients.

DOE, the Inspector General, Comptroller General of the United States, the Alabama Department of Economic and Community Affairs (ADECA), or any of their duly authorized representatives, have the right of timely and unrestricted access to any pertinent Subrecipient books, documents, papers, and records to make audits, examinations, excerpts, transcripts and copies of such documents. This right also

includes timely and reasonable access to a Subrecipient's personnel for the purpose of interview and discussion related to such documents.

Records of homes weatherized must be maintained indefinitely to ensure that once a home is weatherized it is not eligible for and will not receive re-weatherization.

Indirect Cost Documentation

The two following paragraphs apply to the following types of documents and their supporting records: Indirect cost rate proposals, cost allocation plans, and any similar accounting computations at the rate of which a particular group of costs is chargeable.

1. *If submitted for negotiation.* If the Subrecipient submits to ADECA the proposal, plan, or other computation to form the basis for negotiation of the indirect cost rate, then the 3-year retention period for its supporting records starts on the date of such submission.

2. *If not submitted for negotiation.* If the Subrecipient is not required to submit to ADECA the proposal, plan, or other computation for negotiating purposes, then the 3-year retention period starts at the end of the fiscal year covered by the proposal, plan, or other computation.

In accordance with 2 CFR §200.331(a)(1)(xiii) and (a)(4), and 2 CFR §200.414, Subrecipients of Federal Awards may charge indirect costs to the Award unless statutorily prohibited by the Federal program and in accordance with any applicable administrative caps on Federal funding. ADECA will not negotiate indirect cost rates with Subrecipients, but will accept a federally negotiated indirect cost rate or the 10% de minimis rate of the modified total direct cost (MTDC) as defined in 2 CFR §200.68. If requesting the 10% de minimis rate, Subrecipients must submit a certification that the entity has never received a federally approved indirect cost rate. Subrecipients are allowed to allocate and charge direct costs through cost allocation. However, in accordance with 2 CFR §200.403, costs must be consistently charged as either indirect or direct costs but not charged as both or inconsistently charged to the Federal Award. Once chosen, the method must be used consistently for all Federal Awards until such time as a negotiated rate is approved by the Subrecipients' Federal cognizant agency.

WEATHERIZATION BUDGET INFORMATION

All ADECA-Energy Division grants with weatherization Subrecipients contain an allocation that sets forth the total amount of the Subrecipient award for the grant period and specifies the components of this amount by the major cost categories: administration, program operations, liability insurance, financial audit and training and technical assistance. The total amount of the subgrant award for the grant period is based primarily on demographic information regarding the locality, as well as the agency's production capacity. The breakdown of the total budget amount between the major cost categories is determined on the following basis:

- **Administration -** Administrative costs are limited to five percent of the total grant amount.

- **Program Operations –** The amount budgeted for Program Operations is for the cost associated with performing weatherization work on homes. Costs include materials, labor and other costs directly related to the weatherization of homes.

- **Liability Insurance -** The amount budgeted for general liability insurance coverage provided by the weatherization program to the agency concerning the applicable prorata portion of the premiums paid. Workmen's Compensation may also be charged to this category.

- **Financial Audit -** The amount budgeted for financial audit for the Weatherization Program provided by the agency concerning the applicable prorata portion of the audit cost.

- **Training and Technical Assistance (T&TA)** - The amount budgeted for T&TA is for workshops, seminars, conferences, meetings or classes applicable to training and technical assistance.

- **Health and Safety (H&S) –** The amount budgeted for H&S is to be used for "energy-related" health and safety measures, which are measures necessary to eliminate hazards within a structure, which by their remedy, allow for the installation of weatherization materials while ensuring that the structure is left in a safe condition.

Weatherization Subrecipients must develop a system to ensure that the budgetary limits described above regarding administration are adhered to.

Examination of the budgetary system should begin with a preliminary assessment of the estimated costs to weatherize a representative sample of the qualified dwellings scheduled for weatherization. The first step in this preliminary assessment should be to determine an average per unit amount to reflect costs of the weatherization program that cannot be directly related to specific dwellings. The costs that cannot be directly related to specific dwellings (agency costs) will consist primarily of the compensation and fringe benefits for the program coordinator, other employees (outreach workers used to take applications during the start-up portion of a grant period), other costs such as transportation costs to and from work sites, maintenance, repairs, and insurance costs for agency-owned vehicles used by the weatherization program personnel.

The agency's past experience should be used to estimate the expected ratio of these costs to total program operations, and this ratio should then be applied to the current grant's budgeted program operations, and the result divided by the number of units to be weatherized in the grant period to arrive at a per dwelling average. To keep up with agency costs on a monthly basis is considered good practice.

A similar assessment should be made on a periodic basis to monitor budgetary compliance through the grant period. These periodic reassessments should reflect the actual agency costs incurred, instead of the estimated percentage used in the initial evaluation, in order to properly control the budget.

The process of monitoring administrative costs to ensure that they do not exceed five percent of the total grant amount should be relatively simple, since such costs should be fairly constant over the grant period. The Department of Energy's audit cost is a line item and is not an administrative cost; however, LIWAP 's audit cost is an exception, depending on whether the agency treats such costs as direct or indirect charges. Unless audit costs are included in an approved indirect cost rate or in a cost allocation pool, the Subrecipient should attempt to estimate an expected amount based on prior experience. The agency may not request funds for audit costs unless the auditor (CPA firm) has been selected by a competitive process.

Weatherization Cost Classifications

There is no universal rule for classifying certain costs as either direct or indirect under every accounting system. A cost may be direct with respect to some specific service or function, but indirect with respect to the weatherization program. It is essential, therefore, that each item of cost be treated consistently either as a direct or indirect cost. Specific guidelines for determining allocable direct and indirect cost allowable under the weatherization program are provided below:

Administration

- Salaries paid to any individual involved in the program, such as directors, bookkeepers, clerks, secretaries, etc.

- Fringe Benefits - the employer's portion of Social Security, State and Federal unemployment, medical insurance (medical insurance and workmen's compensation net of any discount and/or experience rating, etc.), etc., relating to the employee described above.

- Consumable supplies--consisting of any office related expense not covered by program operations--such as copier paper, note paper and pads, pencils and pens, application pads, etc.

- Rental or purchase of equipment necessary to the program that does not fall into the program operations category.

- Travel related to the weatherization program that is not covered under program operations or T & TA (such as for agency directors, or other employees, to attend workshops or seminars as approved by ADECA-Energy Division).

- Other general and administrative costs, which are by their nature obviously indirect and requires a formal allocation plan to be allowable. Some typical examples of these types of costs are: fidelity bond coverage for employees, office space rental, telephone and utilities.

Program Operations

1. Agency Cost:

   - On-site supervisory salaries paid to supervisors, weatherization coordinators, as well as inventory clerks and warehouse employees.

   - Fringe Benefits - Social Security, State and Federal unemployment, medical insurance (medical insurance and workmen's compensation net of any discount and/or experience rating, etc.), etc., relating to the employee described above.

   - Transportation of site supervisor, weatherization coordinator, work crews, materials and/or equipment to and from storage and job sites, as well as other related visits to job sites.

   - Maintenance of vehicles including tires, batteries, oil parts for repairs and other routine maintenance costs, as well as automobile insurance, for agency-owned vehicles only.

   - Purchases of tools and equipment, such as saws, hammers, etc., to be used in the installation of weatherization materials. Any purchase of single item(s) costing over $500 requires prior approval by ADECA.

   - Storage of materials, including rent, utilities, fire, theft and damage insurance, fire and burglar alarms, etc.

2. Labor:

   - "Direct Hire" Labor - Amounts paid to firms or individuals hired or contracted to provide only the physical labor necessary on the dwellings to be weatherized, without supplying any materials.

   - "Contractor" Labor - The portion of amounts paid to contractors, who provide insulation or other weatherization services, that is identified as labor and materials on the contractor's invoice.

3. Weatherization Materials

   - Agency-purchased materials including, but not limited to, insulation for floors, walls, attics, ceilings and ducts, vapor barriers, storm windows, vents, window glass, underpinning, etc.

   - Contractor-supplied materials - The portion of amounts paid to contractors, who have been engaged to provide insulation or other materials, which is identified as materials on the contractor's invoice.

- Repair materials - Items required for the effective performance and preservation of weatherization materials to be installed, such as lumber used to frame or repair windows or doors that could not otherwise be caulked or weather- stripped, and protective materials, such as paint used to seal materials installed, cement patch and window sashes.

Training and Technical Assistance

- Conferences: Registration, travel and lodging costs for conferences, seminars, workshops and onsite training.

- Staff Training: Costs incurred to provide training and professional certification to Subrecipient staff.

- Computer / Electronic Media: Purchase of computer / electronic media equipment for training purposes only and the costs associated with training staff to operate the equipment.

- Client Education: Development and distribution of client education materials or other forms of client education such as meetings, workshops, presentations, video tapes, etc.

Liability Insurance

- Prorated cost of the weatherization program's share of agency's cost of liability insurance for personal injury and for property damage. (Not to be confused with liability insurance carried on agency owned vehicles.) If the amount specified in the grant budget for this category is greater than the actual outlay, the balance must remain unobligated. Workmen's Compensation for agency employees may also be charged to this category.

- Pollution occurrence insurance is obtained at the state level to cover itself and all Subrecipients

Health and Safety

- Comprehensive health and safety information including allowable measures and costs can be found in the Alabama Weatherization Health and Safety Plan.

Equipment

- Purchase of Weatherization equipment such as blower doors, infrared cameras, monoxers, etc.

SECTION III

PROPERTY MANAGEMENT STANDARDS
AND
INVENTORY CONTROL

PROPERTY MANAGEMENT STANDARDS

The Financial Services Division and the Alabama Department of Economic and Community Affairs-Energy Division (ADECA-Energy Division), have established property management requirements for all ADECA recipients.

No equipment may be purchased with the funds provided by the Department without the prior written approval of the Department. Equipment is defined by 2 CFR 200.33 as tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equal or exceeds the lesser of the capitalization level established by the non-Federal entity for financial statement purposes, or $5,000.

The Department shall have the right to determine at the termination or completion of this Agreement or at a later date should the project activities continue to be undertaken by the Subrecipient, the title, ownership and disposition of all property and materials acquired under this Agreement with funds awarded by the Department.

The Subrecipient shall comply with Property Acquisition and Management Standards of 2 CFR Part 200, as implemented by DOE Rules of Financial Assistance (2 CFR Part 910).

All Community Action Agencies and County Commissions which receive ADECA funds have been issued a copy of this manual, and it should be accessible to all agency personnel.

Questions regarding property management should be directed to ADECA-Energy Division. The ADECA Property Manager and the ADECA Audit Section are also available to answer questions.

LEASING PROPERTY

If your agency is contemplating the lease or the lease-purchase of a particular property item, we recommend that you contact ADECA-Energy Division to ensure that this will be an allowable transaction. You should evaluate your lease beforehand to determine if it contains a "bargain purchase option" or any other similar options which might cause the lease to be in reality a purchase of property bringing it under the property management standards and limits on equipment and property purchases, as previously identified.

If you are leasing equipment to the weatherization program which was bought with other general, non-federal funds of your agency or county, remember that 2 CFR 200 identifies only two specific methods for compensating the purchasing fund: use allowance or depreciation (see the following comparative analysis). If you used another federal program's funds to purchase the equipment, the weatherization program may not be charged any type of lease, depreciation or use allowance in order to compensate the other program for the purchase. Any other method used, other than depreciation or use allowance, to charge the weatherization program for equipment rental may result in audit questioned costs. Any transaction of this nature must be documented in the agencies' files showing the computation used and providing adequate justification.

Both depreciation and use allowances must be computed on acquisition cost. If a record of such cost was not maintained, a reasonable estimate of original cost may be used. A combination of the two methods may not be used on a single class of property, i.e., vehicles. Depreciation or a use allowance on idle facilities or equipment not in use is not allowable. In addition, no such charges will be allowed on any assets that would be considered as fully depreciated, provided, however, that a reasonable use charge may be negotiated, with ADECA approval, for fully depreciated equipment, if warranted, after taking into consideration its use in the program, the cost of replacing the item, etc.

DEPRECIATION METHOD

Where the depreciation method is followed, adequate property records must be maintained and any generally accepted method of computing depreciation may be used (any method used other than straight-line will require justification). However, the method of computing depreciation must be consistently applied for any specific asset or class of assets for all affected federally sponsored programs and must result in equitable charges considering the extent of the use of the assets for the benefit of such programs.

USE ALLOWANCE

In lieu of depreciation, a use allowance may be used for equipment computed at an annual rate not to exceed six and two-thirds percent of acquisition cost.

COMPARATIVE ANALYSIS OF DEPRECIATION AND USE ALLOWANCE

The following analysis assumes the purchase of a truck to be used, primarily in the weatherization program, to transport work crews and materials to the work site. However, other programs of the agency use the truck for various reasons and therefore benefit from the purchase. The truck cost $10,000 and it expected that it will have a useful life of six years. A logbook is kept in the truck and an analysis reveals that the truck was actually used approximately 90% for weatherization purposes the first year and 80% the second year. The agency used an 85% estimate for weatherization use in determining the original charges.

<u>Depreciation</u>

Original estimate:
Cost = $10,000 x 85% = $8,500
Depreciable amount of weatherization program

Depreciation charge = $8,500/6 years = $1,417 annually or $118 monthly

<u>Use Allowance</u>

Original estimate:
Cost = $10,000 - basis for computing weatherization use allowance = 85% of 6.667

Use allowance = $10,000 X 5.7% = $570 annually or $48 monthly

Actual first year:
Cost = $10,000 X .9 = $9,000
Actual depreciable amount

Depreciation charge = $9,000/6 years = $1,500 annually or $125 monthly

Second year estimate:
Use $125 per month to pay back the amount underpaid during the first year

Actual second year:
Cost = $10,000 X .8 = $8,000
Actual depreciable amount

Depreciation charge = $8,000/6 years = $1,333 annually or $111 monthly

Third year estimate:
Use $111 per month to recover amount overpaid

Actual first year:
Cost = $10,000 - basis for computing weatherization use allowance = 90% of 6.667

Use allowance = $10,000 X 6.0% = $600 annually or $50 monthly

Second year estimate:
Use $50 per month to pay back the amount underpaid during the first year

Actual second year:
Cost = $10,000 - basis for computing weatherization use allowance = 80% of 6.667

Use allowance = $10,000 X 5.3% = $530 annually or $44 monthly

Third year estimate: Use $44 per month to recover amount overpaid

In addition to the depreciation, a program may be charged for the operating costs of the equipment, such as gasoline, oil, tires, batteries and repair costs. However, if the agency cannot specifically identify and document the charges as applying solely to the weatherization program, then only the applicable prorated share of the cost may be charged to the program. Unless the vehicle is used 100% for weatherization, this will always be the case for most expenses.

INVENTORY CONTROL OF WEATHERIZATION MATERIALS

A proper inventory control system in both government and business is difficult to establish and even more difficult to maintain. For these reasons, ADECA does not recommend the stockpiling of weatherization materials. Other drawbacks to maintaining large inventory quantities on hand, as presented below, are unique to the weatherization program and make an effective inventory control system even more difficult to maintain:

1. Materials purchased with LIWAP funds should be installed within the LIWAP contract period as should DOE materials purchased be installed within the DOE contract period, which are two different periods of time.

2. Maintaining a large inventory often means incurring additional storage costs or space requirements which increases the cost of administering the weatherization program within an already limited budget.

3. The size of most Subrecipients both in number of people and budgets makes the establishment and maintenance of a proper inventory control system costly and impractical. An inventory control system that will meet the standards for control and accountability, as contained in federal management circulars, will require many additional hours of administrative work which must be paid out of already budgeted administrative dollars.

Of course, even if it is your policy to purchase materials on a house-by-house basis and not to stockpile weatherization materials, it is inevitable that some small amount of inventory will always be on hand. This is necessary in order to prevent the work crews from running out of items on the job site, such as nails, staples and weatherstripping, and having to send someone to a supplier to purchase more. A good estimator will always order enough materials to complete the job and any leftovers should be properly controlled.

Regardless of the weatherization method used (purchasing house-by-house, purchasing for several houses at one time or stockpiling materials), it is imperative that a method be developed to track an individual purchase to the completed dwelling. If some materials are left over, you should maintain a record showing where the materials were ultimately installed.

PERPETUAL INVENTORY SYSTEM

Those agencies purchasing materials in bulk or otherwise stockpiling materials over some nominal dollar amount must establish and maintain a perpetual inventory system to properly control materials purchased and inventory on hand. A perpetual system is one that shows a running total of materials purchased and used and the resulting balance on hand at any given time.

The perpetual record is designed so that each item of weatherization material purchased should have a corresponding perpetual record. It should be posted continuously during the contract period and totaled at the end of the period. Additions to inventory should be-posted from supplier invoices and withdrawals recorded from some source such as the dwelling assessment, or some type of predesigned inventory withdrawal form. The materials should then be physically counted, and coincide with the respective perpetual record and any differences investigated. The totals on the perpetual records should then be used as the basis for reporting inventory quantities on hand to ADECA at the end of the contract period.

As previously stated, it is imperative that all materials issued from inventory can be tracked to a completed dwelling and any perpetual inventory system which does not provide for this feature will not be considered adequate. The job numbers and/or sites must be appropriately identified; any excess material left over must be added back to the perpetual record. The ultimate test for the perpetual inventory system should be to account for the opening balance; account for all purchases of an item during a given period of time; inspect each dwelling weatherized during this time accounting for the installed materials and then count the quantity of the item on hand and agree this to the running balance on the perpetual record. In addition, the installed materials as shown on the perpetual record should be the same as that shown on the BWR.

An inventory control account should also be maintained in the general ledger for the weatherization program or in your organization-wide general ledger if only one is maintained for all programs and activities. When counting the materials and reconciling the totals to the perpetual records as previously described, you should also reconcile the balance in the general ledger to the physical count and make whatever adjustments are necessary.

PHYSICAL COUNTS

Physical counts of the quantities of weatherization materials on hand should be done each month and reconciled to the perpetual records making whatever adjustments are necessary (for good internal control, the physical count should be performed by someone other than the person responsible for inventory control involving purchases, withdrawals, quantities on hand and security). Performing this procedure monthly will help ensure that the perpetual records are always in balance and posted up to date. Also, it is much easier to determine the cause of an imbalance when the data is only a month old.

Also, be sure to correct the general ledger balance in the accounting records for any discrepancies found so that the ending balance in the general ledger at the end of the contract period will agree to the total of the perpetual records. By doing this monthly, you will have only one (1) month of differences to investigate at the end of the contract period instead of twelve (12) and a potentially serious audit problem has been eliminated.

The monthly physical inventory should be appropriately documented in the agencies' files and the result of the count and follow-up of any differences also documented. Any adjustment to the agencies' accounting records as a result of the physical count should be made in the form of journal entries and should be retained for audit.

SECTION IV

PROCUREMENT, PURCHASING AND CONTRACTS

PROCUREMENT STANDARDS

Procurement standards applicable to Subrecipients which are local governments, such as county commissions, and non-profit institutions such as community action agencies are contained in 2 CFR Part 200, the OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. These regulations have been codified by all major funding sources of ADECA-Energy Division Programs and have very similar procurements standards.

In addition to the above standards, Subrecipients must comply with the Alabama State Bid Law which is more restrictive in some areas than federal standards. County bid laws may also apply. However, bear in mind that the above-named federal regulations are more restrictive in certain areas than state and local bid laws and as such will override these local bid laws in those instances. For example, the State Bid Law does not require competitive bids for securing professional services such as CPA's, lawyers, engineers, etc. However, the above-named federal procurement standards require all procurement transactions to be procured competitively to ensure full and open competition when federal funds are to be expended. Therefore, applicable federal procurement standards must be followed when procuring professional services. The State Bid Law is more restrictive in other areas of procurements simply because of the thresholds involved regarding $15,000 versus $150,000 defined below.

<u>The following standards and practices apply to all purchases</u>:

1. Every effort should be made to avoid the purchase of unnecessary or duplicative items.

2. Whenever possible, lease vs. purchase analyses should be performed to determine which alternative is more economical.

3. All procurement transactions, regardless of size, shall be conducted in a manner that provides maximum open and free competition.

4. Any purchase of a single item or service costing over $500.00 requires prior approval by ADECA-Energy Division. Wherever possible, three quotes should be obtained for the purchase. If three quotes cannot be obtained, document the situation accordingly and contact ADECA-Energy Division for guidance.

5. **All procurement transactions, from start to finish, must be fully documented.**

6. The selection procedures shall be written, including all requirement factors to be used in evaluating bids or proposals and the code of conduct.

7. The costing method of cost plus a percentage of cost is prohibited.

2 CFR Part 200, the OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards defines four (4) types of purchases or procurement methods:

1. Micro purchases (up to $3,000- obtain and document price quotes from several sources).

2. Sealed bids ($150,000 or greater - formal advertising for bids).

3. Competitive proposals ($150,000 or greater - publicized request for proposal).

4. Noncompetitive proposals ($150,000 or greater -sole source procurement with prior approval from ADECA-Energy Division).

The Alabama State Bid Law requires competitive bidding of all contracts and purchases involving $15,000 or more with some exceptions as contained in the law, and limits the duration of all contracts to not more than one year, except personal service contracts which are limited to three years. Due to the more restrictive requirements of the state bid law, competitive bids are required for all purchases **exceeding $15,000** or when aggregate purchases of like items is expected to exceed $15,000 the ADECA-Energy Division grant period.

For purchases **under the $15,000** limit, documented price or rate quotations must be obtained from an adequate number (usually a minimum of three) qualified sources.

Regardless of the type of procurement action taken (competitive bid for purchases in aggregate of $15,000 or more or price or rate quotations for purchases under $15,000), **all details of the process from start to selection of a successful bidder must be documented.**

PROCUREMENT GENERAL CONDITIONS

The following procedures shall apply to all purchases made by competitive bid:

1. **All purchases for $15,000 or more in aggregate (total cost up to yearly)** shall be made by competitive sealed bid. NOTE: **All purchases under $15,000 in the aggregate (total costs)**, price or rate quotations must be obtained and documented from an adequate number (usually a minimum of three) of qualified sources.

2. Agencies are encouraged to solicit competitive bids from small, minority-owned and women's business enterprises. **This requirement must not be interpreted to mean preferential treatment is given to such entities or that noncompetitive procurement procedures result from such a misinterpretation.**

3. All purchasing personnel must advertise the bid solicitation by posting notice of such on a public bulletin board, and by publication at least one time in a newspaper that covers the entire service area; any other manner of advertisement and for such lengths of time as purchasing personnel may determine may be used in addition to the above requirements. Further, purchasing personnel must also solicit sealed bids by sending mail requests from all persons and/or firms who have filed a written request for listing for solicitation of bids for such items and/or services.

4. Agencies may use bid solicitation instruments similar to those found in this section in order to ensure compliance with all applicable regulations and standards.

5. Agencies must develop and utilize written internal procedures for weatherization service and material procurement through both sealed and telephone solicitations of bids. These written procedures should include the following:

    - Agency personnel in charge of the procurement process
    - Development of a formal solicitation instrument
    - Bid announcement/publicity
    - Handling of bidder questions prior to bid opening
    - Detailed bid opening procedures
    - Handling of bidder questions following bid opening
    - Documentation of bid opening procedures
    - Bid corrections
    - Bid withdrawals
    - Bid protests
    - Bid qualification process
    - Bid evaluation process
    - Bid tabulation process
    - Sole source procedures
    - Single response procedures
    - Contract award and announcement
    - Contract termination/cancellation
    - Telephone bid process
    - Bid bonds
    - Performance bonds
    - Liability insurance

VENDOR/CONTRACTOR SELECTION

Awards shall be made only to responsible vendors and contractors that possess the potential ability to perform successfully under the terms of their bid and an executed contract document. Consideration should be given to such matters as contractor integrity, compliance with public policy, record of past performance, financial and technical resources, qualities of the labor or products proposed to be supplied, availability, transportation costs, etc. Contract award should be made, if at all feasible, within five working days of the bid opening.

Keep in mind that the bid documents and other solicitations should have included a clear and accurate description of the material, product, or service to be procured, and that the technical qualifications must not have contained features which may have unduly restricted competition. The request for bids and other solicitations should also have clearly set forth all other requirements which bidders would have been required to fulfill. This should ensure that the bids are consistent in content and that all bidders have been given an equal chance.

A Subrecipient may submit a written request to ADECA-Energy Division for permission to pursue noncompetitive negotiation (single response procurement) in the event that only one bid is received after the solicitation of a number of sources. **The request must be accompanied by proof of solicitation (bid advertisement, solicitation letters, etc.), a copy of the bid proposal, any and all bid modifications or change orders, and a summary of the minutes of the bid opening which must include a list of those present at such.** The agency should negotiate with the single response bidder to ensure that all costs are reasonable. Prior written approval must be obtained from ADECA-Energy Division before entering into a contractual agreement in this situation.

PROCUREMENT RECORDS

Records of individual procurement transactions shall be maintained in sufficient detail to record the history of the procurement. These records shall include, but are not limited to, the following:

1. The rationale for the method of procurement (competitive bidding or price quotes).
2. Evidence of bidding procedures (newspaper advertisements, records and minutes of bidders meetings, bid package documentation, etc.).
3. Tabulation of bids received.
4. Basis for vendor/contractor selection or rejection.
5. Basis for contract price.

For those procurements where competitive bidding is not required, the price or quote sheets discussed above should be filled in by vendor or product, with appropriate reasons if the low bidder was not selected.

CONTRACTS

After the above procurement procedures have been carried out and the successful bidder selected, both parties should enter into a written contractual agreement to ensure that the funds are properly spent, the bidder performs to the agency's satisfaction and the agency has appropriate legal remedies in the event of nonperformance. As a Subrecipient of DOE and LIHEAP financial assistance, agencies are also required to comply with various federal regulations which have been enacted to ensure that public policy is implemented whenever federal funds are spent. Contracts ensure compliance by incorporating clauses that indicate which federal laws are applicable to that specific contractual relationship. 2 CFR Part 200, the OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards lists all conditions for inclusion of such clauses as well as a list of applicable federal provisions.

Contracts are sometimes difficult to read but are always difficult to write. Even the use of an attorney probably will not result in a technically complete contract due to the federal compliance requirements with which they are most likely unfamiliar. For this reason, and to assist you in

properly administering your program, we have prepared a sample contract. Note that this is a **sample** contract and should be used as a guide to meet your particular local needs. **But let us emphasize that should you fail to enter into a contract where appropriate and these contracts do not include federal compliance requirements and sound business practices, then you have not met federal management standards and it will not be satisfactory for program compliance, monitoring or audit purposes.**

Remember that these sample contracts should be tailored to meet your particular local needs and the sample should not be used without careful review.

The primary concern is that you must enter into contracts for all qualifying procurements (a bid document is not good enough); it must contain a clear understanding of the duties and responsibilities of both parties and it must contain all applicable federal compliance requirements.

In many cases when an agency or local government enters into an employment contract with an individual, that individual may be considered an employee for insurance and tax purposes. Check with your accounting personnel or local/state audit personnel for clarification.

COMPETITIVE SEALED BIDS

(Purchases Greater than $15,000 (one-time purchase or in aggregate) for goods and services (non-professional)

Note: Cost plus percentage of cost purchasing is not allowed. Program expenditures cannot be made on the basis of a seller's cost plus percentage. Bids must be based on a firm fixed price.

1. A Subrecipient must develop a bid instrument or state clearly the form in which the bid must appear. All information which is required for a proper bid must be clearly stated. Applicable standards must be attached to the bid instrument or made available to all who wish to submit bids; standards include those of materials and performance:

    - Bids must be addressed to purchasing personnel only.
    - Date of bid opening.
    - Time of bid opening.
    - Location of bid opening.
    - A bid bond is required for any contract exceeding $10,000 provided that bonding is available for such materials or services.
    - Methodology for evaluation.

2. Once the invitation to bid has been developed, it must be advertised through posting of the notice on a public bulletin board and publishing it in a newspaper covering the entire service area for at least three (3) consecutive days. In addition, the solicitation for bids must be mailed to all persons and/or firms who have submitted written requests to be included in solicitation listings. Any other manner of advertising of bid solicitations for

any length of time may also be used in conjunction with the above methods.

3. All bids received by the Subrecipient must be kept sealed and secure by purchasing personnel until the specified date and time of the bid opening.

4. A procedure must be kept in place for the handling of bids received after the designated time for submission.

5. Minutes must be kept of the bid opening. The minutes must include date and time, as well as a list of all persons present.

6. All sealed bids are to be opened at the set time and date. They are to be opened and evaluated in an open and public setting. All bids received must be typewritten or handwritten in indelible ink.

6. The contract must be awarded to the lowest responsive and responsible bidder. If any or all bids are rejected, sound documentation for such must be written and placed with other bid materials. **Selection of a firm other than the lowest bidder cannot be based upon local geographic preference.**

Solicitation of Contractors

Regularly advertising for construction bids can become costly, time consuming, and can result in project delays. Subrecipients are encouraged to develop a "qualified contractor bid list" to use to directly solicit written bids from that list of contractors. To develop their qualified contractor list, a Subrecipient must advertise at least once annually for contractors. After the responding contractors successfully complete the Subrecipients contractor qualification criteria, they should be placed on this list and be directly solicited to bid during each round of housing bids. The Subrecipient must ensure that the list contains state licensed contractors that meet the Subrecipient's qualification criteria.

The Subrecipient's required contractor qualifications may be included in the advertisement and in the solicitation request for contractors. This may include, among other things, the number of years in business, the ability to establish a letter of credit, references submitted, equipment owned, insurability, and others desired by the Subrecipient. Once a list of contractors is developed, establishing contractor qualification may be taken out of the bid process. Bids can be directly solicited from contractors on the list without advertising. Subrecipients may also use qualified contractors on a list on a rotating basis in order to maximize contractors working on the job.

Before the Subrecipient can sign a contract with a proposed contractor, the Subrecipient must ensure that the contractor is not on the federal listing of contractors that are unable to perform work under a federally sponsored project. This would make the contractor a *debarred contractor*.

Attracting Contractors

The best incentive to attract good contractors is a well-run program. Programs with good reputations will attract good contractors. Specific elements that contractors typically desire are as follows:

a) Having a **clear-cut division of roles and responsibilities.** The contractor needs to be aware of both the homeowner's responsibilities and their own. Contractors must only perform the work in the weatherization contract specifications. Any additional work must be in a signed change order approved by the inspector. The Subrecipient, inspector, and administrator are not responsible to pay for work that is not in the contract specification or an approved change order. This responsibility must be made clear to both the property owner and contractor.

b) Writing **clear and concise specifications**. If a contractor does not know how to bid a particular item, they may not turn in a bid. Have performance manuals readily available.

c) Make **timely payments.** Payments not made on time cost contractors time and money. Contractors should be paid in a timely fashion at completion of final inspection(s) to provide a good contractor incentive.

d) In areas where there is a lack of qualified contractors. Assist contractors **in job scheduling.** Many contractors are not trained planners and businesspeople. If your inspector and administrator have these skills, they can assist the contractor in scheduling the contractor's work to assure that the contractor does not schedule an excessive workload and cause project delays.

f) Provide a **referral list of well-qualified subcontractors**.

g) Provide **training** for contractors in the various building trades.

BID SPECIFICATIONS CONTENT

The bid specifications must state everything that the Subrecipient will require of the bidders. Ambiguity or failure to list details in the specification may make the Subrecipient's task of awarding bids more difficult and time consuming, may give a rejected bidder grounds to appeal the Subrecipient's decision, and may result in a disallowed cost finding by ADECA-Energy Division.

All bids submitted must be labeled as such and carry the words "Sealed Bid" on the outside of the envelope.

Following are some common items which should be included in the specifications:

Time Frame:

- Submission of bids
- Starting and completing work
- Delivery of materials
- Bid prices to remain in effect
- Level of progress, or completion date for work in-progress by a contractor as a condition of eligibility to bid on new contracts
- Trial or probationary period for new contractors (to enable Subrecipient to evaluate quality of work)
- Correction of deficiencies in labor or materials
- Continuation of bid process should materials price fluctuate significantly

Materials:

- Quantity
- Minimum quality standards
- Special delivery requirements (e.g., if a bulk purchase is to be delivered in two or three installments at specified intervals, or delivered to job site instead of warehouse)
- Special requirements regarding color, design, removable parts, etc.
- Applicable warranty information, if any

Other:

- Minimum and/or maximum number of units or packages of units that are to be bid in the solicitation and whether all units will be awarded to the low bidder, or the units or packages of units will be awarded to several bidders.
- Cost breakouts should be stated in the specifications (e.g., labor/materials, unit/package, single item/bulk, etc.).

When preparing bid specifications, preference cannot be given to local vendors. Local vendors must be competitive regarding delivery specifications, materials availability and similar criteria to be awarded a bid. Bid specifications must not be written in such a way as to intentionally exclude qualified bidders, e.g., Subrecipients may not specify a delivery time for commonly used items that is so short that all but local vendors are excluded.

Bid specifications must not be written in such a manner as to reduce supply to a sole source, (e.g., specifications for a replacement heating appliance so specific that only one brand qualifies, or by specifying one brand only).

Newspaper Solicitation

Solicitation of bidders through newspaper is a recommended method for providing free and open competition. The following are suggested guidelines for newspaper advertising in conjunction with solicitation procedures:

- Solicitation should be advertised in a newspaper(s) of general circulation through the Subrecipients entire service area at least once during each program year for no less than three (3) consecutive days with the bid opening held no less than five (5) days after the first publication date.
- Advertisements for materials must contain a list of the requested materials, or indicate where and when a bidding form which lists the materials specifications may be obtained. The advertisement must have a closing date for the bid, and must state the date, time and location of the bid opening.
- Advertisements for unit quantities must contain a list of units that are available for bid and must indicate where and when specifications may be picked up. The advertisement must have a closing date for the bid, and must state the date, time and location of the bid opening.
- Advertisements for services must contain a specific description of the services or indicate where and when such a description can be picked up. The advertisement must have a closing date for bid and must state the date, time and location of the bid opening.
- Advertisements that seek subcontractors or vendors who wish to have their names appear on a list of qualified bidders must state whether an application is required and state where and when it may be obtained.

Protest Resolution

When a protest is made against a bid award, the Subrecipient is responsible for receiving and resolving protests using the following guidelines:

- Resolve all protests verbally or, if not possible, have the protesting party put their protest in writing.
- Withhold the award until the protest is resolved, unless prompt award is in the Program's interests.
- Send notice of the filing of the protest to those bidders whose bids might be eligible for award and obtain extension of acceptance time, if necessary.
- Notify the protesting party promptly, in writing, of the final decision on his/her protest.

SMALL PURCHASE BIDS

[(Purchases less than $15,000 for goods and services (non-professional)

1. A Subrecipient shall develop an instrument on which to record bids solicited via telephone or mail for small purchases. Solicited vendors must be provided with all information necessary to submit a proper bid, including applicable standards.

2. An adequate number of qualified sources (usually minimum of three) must be contacted for price or rate quotations. If an adequate number fails to be contacted, consult ADECA-Energy Division for guidance.

3. All vendors must be advised of the time and date of award for telephone/mail bids. Telephone bidders/mail bidders should submit written confirmation of prices or rates given within five working days of oral bid.

4. All prices or rates for requested materials must be entered on the bid solicitation instrument, as well as the length of time for which they are effective. The date of receipt of the information must also appear.

WEATHERIZATION PROCUREMENT PROCEDURES

Each Subrecipient must establish its own written procurement system based on its own particular circumstances, i.e., non-profit organization or county government, rural or metropolitan service area, local practices and economic condition, availability of skilled workers, etc. However, no matter which procurement system is used (agency purchasing house-by-house, several jobs at a time, bulk purchasing, agency labor, contract labor, contracting the entire job), it must meet the standards for procurement identified above.

Change Orders exceeding ten percent (10%) of the total cost of repairs to a dwelling will require approval from ADECA-Energy Division. A written request (in email or hardcopy form) for the Change Order is required. If the request for the Change Order is denied or a change order is not requested, the specific item in question will be let by free and open competitive bidding.

Procurement of Labor Services

Weatherization Subrecipients carry out their programs by the use of various forms of labor. Some agencies use their own employees; others enter into contracts with construction firms for all aspects of the work (labor as well as materials), but the majority use individuals hired under contract, who serve as laborers only. These labor contractors are generally referred to as "direct hires," and their employment provides several advantages to the weatherization agency in terms of flexibility and economic efficiency; however, problems can be created if proper procurement practices are not observed in this area.

Suggested procedures concerning the use of agency employees for weatherization labor and for complete job contracting are discussed in other sections of this manual, and the remainder of this part is devoted to the use of "direct hire" labor services only.

All weatherization agencies are subject to the state bid law, or similar county bid laws, and therefore, must obtain formal bids for "direct hire" laborers if they can reasonably expect to pay such laborers individually $15,000 or more during the course of an ADECA grant period.

Preferably "direct hire" laborers should be selected by a process of seeking bids made on an hourly rate basis. This bidding process should take place at least once during a grant period. However, it can be done more often, if considered necessary, to ensure the weatherization program is receiving the best price for these services, or if the laborers are unwilling to restrict themselves to a fixed price for that long of a period. Bidders must be solicited by formal advertisement in the agencies' local newspapers and through posted notices. All interested parties must be issued a request to submit sealed bids, which set both the worker's proposed rate per hour to perform typical weatherization tasks, and any relevant experience or qualifications. All bids should be taken with all parties understanding that the actual hours for which the laborers will be paid will be controlled by the weatherization agency, and will be based on estimates made during the assessment of the homes to be weatherized. Of course, estimates may be revised if the actual amount of work required is different and adequate justification can be given for the difference.

All bids received must be evaluated in an open and fair manner giving consideration to price as well as other factors. The lowest hourly rate does not necessarily have to be selected if previous experiences regarding reliability and/or work quality outweigh slight price differences. However, if

the low bidder is not selected, the reason(s) must be documented and retained for audit and monitoring review. If an agency desires to contract with several individuals, more frequent bidding may be required.

Some weatherization agencies may use other methods to select "direct hire" laborers, such as flat rates or bidding on a per house basis. These methods are acceptable as long as the intent and results encourage open competition and obtain the best value for the weatherization program. All weatherization agencies are expected to employ sound business practices in their procurement of labor services. Under no circumstances shall independent labor contractors be paid on a percentage of the cost of installed material basis.

Bid bonds must be obtained on any contract exceeding $10,000, provided that bonding is available for such. Performance and payment bonds are not required to be obtained.

Bidding procedures - materials and other items

When an agency has decided, based on the procurement standards identified above, that the procurement of weatherization materials and other items must be competitively bid, certain procedures must be followed to ensure that the bidding is done properly and that the materials purchased meet necessary weatherization program standards. If an agency is buying its own materials, bids should be taken for insulation as frequently as practicable but at least once a year.

As with the procurement of labor services above, bidders should be solicited by formal advertisement in the agencies' local newspapers and through posted notices. All interested parties must be given an opportunity to bid, and all parties who have requested in writing to be put on any bid list must be sent an invitation to bid. No interested bidder can be denied the opportunity to bid simply because he does not reside or have a place of business in a particular city or county. Selection of bidder must not be based upon local geographic preference. All necessary affirmative steps are to be taken to ensure that small, minority and women's business enterprises are used when possible.

The formal advertisement and request for bids should present the exact requirements for the item(s) to be bid or contain information as to the place and time where these requirements will be discussed and/or written standards made available. At that time, each bidder should be provided with a copy of the Standards for Weatherization Materials so that they can prepare an informed bid. (For instance, the various types of weatherstripping, glazing compound, caulking--latex, oil base, butyl rubber, silicone, foam, etc.--should be specified). This will not only help the bidder but also the agency when evaluating the bids.

The bids should be prepared in a prescribed form. That form should not only stipulate the quality and specifications for the weatherization materials, but should also contain other compliance items which bidders may be required to include, such as a requirement stipulating that if their bid is accepted, all invoices submitted to the agency for work performed must be specified and itemized with labor and material costs separately identified. To eliminate confusion, a definitive billing procedure should be outlined for contractors. Proper billing will simplify the work of the bookkeepers and the auditors.

Bid bonds must be obtained on any contract exceeding $10,000, provided that bonding is

available for such. Performance and payment bonds are not required to be obtained. However, based on past experience with individuals and contractors, one or all of these types of bonds should be requested to ensure that the agency is protected, that the bidder does not submit a frivolous bid, that the contractor faithfully performs under the contract at his bid price, and that all vendors, suppliers, and laborers are paid.

Agencies purchasing their own materials should obtain bids as frequently as possible but at least once a contract period. This will be required for those purchases meeting the above procurement standards and will almost always be required for insulation and storm windows. If bidding causes a problem with the vendor being able to deliver the materials when needed, then perhaps some type of supply contract will also be necessary. Under this arrangement, the vendor commits to having a certain amount of supply on hand at all times, and the agency commits to purchasing a certain quantity from the vendor at the bid price and to notifying the vendor within an adequate lead time (two to three weeks) as to when and how much additional supply will be needed.

For those purchases falling under the bid limits, price quotes or rates should be obtained from an adequate number, most times three (3), of qualified sources to document that you are purchasing at the best prices. This can be done in writing, over the telephone, or by any other acceptable means. Again, as with other purchases, price is not always the deciding factor; quality and availability are also important factors. Don't forget to document this process! Write the results down on some form of standard price quote sheet. Include the names of the vendors contacted, the form of contact (telephone, etc.), description of the product, the vendor's quoted price, your selection and, above all, the dates the quotes were solicited and their effective dates.

SECTION V

AUDITS

AUDIT POLICY

ADECA's policies and requirements for audits for Subrecipients who administer ADECA-funded programs were communicated to each agency in the ADECA Audit Policy. (Please note that the ADECA Audit Policy is revised periodically; therefore, please ensure that the agency and the agency's auditors have the most recent revised Audit Policy.) The Audit Policy should be read by those associated with audits and followed very closely. Since this Audit Policy goes into great detail concerning the roles and responsibilities of the agency, auditors, ADECA and the Federal grantor agency, this information will not be repeated here. The agency and the agency's auditors should refer to the Audit Policy for detailed guidance concerning audits and, if questions or problems arise, the ADECA Audit Section should be contacted.

The remainder of this section will be devoted to providing basic insight into the nature and purpose of an audit and acquainting the reader with the various phases of the audit process that can be expected to occur at the agency.

AUDITING IN GENERAL

The Government Auditing Standards presented in the ADECA Audit Policy allow two types of financial audits. They are as follows:

1. **Financial statement audits** provide reasonable assurance about: (a) whether the financial statements of an audited entity present fairly the financial position, (b) the results of operations, (c) and cash flows in conformity with generally accepted accounting principles. The type of audit conducted by the agency's CPA will usually be a financial statement audit and will usually encompass the agency's entire operations.

2. **Financial related audits** include determining whether: (a) financial information is presented in accordance with established or stated criteria, (b) the entity has adhered to specific compliance requirements, or (c) the entity's internal control structure over financial reporting and/or safeguarding assets is suitably designed and implemented to achieve the control objectives.

Audits can be very useful management tools for enhancing both the accountability and implementation of the weatherization program. Therefore, an audit should not be looked upon as a nuisance or something to be put off for as long as possible. Auditing plays an important role in government because it is a management tool for evaluating whether operations are executed economically, efficiently, and effectively. However, while it is true that auditors have the responsibility to evaluate Subrecipient operations, Subrecipient management cannot and should not completely rely on the auditors to detect problems and recommend solutions. Managers, as part of their management responsibility, must routinely assess their own operations to assure themselves, upper management, and oversight groups that operations are controlled meeting high program compliance expectations. **If problems are found by the auditors or by management, it is management's responsibility to act promptly and properly to initiate corrective action.**

CONTRACTING FOR AUDIT SERVICES

As the ADECA Audit Policy states, the Subrecipient must follow procurement procedures for audit services in accordance with the specific federal program requirements 2 CFR Part 200, Subpart F, the OMB Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. If any Subrecipient receives more than $500,000, collectively, in State General Fund appropriations in their fiscal year, from ADECA, they must have an audit in accordance with *Government Auditing Standards* (the Yellow Book) and Generally Accepted Auditing Standards established by the AICPA. All entities that have a single audit must submit the reporting package and data collection form to the Federal Audit Clearinghouse in accordance with 2 CFR 200, Subpart F §200.512.Subrecipients may use their own procurement procedures if the procedures do not conflict with the above-stated requirements. In addition, agency procurement procedures should allow small and minority audit firms and audit firms owned and controlled by socially and economically disadvantaged individuals the maximum practical opportunity to compete for contracts awarded to fulfill these ADECA audit requirements. The primary point to remember is that the procurement of audit services must be conducted in a manner providing full and open competition consistent with the standards of the applicable regulation noted above.

All entities that have a single audit must submit the reporting package and data collection form to the Federal Audit Clearinghouse in accordance with 2 CFR Part 200, Subpart F §200.512.

NOTE: Costs for an audit that are improperly procured or where there is no competition without prior approval (sole source) are considered unallowable to any federal program.

In addition, before the audit begins, each Subrecipient shall enter into a formal written contractual agreement or an audit engagement letter with the auditor that states the applicable audit requirements and time limitation of the ADECA Audit Policy. Several references to technical material are required to be put into the contract as explained in the ADECA Audit Policy. A properly drafted and executed contract for audit services or an engagement letter protects both the auditor and the agency from misunderstandings and other problems which may occur during the course of the audit.

Proper audit planning, on the part of the auditors and the agency, is essential to ensure that the audit proceeds smoothly and the audit objectives are achieved. For this reason, the agency should utilize acceptable procurement methods that allow it to effect a written contract with the auditors. This process should provide for a sufficient amount of time (two to three months) prior to the end of the fiscal year to allow enough time for this process to take place. When soliciting proposals for audit services, the agency should allow another month for this process since the auditors generally need two to three weeks to prepare a response to the request for proposal.

TIMING OF THE AUDIT AND NOTIFICATION TO PROCEED

The contract for audit services should include the Subrecipient's and auditors' expectations concerning when the audit is to be conducted and when the finished report is to be delivered. This is especially important since ADECA requires the audit reports to be submitted preferably within nine months after the end of the audit period. NOTE: When audit reports are not expected to be

submitted to ADECA within 9 months after the end of the audit period, the signatory or other designated agency official must specify the delivery date of the reports (in writing to the Chief of the Audit Section). The ability of the auditors to meet this time constraint should certainly be considered as part of the audit services procurement process.

It may be possible, depending on the adequacy of the system of internal control structure and other factors, for the auditors to perform some preliminary audit work prior to the agency closing the books accounts at the end of the fiscal year. This will aid the auditors in meeting any time constraints and having the completed audit reports delivered to the agency at the earliest possible time. Typical preliminary audit procedures will include obtaining an understanding of the internal control structure and evaluate the effectiveness of its design and operation, and depending on the results of the evaluation of internal control structure, the auditors may elect to do some preliminary testing of account balances and ADECA federal programs to determine if there are material misstatements in the financial records and/or material noncompliance with laws, regulations and contracts related to ADECA/federal programs. Preliminary audit procedures will also include audit planning, preparation of third party correspondence for later mailing such as bank confirmations and attorneys' letters.

When the auditor services selection process is completed, the Subrecipient should notify the CPA firm selected at the earliest possible time when they can proceed with the audit so auditors may begin planning and arranging the audit staffs schedules. This should allow sufficient time for the completion and submittal of the Audit Report in compliance with the ADECA Audit Policy.

ENTRANCE CONFERENCE

When the auditors first arrive, they will usually hold an entrance conference. This may not be necessary when the auditors are familiar with the agency, but may be requested by the agency if it would be beneficial. The entrance conference should be attended by all persons directly related to program, and financial management and should not be limited to the chairman/executive director. This is the time to introduce the auditors to the staff, get acquainted and discuss the upcoming audit. The following are topics that might be discussed at the entrance conference.

a. **Working Space for the Auditors.** For the audit to proceed smoothly and efficiently, an adequate amount of room should be made available to the auditors, if at all possible. Ideally, this space should be as private as possible to allow them to communicate with each other, but close to the accounting and other financial records to prevent a lot of wasted time going back and forth to get records. Cramped and inefficient working space will cause the audit to take longer to complete, therefore costing more and taking up more agency time.

b. **Parking Space and Other Necessities.** If parking space is a problem at the agency, some provision needs to be made to accommodate the auditors. Other items, such as telephone use at the agency, should also be discussed.

c. **Working Times and Schedules.** For the most part, the normal working hours of the agency should be observed by the auditors. However, it may be possible for someone who normally arrives earlier to let the auditors in if they need to work longer than usual. The agency should make the auditors aware of the vacation schedules of any of the key people whose absence could interfere with the audit.

d. **Employee Names and Job Duties.** Besides those persons present at the entrance conference, the auditors should also be given the names of other individuals with whom they may need to confer during the audit, such as the chairman of the board and/or other key supervisors or staff.

e. **Contact Person.** The agency should appoint a contact person to be the primary source of information for the auditors. This person should have good overall knowledge of the organization and be available most of the time during a typical week. The contact person should be responsible for referring the auditors to others in the organization who are responsible for various program duties.

f. **Brief Description of Auditing Procedures.** The auditors should briefly describe the standards under which the audit is to be conducted and the types of accounting and other records which must be made available for examination.

g. **Agency Assistance.** The agency should inquire in what ways it may assist the auditors during the examination to reduce audit time and cost and improve the overall effectiveness of the audit. Some examples include:

1. Typing correspondence, such as bank statement, accounts receivable, revenue confirmations and attorney letters. NOTE: Revenue confirmations on ADECA programs should be sent directly to the Chief, ADECA Audit Section.

2. Preparing schedules of certain items, such as lists of accounts payable, lists of accounts receivable, investments and accrued interest, property and equipment schedules with depreciation expense calculations, etc.

3. Pulling invoices selected by the auditors for testing.

4. Contacting and coordinating visits to various homeowners as selected by the auditors.

5. Assembling a package of information which will be needed by the auditors such as a copy of: articles of incorporation, all grant agreements, contracts, lease agreements, etc., the prior audit report and tax return, organization chart, and the agency's policies and procedures and accounting manuals.

h. **Problems or Unusual Circumstances.** If the agency is experiencing problems which may have an effect on the audit, this should be communicated to the auditors. These could be problems affecting the financial statements, such as incomplete accounting records or accounting errors. Other problems, such as pending or threatened litigation or the possibility of employee embezzlement, should also be communicated.

AUDIT FIELDWORK

During the time the auditors are at the agency performing the audit, business at the agency should be conducted as usual. The auditors will need assistance from time to time, and the agency should make every effort to help them and answer their questions.

During the field work, the agency executive director/chairman and the designated contact person should be kept informed of the progress of the audit and be made aware of any problems that arise. In most cases, the auditors will bring problems to agency personnel in an attempt to clarify the situation and develop all the relevant facts. The agency should also consider the problem during the fieldwork and present its side of the case if there is no obvious situation. When a situation arises which is clearly an agency error or noncompliance matter, the agency should address the problem as soon as possible. If the problem can be corrected prior to the completion of fieldwork, then the finding in the report can so indicate this and follow-up action on the agency's part will probably not be necessary.

If the agency and the auditors cannot agree in a particular problem situation, it may be helpful to contact ADECA for additional information or guidance. If the problem cannot then be resolved, it will have to be put in the report as a finding and ADECA will make the final determination.

EXIT CONFERENCE

After the audit has been completed, the auditors should have an exit conference with agency personnel. Usually the same individuals who attended the entrance conference should attend the exit conference. However, the appropriate agency personnel should be included and/or excluded by the agency executive director/chairman in situations where the auditors discuss matters involving any irregularities, employee negligence or other highly personal or confidential matters.

During the exit conference, the auditors should give a summation of the audit and present the unresolved findings and other recommendations. Hopefully, the agency has already has an opportunity to investigate and respond to the findings so that the items covered during the exit conference will not be a surprise. The auditors should provide a written copy of the findings and recommendations to the executive director. **The Subrecipient should then immediately prepare a formal response on agency letterhead and signed by the appropriate signatory official to be included in the final report.**

The auditors may or may not present a draft report at the exit conference. If the agency would like to see a copy of the audit report prior to its publication, then the executive director should request this of the auditors. **This request is best made in the RFP document or at least early in the engagement process.**

COMMON AUDIT FINDINGS

The following are examples of deficiencies which usually result as findings in agency audit reports:

- Inadequate accounting records, i.e., no general ledger or cash journals.
- Accounting records not properly posted or balanced.
- Expenditures not supported by source documentation.
- Loaning funds back and forth between programs to cover shortfalls.
- Leasing equipment from another federal program or general government at exorbitant

amounts which have not been computed using the depreciation or use allowance method.

- Charging lease or rental amounts for office space that is owned by the agency instead of charging amounts calculated by using the depreciation or use allowance method.
- Bank reconciliations not prepared and/or not balanced with the general ledger cash accounts.
- Subsidiary ledgers not balanced with the general ledger control accounts each month.
- Total expenditures in the accounting records do not agree to total reimbursements from ADECA.
- Administrative costs exceed amount specified in the contract.
- No local written accounting and procedures, or procurement policies and procedures.
- No cost allocation plan on file to support the charging of joint costs between programs.
- Approved indirect cost rate not properly applied to affected programs.
- Time and attendance records not properly maintained.
- Property purchases not approved by ADECA.
- Annual inventory of property items not taken.
- Adequate equipment or property records not maintained.
- Expenditures on a dwelling in excess of maximum set by federal regulations.
- Costs of another federal program or a cost of general government charged to and paid by the weatherization program.
- Slow payment to program vendors.
- Materials installed on a dwelling which do not meet weatherization standards.
- Materials installed on a dwelling- the final inspection report has been filed.
- Proper inventory controls over weatherization materials not in effect.
- Written contracts not entered into for contractual services, such as program administration, direct hire labor, insulation services and total dwelling weatherization services.
- Weatherization materials purchased cannot be tracked to the completed dwelling.
- Potential weatherization dwelling not properly assessed.
- Post inspections of the completed dwelling not performed or are conducted by the individual performing the work.
- Weatherization costs charged to the incorrect contract or contract period.
- Income eligibility of potential households not independently verified.
- Contractors compensated on a percentage of construction costs.

- Building weatherization reports (BWR) and other required documentation not properly completed and reconciled to the accounting records.
- Weatherization materials on the job site and at the agency not properly controlled or protected.
- Priorities for weatherizing a dwelling not followed.
- No or inadequate insurance maintained at the agency level and for those working directly on the job.
- Lease-purchase arrangements entered into without proper ADECA approval.
- Audit services not properly procured.
- Proper procurement and bidding requirements not followed.

AUDIT RESOLUTION

At the completion of the audit, the Subrecipient shall prepare a corrective action plan to address each audit finding included in the current year auditor's reports. The corrective action plan shall provide the name(s) of the contact person(s) responsible for corrective action, the corrective action planned, and the anticipated completion date. If the Subrecipient does not agree with the audit findings or believes corrective action is not required, then the corrective action plan shall include an explanation and specific reasons.

The ADECA Audit Section has the oversight responsibility to coordinate and ensure that all audit finding(s) that could or do affect ADECA programs are satisfactorily resolved within the Audit Policy's time frames. The ADECA Director will be the final authority within ADECA on the management decision of all audit findings.

The debt collection process begins with the ADECA Director's letter to the affected Subrecipient and establishes the debt owed to ADECA as a result of costs that were disallowed during the audit resolution process. The Subrecipient must remit the disallowed costs or acceptable repayment plan to ADECA within thirty (30) days from the date of the ADECA Director's letter. Those Subrecipients that do not remit disallowed costs or an acceptable repayment plan within this time frame may be charged interest (at the applicable prime rate) on the debt starting the day after the due date of the remittance. Those Subrecipients that do not remit disallowed costs within the time frame specified in the ADECA Director's letter will have certain sanctions imposed upon them as indicated in the ADECA Audit Policy.

Subrecipients should review all aspects of the ADECA Audit Policy to ensure that they are aware of and comply with all applicable requirements.

ADECA CONTACTS

Any questions that are audit related may be directed to the ADECA Audit Section at (334) 353-3431. Questions that are programmatic or contract-related may be directed to the ADECA-Energy Division at (334) 242-4909.

SECTION VI

INSURANCE

GENERAL POLICY

The nature of the work of the weatherization program exposes the weatherization agency (Subrecipient) to many potential liability situations involving employees, contract labor, homeowners and other parties. In order to protect the Subrecipient from injury or damage claims, the Subrecipient is required to carry appropriate insurance. The decision-making bodies of your organization, such as the Board of Directors or County Judges and Commissioners, should also be adequately protected.

The Subrecipient shall purchase and maintain such insurance in amounts considered adequate to protect the agency from claims identified below which may arise out of or result from the Subrecipient's operations or performance of work, whether such operations be conducted by the Subrecipient or by a subcontractor or anyone directly or indirectly employed or acting as an agent by either:

- Claims under Worker's Compensation, disability benefit and other similar employee benefit acts
- Claims for damages because of bodily injury, occupational sickness or disease, or death of its employees
- Claims for damages because of bodily injury, sickness or disease, or death of any person other than its employees
- Claims for damages insured by personal injury liability coverage which are sustained: (a) by any person as a result of an offense directly or indirectly related to the employment of such person by the Contractor, or (b) by any other person
- Claims for damages, other than to the work itself, because of injury to or destruction of tangible property, including loss of use
- Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle
- Claims for damages due to loss of money or other property sustained through any fraudulent or dishonest acts committed by any board members (officers) or employers

TYPES OF INSURANCE

The following recommendations should assist you in evaluating various coverages you may need.

- **Comprehensive General Liability (Board Form)** - This coverage should include complete operations and should cover Board members, County Commissioners, etc.
- **Workmen's Compensation** - This insurance is required by State law for all employers with three or more employees. This coverage should be provided for all regular agency employees. Workmen's Compensation should be charged to the liability cost category.

- **Blanket Employee Fidelity Bond** - This type of coverage is strongly recommended to safeguard against employee dishonesty and make it possible to recover any funds which may have been misappropriated. This coverage should be obtained on all persons in a position of trust having direct or indirect access to weatherization cash, securities or other assets convertible to cash. Positions of trust are defined as those persons who either approve invoices for payment, sign vouchers, authorize and/or sign reimbursement requests and sign checks. At a minimum, positions of trust include the Chairman/Director, the Accountant/Bookkeeper and the Program Coordinator. The bond should be in an amount equivalent to the largest single reimbursement anticipated throughout the life of the weatherization program, or $100,000, whichever is greater.

- **Fire** - This is standard insurance coverage against losses from fire and other catastrophic events (flood and earthquake excluded).

- **Automobile** (For agency-owned vehicles) - This type of insurance protects the agency and its employees in the event of an auto accident with coverage for liability damages resulting from personal injury.

- **Third Party Insurance** - Contractors and direct hire laborers who are not employees of the Subrecipient must furnish proof of liability insurance coverage to the Subrecipient prior to the execution of contracts. If an independent contractor or contracting firm fails to provide proof of liability insurance coverage, the Subrecipient cannot use that contractor for weatherization.

- **Pollution Occurrence Insurance** – Pollution Occurrence insurance is obtained at the State level to cover The Weatherization Assistance Program.

- **Insured Bank Accounts** - In order to ensure that all funds received on behalf of the Weatherization program are properly safeguarded, WAP funds must be deposited in either a financial institution insured by the Federal Deposit Insurance Corporation or a credit union insured by the National Credit Union Share Insurance Fund. This affects the regular weatherization bank account and the owner investment bank account. No funds received directly from ADECA or owner or program income sources can be at risk by being deposited in a money market, certificate of deposit, bond, or other uninsured financial instrument.

The Subrecipient may obtain liability coverage for employees including employees hired by an employment contract and charge this cost to the weatherization program. The Subrecipient may not charge insurance costs for independent contractors who are not employees.

Billings from insurance companies should contain sufficient detail to allow the agency to properly charge all of its programs, federal and non-federal, with its prorated share of the insurance cost. The agency should inform the insurance company that if a blanket policy is issued agency-wide for some type of coverage, a cost breakdown must be provided for proper accounting.

SECTION VII

PROGRAMMATIC REPORTING

MONTHLY PRODUCTION REPORTING

Monthly Production Progress Reports (PPRs) are required to be submitted by the Subrecipient throughout the contract period. The due date for these reports is the tenth (10th) calendar day of each month. These reports will capture information from the previous month. ADECA-Energy Division will provide forms for this purpose. Those forms will be updated as needed and/or required. If no production progress has been made and/or no expenses incurred within any given month, then a **ZERO** report should be submitted. The only time a PPR may not be submitted to ADECA-Energy Division is when a Subrecipient is not under contract, which can occur because of lag time between the close-out of a certain grant and the issuance of the new grant.

A Building Weatherization Report (BWR) must be kept for each dwelling weatherized. Copies of the BWRs must be attached to the monthly PPR. For instance, if the agency reports it has completed 15 dwellings in the previous month, then copies of 15 BWRs should accompany the submitted PPR. The BWR must be signed and dated by the Weatherization Coordinator.

If any dwelling required rework as a result of an inspection and the agency has not had an opportunity to return to the dwelling to reinspect it before preparing the monthly report, then that dwelling should be considered a dwelling in progress. If an agency shows units in progress, then a Work-in-Progress Report must be submitted.

No dwelling is to be reported as a completed dwelling until a Subrecipient performed final inspection has certified that the work has been completed according to state and federal regulations. This is in accordance with 10 CFR 440.16 (g).

Beginning with Program Year 2015 every unit completed and reported to ADECA-Energy Division must be inspected by a Certified Quality Control Inspector.

The monthly report submitted to ADECA-Energy Division must be submitted on the most current forms provided to the Subrecipients by ADECA-Energy Division. Should the monthly report contain outdated versions of the required forms, the Subrecipient will be notified and directed to resubmit the report using the correct forms. A Subrecipient's monthly report should contain the following:

1. Monthly Weatherization Production Progress Report
2. A completed BWR for each dwelling weatherized within the reporting month
3. A Work-in-Progress Report

Preparing the Monthly Weatherization Production Progress Report (PPR)

The PPR should be filled out completely and accurately, providing ADECA-Energy Division with a total picture of the agency's production activities for each month. Data on the PPR is consolidated with the other agencies' PPR data which is then reported to DOE.

NOTE: Reporting Reweatherized Dwellings

Subrecipient weatherization contracts specify a minimum number of dwellings that must be completed with contract funds. Subrecipients will not be allowed to count reweatherization jobs as completed dwellings. It must be considered reweatherization and reported as such. In view of this fact, careful planning will be required on the part of the Subrecipient planning reweatherization jobs to make certain that contractual commitments are met. This category is included on the monthly PPR.

Preparing the Work-in-Progress Report

The agency must submit a work-in-progress report if there are any units listed on the monthly PPR under the category of "Total Number of Dwellings in Progress". This report will reflect information about houses on which the agency has begun work but has not submitted BWRs.

BUILDING WEATHERIZATION REPORT INSTRUCTIONS

A Building Weatherization Report (BWR) must be completed for each dwelling weatherized, and retained in the client folder. This form is designed to show the actual cost and the amount of the materials installed for the dwelling weatherized.

The BWR is to be signed by the Weatherization Coordinator once all weatherization work has been completed to certify that all materials were installed as charged and billed.

SECTION VIII

EXPENDITURE REPORTING AND PROGRAM CLOSEOUT PROCEDURES

EXPENDITURE OF PROGRAM INCOME

Definition:

Program income means gross income earned by the recipient that is directly generated by a supported activity or earned as a result of weatherization activities. Program income includes, but is not limited to, income from fees for services performed, the use or rental of real or personal property acquired under federally-funded projects, the sale of commodities or items fabricated under an award, license fees and royalties on patents and copyrights, and interest on loans made with award funds. Interest earned on advances of U.S. DOE funds is not program income. Program income does not include the receipt of principal on loans, rebates, credits, discounts, etc., or interest earned on any of them.

Program income funds include funds received for coordinated work and funds received for rental of WAP tools and equipment for fee-for-service activities. Before program income funds can be expended, a Program Income Expenditure Plan must be approved by ADECA-Energy Division. The Plan must be prepared at the beginning of the annual budget period and may be modified during the budget period.

- Program income funds must be accounted for separately.
- A maximum of ten percent of the program income funds received may be used for eligible weatherization administration costs.
- Training and Technical Assistance activities (maximum 10 percent)
- A minimum of 80 percent of the funds received must be used for weatherization services in compliance with WAP regulations.
- Program income as received within a WAP budget period must be included in a Program Income Expenditure Plan and submitted to ADECA-Energy Division, **in writing**, with all required signatures for approval before any funds can be expended.
- U.S. DOE will maintain a reversionary right to all tools and equipment purchased with program income.
- All program income received during any given program year must be identified in Unaudited Financial Statements and utilized via a Program Income Plan for the current or subsequent budget period.
- Interest income earned on program income funds shall be retained by the Subrecipient and shall be used at the discretion of the Subrecipient's board to further the corporate purposes of the Subrecipient organization.

ALLOWABLE EXPENDITURES

"Allowable expenditures" shall mean the total of all expenditures qualifying as "allowable expenditures" in accordance with the terms and conditions of 10 CFR 440, 2CFR Part 200, and 2 CFR 910, as amended, the U.S. DOE Final Rule, as amended, and the applicable subpart of the U.S. DOE Financial Assistance Rule and this Manual, and as properly documented as costs incurred on eligible dwelling units in the Subrecipient's books and records.

Administrative Costs

"Administrative costs" shall mean those costs which a Subrecipient incurs that are not in direct support of the Weatherization Assistance Program but are necessary for the organization to operate. Typical expenditures found in this category are wages and fringe benefits for executive, accounting, and administrative personnel working on the program. Other typical administration cost category expenditures are the payroll processing costs, costs to administer health insurance programs, data processing costs, indirect costs as allowable under this agreement and bank service fees. As with the other weatherization cost categories, those costs applied to administration must be actual and allowable under the applicable federal regulation.

Indirect Costs

Indirect cost will be an allowable expenditure only when written approval of the indirect cost rate has been obtained by Subrecipient from the Subrecipient's cognizant agency.

Leave Time

Allowable expenditures may include leave time and benefits earned only during the program year provided that the Subrecipient records its liability for leave time and benefits earned during this program year and payable thereafter in accordance with the Subrecipient's board-approved employee benefits/personnel written policies.

Program Support

Allowable program support expenditures may include items such as space, utilities, telephone and similar costs that are directly attributable to program support personnel.

Transportation Costs

Transportation allowances shall be reimbursed in accordance with the Subrecipient's established written policy.

Liability Insurance

Allowable liability insurance expenditures shall be the documented and allowable portion of the total cost to acquire the liability insurance in accordance with the limits set forth elsewhere in the PPM.

Financial Audit

Allowable financial audit expenditures shall be the documented and allowable portion of the total cost of producing the audit required pursuant to this manual.

Training and Technical Assistance

Allowable training and technical assistance expenditures shall include expenditures outlined in Section II of this manual or ones made with prior written approval by ADECA-Energy Division.

DISALLOWED EXPENDITURES

Program income expended in any manner which is inconsistent with the policies and procedures shall be disallowed. ADECA-Energy Division reserves the right to deduct any disallowed program income expended from any payments due and owing from this agreement.

Non-Reimbursement

1. ADECA-Energy Division shall not reimburse for any claimed expenditures for third party claims against the contractor and/or any of its subcontractors, suppliers or their agents or employees or for any claims by subcontractors or suppliers against ADECA-Energy Division for labor, materials, or equipment furnished to the contractor.

2. ADECA-Energy Division shall not reimburse for any claimed expenditures which it finds to be based on a misrepresentation of material fact including, without limitation, work not in fact performed or materials not in fact supplied or incorporated in the work. Such misrepresentation shall also constitute an Event of Default.

3. ADECA-Energy Division shall not reimburse for any claimed expenditures, notwithstanding such expenditures that may be otherwise allowable and expended on an eligible dwelling unit, for work performed in less than a workmanlike manner or defective and not remedied, for materials installed which are not in conformity with the materials specifications set forth in 10 CFR 440, or otherwise defective or substandard and not replaced or repaired within a reasonable period of time after receiving a written notice from ADECA-Energy Division.

4. ADECA-Energy Division shall not reimburse for any registered course/training/conference in which the attendee did not attend, obtain applicable certification or gather the required course hours for completion.

Prior Approvals for certain expenditures or work

* Prior written approval from ADECA-Energy Division is required for the activities listed below:

- Request to purchase a vehicle
- Weatherization of a structure owned or managed by a Subrecipient, employee or relative
- Weatherization of a group home
- Travel to meetings, trainings or conferences by two (2) or more representatives of each Subrecipient
- Out-of-state travel by Subrecipient
- Travel to any function which is not state-sponsored
- T&TA Plan
- Expenditure of program income

- Purchase of capital equipment.
- Fuel switching for a heating appliance replacement.
- Replacement of a heating appliance, mobile home furnace or boiler, or any other appliance where such replacement is not justified by an applicable energy audit.
- Completion of measures with a SIR of less than one.
- Reweatherization of a building weatherized after September 30, 1994, where additional WAP contract funds are proposed to be used.

General Information

When the request for payment is received by ADECA-Energy Division, it will be reviewed for completeness, accuracy, desk audited against the terms of the contract, and adjusted if necessary.

Reimbursements

The reimbursement process is based on allowable expenditures made by the Subrecipient and the rate of production. Please refer to the allowable expenditures section of this chapter for a description of expenditures chargeable to this contract.

Payment Adjustments

ADECA-Energy Division reserves the right to make payment adjustments in accordance with the terms of the weatherization contract.

Withholding Payment

ADECA-Energy Division reserves the right to withhold payments in accordance with the terms of the weatherization contract.

Disallowed Program Income Expenditures

Program income expended in any manner which is inconsistent with the policies and procedures shall be disallowed. ADECA-Energy Division reserves the right to deduct any disallowed program income expended from any payments due and owing from this agreement.

DOCUMENTATION

General

Each Subrecipient shall make monthly financial reports or provide reports as requested by ADECA-Energy Division. ADECA-Energy Division may require recipients of financial assistance to provide, in such form as may be prescribed, answers to specific questions or surveys. These reports may include records which fully disclose the amount and disposition of funds received, the total cost of a weatherization project, and such other records as ADECA-Energy Division deems necessary for an effective audit and/or performance evaluation of weatherization activities.

Monthly production reports are due to ADECA-Energy Division no later than the 10th calendar day of each month. If reports are late, ADECA-Energy Division reserves the right to withhold payment and not pay those invoices until all reports are current. If monthly reports continue to be late, ADECA-Energy Division has the discretion to suspend and/or terminate the contract with the Subrecipient.

Documentation for Weatherization Program expenditures should be maintained at the agency and will be reviewed by ADECA-Energy Division staff during monitoring visits. Source documentation includes copies of payroll records, time sheets, invoices from vendors or supply houses, etc. It is suggested that each original piece of documentation be marked in two ways: (1) with the check number, date and amount paid on the invoice, and (2) with the date, amount, and reimbursement invoice number. This technique of marking the documentation will help ensure that bills will be paid only once and be submitted for reimbursement only once. A guide is provided below for your use in determining which supporting documents are needed for each cost category. Invoices for materials used on a dwelling must be maintained in the file for that dwelling.

MONTHLY EXPENDITURE REPORT

The Monthly Expenditure Report may be submitted as often as necessary to maintain a steady cash flow; however, an agency must submit a report no later than the 10th calendar day of each month. ADECA-Energy Division will provide a supply of Monthly Expenditure Report forms to all Subrecipients. All reports should be submitted within the contract period during which the expenses were incurred. Bills and reports should be gathered, totaled and submitted to ADECA-Energy Division for payment as soon as possible. Often, payment of a report is delayed because it has not been properly submitted. Use of the following checklist could help speed up the processing of reports.

Checklist

- Were there any corrections made on the last report that would make it necessary to make an adjustment to the report now being submitted?

- Is a completed summary sheet attached to the report?

- Have you checked for errors in addition or typing?

- Has the report been signed and attested?
- Are all expenses charged to the right category?

Before a report is submitted to ADECA-Energy Division, the answers to all of the above should be yes. Keep in mind that all reports submitted to ADECA-Energy Division are carefully checked and all expenditures reflected on the reports must be backed up at the agency level for proper documentation.

NOTES: TO BOOKKEEPERS AND FISCAL OFFICERS

General

It is recommended that your general ledger for the weatherization program be set up with the same cost categories and codes as used on the Monthly Expenditure Report form. This will allow you to transfer entries directly from your ledger onto the Monthly Expenditure Report and simplify reporting.

When making preparations to complete the Monthly Expenditure the bookkeeper should gather all bills and vendor invoices paid since the previous Monthly Expenditure Report. These bills should be organized by the category to which they will be charged. The expenditures for these bills and reports should be traceable to amounts posted on the Subrecipient's books of account. If the amounts reported on the Monthly Expenditure Report by cost categories do not reconcile to the amounts posted to the general ledger, the bookkeeper should prepare a worksheet documenting the reconciliation by commenting on and explaining all variances.

The expenditures are then posted on the summary sheet. Each column of the summary sheet is then totaled. These totals are now transferred to the report (for further instructions, see back of the report form).

Procedures for determining costs that are reasonable and allowable in accordance with the provisions of 2 CFR Part 200 Subpart E.

The Subrecipient will be paid on an advance payment basis provided that it maintains a cash management plan, maintains or demonstrates the willingness and ability to maintain both written procedures to minimize the transfer of funds and their disbursement by the Subrecipient and financial management systems that meet the standards for fund control and accountability in accordance with 2 CFR §200.305. If the advance requested exceeds thirty (30) days, the subrecipient must provide a written explanation with the invoice requesting advance funds and is subject to approval by the Department. Source documentation and a follow-up invoice must be submitted to account for the actual expenditures made against advances.

The Subrecipient will be paid on a reimbursement basis when the above requirements for advances cannot be met, the federal awarding agency has a specific conditions per 2 CFR §200.305, or the Subrecipient requests, in writing, payment by reimbursement.

All invoices shall be prepared in the invoice format provided by the Energy Division of the Department and must be accompanied by copies of all pertinent source documentation. The final invoice shall be due no later than thirty (30) days after the termination or expiration of this Agreement.

The subrecipient should only request advanced funds that will be expended within thirty (30) days. Every attempt to expend advance funds in a timely manner must be made. Any advanced funds not utilized thirty (30) days after receipt must be refunded to the Department. If advanced funds are not expended within the thirty days the subrecipient may submit a written request along with documentation which explains why advanced funds were not spent and how and when funds will be spent. If request is denied funds must be returned immediately.

Comparison of actual outlays with budgeted amounts for each grant, and which relate financial information with performance/productivity data, including the production of unit costs information.

Invoicing as closely as possible to the time of making disbursements in accordance with 2 CFR §200.305 (b).

Subrecipients shall promptly remit to the Department interest earned on advances. The Subrecipient may keep interest amounts up to $500 per year for administrative expense in accordance with 2 CFR §200.305 (b), (9).

All unexpended grant funds shall be returned to the Department as soon as possible after the termination date, but not to exceed thirty (30) days.

CASH MANAGEMENT

ADECA-Energy Division authorizes cash advances. Subrecipient fiscal managers should ensure that sufficient amounts are available to meet the needs of the program each month. Historical data should be used to document and determine the needs by program for each month. For example, the cash needs for an on-going ADECA-Energy Division program in January of the current program year should not vary significantly from the average expenditures for the same program in January of the previous program years provided the funding levels and costs have been reasonably constant. Cash needs should be developed for each program for each month in a fiscal year. Some procedures that should be developed and documented to ensure proper cash management are:

- Determine the specific cash management requirements for each funding source.
- Determine and support (document) the cash needs for each program.
- Estimates are initially expected to be based on historical data (prior year's actual). Subrecipients are required to maintain and provide source documentation and information supporting actual and estimated amounts.
- Implement procedures to ensure that specific cash management requirements of the agency's various funding sources are complied with. (Accomplished by submitting

Monthly Expenditure Report and Request for Advance Funds at least monthly.)

- Assign someone (usually the fiscal officer) to monitor the cash management system to ensure it is in compliance with funding sources' requirements and/or restrictions.

- Ensure that excess or shortage of cash on hand for any of the programs at the end of the month is documented and considered in future forecasts of cash needs.

- Ensure that checks are not held by the agency for a period of time until sufficient cash is available for costs incurred when adequate cash is not on hand.

- Ensure bank statements are reconciled to the books of accounts monthly.

- Ensure that funds from one federal program are not used to cover a short fall of cash in another federal fund. Please note that funds from one federal program, except the CSBG program, should not be used to cover a short fall of cash in another federal program.

- Submit a report to justify request of advanced funds. This report should include but is not limited to, Units Planned, Salaries, Training (if applicable). If advance funding is not spent during the period it was requested it should be returned to ADECA-Energy Division.

Developing and documenting procedures for the above examples should be helpful in establishing a valid cash management system that is based on actual historical data and sound fiscal management practices that will be in compliance with ADECA-Energy Division and other funding source requirements.

REPORTS, RECORDS, AND EVALUATIONS:

The Subrecipient shall maintain such records and accounts which provide for:

- Accurate, current, and complete disclosure of the financial results of each grant program. When the Department requires reporting on an accrual basis, the Subrecipient shall not be required to establish an accrual accounting system, but shall develop such accrual data for its reports on the basis of an analysis of the documentation on hand.

- Records that identify adequately the source and application of funds for grant supported activities. These records shall contain information pertaining to grant awards and authorizations, obligations, unobligated balances, assets, liabilities, outlays and income.

- Effective control over and accountability for all funds, property, and other assets. Subrecipients shall adequately safeguard all such assets and shall assure that they are used solely for authorized purposes in accordance.

- Accounting records sufficient to document financial activity under this Agreement to include, but not limited to, a separate ledger for Weatherization receipts and disbursements,

time distribution reports by pay periods, payrolls, bids, purchase orders, property inventory records, and a perpetual inventory system for materials, source documents in support of all purchases, and claims for reimbursements.

- A systematic method to assure timely and appropriate resolutions of audit findings and recommendations.

- Written contracts for all independent Contractors hired to implement this Agreement. A signed copy of such contracts shall be kept by the Subrecipient for each Contractor.

The Subrecipient agrees that the Department or its agents may carry out monitoring and evaluation activities as often as necessary to meet Program requirements and to maintain Program efficiency. Those visits will include reviews of pertinent documents and personal interviews with Program recipients. The Subrecipient further agrees to ensure the effective cooperation of its staff and board members in such efforts.

The Subrecipient shall make regular financial, program progress, and other reports as requested by the Department or the administrator of the Federal Grantor Agency.

Any and all documents referenced in the "Access to Records" clause above shall be kept for a period of at least three years from the receipt of final payment, or longer if cited in Operations Manual for Weatherization Programs with the exception of the following qualification:

- If any litigation, claim, or audit is started before the expiration of the three-year period, the records shall be retained until all litigations, claims, or audit findings involving the records have been resolved.

- Records for non-expendable property acquired with Federal Funds shall be retained for three years after its final disposition.

- When the Subrecipient is notified in writing by the Federal awarding agency, the Department, cognizant agency for audit, or cognizant agency for indirect costs to extend the retention period.

- Indirect cost rate proposals and cost allocations plans. This paragraph applies to the following types of documents and their supporting records: indirect cost rate computations or proposals, cost allocation plans, and any similar accounting computations of the rate at which a particular group of costs is chargeable (such as computer usage chargeback rates or composite fringe benefit rates).

- *If submitted for negotiation.* If the proposal, plan, or other computation is required to be submitted to the Federal government (or to the pass-through entity) to form the basis for negotiation of the rate, then the 3-year retention period for its supporting records starts from the date of such submission.

- (2) *If not submitted for negotiation.* If the proposal, plan, or other computation is not required to be submitted to the Federal government (or to the pass-through entity) for

negotiation purposes, then the 3-year retention period for the proposal, plan, or computation and its supporting records starts from the end of the fiscal year (or other accounting period) covered by the proposal, plan, or other computation.

- When applicable, all Subrecipients shall comply with the Alabama Competitive Bid Law (§ 41-16-54, Code of Alabama 1975), which requires that all original bids together with all documents pertaining to the award of a contract shall be retained in accordance with a retention period of at least seven years.

CLOSEOUT REPORT

A final report and source documentation must be submitted to ADECA-Energy Division no later than 30 days after the contract has ended. If the Subrecipient fails to submit the closeout report within the allotted period of time, ADECA-Energy Division reserves the right to deobligate the balance of funds from that Subrecipient. This last report should be numbered, as were previous reports, followed by the word "FINAL".

An agency is entitled to the full amount of the administrative funds budgeted in their grant.

Subrecipients are required to submit to ADECA-Energy Division a list of weatherization materials on hand at the close of the grant period. This inventory checklist must be attached to the final report submitted to ADECA-Energy Division. If an agency has no materials on hand, the inventory sheet must still be submitted with a notation that there are no materials on hand.

All expenditures incurred within a contract period must be charged to the contract for that contract budget on a separate Monthly Expenditure Report (DOE or LIWAP).

CLOSEOUT OF GRANTS

A few weeks before a weatherization grant ends, the agency director should meet with the program coordinator and fiscal officer to determine where the agency stands in relation to the terms of the grant.

The following checklist is provided to assist in such an evaluation:

1. How many dwellings have been weatherized by the agency in the grant period?

2. How does this number relate to the number of dwellings specified in the grant?

3. Will the agency be able to fulfill the requirements of the grant?

4. Is the agency carrying too large of a material inventory at this point and time? (Remember, the inventory on hand at the end of the grant period must be depleted for all practical purposes. If not, program operations costs may be disallowed since they are based on installed materials, not materials on inventory and in storage.)

5. Will the agency be able to utilize all grant funds before the termination date? **Keep in mind that the grant agreement requires additional dwellings to be weatherized until all available grant funds have been utilized.**

*A course of action should be determined to resolve any problems the evaluation may have revealed.

Source Documentation Guide

Cost Category	Supporting Documents
Weatherization Materials	Copies of vendor invoices with sufficient detail along with bid document, if applicable
** Personnel and Fringe Benefits	Timesheets or time cards accompanied by payroll register
** Travel	Approved travel statement of itemized trip expenses.
Equipment	Copies of vendor invoices reflecting receipt and approval for payment
** Supplies (General Office)	Copies of vendor invoices reflecting receipt and approval for payment
Contractual Services	*Copies of invoices, contracts, bid documents, advertisements, etc.
**Other (Printing, telephone, rentals, indirect costs, etc)	*Copies of invoices, cost allocation plans, indirect cost allocation plan

Credit memos issued against any of the above expenditures will also suffice.

*All invoices and/ or check copies should indicate a description of the service being performed or the goods purchased, identification of the vendor, unit price where applicable and the total cost to be charged to the Weatherization Program. All payments should be supported by cancelled checks.

**All administrative costs should be supported by a cost allocation plan or an approved indirect cost allocation plan, if applicable, and Shall be submitted to the ADECA-Energy Division.

SECTION IX

WEATHERIZING A DWELLING

WEATHERIZING A DWELLING

Weatherization work should not be started until an agency has:

- A completed application on file from the head of the household or other authorized representative.
- Informed client of the Subrecipients' grievance policy.
- Verified the income eligibility of the household requesting weatherization assistance.
- Ranked the application using the priority point system.
- Conducted an inspection of the dwelling to assess the weatherization and health and safety needs of the dwelling and determined the most cost-effective measures for the dwelling.
- Obtained written permission from the homeowner or the landlord to work on the dwelling. **(Homeowner Consent Form)**
- Obtained a completed and signed **Authorization to Proceed** for the dwelling.
- Bid process is completed and bid has been awarded.

INSPECTION AND ASSESSMENT OF A DWELLING

To ensure that the most cost-effective weatherization measures are applied to dwellings, the State of Alabama's Weatherization Program operates under a Priority Measures List. The Priority Measures list ranks weatherization techniques by their cost effectiveness. These techniques outlined by the Priority Measures list must be followed in their respective order. If for any reason, a certain measure cannot be performed, the next immediate measure must be performed. The skipped measure must be accompanied by the proper documentation (to be kept in the client file) of why that measure was skipped.

It is the responsibility of the Subrecipient's energy auditor to assess the existing conditions of the dwelling unit /structure and apply those conditions to the Priority Measures List. Areas to be examined and tested include:

- Air Infiltration
- Baseload Usage
- Heating Appliance(s) Efficiency and Safety
- Moisture Problems
- Ventilation / Venting Systems
- Health and Safety Issues
- Indoor Air Quality Tests
- Structure / Overall Condition

- Client Usage Problems
- Condition and Effectiveness of Previous Weatherization Measures, if applicable

REFRIGERATOR REPLACEMENT CRITERIA

Refrigerators are to be evaluated for replacement by determining the efficiency of the unit from either NEAT or MHEA, the Association of Home Appliance Manufacturers' Database (AHAM) or by metering. Subrecipients may replace an inefficient refrigerator as a weatherization measure provided that such replacement is cost effective. All bulk refrigerator purchases should be approved by the ADECA-Energy Division. The following criteria will provide the basis for such a replacement:

1. The refrigerator to be replaced must be the primary refrigerator used by the household. In cases where more than one refrigerator is being used, the Subrecipient should encourage the client to dispose of the secondary refrigerator(s). The disposal of secondary refrigerator(s) will be considered an eligible activity; however, the client must provide the Subrecipient with written permission for this disposal. If the client does not wish to dispose of secondary refrigerator(s), the Subrecipient should provide client education regarding the energy cost involved with the operation of this additional refrigerator.

2. All refrigerators that are replaced must be removed from the clients' premises upon delivery of the replacement and properly disposed of in accordance with The Clean Air Act, USC Title 42, Section 7671g. This Act makes it unlawful for any person to dispose of refrigerants in a manner in which they will be allowed to enter the atmosphere.

3. The replacement refrigerator must be an Energy Star-rated, energy-efficient refrigerator with an estimated annual consumption of 600 kWh/yr. or less. It must be a similar style and capacity as the one being replaced, with 17 to 18 cubic feet being average sized. Refrigerators with options such as an ice maker will not be considered allowable replacements.

4. Subrecipients must determine that a replacement will be cost effective before considering a refrigerator replacement as an eligible option. The client file must also reflect the reasoning for the replacement, as age alone is not always the only determining factor. To accurately determine the cost effectiveness of replacing a refrigerator, first determine the annual energy consumption of the existing refrigerator and compare this to the estimated consumption of the replacement. The following methodology will provide the basis for this determination:

Further guidance can be found at: http://www.waptac.org/

Determining the annual consumption of the existing refrigerator:

It is not required to meter every existing refrigerator that is replaced. DOE requires states to meter at least 10 percent of the units replaced. Units that can not be located in the AHAM or other refrigerator databases may make up all or most of the 10 percent requirement.

The Association of Home Appliance Manufacturers' database, or booklet, may be used to estimate the annual energy use of existing refrigerator. Subrecipients are also allowed to use the Home Energy on-line database located at:
http://www.homeenergy.org/consumerinfo/refrigeration/index.php

When a Subrecipient does metering, the following procedures apply:

A) Use a cumulative watt hour meter to determine the present usage of the refrigerator. Plug the meter into a wall outlet and plug the refrigerator into the meter. You must document the date, exact time, and the initial reading. When removing the meter you must also record the date, time and reading. The difference in the two readings will be the number of watt hours or kilowatt hours used for the time the refrigerator was metered. If watt hours are shown they must be converted to kilowatt hours by dividing the number of watt hours by 1000.

B) The refrigerator must be metered for a minimum of two (2) hours and, wherever possible, longer. This should be accomplished during the course of performing the energy audit on the building.

C) If the automatic defrost cycle is activated during testing, you will not get a true reading of usage. In cases where you have a unit with an automatic defrost cycle, try to return to the refrigerator every 15-20 minutes to determine if it has gone into the defrost mode. A significant increase in watts over a short period of time is a good indicator of defrost mode. If the refrigerator has gone into the defrost mode, the reading cannot be used and the refrigerator must be retested.

D) The metered usage, in kilowatt hours, must then be converted to an hourly usage by dividing the reading by the number of minutes the refrigerator was plugged in to the meter and then multiplying by 60. This number must then be multiplied by 8766 (the average number of hours in a year) to determine the annual usage.

Determining the cost effectiveness of the replacement:

A) If the annual usage of the existing refrigerator is 900 KWh or more, the refrigerator may be replaced.

B) If the annual usage is less than 900 KWh, use the following method to determine if the replacement will be cost effective:

Subtract the annual usage of the proposed replacement from the annual usage determined above. This will provide the estimated annual energy savings. Multiply this estimated annual energy savings by the client's cost for a kWh of electricity, as determined by the client's electric bill. This represents the estimated annual dollar savings to the client.

Divide the total cost for the replacement refrigerator by the estimated annual dollar savings to the client to arrive at the payback period. (This replacement cost must

include materials, labor, program support, and disposal costs). If the payback period is less than 15 years (average refrigerator life), the refrigerator may be replaced.

Following is a sample calculation:

1. A refrigerator is metered for two and a half hours (150 minutes) and the meter shows usage of 0.250 kilowatts.

2. Convert to hourly usage = 0.250 kW ÷ 150 minutes = 0.00167 kW/min. X 60 min/hr = 0.1002 kWh / hr.

3. Annual usage = 0.1002 kWh X 8766 hr/yr = 878 kWh / yr.

4. The annual usage of an equivalent Energy Star rated replacement is 576 kWh/ yr.

5. 878 - 576 = 302 estimated annual savings in kWh.

6. 302 kWh X $0.14 per kWh = $42.28 estimated annual dollar savings to client.

7. The total replacement cost for the Energy Star replacement is $600. Divided by $42.28 this equals a payback period of 14.19 years. Therefore it is cost effective to replace this refrigerator since the payback period is less than 15 years.

NOTE: The above calculation is based on 14 cents per kilowatt hour. The same scenario at 13 cents per kilowatt hour or less would not be cost effective.

WEATHERIZATION PROGRAM MEASURES

ADECA will allow flexibility for a more comprehensive approach to serving low-income clients. Certain repairs may be accomplished in the course of providing weatherization assistance. However, Subrecipients are reminded that the overall goals of the WAP are to reduce energy costs by improving energy efficiency and ensuring health and safety. All repairs provided under the program must be consistent with these goals and must follow the Alabama Priority Measures List or other approved Energy Audit (NEAT or MHEA).

Definitions

Air infiltration: the exchange of air through the envelope of the dwelling. Most common air infiltration areas are around doors, windows, utility openings, recessed light fixtures, electrical penetrations in framing, etc.

Blower door: an apparatus used to identify the amount of air exchange measured in Cubic Foot per Minute (CFM). This tool draws air in through all openings by depressurizing the home.

Conditioned living space: a controlled environment room. Interior doors will be weather-stripped and those windows and exterior door in the conditioned living space will be weatherized. This is an allowable option to consider when more work is needed on a dwelling than allowed through the programs or the cost of the measure recommended will exceed the allowable expenditure amount of programs.

Measures: generic term used for all items to be addressed (repaired, replaced or installed) in a dwelling.

MHEA (Manufactured Home Energy Audit): diagnostic software utilized to evaluate existing energy efficient measures and determine the most cost effective measures installation to be addressed in a dwelling to decrease the energy consumption. This software is utilized on manufactured homes only.

Minor Repair – non-structural related repairs associated with addressing the reduction of air infiltration.

NEAT (**N**ational **E**nergy **A**udi**T**): diagnostic software utilized to evaluate existing energy-efficient measures and determine the most cost-effective measures installation to be addressed in a dwelling to decrease the energy consumption. This software is utilized on site built homes only.

SIR: **S**avings to **I**nvestment **R**atio is the calculated payback in energy savings based upon dollars invested through the installation/replacement of an inefficient energy consumption measure. Program support dollars are subject to the SIR requirement, while Health and Safety dollars are not. **SIR rating must exceed 1.0 to be cost effective, and therefore installed.**

Infiltration Reduction Measures will vary with each dwelling. Occasionally, there may not be enough dollars available to address all measures. Considering the effect that performing each measure will have on reducing air infiltration will help determine what priority of measures to be installed and/or the elimination of measures. **All air sealing work shall be guided by the use of the blower door. Refer to the Alabama Weatherization Field Guide and the Standard Work Specifications for guidance**.

Measure	Guideline / Parameters
Caulking	None
Ceiling repairs	Minor repair
Door - MH & Site built	Those as outlined in Appendix A- Standards for Weatherization Materials
Floor Repair	Minor repair
Threshold	Solid wood or metal
Wall Repair	Minor repair
Weatherstripping	Exterior doors, windows and attic access hatch Interior doors for a conditioned living space
Window MH & Site built	Those as outlined in Section X of this manual- Standards for Weatherization Materials

Incidental Repairs are unexpected costs associated with performing the installation of infiltration reduction measures, such as finding rotten wood in the window frame prior to window replacement. Incidental repair costs are to be included in the SIR calculations, included in the "Total Actual Cost" of the dwelling, and reported in the Monthly Progress Production Report.

Weatherization Measure	**Guideline / Parameters**
Cooling Central	Must be recommended by a NEAT or MHEA audit. NEAT/MHEA must be used even if Health and Safety Measure Exterior unit should be installed on a level base. Duct system must be inspected.
Cooling - Window	Replacement: Must be recommended by a NEAT or MHEA audit. Like for like - i.e., if a reverse cycle dwelling (heating and cooling combined) then replacement will be same type. If only one unit is installed, create a conditioned living space – weatherstripping the interior doors leading to and from the conditioned space.
Duct System	Replacement must be justified by pressure testing and/or visual inspection and photo documentation placed in the client file. The Coordinator determines the amount of repair needed. Central unit must be operating. Mastic must overlap joints a minimum of 2 inches.

Heating - Central	Must be recommended by NEAT or MHEA. NEAT/MHEA must be used even if Health and Safety Measure Exterior unit should be installed level and on a base. Duct system must be inspected.
Heater – Space/vented	Existing unvented space heater's mechanical condition must be thoroughly inspected at time of initial assessment. Pre and post CO readings must also be performed on the heater. If it is determined the heater poses a health and safety risk, the unvented heater should preferably be replaced with a vented heater. When replacement is required: - Client refusal - postponement of services via letter. - Prioritize existing fuel to be matched. - Unvented radiant heaters are not allowed. - Sized to fit the room. **- If replacing an unvented space heater, old heater must be removed from premises.**
Insulation - Attic	On Priority Measures List **Match existing insulation type if adding – limited to R49** - Refer to Table 1 of the Priority Measures List Installer's card attached in attic visible from access hatch. Soffit vents not covered. **On all homes with access hatch:** **A) Access hatch opening must be weatherstripped.** **B) Access hatch must be insulated to the same level as the attic** **C) Blocking around the access opening for blown insulation.** **D) Attic access with stairs - zipper tent or prefab styrofoam box allowed.** The attic hatch shall have minimum dimensions of 16" x 20" to a maximum of 18" x 24". If access cannot be provided to the attic, then the attic should not be insulated. *Non-recommended attic insulation charge allowed if related to a ceiling repair.
Insulation - Floor	On Priority Measures List Minimum of two foot crawl space to allow for installation. Supported by wire stays, belly board, fabric or chicken wire. *Non-recommended floor insulation charge allowed if related to a floor repair.
Insulation - Wall	On Priority Measures List Densepack cellulose to a minimum of R-11 *Non-recommended wall insulation charge allowed if related to a wall repair.

Lighting	On Priority Measures List Inspector to determine areas of installation Installation of Compact Fluorescent Bulbs (CFLs) should be in those fixtures used most by the client (over 1 hour per day)
Refrigerators	Replace when recommended by audit, metering or refrigerator replacement database. No ice makers. Energy Star Models recommended. No size or amenity upgrades and no new water plumbing charge unless replacing deteriorated EXISTING plumbing. Old unit must be removed from job site. Disposal per local requirements (line item for disposal charge).
Roof - M.H. Coating	Need determined by MHEA and/or the inspector. Adequate preparation required and cover entire roof.
Ventilation	Attic: Soffit and gable vents only. Vents not obstructed by insulation. *Includes proper ventilation of combustion appliances.
Water Heater Repair	Inspector recommended measure. Look for visible rust or deterioration Floor and in/out plumbing should be closely inspected. Insulate first 6 feet of plumbing in and out of water heater. Water Heater in unconditioned space requires water heater wrap.
Water Heater Replace	Must use NEAT or MHEA Inspector or audit recommended measure. Almost always a health and safety related measure. Insulation standard to meet a minimum of R-11. Include a drip pan and proper plumbing for exterior drainage. Like for like capacity. <u>Drip-pan</u>: a) Required on new installations. b) Not required on existing water heaters unless floor repair is performed and reinstallation of water heater is required, then a drip-pan will be included. <u>Pressure Relief Valve Plumbing</u>: a) Through floor or wall. b) Slab on grade – into drip-pan. If no drip-pan, provide container next to water heater (minimum one gallon), overflow line to extend 2" below top of

container.

c) Horizontal plumbing to outside of house (5' or less).
d) Plumb into existing drain line.

General Measures

Disposal Fees	Provided for work related expense. Connected with site cleanup or disposal of refrigerator. One charge per dwelling
Permits	Coordinator should be familiar with what local permits are required for all measures installation. Inspection documentation and copy of permit kept in file.
Health & Safety / Hazard Abatement	See Health and Safety Plan for Limits. May be used for eliminating a hazard prior to or because of installation of a weatherization / energy efficiency measure. Allowed for extra costs associated with performing Lead Safe Weatherization (LSW), Mold and Moisture related activities.

OTHER MEASURES

Attic Hatch Installation

If easy access cannot be provided to the attic, an attic hatch should be installed if it can be done at a cost that will still make insulating the attic cost effective. An attic hatch is a necessary part of weatherizing an attic. A fairly general look at the ceiling can be gained from the rooms below the attic, but a more detailed inspection can be obtained by actually entering it.

See Alabama Field Guide for specifications.

Roof Repair or Replacement

A roof may be repaired when this work is necessary to protect insulation that has been installed or is proposed as part of the work scope for the unit. When extensive roof repair or a replacement is required, other funding must be solicited to offset the cost.

Electrical Circuit Upgrades

Electrical circuits may be upgraded only when it is necessary in conjunction with the installation of other weatherization or repair measures. For example, the installation of a new heating appliance or ventilation appliance requires a circuit that is not currently present or adequate.

*Knob and Tube Wiring

Subrecipients should avoid insulating any areas of a building where live knob and tube wiring is known to exist. Knob and tube wiring can be replaced as a health and safety measure. If a knob and tube area must be insulated, dams are permitted to be built over the knob and tube wiring and insulated over.

MOBILE HOMES

Historically, the mobile home housing unit has presented unique problems for energy conservation with limited measures. A mobile home means a structure that is transportable, is built on a permanent chassis, and is designed to be used as a dwelling without a permanent foundation. The mobile home may or may not be placed on a permanent foundation. Due to their elongated design and loose construction, mobile homes require twice as much energy to heat and cool as site-built homes of the same size. This results in high-energy bills for mobile home occupants who are least able to pay.

An auditor will perform a walk-through inspection of the mobile home gathering the following information and testing:

1. Air Infiltration
2. Heating Appliance(s) efficiency
3. Moisture Problems
4. Health and Safety Issues
5. Indoor air quality tests and installation of smoke and CO detectors where applicable.
6. Structure Soundness
7. Client Use Problems
8. Ventilation/Venting Systems

Weatherization should not be applied to mobile homes where extensive repairs are necessary.

Mobile home work scope should consider the Subrecipient worker's health and safety, especially when the work scope requires the worker to be under the mobile home. Any dangerous or unhealthy conditions under the mobile home (miscellaneous trash, broken glass, animal feces, sewage, etc.) should be addressed before work in that area begins. If working conditions in a specific area cannot be made acceptable, no work in that area should be done.

HEALTH AND SAFTEY ISSUES

The health and safety of the building occupants and the weatherization staff must not be compromised by any weatherization technique or practice.

During the building analysis, health and safety hazards often become apparent. Hazards that are related to the energy conservation work being done can be corrected during the course of weatherization through the use of weatherization funds, owner investments, or other leveraged funds.

Whenever health and safety hazards have been identified and/or have not been corrected during the course of weatherization work, halt all weatherization services to the unit until those hazards have been fully resolved.

Remember, at the end of each working day, the Subrecipient is responsible for ensuring that no threat to the building occupants' health and safety exists as a result of the weatherization work that was performed. All work and testing must be clearly documented in the client file on the appropriate forms. The following measures must be in place and/or installed.

1. Carbon Monoxide Alarms must be installed in all dwelling units.
2. Smoke detectors must be present and operational in all weatherized units.
3. Clothes dryers must be vented to outdoors.
4. Combustion water heaters must be vented to outdoors per the National Fire Protection Agency 211.
5. Each vented combustion appliances in the home must be checked for proper draft.
6. Each vented combustion appliance must be tested for carbon monoxide output.
7. Carbon Monoxide ambient air testing must be done when combustion appliances are present. It must be tested at the initial audit of the dwelling and immediately after the implementation of weatherization measures. All test results must be documented.

Unvented Space Heater Policy

Operation of unvented gas and liquid fueled space heaters can negatively impact indoor air quality through indoor air pollution. Indoor pollutant concentrations resulting from the use of unvented space heaters can vary significantly from house to house depending on the operation of the space heater and the air infiltration/ventilation rates of the residential structure in which it is placed. Poorly adjusted heaters produce substantially greater quantities of carbon monoxide (CO), aldehydes and particulates than properly adjusted units, while inadequate ventilation may result in a rapid buildup of all pollutants including harmful quantities of CO. It is very important to exercise caution in the use of unvented space heaters, since the potential for accumulation of harmful pollutants is clearly evident.

In addition to the production of toxic by-products, unvented space heaters release water vapor equivalent to 8 to 11 gallons of liquid water into the heated space for each million Btu of energy delivered. Water vapor condenses upon cooling to room temperature, creating a source for mold growth and contributing to premature rotting of interior building materials unless adequate ventilation is maintained.

Unvented Gas- and Liquid-Fueled Space Heaters
DOE will not permit any DOE-funded weatherization work where the completed dwelling unit is heated with an unvented gas- and/or liquid-fueled space heater as the primary heat source. This policy applies to unvented natural gas-fired space heaters, unvented propane-fired space heaters, and unvented kerosene space heaters.

DOE strongly encourages removal of all unvented gas- and liquid-fueled space heaters and replacement with vented, code-compliant heating systems as a prerequisite to weatherization. However, DOE will allow unvented gas- or liquid-fueled space heaters to remain as secondary heat sources in single-family houses provided they comply with the IRC and the IFGC. DOE is allowing this flexibility primarily to provide low-income clients an emergency back-up source of heat in the event of electrical power outages. Therefore, preference should be given to code-compliant units that do not require electricity.

Specifically, any unvented gas- and liquid-fueled space heaters that remain in a completed single-family house after weatherization:

- Shall not have an input rating in excess of 40,000 Btu/hour;
- Shall not be located in, or obtain combustion air from sleeping rooms, bathrooms, toilet rooms, or storage closets, unless:
- Where approved by the authority having jurisdiction, one listed wall-mounted space heater in a bathroom:
    - Has an input rating that does not exceed 6,000 Btu/hour;
    - Is equipped with an oxygen-depletion sensing safety shut-off system; and
    - The bathroom meets required volume criteria to provide adequate combustion air;
- Where approved by the authority having jurisdiction, one listed wall-mounted space heater in a bedroom:
    - Has an input rating that does not exceed 10,000 Btu/hour;
    - Is equipped with an oxygen-depletion sensing safety shut-off system; and
    - The bedroom meets required volume criteria to provide adequate combustion air.
- Shall require the enforcement of minimum ventilation guidelines as determined by the greater of:
    - 15 cubic feet per minute (CFM) per person,
    - 15 CFM per bedroom plus one [(# of bedrooms + 1) x 15 CFM], or
    - .35 air changes per hour.

  The above minimum ventilation guidelines are natural ventilation rates, not with the house depressurized to -50 Pascal with a blower door.

DOE funds may only be used to replace the primary heating source. DOE funds may not be used to replace unvented space heaters to be left in the weatherized dwelling unit as secondary heating sources. For example, a home has several older gas- or liquid-fueled, unvented space heaters that do not comply with the International Residential Code because they do not have oxygen-depletion sensing safety shut-off systems. The Weatherization Program can replace the primary unvented space heater with a vented unit, but cannot expend DOE funds to replace one of the existing secondary space heaters with a code-compliant

unvented unit with an oxygen-depletion sensing safety shut-off system. DOE will not preclude the use of other funding sources to replace secondary space heaters with code-compliant units.

Current WAP regulations governing weatherization activities require that measures installed in a dwelling unit be selected on the basis of cost-effectiveness, with the most cost-effective installed first. Unvented space heaters have very high efficiency ratings because they discharge their exhaust gases directly into the space being heated rather than outside, allowing the energy embodied in the hot exhaust gases to be released into the heated space. Vented space heaters exhaust combustion products, and considerable amounts of energy, out of the residence, and therefore, are far less energy-efficient.

The replacement of an unvented space heater with a vented one may not be justified through cost-effective methods in and of itself. However, the potential does exist to combine other weatherization measures and health and safety considerations with vented space heaters as replacements for unvented space heaters. In such instances the heat energy demanded by the structure can be lowered so that total energy costs are less or the same, while the indoor air quality resulting from the use of a vented space heater is greatly improved. The above considerations must be taken into account in justifying replacement of an unvented space heater with a vented one.

Electric Space Heaters

DOE will not permit any WAP-funded weatherization work other than incidental repairs on electric space heaters with DOE funds. This is because of the high cost of electricity as compared to fossil fuels, the lower output ratings (size), the risk of fire hazards - especially in older homes, and the inadequate electrical systems in older homes frequently cannot safely carry the power required to operate an electric heater. Work on such systems may make local agencies liable for inadequate electric wiring and damages that may result.

Kerosene Space Heaters

Because of the potential for serious indoor air quality and moisture problems, the potential fire hazards, and that the user must select the proper grade of kerosene, Alabama's position on unvented kerosene space heaters is that local agencies may only **repair** unvented kerosene space heaters **if an acceptable plan is submitted to the State.** This plan should consider among other things: The cost-effectiveness, health and safety concerns; the code considerations, if applicable, and a client education component. **Also, such repairs should be considered only when the kerosene heaters are the only source of heat and no reasonable alternative exists.**

INDOOR AIR QUALITY / HEALTH & SAFETY TESTING

Indoor air quality (IAQ) tests are required to be completed for all buildings regardless of size or number of units, and should contain analytical and quantifiable data when possible. Several of these measures are outlined in the Alabama Weatherization Field Guide. The

following IAQ tests must be conducted in all units and documented during the initial assessment:

1. Test for CO in the Ambient Air: Measure carbon monoxide (CO) in the ambient air of buildings where combustion appliances are present. Eliminate sources of CO that contaminate the indoor air. Test at assessment and at post inspection.

2. Combustion Gas Leak Test: Test all accessible gas lines and piping for gas leaks. Repair significant leaks. Test at assessment, after any work on the gas piping is complete, and at post inspection.

3. Test for CO in appliances: Measure CO in undiluted exhaust and in the ambient air near the appliance. Test at assessment and post-inspection.

4. Test for CO in Unvented Space Heaters: Educate the client about the potential danger of CO and fire from unvented space heaters. Explain that unvented space heaters can introduce carbon monoxide (CO), nitrous oxides (NOx), sulfur dioxide (SO2), and large amounts of water vapor into the home.

5. Identify Potential Fire Hazards: Educate the client about potential fire hazards that are observed in the building. Ensure that adequate smoke alarms and CO detectors are installed and working properly.

6. Inspect the Building for Mold and Moisture Damage: Locate and eliminate sources of excessive moisture if possible. Install ventilation if necessary and feasible.

7. Assess the building for faulty/inadequate and dangerous wiring.

8. **Record and properly document all test results and observations.**

The Subrecipient should contact the local gas company to establish criteria for notifying the company regarding necessary gas leaks or high carbon monoxide. Whenever there is evidence of a leaking heat exchanger in a furnace or space heater, the Subrecipient is required to inspect the heat exchanger for leaks using standard, acceptable diagnostic methods. The result of the inspection must be documented and placed in the client file. Whenever a hole is found in a heat exchanger, you should consider the heating appliance to be unsafe and follow the steps outlined in the Alabama Weatherization Field Guide.

Carbon Monoxide Testing Guidelines

The ambient air in the living space must be tested after all combustion appliances have been operated at steady state for a period of ten minutes with the building under heating season conditions (windows and doors closed).

- If ambient readings are no greater than 9 parts per million (ppm) above recorded outdoor levels, testing of combustion appliances should proceed.

- If ambient levels are 10-35 ppm greater than the recorded outdoor level, re-measure ambient level after a 5-minute interval. If the ambient reading is no greater than 9 ppm above the recorded outdoor level, testing of other combustion appliances should proceed.

- If the time-weighted ambient measurement exceeds 9 ppm, or the original ambient measurement exceeds 35 ppm, or the appliance produces CO in excess of 200 ppm at steady state, then the following procedures are recommended:

  1. Turn off appliance
  2. Ventilate Building
  3. Identify problems
  4. Prepare and initiate work scope immediately

*** The Alabama Weatherization Field Guide can be referenced during any type of carbon monoxide testing**.

WEATHERIZATION PRIORITIES

A list of weatherization measures ranked in order of cost effectiveness has been developed for each single family dwelling. All work done on the approved dwelling must conform to the prioritized list adapted for that house type. The following is Alabama's official Priority Measures List with other documents pertaining to the Assessment and Inspection of an approved dwelling.

Alabama

SITE BUILT PRIORITY MEASURES LIST

(January 2016)

Weatherization Assistance Program

Weatherization measures must be installed in the order they are listed below. A measure of higher priority may not be skipped for one of lower priority, see WPN 13-5 for additional information. Single-family dwellings ranging from 500 to 2,000 sq. ft., wood or masonry framed on slab, crawl space, or pier foundation with unfinished and kneewall attics are eligible to be weatherized using the Priority Measures List. Dwellings that differ in construction, condition, or energy use from those listed above will require the site-specific application of NEAT. The cost associated with incidental repairs should not exceed $500.00, if incidental repairs exceed the limit the unit must be evaluated with a NEAT Audit. Health and Safety inspection and testing will be conducted and deficiencies corrected before the delivery of any weatherization services. If for any reason a certain measure cannot be performed, the next immediate measure will be performed.

Priority	Measure	Description and Comments
#1	Air Sealing/Infiltration Reduction	Cost for air sealing is limited by the amount of infiltration reduction. The following chart specifies cost that may be charged for air sealing based on the primary fuel and CFM reduction. ***Example: A Natural Gas home with a 1400 cfm reduction = $980.00 cost limit for air sealing 1400/100=14 14*$70.00=$980.00***
		Primary Space Heating Fuel / **Price per 100 CFM Reduction** Electric Heat Pump / $66.00 Natural Gas / $70.00 Propane / $90.00
		• All air sealing work should be guided by use of the Blower Door. • Priority should be given to ductwork located in unconditioned spaces and air leakage at the attic and floor planes of the home. • Seal plumbing, electrical, and HVAC penetrations through ceiling, flooring, & exterior walls use proper materials for high-temperature surfaces.
#2	Attic Insulation	All electrical circuits are to be checked first. Enclose exposed wires and connections in junction boxes. Attic by-passes should be sealed prior to the installation of attic insulation. • Build dams for knob & tube or rewire all knob & tube circuits. • Attics insulated to R-19 or more will not receive additional insulation. • Attics insulated to less than R-19 should be insulated to R-30. • Attic access must be insulated to the equivalent R-value of the attic.
#3	Dense-Pack Sidewall Insulation	Wall insulation is only cost effective for existing uninsulated wood framed exterior walls. • Auditors should inspect all exterior walls for presence of existing insulation. • If no existing wall insulation is present, dense-pack all sidewall cavities with insulation. • If insulation is present, additional insulation should not be added.
#4	Duct Insulation	Duct insulation should be installed in all homes where uninsulated duct work is located in unconditioned spaces. • Uninsulated ducts in unconditioned attics should be insulated to R-8. • Uninsulated ducts in other unconditioned areas should be insulated to R-6.
#5	Floor Insulation	Floor insulation is cost effective for existing uninsulated foundation spaces. • Auditors should evaluate all unconditioned foundation spaces for the presence of existing insulation. • If insulation is present, floor insulation should not be added. • If insulation is not present, floor insulation should be added to R-19.
Optional	Programmable Thermostat	• For central heating and/or cooling systems, setback thermostats can be cost effective if the client is educated on the proper use of these devices. • Do not install if client has difficulty understanding the instructions.
	Refrigerator Replacement	Refrigerators may be replaced if: • Database shows existing unit is old/inefficient enough for replacement to be cost effective. • Metering proves it is cost effective to replace.
Pre-Approved Measures	General	The following measures are considered generally cost-effective nationwide and are recommended to be installed in all homes.
		• DHW Pipe Insulation • DHW Tank Insulation • Low-Flow Showerheads • Faucet Aerators • HVAC System Filters • Lighting Retrofits (CFL bulbs)
NEAT AUDIT REQUIRED	Allowable with and SIR of 1 or greater	When replacing any of the following as an energy conservation measure, a **NEAT Audit must be used in lieu of the Priority Measures List**. All measures must receive an SIR of 1 or greater. • DHW Replacement • HVAC Replacement ****When installing any of these as a Health and Safety measure, the NEAT Audit must be used in lieu of the Priority Measures List. The individual Health and Safety measure will not require an SIR of 1 or greater but will have to be included in the cumulative SIR for the package of measures.**

Alabama

MOBILE HOME PRIORITY MEASURES LIST

(January 2016)

Weatherization Assistance Program

Weatherization measures must be installed in the order they are listed below. A measure of higher priority may not be skipped for one of lower priority, see WPN 13-5 for additional information. Mobile homes with pitched, bowstring, and flat roofs; with vented and unvented walls; lengthwise, and widthwise joists are common characteristics of typical mobile homes. If a mobile home does not fall within these categories it is not considered typical and a house specific MHEA will be required. The cost associated with incidental repairs should not exceed $500.00, if incidental repairs exceed the limit the unit must be evaluated with a MHEA Audit. Health and Safety inspection and testing will be conducted and deficiencies corrected before the delivery of any weatherization services. If for any reason a certain measure cannot be performed, the next immediate measure will be performed.

Priority	Measure	Description and Comments
#1	**Seal Ducts**	• Seal duct system with mastic and fiberglass mesh tape. • Repair or replace duct boots. • Seal ends of trunk line. • Seal the furnace base, which is the plenum that connects the furnace to the duct system.
#2	**Air Sealing/Infiltration Reduction**	Cost for air sealing is limited by the amount of infiltration reduction. The following chart specifies cost that may be charged for air sealing based on the primary fuel and CFM reduction. ***Example: A Natural Gas home with a 1400 cfm reduction = $560.00 cost limit for air sealing*** ***1400/100=14 14*$40.00=$560.00***

Primary Space Heating Fuel	Price per 100 CFM Reduction
Heat Pump	$30.00
Natural Gas	$40.00
Propane	$50.00
Electric Resistance	$40.00

• All air sealing work should be guided by use of the Blower Door.
• Priority should be given to ductwork located in unconditioned spaces and air leakage at the attic and floor planes of the home.
• Seal plumbing, electrical, and HVAC penetrations through ceiling, flooring, & exterior walls use proper materials for high-temperature surfaces.

#3	**Roof Insulation**	• Fill roof cavity with loose fiberglass insulation. • Air seal ceiling to prevent insulation from escaping the roof cavity.
#4	**Wall Insulation**	• Wall insulation is only cost effective for existing under-insulated exterior walls • Auditors should inspect all exterior walls for the presence of insulation. • If more than 2 inches of open cavity space is available walls should be insulated. • If less than 2 inches of open cavity space is available walls should not be insulated, in such cases documentation must be provided.
#5	**Belly Insulation**	• Fill belly and wing cavities with loose fiberglass insulation. • Repair belly material and wing board as necessary. • Snug up belly material so that 8 to 10 inches of insulation is needed to fill the cavity. • Consider only insulating the belly if the wings are in good shape.
Optional	**Programmable Thermostat**	• For central heating and/or cooling systems, setback thermostats can be cost effective if the client is educated on the proper use of these devices. • Do not install if client has difficulty understanding the instructions.
	Refrigerator Replacement	Refrigerators may be replaced if: • Database shows existing unit is old/inefficient enough for replacement to be cost effective. • Metering proves it is cost effective to replace.
Pre-Approved Measures	**General**	The following measures are considered generally cost-effective nationwide and are recommended to be installed in all homes. • DHW Pipe Insulation • Faucet Aerators • DHW Tank Insulation • HVAC System Filters • Low-Flow Showerheads • Lighting Retrofits (CFL bulbs)
NEAT AUDIT REQUIRED	**Allowable with and SIR of 1 or greater**	When replacing any of the following as an energy conservation measure, a **MHEA Audit must be used in lieu of the Priority Measures List**. All measures must receive an SIR of 1 or greater. • DHW Replacement • HVAC Replacement ****When installing any of these as a Health and Safety measure, the MHEA Audit must be used in lieu of the Priority Measures List. The individual Health and Safety measure will not require an SIR of 1 or greater but will have to be included in the cumulative SIR for the package of measures.**

SKIPPING MEASURES ON ENERGY AUDIT/PRIORITY MEASURES LIST

Skipping weatherization measures is generally **not** allowed. Measures produced by an Energy Audit or listed on Priority Measures List are arranged according to SIR. A higher priority measure should not be skipped to install a lower priority measure. If items need to be removed from the scope of work for budgetary reasons measures at the bottom of the list should be removed first.

The prioritizing of energy saving measures must be accomplished using generally accepted engineering methods. Those methods must be approved by DOE. Allowing the refusal of a measure by a building owner or occupant would not comply with these basic rules.

If a measure is declined, appropriate client education techniques will often eliminate the client's concern. If after explanation and discussion with the building owner or occupant, they still decline the measure and the auditor deems the reason for declining the measures as ***legitimate***, the auditor should complete all other weatherization measures and include in the client file a comprehensive explanation of the rationale for skipping the specific measure.

If the auditor deems this is ***not a legitimate*** reason for declining the measure, the situation must be fully documented in the client file. The work would be completed with **installation of only measures having a SIR higher than the declined measure**. The client must be informed (documented) that the home cannot receive further work after the completion.

If the client objects to a measure prior to work beginning, alternate materials should be researched as appropriate to ensure the safety of the proposed measure. Client education should be the first procedure. If that fails it may be possible to re-run the audit with a different but acceptable material to determine if the substitute material is cost effective. If no cost effective option for the material can be identified, the job must be deferred due to client refusal unless the measure has the lowest SIR.

If a client refuses a higher priority measure after work as began and a lower priority measure has been installed due to scheduling the job would be considered complete at the time of the client declining the higher priority measure. Only measures having a SIR higher than the declined measure may be installed unless a lower priority measure has already been installed. This should be clearly explained in client file documentation. Some agencies include a statement for client signature that states the client is aware and accepts all WAP rules, including the specific services and measures determined by an energy audit.

AVERAGE COST PER DWELLING

After the assessment of the dwelling has been completed and the estimated cost for weatherizing the dwelling determined, it may be necessary to eliminate some of the measures identified on the Alabama Priority Measures List in order to remain within the allowable average cost per house.

According to the condition and the needs of the dwelling to be weatherized, Subrecipients will be allowed to adjust the amount to be spent on any given dwelling. The average cost per house is just that, an average cost. Subrecipients are encouraged to keep a running total of

their average expenditures per home, so that at the end of the program year they are not over their average cost. **The average cost per home is adjusted each year and can be found in the State Plan**

SUBRECIPIENT PRODUCTION REQUIREMENTS

Subrecipients should complete at least 25 percent of their original allocation of homes in their DOE contracts by October 1 of the program year. ADECA-Energy Division staff will evaluate each Subrecipients performance after the submission of the September Production Progress Reports (PPR), required to be submitted by the tenth (10th) calendar day of October.

If a Subrecipient does not complete at least 25 percent of their original allocation of homes by October 1, the agency will be required to submit a plan of action detailing how the Subrecipient will fulfill their contractual obligations. The Subrecipient's performance will then be monitored on a month by month basis.

A Subrecipient's failure to complete all of the homes in their weatherization contract may result in a reduction of funding.

WHEN NOT TO WEATHERIZE A DWELLING

There are circumstances when a Subrecipient should not or may not choose to weatherize an otherwise eligible unit. Some examples may include, but are not limited to:

- Dilapidated Units - If a dwelling proves to be dilapidated or structurally unsound and unsafe, that dwelling should not be weatherized. Dilapidated units are classified as those which do not provide decent, safe and sanitary shelter in their present state and have defects so serious and numerous that the repairs required to reinstate the structure to standard condition would not be economically feasible. Such repairs would exceed 51 percent of the estimated value after rehabilitation values of the unit. Instead, the agency should try to help the occupant or occupants to relocate.

- Unit for Sale – Building or dwelling unit that is for sale, or subject to bankruptcy or foreclosure.

- Infestation – If a building is infested with rats, roaches, or other vermin, the Subrecipient should refuse to weatherize until the condition is corrected.

- Mold and Mildew - If a building is affected by mold and mildew and the area affected is too large for the weatherization crew or contractor to remediate, weatherization work should not proceed. The Mold Waiver form must be signed by the client, and when proper mold remediation techniques are performed on the dwelling, weatherization work may resume.

- Unsafe Heating Appliance – When the energy auditor or any other weatherization employee encounters an unsafe heating appliance, weatherization work cannot proceed until the condition is corrected.

- Health or Safety Hazard – When, in the judgment of the energy auditor, any condition exists which may danger the health and/or safety of the work crew or contractor, the work should not proceed until the condition is corrected.

- There are illegal drugs or illegal activities occurring on the premises.

- One or more occupants in a dwelling have been diagnosed with a contagious and life-threatening disease.

- Uncooperative Client – When an eligible client is uncooperative with the Subrecipient, either in demanding work certain work be done and refusing higher priority work which is needed (e.g. demanding only windows), by being abusive to the work crew or contractor, or by being unreasonable in allowing access to the unit, every attempt should be made to explain the program and its benefits. If this fails, work should be suspended.

The list above is not intended to be inclusive of all instances in which an agency or contractor may choose not to weatherize a unit. In some instances, corrective measures by the client/owner may allow program services to proceed.
If obvious discrepancies are found between the information supplied by the client on the application and observed conditions at the time of weatherization, the Subrecipient must resolve these questions

prior to weatherization. Some examples of discrepancies are an obvious change in the client's income, e.g., an unemployed client who is now back to work, a difference in the number of persons living in the dwelling unit, (fewer persons than listed, a person or persons not accounted for who may have income), evidence of business being conducted in the unit, etc.

If at any time prior to the beginning of the actual weatherization work, the Subrecipient determines that the client is no longer eligible, the unit cannot be weatherized. When a Subrecipient has first-hand knowledge, or reason to believe that circumstances may have changed, the Subrecipient should request an updated application from the client.

In unusual situations not covered above or where other problems of a unique nature exist, ADECA-Energy Division should be consulted.

FAIL CODES FOR ALABAMA

ALL MEASURES

1. Billed measure not installed.

2. Priority measure not installed.
3. Non conforming material.

4. Improperly installed.

5. Measure not feasible.

CAULKING

6. Perimeter of prime and storm not caulked. (1-2)
7. Cracks in envelope not sealed. (1-2)

8. Not continuous bead of caulk. (1-3)
9. Cracks larger the 1/8" caulked. (1-4)

10. Inadequate or no filler material. (1-5)
11. Applied over loosened caulk. (1-6)

12. Applied over dirt/debris/water. (1-6)
13. Not color coordinated. (1-6)

WEATHERSTRIPPING

16. Closed Cell used in sheer position. (2-3/2-4)
17. Incorrect material used. (2-3/2-7)
18. Improper size pile. (2-6)
19. Improper adhesion or adhesive used. (2-7)
20. Improper nail/screw placement. (2-6)
21. Not placed at moveable joints. (2-9)

22. Not between conditioned & unconditioned space. (2-9)
23. Gasket-to-gasket contact not maintained (2-10)
24. Improper threshold used. (2-11)

25. Will not operate correctly. (2-11)

26. Threshold not secured properly. (2-11)
27. Threshold not sealed. (2-11)

28. Stationary sweep used. (2-12)

29. Improper use of retractable door bottom. (2-12)
30. Will not operate correctly. (2-12)

42. * Barrier improperly/not installed around water heater. (3-12)
43. * Combustion air supply not/improperly protected. (3-13)
44. * Temporary blocking not removed. (3-14)
45. Access not installed properly. (3-15)

46. * Barrier not installed properly. (3-15)

47. Attic access door not weatherstripped. (3-16)
48. * Bare, frayed or knob and tube wiring covered with insulation (includes junction boxes). (3-17)
49. Open junction boxes covered. (3-19)

50. Protection not installed on balloon framing cavities. (3-19)
51. Closet openings improperly protected. (3-20)
52. Knee wall improperly/not insulated. (3-21)
53. Disappearing stairs improperly/not protected/weatherstripped. (3-22)
54. Vapor barrier improperly installed. (3-22)

55. Insulation installed over unconditioned area. (3-24)
56. Exhaust fan improperly/not vented. (3-25)
57. * Eave and sofit vents improperly/not protected. (3-27)
58. Inadequate/improper venting. (3-28)

59. Ceiling penetration not sealed. (3-29)

60. Whole house fan improperly/not protected (3-29)

FLOOR INSULALTION

63. Debris in crawl space. (4-3)

64. Crawl space improperly/not vented. (4-4)

65. Ground cover improperly/not installed. (4-6)
66. No ground covering in basement with exposed soil. (4-5)
67. Wood path improperly sized/spaced attached. (4-6)
68. Twine improperly sized/spaced attached. (4-6)
69. Wire improperly anchored. (4-9)

70. Anchor improperly installed/spaced. (4-9)

71. Wire hangers improperly/not installed. (4-13)
72. Improper fiberboard material/installation, (4-14)
73. Vapor barrier improperly/not installed.(4-15)
74. Interior crawl space not weatherstripped/

86. * Cavities adjoining fireplace and chimneys.
87. Improper size of access hole. (5-6)
88. Cavities incompletely filled. (5-11)
89. Access holes improperly/not plugged/ finished. (5-12)
90. * Loose fill in electrical outlets. (5-13)
91. Vapor barrier improperly/not installed (5-15)
92. Faces and edge improperly/not covered. (5-16)

93. Flexible insulation not secured properly. (5-18)
94. Insulation compressed. (5-19)

95. Pipes isolated/not insulated. (5-20)

PIPE INSULATION

98. Heat tape/strap insulation used. (6.3)

99. Insulation not formed/sized to pipe. (6-4)
100. Improper R-value. (6-5)
101. Incorrect pipe insulated. (6-6)

102. Pipe not completely covered/insulated (6-7)
103. * 3" clearance not maintained. (6-7)
104. * Control and safety devices. P/T valve covered. (6-9)
105. Slits not positioned properly. (6-9)
106. Slits not sealed properly. (6-9)
107. Insulation improperly/not attached. (6-13)

DUCT INSULATION

110. Vapor barrier improperly/not installed. (7-3)
111. Insulation compressed over 50%. (7-4)
112. Ducts and boots inadequate/not covered. (7-5)
113. * Improper clearance for combustion air supply. (7-6)
114. Spiral strapping improperly installed. (7-7)
115. Ducts leak. (7-8)

116. Ducts not properly attached. (7-9)

117. Improper class material used. (7-10)

CELING INSULATION

33. Improper R-value. (3-2)

34. Leaking roof. (3-3)

35. Ceiling structurally unsound. (3-4)

36. * Barrier Improperly/not installed around receded fixture. (3-5)
37. Improper barrier used. (3-5)
38. * Barrier improperly/not installed around DST. (3-7)
39. * Barrier improperly/not installed around fan motors & HPDs. (3-8)
40. * Barrier improperly/not installed around chimneys and flues. (3-10)
41. * Barrier improperly/not installed around furnace. (3-11)
130. * Upper and lower thermostats covered/ inadequately marked. (8-13)
131. Top of unit not insulated. (8-14)
132. * Top of unit insulated. (8-14)
133. Improper clearance for drain valve. (8-15)

STORM WINDOWS AND DOORS

136. Prime window not structurally sound. (9-2)
137. Does not meet agreed requirements (9-3)
138. Glass not required thickness. (9-4)

139. Safety glass required but not installed. (9-5)
140. Thermal burner/glazing tape not installed. (9-6)
141. Bare wood not sealed. (9-7)
142. Fixed window/door not attached properly. (9-8)
143. Gaps over 1/32" and penetration not sealed. (9-9)
144. Improper air space between storm and existing window. (9-10)
145. Improper magnetic strip/clips/screws (9-11)
149. Inadequate/no seepage system. (9-16/9-19)
150. Sash not removable. (9-15)

151. Rail and stiles do not enter walk tightly. (9-17)
152. Glazing compound/channel gasket improperly/not installed. (9-18)

REPLACEMENT DOOR AND

insulated properly. (4-16)
75. Water pipes isolated from heated space (4-17)
76. Water valves not tagged. (4-18)

77. Insulation exposed to weather not protected (4-19)
78. Improperly/not inspected.

WALL INSULATION

81. Inadequate R-value installed. (5-2)
82. Cavities partially insulated. (5-3)

83. Cavities less than 31/2" deep/thick. (5-3)

84. Cavities include ducts/wiring/HPDs. (5-3)

85. * Improper/inadequate spacing of access holes. (5-4)
172. Window fins not caulked. (10-19)

GLASS REPLACEMENT
175. Sash not treated properly. (11-3)

176. Push pins improperly installed/spaced. (11-4)
177. Spring clips improperly installed/spaced. (11-5)
178. * Safety glass not used. (11-6)

179. Cushion bead improperly/not installed. (11-7)
180. Finish bead improperly/not installed. (11-8)

UTILITY OUTLET & SWITCH GASKET

189. Gasket showing. (12-3)
190. Well finish damaged. (12-4)

191. Plates not tightened properly. (12-5)

192. Plates cracked. (12-4)

LOW FLOW SHOWERHEADS

195. Flow rate over 3 gpm/or less the 2 gpm. (13-2)
196. Shower mechanically not functional. (13-4)

ATTIC VENTING
199. Improper/no wire mesh. (14-2)

WATER HEATER INSULATION

120. Improper/inadequate tape used. (8-3)
121. Top and sides improperly/not taped. (8-4)
122. Straps improperly/not installed. (8-5)
123. No pit valve/improper distance. (8-6)
124. End of drain line covered. (8-7)

125. * Improper clearance. (8-8)
126. * Thermostat, control, access door covered/ improper clearance. (8-9)
127. * Appliance valve covered. (8-10)

128. * Combustion air supply not protected or covered. (8-11)
129. Inadequate vent clearance. (8-12)

WINDOW

155. Foam filled wood door used. (10-2)
156. Incorrect door thickness used. (10-2)
157. Interior door used. (10-3)
158. Door not properly sealed. (10-4)
159. Incorrect type/number/size hinge used. (10-5)
160. Incorrect width of door used. (10-5)
161. Incorrect type/number/screw used.(10-6)
162. Hinge improperly positioned. (10-7)
163. Incorrect space between door and door stop. (10-9)
164. Incorrect door stop material/installation used. (10-10)
165. Incorrect door casing material/ installation. (10-11/10-12)
166. Door improperly cut/leveled. (10-13)
167. Door warped. (10-14)
168. Incorrect window/door replacement unit used. (10-15)
169. Decayed primed window components not replaced. (10-16)
170. Damaged/decayed frame not replaced. (10-17)
171. Cavity between jam and stud not insulated. (10-18)

200. Turbine not braced properly. (14-3)
201. Improper low/hi vent use/placement. (14-4)
202. Improper/no clearance. (14-6/14-7)
203. Louvers improperly/not placed. (14-6)
204. Incorrect amount of high/low venting. (14-8)
205. Inadequate amount installed. (14-8)
206. Inadequate placement of vent. (14-9)

207. Existing mesh too small/blocked.(14-10)

* Indicates a hazardous fail.

SECTION X

WEATHERIZATION TECHNIQUES AND MATERIALS

WEATHERIZATION TECHNIQUES

Effective January 7, 2016, the State of Alabama adopted the Alabama Weatherization Field Guides: *Standard Work Specifications Field Guide for Single Family Homes* and *Standard Work Specifications Field Guide for Manufacture Housing* which were developed in partnership with Southface Energy Institute. These guides contains requirements for weatherization techniques and **should be referenced and complied with when installing weatherization measures**.

Agencies have been provide hard copies of these Field Guides as these documents are living documents they may be updated from time to time. Electronic versions of the guides are also available.

SECTION XI

FINAL INSPECTION OF A WEATHERIZED DWELLING

FINAL INSPECTION PROCESS

The final inspection of a weatherized dwelling is a minimum program requirement and mandated by 10 CFR 440.16 (g).

A quality final inspection is probably one of the most important parts of program management because it enables an agency to correct many problems as they occur and creates good will between the agency and clients.

To this end DOE has required all inspections to be performed by a certified quality control inspector. This individual may be agency staff who has received the certification of may be contracted to a third party who has obtained the QCI certification.

The QCI inspection is not just a boiler plate check that materials are installed. The QCI is to inspect all aspects of the weatherization from the assessment and audit through the completion of the job. The QCI is not only inspecting measure performed but is also looking for issues/opportunities which were missed during assessment and work.

The person assigned the responsibility of conducting the final inspection should be the person who is familiar with program requirements and weatherization priorities and has been properly trained for the task. In no case should the final inspection be conducted by the person who did the actual work on the dwelling, thus allowing him to sign off on his own work.

The following tests and inspections must be performed during the final inspection:

1. Quality and quantity of materials installed
2. Installation standards/work quality
3. Multi-point blower door test to verify final air flow numbers
4. Health and Safety tests to include Carbon Monoxide tests
5. Completion of the Weatherization Final Inspection Form
6. Client signature(s) verifying completion of work

If the inspector finds a problem such as sloppy workmanship or a measure that was overlooked, etc., he or she would issue a written rework order to the person or contractor responsible for the work on the dwelling. The rework order should specify the additional work to be done and/or corrected.

If a Rework Order is issued, the inspector must return to the dwelling for another inspection after the rework has been completed. (Copies of any Rework Orders issued must be included in the client's folder.)

In a case where the agency contracts by the job, payment should not be made to the contractor until all work on the dwelling has been inspected and approved.

Inspection of attics and insulation work done by an insulating contractor must be included in the final inspection. Therefore, if an agency is using an insulating contractor for insulation work and another contractor for other weatherization work, the final inspection should not be scheduled until all work has been completed. This will keep the inspector from having to make unnecessary trips to a dwelling.

After all work on the dwelling has been completed and approved by the inspector, the inspector must sign

and date the Weatherization Final Inspection Report. His or her signature certifies that the dwelling has been inspected, that the workmanship was satisfactorily completed and that all materials charged for were properly installed.

The final inspection form should be produced from the FACSPRO system as it contains special acknowledgement by the Quality Control Inspector.

The final inspection performed by the Quality Control Inspector will also be submitted to ADECA-Energy Division along with the BWR showing the unit has been completed and inspected.

No dwelling unit may be reported to ADECA-Energy Division as a completed unit until the administering agency has performed a final inspection and certified that applicable work has been completed in a workmanlike manner and in accordance with the priority weatherization measures established for Alabama. **Any dwelling presented to ADECA-Energy Division, but not post-inspected by a Certified QCI can constitute contract breach and non-compliance by the Subrecipient.**

SECTION XII

WEATHERIZATION GRIEVANCE PROCEDURES

GRIEVANCE POLICY

1. Local agencies have the responsibility to resolve all client complaints, including applicant denials, project deferrals, and work quality issues.

   a. A grievance must be filed in writing for a local agency to take action.

   b. Local agencies' process must include the following client rights:

      (1) Have a representative speak on behalf of the client, including an interpreter if needed.

      (2) Review and obtain copies of the client's file.

      (3) Present oral and written statements.

      (4) Call witnesses, and question or cross-examine witnesses.

2. Local agencies will inform all clients at time of application of their right to file a grievance and request a fair hearing. Local agencies will also be responsive to requests for information regarding the dispute resolution process.

3. Clients may withdraw a grievance at any time with the understanding that they may re-enter the process at the point they withdrew if a complaint is not resolved.

4. Local agencies must:

   a. Document each step of a grievance proceeding, including communication with the client.

   b. Inform ADECA-Energy Division of final resolution if complaint or grievance is settled quickly.

   c. Provide ADECA-Energy Division with the minutes of the grievance hearing and all applicable complaint and grievance documentation of the case.

5. ADECA's role and responsibilities:

   a. Monitor local agency's use of complaint/grievance process.

   b. Be available for technical assistance and consultation.

   c. Review complaints that ADECA-Energy Division receives, and determine if client has gone through all steps of approved dispute resolution process. If not, refer client to local agency to complete approved process.

   d. Provide local agency with a formal ruling on each case within thirty (30) days of receipt of case documentation.

****Client Grievance Form can be found in the Forms Section of this Manual**

APPENDIX A

STANDARDS FOR WEATHERIZATION MATERIALS

APPENDIX A—STANDARDS FOR WEATHERIZATION MATERIALS

If the standards listed in this appendix conflict with those required by current local codes, the local code shall have precedence and a copy of the applicable section will be retained with procurement records.

The following Government standards are produced by the Consumer Product Safety Commission and are published in title 16, Code of Federal Regulations:

Thermal Insulating Materials for Building Elements Including Walls, Floors, Ceilings, Attics, and Roofs Insulation—organic fiber—conformance to Interim Safety Standard in 16 CFR part 1209;

Fire Safety Requirements for Thermal Insulating Materials According to Insulation Use—Attic Floor—insulation materials intended for exposed use in attic floors shall be capable of meeting the same flammability requirements given for cellulose insulation in 16 CFR part 1209;

Enclosed spaces—insulation materials intended for use within enclosed stud or joist spaces shall be capable of meeting smoldering combustion requirements in 16 CFR part 1209.

The following standards which are not otherwise set forth in part 440 are incorporated by reference and made part of part 440. The following standards have been approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on January 3, 2002 and a notice of any change in these materials will be published in the FEDERAL REGISTER. The standards incorporated by reference are available for inspection at the Office of the Federal Register Information Center, 800 North Capitol Street, Suite 700, Washington, DC 20001.

The standards incorporated by reference in part 440 can be obtained from the following sources:

Air Conditioning and Refrigeration Institute, 4301 N. Fairfax Drive, Suite 425, Arlington, VA 22203; (703) 524-8800.

American Architectural Manufacturers Association, 1827 Walden Office Square, Suite 104, Schaumburg, Illinois 60173-4268; (847) 303-5664.

American Gas Association, 400 N. Capitol Street, NW, Washington, DC 20001; (202) 824-7000.

American National Standards Institute, Inc., 11 West 42nd Street, New York, NY 10036; (212) 642-4900.

American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990; (212) 591-7722.

American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959; (610) 832-9585.

Association of Home Appliance Manufacturers, 1111 19th Street, NW, Suite 402, Washington DC, 20036; (202) 872-5955.

Federal Specifications, General Services Administration, General Services Administration, Federal Supply Service, Office of the CIO and Marketing Division, Room 800, 1941 Jefferson Davis Hwy., Arlington, VA 22202; (703) 305-6288.

Gas Appliance Manufacturers Association, 2107 Wilson Boulevard, Suite 600, Arlington, Virginia 22201; (703) 525-7060.

National Electrical Manufacturers Association, 1300 North 17th Street, Suite 1847, Rosslyn, VA 22209; (703) 841-3200.

National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101; (617) 770-3000.

Sheet Metal and Air Conditioning Contractors Association, 4201 Lafayette Center Drive, Chantilly, Virginia 20151-1209; (703) 803-2980.

Solar Rating and Certification Corporation, c/o FSEC, 1679 Clearlake Road, Cocoa, FL 32922-5703; (321) 638-1537.

Steel Door Institute, 30200 Detroit Road, Cleveland, OH 44145-1967; (440) 899-0010.

Steel Window Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851; (216) 241-7333.

Tubular Exchanger Manufacturers Association, 25 North Broadway, Tarrytown, NY 10591; (914) 322-0040.

Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096; (847) 272-8800.

Window & Door Manufacturers Association, 1400 East Touhy Avenue, Suite 470, Des Plaines, IL 60018; (800) 223-2301.

More information regarding the standards in this reference can be obtained from the following sources:

Environmental Protection Agency, 401 M Street, NW, Washington, DC 20006; (202) 554-1080.

National Institute of Standards and Technology, U.S. Department of Commerce, Gaithersburg, MD 20899; (301) 975-2000.

Weatherization Assistance Program, Office of Building Technology Assistance, Energy Efficiency and Renewable Energy, 1000 Independence Avenue, SW, EE-42, Washington, DC 20585-0121; (202) 586-4074.

THERMAL INSULATING MATERIALS FOR BUILDING ELEMENTS INCLUDING WALLS, FLOORS, CEILINGS, ATTICS, AND ROOFS

[Standards for conformance]

Insulation--mineral fiber:	
Blanket insulation	ASTM[1] C665-98.
Roof insulation board	ASTM C726-00a.
Loose-fill insulation	ASTM C764-99.
Insulation--mineral cellular:	
Vermiculite loose-fill insulation	ASTM C516-80 (1996)e1.
Perlite loose-fill insulation .	ASTM C549-81 (1995)e1.
Cellular glass insulation block	ASTM C552-00.
Perlite insulation board . . .	ASTM C728-97.
Insulation–organic fiber:	
Cellulosic fiber insulating board	ASTM C208-95.
Cellulose loose-fill insulation	ASTM C739-00.
Cellulose wet-spray insulation	ASTM C1149-97.
Insulation–organic cellular:	
Preformed block-type polystyrene insulation	ASTM C578-95.
Rigid preformed polyurethane insulation board	ASTM C591-00.
Polyurethane or polyisocyanurate insulation board face with aluminum foil on both sides	FS[2] HH-I-1972/1 (1981).
Polyurethane or polyisocyanurate insulation board face with felt on both sides	FS HH-I-1972/2 (1981) and Amendment 1, October 3, 1985).
Insulation–composite boards:	
Mineral fiber insulation board	ASTM C726-00a.
Perlite board	ASTM C728-97.
Gypsum board and polyurethane or poliso-cyanurate composite board	FS HH-I-1972/4 (1981).

[1] ASTM indicates American Society for Testing and Materials.

[2] FS indicates Federal Specifications.

THERMAL INSULATING MATERIALS FOR BUILDING ELEMENTS INCLUDING WALLS, FLOORS, CEILINGS, ATTICS, AND ROOFS–Continued

[Standards for conformance]

Materials used as a patch to reduce infiltration through the building envelope	Commercially available.

THERMAL INSULATING MATERIALS FOR PIPES, DUCTS, AND EQUIPMENT SUCH AS BOILERS AND FURNACES

[Standards for conformance]

Insulation–mineral fiber:	
Preformed pipe insulation .	ASTM[1] C547-00.
Blanket and felt insulation (industrial type)	ASTM C553-00.
Blanket insulation and blanket type pipe insulation (metal-mesh covered, industrial type)	ASTM C592-00.
Block and board insulation	ASTM C612-00.
Spray applied mineral fiber thermal and sound absorbing insulation	ASTM C1014-99ae1.
High-temperature fiber blanket insulation	ASTM C892-00.
Duct work insulation	ASTM C1290-00.
Insulation–mineral cellular:	
Calcium silicate block and pipe insulation	ASTM C533-95.
Cellular glass insulation . .	ASTM C552-00.
Expanded perlite block and pipe insulation	ASTM C610-99.
Insulation–organic cellular:	
Preformed flexible elastomeric cellular insulation in sheet and tubular form	ASTM C534-99.
Unfaced preformed rigid cellular polyurethane insulation	ASTM C591-00.
Insulation skirting	Commercially available.

[1] ASTM indicates American Society for Testing and Materials.

Fire Safety Requirements for Insulating Materials According to Insulation Use

[Standards for conformance]

Attic floor	Insulation materials intended for exposed use in attic floors shall be capable of meeting the same smoldering combustion requirements given for cellulose insulation in ASTM[1] C739-00.
Enclosed space	Insulation materials intended for use within enclosed stud or joist spaces shall be capable of meeting the same smoldering combustion requirements given for cellulose insulation in ASTM C739-00.
Exposed interior walls and ceilings	Insulation materials, including those with combustible facings, which remain exposed and serve as wall or ceiling interior finish, shall have a flame spread classification not to exceed 150 (per ASTM E84-00a).
Exterior envelope walls and roofs	Exterior envelope walls and roofs containing thermal insulation shall meet applicable local government building code requirements for the complete wall or roof assembly.
Pipes, ducts, and equipment	Insulation materials intended for use on pipes, ducts, and equipment shall be capable of meeting a flame spread classification not to exceed 150 (per ASTM E84-00a).

[1] ASTM indicates American Society for Testing and Materials.

Storm Windows

[Standards for conformance]

Storm windows:	
All storm windows . .	AAMA/NWWDA[1] 101/I.S. 2-97.
Aluminum frame storm windows	AAMA[2] 1002.10-93.
Rigid vinyl frame storm windows	ASTM[3] D4726-00.
Frameless plastic glazing storm	Required minimum thickness for windows is 6 mil (0.006 inches).
Movable insulation systems for windows	Commercially available.

[1] AAMA/NWWDA indicates American Architectural Manufacturers Association/National Wood Window & Door Association (now the Window & Door Manufacturers Association).

[2] AAMA indicates American Architectural Manufacturers Association.

[3] ASTM indicates American Society for Testing and Materials.

Replacement Windows

[Standards for conformance]

Replacement windows:	
All windows	AAMA/NWWDA[1] 101/I.S. 2-97.
Steel frame windows	Steel Window Institute recommended specifications for steel windows, 1990.
Rigid vinyl frame windows	ASTM[2] D4726-00.

[1] AAMA/NWWDA indicates American Architectural Manufacturers Association/National Wood Window & Door Association (now the Window & Door Manufacturers Association).

[2] ASTM indicates American Society for Testing and Materials.

STORM DOORS

[Standards for conformance]

Storm doors:	
All storm (glass) doors	AAMA/NWWDA[1] 101/I.S. 2-97.
Aluminum frame storm doors	AAMA[2] 1102.7-89.
Sliding glass storm doors	AAMA 1002.10-93.
Rigid vinyl storm doors .	ASTM[3] D3678-97 and D4726-00..
Vestibules:	
Materials to construct vestibules	Commercially available.

[1] AAMA/NWWDA indicates American Architectural Manufacturers Association/National Wood Window & Door Association (now the Window & Door Manufacturers Association).

[2] AAMA indicates American Architectural Manufacturers Association.

[3] ASTM indicates American Society for Testing and Materials.

REPLACEMENT DOORS

[Standards for conformance]

Replacement doors:	
All replacement doors	AAMA/NWWDA[1] 101/I.S. 2-97.
Steel doors	ANSI[2] A250.8-98.
Wood doors:	
Flush doors	ANSI/NWWDA[3] I.S. 1-97 (Amendment, exterior door provisions).
Stile and rail doors	NWWDA[4] I.S. 6-97.

[1] AAMA/NWWDA indicates American Architectural Manufacturers Association/National Wood Window & Door Association (now the Window & Door Manufacturers Association).

[2] ANSI indicates American National Standards Institute.

[3] ANSI/NWWDA indicates American National Standards Institute/National Wood Window & Door Association (now the Window & Door Manufacturers Association).

[4] NWWDA indicates National Wood Window & Door Association (now the Window & Door Manufacturers Association).

CAULKS AND SEALANTS

[Standards for conformance]

Caulks and sealants:	
Glazing compounds for metal sash	ASTM[1] C669-00.
Oil and resin base caulks	ASTM C570-00.
Acrylic (solvent types) sealants	ASTM C920-98e1.
Butyl rubber sealants	FS[2] Commercial Item Description A-A-272 (6/7/95).
Chlorosulfonated polyethylene sealants	ASTM C920-98e1.
Latex sealing compounds	ASTM C834-00e1.
Elastomeric joint sealants (normally considered to include polysulfide, polyurethane, and silicone)	ASTM C920-98e1.
Preformed gaskets and sealing materials	ASTM C509-00.
Duct sealing mastic	UL[3] 181A-M, Second Edition, 1994 and UL 181B-M, First Edition, 1995.

[1] ASTM indicates American Society for Testing and Materials.

[2] FS indicates Federal Specifications.

[3] UL indicates Underwriters Laboratories.

WEATHERSTRIPPING

[Standards for conformance]

Weatherstripping	Commercially available.
Vapor retarders	Selected according to the provisions cited in ASTM[1]C755-97. Permeance not greater than 1 perm when determined according to the desiccant method described in ASTM E96-00.
Items to improve attic ventilation	Commercially available.

[1] ASTM indicates American Society for Testing and Materials.

HEAT EXCHANGERS

[Standards for conformance]

Heat exchangers, water-to-water and steam-to-water	ASME[1] Boiler and Pressure Vessel Code, 1998, Sections II, V, VIII, IX, and X, as applicable to pressure vessels. Standards of Tubular Exchanger Manufacturers Association, Eighth Edition, 1999.
Heat exchangers with gas-fired appliances[2]	ANSI/UL[3] 462, Ninth Edition, approved by ANSI February 28, 1997.

[1] ASME indicates American Society for Mechanical Engineers.

[2] The heat reclaimer is for installation in a section of the vent connector from appliances equipped with draft hoods or appliances equipped with powered burners or induced draft and not equipped with a draft hood.

[3] ANSI/UL indicates American National Standards Institute/Underwriters Laboratories.

BOILER/FURNACE CONTROL SYSTEMS

[Standards for conformance]

Automatic set back thermostats	Listed by UL[1]. Conformance to NEMA[2] DC3-1989 (R1996).
Line voltage or low voltage room thermostats	Listed by UL. Conformance to NEMA DC3-1989 (R1996).
Clock thermostats	Listed by UL. Conformance to NEMA DC3-1989 (R1996).
Automatic gas ignition systems	ANSI[3] Z21.21-2000. AGA[4] Laboratories Certification Seal.
Energy management systems	Listed by UL.
Hydronic boiler controls	Listed by UL.
Other burner controls . .	Listed by UL.

[1] UL indicates Underwriters Laboratories.

[2] NEMA indicates National Electrical Manufacturers Association.

[3] ANSI indicates American National Standards Institute.

[4] AGA indicates American Gas Association.

WATER HEATER MODIFICATIONS

[Standards for conformance]

Insulate tank and distribution piping	(See insulation section of this appendix)
Install heat traps on inlet and outlet piping	Applicable local plumbing code.
Install/replace water heater heating elements	Listed by UL[1].
Electric, freeze-prevention tape for pipes	Listed by UL.
Install stack damper, gas-fueled	ANSI[2] Z21.66-1996, including Exhibits A & B, and ANSI Z223.1-1999 (same as NFPA[3] 54-1999).
Install stack damper, oil-fueled	UL 17, Third Edition, 1994, NFPA 31-2001, NFPA 211-2000 (same as ANSI A52.1), and ANSI/ NFPA 70-1999 (same as IEEE[4] National Electrical Code).
Install water flow modifiers	Commercially available.

[1] UL indicates Underwriters Laboratories.
[2] ANSI indicates American National Standards Institute.
[3] NFPA indicates National Fire Prevention Association.
[4] IEEE indicates Institute of Electrical and Electronics Engineers.

REPLACEMENT WATER HEATERS

[Standards for conformance]

Electric (resistance) water heaters	10 CFR[1] 430 and UL[3] 174.
Heat pump water heaters	UL 1995, Second Edition, 1995. Electrical components to be listed by UL.
Gas water heaters:	
Rated ≤75 kBtu/hr . .	10 CFR 430 and ANSI[4] Z21.10.1-1998.
Rated ≥75 kBtu/hr . .	ANSI Z21.10.3-1998.
Oil water heaters	UL 732, Fifth Edition, 1995.

[1] CFR indicates Code of Federal Regulations.
[2] UL indicates Underwriters Laboratories.
[3] ANSI indicates American National Standards Institute.

SOLAR WATER HEATING SYSTEMS

[Standards for conformance]

Solar water heating systems including forced circulation, integral collector storage, thermo-syphon, and self-pumping systems	System must be certified per SRCC[1] OG 300, July 16, 1998.

[1] SRCC indicates Solar Rating and Certification Corporation.

WASTE HEAT RECOVERY DEVICES

[Standards for conformance]

Desuperheater/water heaters	ARI[1] 470-1995 and UL 1995, Second Edition, 1995.
Condensing heat exchangers	Commercially available components installed per manufacturers' specifications. NFPA[2] 211-2000 (same as ANSI A52.1) may apply in certain instances. See also the Heat Exchangers section of this appendix.
Heat pump water heating heat recovery systems	UL 1995, Second Edition, 1995. Electrical components to be listed by UL.
Energy recovery equipment	Energy Systems Analysis and Management, 1997 (SMACNA[3]).

[1] ARI indicates Air Conditioning and Refrigeration Institute.
[2] NFPA indicates National Fire Prevention Association.
[3] SMACNA denotes Sheet Metal and Air Conditioning Contractors' National Association.

BOILER REPAIR AND

Install gas conversation burners	ANSI[1] Z21.8-1994 (for gas- or oil-fired systems), ANSI Z21.17-1998, and ANSI Z223.1-1999 (same as NFPA 54-1999). AGA[2] Laboratories Certification Seal.
Replace oil burner	UL[3] 296, Ninth Edition, 1994 and NFPA 31-2001.
Install burners (oil/gas)	ANSI Z223.1-1999 for gas equipment and NFPA[4] 31-2001 for oil equipment.
Re-adjust boiler water temperature or install automatic boiler temperature reset control	ASME[5] CSD-1-1998, ANSI Z223.1-1999, and NFPA 31-2001.
Replace/modify boilers	ASME Boiler and Pressure Vessel Code, 1998, Section II, IV, V, VI, VIII, IX, and X. Boilers must be Hydronics Institute Division of GAMA equipment.
Clean heat exchanger, adjust burner air shutter(s), check smoke no. on oil-fueled equipment. Check operation of pump(s) and replacement filters.	Per manufacturers' instructions.
Replace combustion chambers	Refractory linings may be required for conversions.

BOILER REPAIR AND MODIFICATIONS/EFFICIENCY IMPROVEMENTS—Continued

[Standards for conformance]

Replace heat exchangers, tubes	Protection from flame contact with conversion burners by refractory shield.
Install/replace thermostatic radiator valves	Commercially available. One-pipe steam systems require air vents on each radiator; see manufacturers' requirements.
Install boiler duty cycle control system	Commercially available. ANSI/NFPA 70-1999 (same as IEEE National Electrical Code) and local electrical code provisions for wiring.

[1] ANSI indicates American National Standards Institute.
[2] AGA indicates American Gas Association.
[3] UL indicates Underwriters Laboratories.
[4] NFPA indicates National Fire Prevention Association.
[5] ASME indicates American Society for Mechanical Engineers.

HEATING AND COOLING SYSTEM REPAIRS AND TUNE-UPS/EFFICIENCY IMPROVEMENTS

[Standards for conformance]

Install duct insulation . .	ASTM[1] C612-00 (see insulation sections of this appendix).
Reduce Input of burner; derate gas-fueled equipment	Local utility company and procedures if applicable for gas-fueled furnaces and ANSI[2] Z223.1-1999 (same as NFPA[3] 54-1999) including Appendix H.
Repair/replace oil-fired equipment	NFPA 31-2001.
Replace combustion chamber in oil-fired furnaces or boilers	NFPA 31-2001.
Clean heat exchanger and adjust burner; adjust air shutter and check CO_2 and stack temperature. Clean or replace air filter on forced air furnace	ANSI Z223.1-1999 (same as NFPA 54-1999) including Appendix H.
Install vent dampers for gas-fueled heating systems	Applicable sections of ANSI Z223.1-1999 (same as NFPA 54-1999) including Appendix H, I, J, and K. ANSI Z21.66-1996 and Exhibits A&B for electrically operated dampers.
Install vent dampers for oil-fueled heating systems	Applicable sections of NFPA 31-2001 for installation and in conformance with UL[4] 17, Third Edition, 1994.

HEATING AND COOLING SYSTEM REPAIRS AND TUNE-UPS/EFFICIENCY IMPROVEMENTS—Continued

[Standards for conformance]

Reduce excess combustion air:	
A: Reduce vent connector size of gas-fueled appliances	ANSI Z223.1-1999 (same as NFPA 54-1999) part 9 and Appendices G & H.
B: Adjust barometric draft regulator for oil fuels	NFPA 31-2001 and per furnace and boiler manufacturers' instructions.
Replace constant burning pilot with electric ignition device on gas-fueled furnaces or boilers	ANSI Z21.71-1993.
Readjust fan switch on forced air gas-or oil-fueled furnaces	Applicable sections and Appendix H of ANSI Z223.1-1999 (same as NFPA 54-1999) for gas furnaces and NFPA 31-2001 for oil furnaces.
Replace burners	See install burners (oil/gas).
Install/replace duct furnaces (gas)	ANSI Z223.1-1999 (same as NFPA 54-1999).
Install/replace heat pumps	ARI[5] 210/240-1994. UL 1995, Second Edition, 1995.
Replace air diffusers, intakes, registers, and grilles	Commercially available.
Install/replace warm air heating metal ducts	UL 181, Ninth Edition 1996, including UL 181A, Second Edition 1994 and 181B, First Edition, 1995.
Filter alarm units	Commercially available.

[1] ASTM indicates American Society for Testing and Materials.

[2] ANSI indicates American National Standards Institute.

[3] NFPA indicates National Fire Prevention Association.

[4] UL indicates Underwriters Laboratories.

[5] ARI indicates Air Conditioning and Refrigeration Institute.

REPLACEMENT FURNACES, BOILERS, AND WOOD STOVES

[Standards for conformance]

Chimneys, fireplaces, vents and solid fuel burning appliances	NFPA[1] 211-2000 (same as ANSI[2] A52.1).
Gas-fired furnaces	ANSI Z21.47-1998 and ANSI Z223.1-1999 (same as NFPA 54-1999).
Oil-fired furnaces	UL[3] 727, Eighth Edition, 1994 and NFPA 31-2001.
Liquefied petroleum gas storage	NFPA 58-2001.
Ventilation fans:	
Including electric attic, ceiling, and whole-house fans	UL 507, Ninth Edition, 1999.

[1] NFPA indicates National Fire Prevention Association.
[2] ANSI indicates American National Standards Institute.
[3] UL indicates Underwriters Laboratories.

AIR CONDITIONERS AND COOLING EQUIPMENT

[Standards for conformance]

Air conditioners:	
Central air conditioners	ARI[1] 210/240-1994.
Room size units	ANSI/AHAM[2] RAC 1-1992.
Other cooling equipment:	
Including evaporative coolers, heat pumps, and other equipment	UL[3] 1995, Second Edition, 1995.

[1] ARI indicates Air Conditioning and Refrigeration Institute.
[2] ANSI/AHAM indicates American National Standards Institute/Association of Home Appliance Manufacturers.
[3] UL indicates Underwriters Laboratories.

SCREENS, WINDOW FILMS, AND REFLECTIVE MATERIALS

[Standards for conformance]

Insect screens	Commercially available.
Window films	Commercially available.
Shade screens:	
Fiberglass shade screens	Commercially available.
Polyester shade screens	Commercially available.
Rigid awnings:	
Wood rigid awnings	Commercially available.
Metal rigid awnings .	Commercially available.
Louver systems:	
Wood louver awnings	Commercially available.
Metal louver awnings	Commercially available.
Industrial-grade white paint used as a heat-reflective measure on roofs, awnings, window louvers, doors, and exterior duct work (exposed)	Commercially available.

REFRIGERATORS

[Standards for conformance]

Refrigerator/freezers (does not include freezer-only units)	UL[1] 250. Replaced units must be disposed of properly per Clean Air Act 1990, Section 608, as amended by 40 CFR[2] 82, May 14, 1993.

[1] UL indicates Underwriters Laboratories.
[2] CFR indicates Code of Federal Regulations.

FLUORESCENT LAMPS AND FIXTURES

[Standards for conformance]

Compact fluorescent lamps	ANSI/UL[1] 542, Seventh Edition, February 6, 1997 and UL 1993, First Edition, 1993.
Fluorescent lighting fixtures	UL 1570, Fourth Edition, 1995.

[1] ANSI/UL indicates American National Standards Institute/Underwriters Laboratories.

APPENDIX B

WEATHERIZATION PROGRAM FORMS

ALABAMA WEATHERIZATION PROGRAM

HOME ENERGY ASSESSMENT CHECKLIST

CUSTOMER NAME: _____ PHONE #: _____

ADDRESS: _____

DIRECTIONS: _____

_____

JOB NUMBER: _____ ☐ SINGLE FAMILY / SITE BUILT HOME

ASSESSMENT DATE: _____ ☐ MOBILE HOME

ASSESSOR: _____

Annual Fuel Costs: $_____

Smoke Detectors: ☐Yes ☐No Location_____ Test OK? _____ Unit Needed? ☐Yes ☐No

CO Detectors: ☐Yes ☐No Location _____ Test OK? _____ Unit Needed? ☐Yes ☐No

Appliances	Fuel Type	Pass	Repair	Replace	Remove	ACTIONS/NOTES
Water Heater	☐Electricty ☐Natural Gas ☐Liquid Propane					
Cook Stove	☐Electricity ☐Natural Gas ☐Liquid Propane					

Heating Systems	*Fuel Type	**Unit Type	Pass	Repair	Replace	Remove	ACTIONS/NOTES
Primary Unit	NG LP W E K	FA G VSH UVSH					
Secondary Unit # 1	NG LP W E K	FA G VSH UVSH					
Secondary Unit # 2	NG LP W E K	FA G VSH UVSH					
Secondary Unit # 3	NG LP W E K	FA G VSH UVSH					

* Fuel Type	** Unit Type
NG = Natural Gas	FA = Forced Air
LP = Propane	G = Gravity
W = Wood	VSH = Space Heater
E = Electricty	UVSH = Unvented Space Heater
K = Kerosene	

Pre-WX Issues to be Addressed/Mitigated:

Weatherization Measures Summary

Air Sealing		Insulating		Health and Safety		Other	
Attic Bypass	___	Attic	___	Mold/Moisture	___	Compact Fluorescent Bulbs	___
Kneewall Bypass	___	Sidewall	___	Electrical	___	Adjust Water Heater Temp.	___
Crawlspace Bypass	___	Kneewall	___	Carbon Monoxide	___	Pop Off Valve	___
Return Chase	___	Floor	___	Gas Leak(s)	___	Belly Repair	___
Ducts	___	Belly	___	Ventilation	___	Vapor Barrier	___
Weatherstrip (W/S)	___	Ducts	___	Other _____	___	Minor Roof Repair	___
Door Shoe (D/S)	___	Water Heater	___			Roof Coat	___
Caulking	___	Water Pipes	___			Refrigerator	___
Window/Door Repair	___	Other	___			Smart Thermostat	___
Glass Replacement	___	_____				Furnace Filters	___
Other	___					Other _____	___

Revised August 20, 2008 by Steve Till. This form adapted from Association of Energy Conservation Professionals Energy Checklist

HOUSE FOOTPRINT

WINDOWS

#	Pass/Fail	*Type	Size	Storm Window	Glass	Lock	Clips	#	Pass/Fail	*Type	Size	Storm Window	Glass	Lock	Clips
1								11							
2								12							
3								13							
4								14							
5								15							
6								16							
7								17							
8								18							
9								19							
10								20							

*** Type**

SP = Single Pane
DP = Double Pane
JA = Jalousie
CO = Crank Out

Comments:

Overall Condition of Windows: ☐good ☐fair ☐poor

DOORS		Type	Storm	Size	W/S	D/S	Lock	Hinges	Glass
1	Front Door								
2	Back Door								
3									
4									
5									
6	Kneewall Doors								
7	Basement / Crawlspace								

Door Table Symbols

NE = Nonexistent
IN = Inaccessible
X = Address It
✓ = OK

Comments:

Overall Condition of Doors: ☐good ☐fair ☐poor

General Shell Air Infiltration:

Attic Weatherization	Attic 1	Attic 2	Attic 3	Kneewall Attic			
				Collar Beam	Slopes	Knee Wall	Outer Ceiling Joists
Insulation *(Bags Needed)*							
Dimensions							
Attic Square Footage							
Existing Insulation Type							
Existing R-Value							
Existing Inches							
Type Insulation to Add							
Post WX R-Value							
Condition of Attic	**Attic 1**	**Attic 2**	**Attic 3**	**CB**	**Slopes**	**KW**	**OCJ**
Water Leaks ?							
Recessed Light(s) ?							
Chimney / Vent Shielding							
Condition of Wiring							
Attic Access							
By-Passes	**Attic 1**	**Attic 2**	**Attic 3**	**CB**	**Slopes**	**KW**	**OCJ**
Open Exterior Wall Tops							
Open Interior Wall Tops							
Wiring Penetrations							
Plumbing Chases							
HVAC Chases							
Stairwell Drop							
Closet Drop							
Soffit Drop							
Size Kneewall Floor Bottom							
Ventilation	**Attic 1**	**Attic 2**	**Attic 3**	**CB**	**Slopes**	**KW**	**OCJ**
*NFVA Inches^2 Needed = (Attic ft^2 x .24)							
Sq" Existing Exhaust (High)							
Sq" Needed Exhaust (High)							
Total NFVA Exhaust Sq"							
Sq" Existing Intake (Low)							
Sq" Needed Intake (Low)							
Total NFVA Intake Sq"							

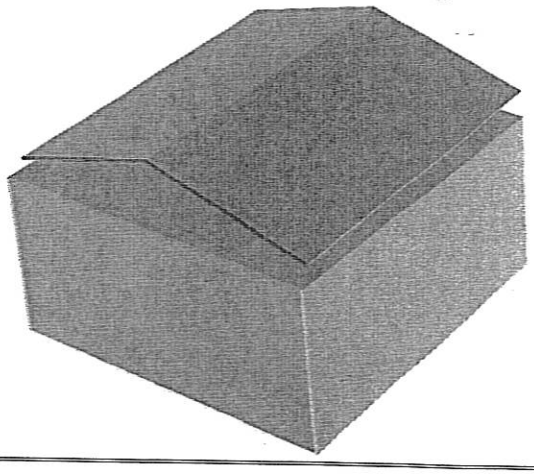
Comments:

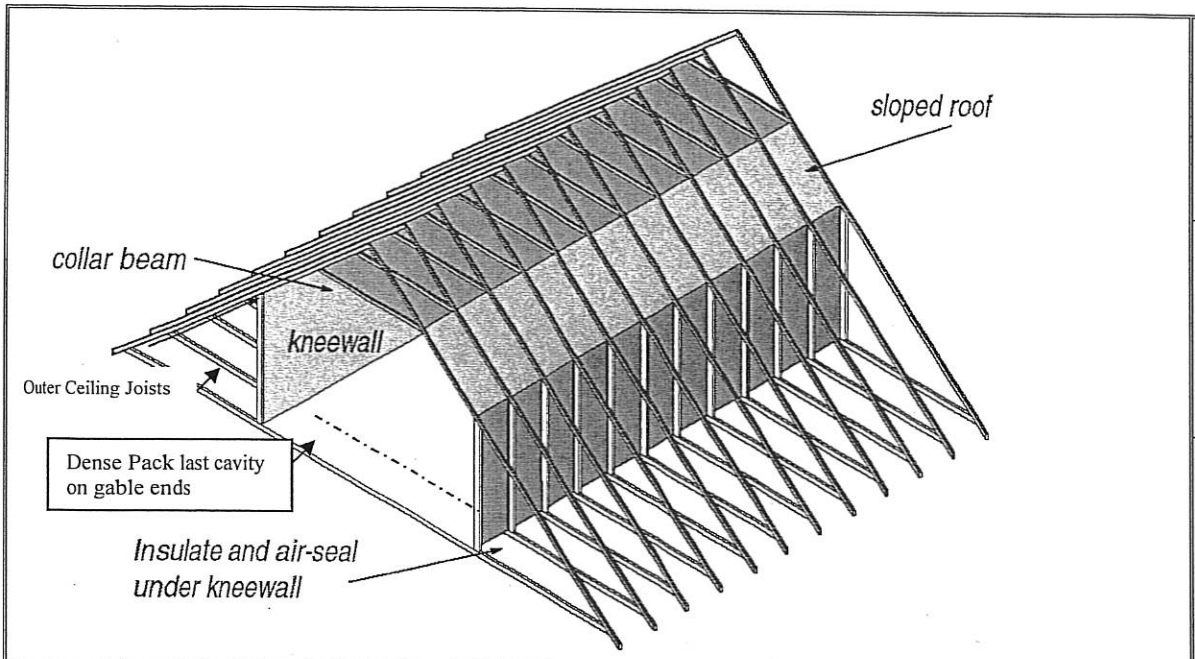
* NFVA = Net Free Ventilation Air

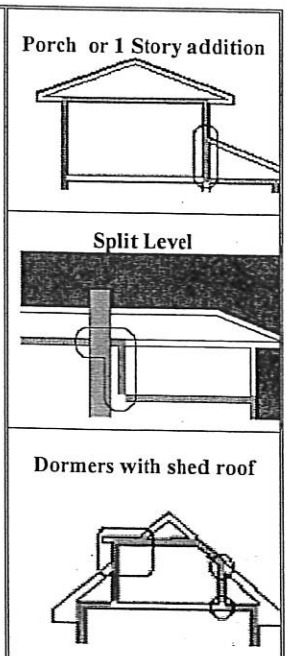
MOBILE HOME ATTIC INSULATION

Total Bags Needed			
Cathedral Square Footage		Type of Roof	☐Shingle ☐Metal ☐Other
Flat Square Footage		Slope of Roof	☐A-Frame ☐Bow-truss
Total Square Footage		Roof Blowing Access	☐Side ☐Top ☐Gable
Peak Height		Gutter Length	
Existing Insulation Type		Roof Coating	
Existing R-Value		Peel and Seal	
Added Insulation Type		Plumbing Vent Caps	
Post WX R-Value			

Comments:







SIDEWALLS	SECTION 1	SECTION 2
Existing Insulation ?	R-_____	R-_____
Knob and Tube Wiring ?	☐Yes ☐No	☐Yes ☐No
Do Walls Have Cavities ?	☐Yes ☐No	☐Yes ☐No
Is Support / Wall Prep Needed ?	☐Yes ☐No	☐Yes ☐No
Moisture Problems ?	☐Yes ☐No	☐Yes ☐No
Can Sidewalls Be Blown ?	☐Yes ☐*No	☐Yes ☐*No
Type of Interior Walls		
Type of Exterior Veneer		
Type of Framing	☐Balloon ☐Stick ☐Block	☐Balloon ☐Stick ☐Block
Width of Cavity	☐24" ☐16" Other_____	☐24" ☐16" Other_____
Depth of Cavity	☐2 X 4 ☐2 X 6 Other_____	☐2 X 4 ☐2 X 6 Other_____
- Total Exterior Wall Surface	SQ FT	SQ FT
- Less Windows/Doors or 10%	SQ FT	SQ FT
New Wall Surface Square Feet	SQ FT	SQ FT
Insulation Bags Needed ?	Bags	Bags

*** Justification Required:**_____

_____

Comments:

BASEMENT / CRAWLSPACE	SECTION 1	SECTION 2
Location		
Conditioned / Unconditioned	☐Cond ☐Uncond	☐Cond ☐Uncond
Type of Foundation	☐Crawlspace ☐Slab ☐Piers	☐Crawlspace ☐Slab ☐Piers
Type of Sub floor	☐Plywood ☐T&G ☐Plank	☐Plywood ☐T&G ☐Plank
Total Square Footage of Floor		
Liner Feet of Perimeter		
Avg Wall Height above Grade		
Vapor Barrier Existing?	☐Yes ☐No	☐Yes ☐No
Open Exterior Wall Bottoms?	☐Yes ☐No	☐Yes ☐No
Open Interior Wall Bottoms?	☐Yes ☐No	☐Yes ☐No
Wire Penetrations?	☐Yes ☐No	☐Yes ☐No
Plumbing Chases?	☐Yes ☐No	☐Yes ☐No
HVAC Chases? (Chimney, Ducts)	☐Yes ☐No	☐Yes ☐No
Floor Joist Size 2 x ___?	☐6 ☐8 ☐10 ☐12	☐6 ☐8 ☐10 ☐12
Existing Floor Insulation?	☐Yes ☐No	☐Yes ☐No
R-Value Existing	☐6 ☐11 ☐13 ☐19	☐6 ☐11 ☐13 ☐19
Floor Insulation Needed?	☐Yes ☐No	☐Yes ☐No
R-Value Needed	☐R-19	☐R-19
Does Band Joist Need Sealing?	☐Yes ☐No	☐Yes ☐No
Does Band Joist Need Insulation?	☐Yes ☐No	☐Yes ☐No
Is Perimeter Insulation Needed?	☐Yes ☐No	☐Yes ☐No
Stairwell Insulation Needed?	☐Yes ☐No	☐Yes ☐No
Exposed Water Lines Wrapped?	☐Yes ☐No _____ft	☐Yes ☐No _____ft

MOBILE HOME BELLY

BELLYBOARD	SECTION 1	SECTION 2
Repairs Needed?	☐Yes ☐No	☐Yes ☐No
Direction of Joists	☐Longways ☐Crossways	☐Longways ☐Crossways
Joist Size	☐2 X 4 ☐2 X 6	☐2 X 4 ☐2 X 6
Vapor Barrier Present?	☐Yes ☐No	☐Yes ☐No
Exposed Water Lines Wrapped?	☐Yes ☐No _____ft	☐Yes ☐No _____ft
Plumbing Leaks?	☐Yes ☐No	☐Yes ☐No
Floor Square Footage	SQ FT	SQ FT
Total Bags Insulation Needed	Bags	Bags

Comments:

ELECTRICAL PANEL INFORMATION

Electric Box	Manufacturer	Size Box	Cover	Type	Location
Main		Amp	☐Y ☐N	Breaker Fuses	
Sub Panel		Amp	☐Y ☐N	Breaker Fuses	
Comments:					

EXHAUST VENTS		Operational?	Vented to the Outside?	CFM	COMMENTS:
1	Dryer Vent	☐Y ☐N ☐None	☐Yes ☐No		
2	Kitchen Exhaust	☐Y ☐N ☐None	☐Yes ☐No		
3	Bathroom Exhaust	☐Y ☐N ☐None	☐Yes ☐No		
4	Other _____	☐Y ☐N ☐None	☐Yes ☐No		

GAS STOVE INSPECTION			STOVE PART (Carbon Monoxide)	PRE (ppm) CO	PRE (ppm) AF	POST (ppm) CO	POST (ppm) AF	COMMENTS:
1	Gas Stove Present	☐Y ☐N	Oven					
2	Gas Leak	☐Y ☐N	Front Left					
3	If so, Location of Leak		Front Right					
4	Type of Fuel	☐NG ☐LP	Rear Left					
5	Make of Stove		Rear Right					

Vented Range Hood Present? ☐YES ☐NO

Flex Connector Type: Stainless Steel ___ Epoxy Coated___ Hard Piped___ Copper ___ *Brass ___

* Must replace connector.

FUEL TANK:	Location	Stand/Legs O.K.?	Cap Block	Vent Cap	Fill Cap	2 Line Cap	Gauge	Oil Line	Gas Shutoff?
Comments:									

UNVENTED SPACE HEATERS

1	**Make** _____ **Model #** _____ **BTU Input** _____ ***ODS Present?** Y N **Ventable?** Y N **CO**___ ppm ☐Primary ☐Secondary **Gas Shutoff?** Y N **Gas Leak?** Y N **IF Yes, Location** _____
2	**Make** _____ **Model #** _____ **BTU Input** _____ ***ODS Present?** Y N **Ventable?** Y N **CO**___ ppm ☐Primary ☐Secondary **Gas Shutoff?** Y N **Gas Leak?** Y N **IF Yes, Location** _____
3	**Make** _____ **Model #** _____ **BTU Input** _____ ***ODS Present?** Y N **Ventable?** Y N **CO**___ ppm ☐Primary ☐Secondary **Gas Shutoff?** Y N **Gas Leak?** Y N **IF Yes, Location** _____

Comments:

***ODS** = **O**xygen **D**epletion Switch

WATER HEATER INSPECTION

UNIT Description

1	Location_____ Type of Fuel: ☐Natural ☐Propane ☐Electric Make _____ Model _____ Serial Number_____ Rated BTU Input _____ Size _____Gallons Measured Water Temperature _____ Degrees Fahrenheit
2	Gas Leaks ? ☐ Yes ☐ No If Yes, Location of Leak _____
3	If Natural Gas, Clock Meter. Dial _____cu ft _____sec = _____ BTU Is this within 10% of Rated BTU? Yes No
4	Can Water Heater be Insulated ? ☐Yes ☐No Can Insulate First 6 feet of Hot Water Line? ☐Yes ☐No Can Insulate First 6 feet of Cold Water Line? ☐Yes ☐No Is Pressure Relief Piping Needed? ☐Yes ☐No Is there evidence of Flame Roll out? ☐Yes ☐No Is Pilot Light Safety Shutoff OK? ☐Yes ☐No
5	Is Main Vent / Chimney O.K.? ☐Yes ☐No If "No", Circle any problems below: **Type, Location, Clearance, Height, Size, Cap, Liner, Mortar, Flashing, Unused flue holes, Thimble, Other** _____ Chimney Type: _____ Chimney Size _____inches Chimney Height _____feet **Liner:** Existing or Needed Type _____ Liner Size _____inches Height _____feet
6	Is Vent Connector from Water Heater to Chimney O.K.? ☐Yes ☐No If "No", Cirlce any problems below: **Improper type pipe, Connected improperly, Leaky or Corroded, No ¼" Rise per Ft, Excessive elbows, Clearance Issues, Other**_____ Vent Connector Type _____ Vent Connector Size _____inches Vent Connector Run _____feet
7	Is Combustion Air Venting Needed ? *(less than 50 cubic ft per 1000 btu's)* ☐Yes ☐No
8	L _____ x W_____ x H_____ = _____Cu Ft / 50 = _____Thousand BTU Allowed — Btu Allowed
9	Sq" of NFA Combustion Air Needed = BTU Input _____ / 1000 = _____ X 2 — SQ"Needed
10	Vent Size for NFA Needed (High) = W____ x H ____ = _____ *.75 = NFA Sq" — Size High
11	Vent Size for NFA Needed (Low) = W____ x H ____ = _____ *.75 = NFA Sq" — Size Low

	Diagnostic Inspection	PRE TESTS			POST TESTS		
12	CAZ Worst Case WRT Outside	**Complete CAZ Sheet on Last Page** then recreate worst case _____PA			**Complete CAZ Sheet on Last Page** then recreate worst case _____PA		
13	Draft (Worst Case)	_____Wc	_____PA		_____Wc	_____PA	
14	CO Living Area			PPM			PPM
15	CO Flue Gases <100ppm			PPM			PPM
16	CO Flue Gases (Air Free) <400ppm			PPM			PPM
17	Stack Temperature (each port)			Deg F			Deg F
18	Oxygen Percentage (each port)			O2%			O2%
19	Efficiency Percentage (each port)			Eff%			Eff%

20	**Pass**	**Fail**	**If Fail, Why?** _____ **Repair or Replace with**_____

Comments:

HEATING UNIT 1 SAFETY INSPECTION

UNIT Description

1	Location_____ Type of Fuel: ☐NG ☐P ☐W ☐E ☐K Type of Unit: ☐FA ☐G ☐B ☐SH Make _____ Model _____ Serial Number_____ Rated BTU Input: _____ Rated BTU Output:_____ If Natural Gas, Clock Meter. Within 10%? ☐Yes ☐No Thermostat Location:_____Mercury? ☐Yes ☐No Temp Day_____ Night____ Anticipator Setting _____ Fuel Leak(s)? ☐Yes ☐No If Yes, Location of Leak(s):_____
2	Is Heating Unit on Separate Circuit ? ☐Yes ☐No Circuit Breaker / Fuse Size at Service Panel _____Amp Is there an Electrical Disconnect ? ☐Yes ☐No Circuit Breaker / Fuse Size at Disconnect _____ Amp Are there any Burned Wires? ☐Yes ☐No Visual Inspection of Safety Controls? ☐Yes ☐No
3	Filter Location _____ Type _____ Not Installed ___ Clean ___ Dirty ___ Cleaned and Replaced____ Filter Size _____ X _____ Qty _____ Does Blower Need Cleaning? ☐Yes ☐No Is Blower Noisy? ☐Yes ☐ No
4	Is Main Vent / Chimney O.K.? ☐Yes ☐No If "No", Circle any problems below: **Type, Location, Clearance, Height, Size, Cap, Liner, Mortar, Flashing, Unused flue holes, Thimble, Clean out, Other** _____ Chimney Type: _____ Chimney Size: _____inches Chimney Height: _____feet Liner: Existing or Needed Liner Type: _____ Liner Size: _____inches Liner Height: _____feet
5	Is Vent Connector from Heating System to Chimney O.K.? ☐Yes ☐No If "No", Circle any problems below: **Improper type pipe, Connected improperly, Leaky or Corroded, No ¼" Rise per Ft, Excessive elbows, Clearance, Other**_____ Vent Connector Type _____ Vent Connector Size _____inches Vent Connector Run _____feet
6	Is Clearance from Heating Unit to Combustibles OK ? (Ceiling, Walls, Floors) ☐Yes ☐No
7	Is Heat Exchanger O.K. ? ☐Yes ☐No
8	Is this Unit Sealed Combustion ? ☐Yes ☐No
9	Is Combustion Air Venting Needed ? *(less than 50 cubic ft per 1000 btu's)* ☐Yes ☐No
10	If Yes, How Many SQ Inches Needed ? SQ"

Diagnostic Inspection		PRE TESTS	POST TESTS
11	CAZ Worst Case WRT Outside	**Complete CAZ Sheet on Last Page** then recreate worst case PA	**Complete CAZ Sheet on Last Page** then recreate worst case PA
12	Draft Inducer and Pressure Switch	☐Yes ☐No Switchpass ☐Yes ☐No	☐Yes ☐No Switchpass ☐Yes ☐No
13	Draft (Worst Case)	Wc PA	Wc PA
14	CO Living Area	PPM	PPM
15	CO Flue Gases <100ppm	PPM	PPM
16	CO Flue Gases (Air Free) <400ppm	PPM	PPM
17	Stack Temperature (each port)	Deg F	Deg F
18	Oxygen Percentage (each port)	O2%	O2%
19	Efficiency Percentage (each port)	Eff%	Eff%
20	Heat Rise (Supp-Return Temp) deg F	Supply ____ Return ____ Rise ____	Supply ____ Return ____ Rise ____

21	**Pass**	**Fail**	**If Fail, Why?** _____ **Repair or Replace with**_____

Comments:

HEATING UNIT 2 SAFETY INSPECTION

	UNIT Description
1	Location_____ Type of Fuel: ☐NG ☐P ☐W ☐E ☐K Type of Unit: ☐FA ☐G ☐B ☐SH Make _____ Model _____ Serial Number_____ Rated BTU Input: _____ Rated BTU Output:_____ If Natural Gas, Clock Meter. Within 10%? ☐Yes ☐No Thermostat Location:_____Mercury? ☐Yes ☐No Temp Day_____ Night____ Anticipator Setting _____ Fuel Leak(s)? ☐Yes ☐No If Yes, Location of Leak(s):_____
2	Is Heating Unit on Separate Circuit ? ☐Yes ☐No Circuit Breaker / Fuse Size at Service Panel _____Amp Is there an Electrical Disconnect ? ☐Yes ☐No Circuit Breaker / Fuse Size at Disconnect _____ Amp Are there any Burned Wires? ☐Yes ☐No Visual Inspection of Safety Controls? ☐Yes ☐No
3	Filter Location _____ Type _____ Not Installed ___ Clean ___ Dirty ___ Cleaned and Replaced____ Filter Size _____ X _____ Qty _____ Does Blower Need Cleaning? ☐Yes ☐No Is Blower Noisy? ☐Yes ☐ No
4	Is Main Vent / Chimney O.K.? ☐Yes ☐No If "No", Circle any problems below: **Type, Location, Clearance, Height, Size, Cap, Liner, Mortar, Flashing, Unused flue holes, Thimble, Clean out, Other** _____ Chimney Type: _____ Chimney Size: _____inches Chimney Height: _____feet Liner: Existing or Needed Liner Type: _____ Liner Size: _____inches Liner Height: _____feet
5	Is Vent Connector from Heating System to Chimney O.K.? ☐Yes ☐No If "No", Circle any problems below: **Improper type pipe, Connected improperly, Leaky or Corroded, No ¼" Rise per Ft, Excessive elbows, Clearance, Other**_____ Vent Connector Type _____ Vent Connector Size _____inches Vent Connector Run _____feet
6	Is Clearance from Heating Unit to Combustibles OK ? (Ceiling, Walls, Floors) ☐Yes ☐No
7	Is Heat Exchanger O.K. ? ☐Yes ☐No
8	Is this Unit Sealed Combustion ? ☐Yes ☐No
9	Is Combustion Air Venting Needed ? *(less than 50 cubic ft per 1000 btu's)* ☐Yes ☐No
10	If Yes, How Many SQ Inches Needed ? SQ"

	Diagnostic Inspection	PRE TESTS	POST TESTS
11	CAZ Worst Case WRT Outside	**Complete CAZ Sheet on Last Page** then recreate worst case PA	**Complete CAZ Sheet on Last Page** then recreate worst case PA
12	Draft Inducer and Pressure Switch	☐Yes ☐No Switchpass ☐Yes ☐No	☐Yes ☐No Switchpass ☐Yes ☐No
13	Draft (Worst Case)	Wc PA	Wc PA
14	CO Living Area	PPM	PPM
15	CO Flue Gases <100ppm	PPM	PPM
16	CO Flue Gases (Air Free) <400ppm	PPM	PPM
17	Stack Temperature (each port)	Deg F	Deg F
18	Oxygen Percentage (each port)	O2%	O2%
19	Efficiency Percentage (each port)	Eff%	Eff%
20	Heat Rise (Supp-Return Temp) deg F	Supply ____ Return _____ Rise _____	Supply ____ Return _____ Rise _____

21	**Pass**	**Fail**	**If Fail, Why?** _____ **Repair or Replace with**_____

Comments:

Fireplace(s)	Vented Fireplace? ☐Yes ☐No	Location _____	How often used? _____
Damper? ☐Open ☐Closed ☐None	Operable? ☐Yes ☐No	Sealed off if not Used? ☐Yes ☐No	
Comments:			

WINDOW AIR CONDITIONER(S)

#	Location	Name	BTU	EER	Perm	Cover	Filter	Coils
1								
2								
3								
4								

Comments:

HEAT PUMP / CENTRAL AIR CONDITIONING

Outdoor Location	Make	Model #	Serial #	SEER	Electrical Disconnect?	Suction Line Insulation?	Coil
					☐Y ☐N	☐Y ☐N	
Indoor Location	**Make**	**Model #**	**Serial #**	**KW**		**BTU Input**	**Coil**
				x 3412 =			

Thermostat Location _____ Mercury? ☐Yes ☐No Client's Normal Temp Day _____ Temp Night _____

Filter Location _____ Type _____ Not installed ___ Clean? ___ Dirty? ___ Cleaned and Replaced? _____

Filter Size _____ X _____ Qty _____ Does Blower Need Cleaning? ☐Yes ☐No Is Blower Noisy? ☐Yes ☐No

Comments:

DUCTS / HEATING PIPES

Duct Location	Cond/ Uncond	Boots	Registers	Supply Duct	Return Duct	Supp Plen	Ret Plen	Cross-Over	Duct Wrap	Feet Insul
	☐C ☐U									_____ ft.

Type Ductwork: ☐Sheet Metal ☐Flex Duct ☐Ductboard ☐Other_____

Type Duct System: ☐Trunkline ☐Spider ☐Base ☐Other_____

Supply Size _____in. OK? ☐Yes ☐No Return Size____ in. OK? ☐Yes ☐No | Replace return grill with Filter Grill? ☐Yes ☐No

Duct Table Symbols	Comments:
AS = Air Seal IN = Insulate X = Repairs Needed ✓ = OK	*** Heating = 400cfm per 25,000 Btu output ***Cooling = 400 cfm per 12,000 Btu (TON)

BLOWER DOOR DIAGNOSTICS (These test are done with the Blower Door at -50)

	LOCATION	CONFIGURATION	Baseline	Pascals	CFM
PRE		☐Open ☐Ring A ☐Ring B			
POST		☐Open ☐Ring A ☐Ring B			

Comments:

MVR/BTL Calculations:

1. Bedrooms: ____ + 1 x 15cfm = _____
2. People: ____ x 15cfm = _____
3. Volume: _____ x .35/60 = _____

* Take highest result from #1-3 above and mutiply by the "n" rate of 22 to figure MVR/BTL. For atypical homes,"n" rate is determined by BPI Building Air Flow Sheet.

Comments:

*TARGET: _____

MVR/BTL: _____

Below MVR/BTL? ☐ YES ☐**NO

* Reference "Targeting Closure Rate" Sheet or Alabama WX Field Guide.

** If Blower Door Pre *or* Post Test is below MVR/BTL, ventilation must be added.

NUMBER of PERSONS: _____

SQUARE FOOTAGE: _____

CEILING HEIGHT: _____

*VOLUME: _____

*Volume = Square Footage x Ceiling Height

OUTDOOR TEMP: ____/____ (Pre / Post)

WIND: _____/_____ (Pre / Post)

PRESSURES

Room Pressures (Room WRT Main body)

*Each room shouldn't be more than -/+ 3pa WRT Outside

	Room	Bef	Inter	PR	Aft		Room	Bef	Inter	PR	Aft		Room	Bef	Inter	PR	Aft
1						5						9					
2						6						10					
3						7						11					
4						8						12					

Dominant Duct Leakage Test (Main Body WRT outdoors): Baseline____PA Dominant Duct _____PA

Comments:

Zonal Pressures (Test WRT House and WRT Outdoors)

Zone Tested	Before		After		Zone Tested	Before		After	
	WRT House	WRT Outside	WRT House	WRT Outside		WRT House	WRT Outside	WRT House	WRT Outside
Attic 1					Basement				
Attic 2					Crawlspace				
Cavity b/w 1 & 2 Floor					Bellyboard				
Kneewall: N S E W					Other:_____				
Kneewall: N S E W					Other:_____				

Comments:

Pressure Pan Test (Duct WRT House)

House WRT Duct Location Before ____/ After _____ **PA**

	Location	Before	After		Location	Before	After		Location	Before	After
1				8				15			
2				9				16			
3				10				17			
4				11				18			
5				12				19			
6				13				20	RETURN		
7				14							

Comments:

Pressure Pan Multipliers	
50 = 1.0	25 = 2.0
45 = 1.1	20 = 2.5
40 = 1.25	15 = 3.5
35 = 1.42	10 = 5.0
30 = 1.66	5 = 10.0

BASELOAD MEASURES

Refrigerator Assessment and Replacement

Brand Name	Model #	Type	Total Cubic Feet	Door Hinge	Dimension	*Narrowest Sized Home Door	Metering kWh
		☐Side by Side ☐Top Freezer ☐Bottom Freezer		☐Left ☐Right	Width ___ Depth ___ Height ___	_____ inches	kWh: _____ Duration: _____min Peak Watts: _____

Secondary Refrigerators / Freezers

Refrigerators # _____ Freezers # _____

Homeowner willing to discontinue use of any of the above if larger Refrigerator / Freezer Combination is installed? ☐YES ☐NO

kWh x 8760 / Duration/60 x 1.08 = _____kWh per year

*What is the Narrowest Sized Door Opening that new refrigerator must pass through in order to install?

Comments:

Lighting Assessment and Replacement

	Room	# of Bulbs Replaced	Existing Incandescent Wattage	Replacement CFL Wattage	Type Fixture				Type CFL Bulb Needed			
1					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
2					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
3					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
4					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
5					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
6					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
7					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
8					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
9					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch
10					Tbl	Flr	Ceil	Wall	Quad	Spiral	Circ	Torch

Bulb Conversion Chart	Incandescent watts	25		40		60		75		100	
	CFL watts	5	7	9		13		18		26	
	Lumens	232	250	400	480	600	890	900	1100	1220	1750	1800

Water Assessment and Replacement

Faucet Aerators Present: ☐Yes ☐No ☐Install _____

Low-Flow Showerheads Present: ☐Yes ☐No ☐Install _____

Comments:

Energy Audit Data Collection Form

Case Type

App. Date:

Application #:

ClientID:

ClientName:

Day Phone:

Assessors:

Date:

ClientAddress:

County:

ClientPrecinct:

Occupants

Household Size

SeniorFlag:

Ethniciy

JuvenileFlag:

ClientLanguage:

DisabilityFlag:

DisabilityType:

Dwelling Type

- Site Built
- Mobile Home
- Duplex
- Multifamily(>4)
- Shelter
- Other

Ownership

- Owner
- Renter
- Other

Primary Heating Fuel

- Electricity
- Natural Gas
- Propane
- Oil
- Wood
- Cookstove

Annual Cost:

Est.% for Heating:

High Use

High Burden

Energy Index

FloorArea Sq': Cond. Stories: Year Built:

Contact Types

1. Applicant/Person of Record
2. Other Contact for Applicant
3. Landlord / Owner 1
4. Landlord / Owner 2

Contact Name:	Relation:	Day Phone:	Type:

Mobile Home

Length:

Width:

Height:

Orient Long Wall: North East South West

Outdoor WH Closet:

Wind Shielding: Well Normal Exposed

Home Leakiness Tight Medium Loose

Ventilated Not Ventilated

Wall Type:		Exterior Type:		Exposure:
1. Baloon Frame	4. Cinder Block	1. Wood	4. Stucco	1. Exposed
2. Platform Frame	5. Adobe	2. Brick (Stone)	5. Masonite	2. Buffered
3. Masonry / Stone	6. Other	3. Metal (Vinyl)	6. Other	3. Attic

Existing Insulation		Add Insulation	MH Insulation
1. None	4. Rockwool	1. None	1. Batt/Blanket (in)
2. Bln Cellulose	5. Fiberglass Batts	2. Bln Cellulose	2. Loose Fill (in)
3. Bln Fiberglass	6. Polystyrene / Other	3. Bln Fiberglass	3. Foam Core (in)

Walls	Wall Type	Stud Size	Exterior Type	Exposure	Orientation	W' / H'	Area	Exist. Insul.	Depth	Add Insul	MH Type / Thick
WALL 01											:
WALL 02											:
WALL 03											:
WALL 04											:
WALL 05											:
WALL 06											:
WALL 07											:
WALL 08											:
WALL 09											:
WALL 10											:

Application #:
ClientName:
ClientID:
Day Phone:
Assessors:
Date:

Walls	Wall Type	Stud Size	Exterior Type	Exposure	Orientation	W' / H'	Area	Exist. Insul.	Depth	Add Insul	MH Type / Thick
WALL 11											
WALL 12											
WALL 13											
WALL 14											
WALL 15											

WindowType	Slider	Frame Type	Glazing	Interior Shade	Ext. Shade	Leakiness	Number	Retrofit	Fabric	Frame
1. Jalousie 2. Slider 3. Fixed 4. Door Window 5. Door Slider 6. Skylight	1. Horizontal 2. Vertical 3. Left - Right 4. Right - Left	1. Wood / Vinyl 2. Metal 3. Improved Metal 4. COLOR - B M W	1. Single Pane 2. Sngl. P. W/ Storm 3. Double Pane 4. Dbl. P. W/ Low E	1. Drapes 2. Drapes w/ Shades 3. Blinds / Shades 4. None	1. Low E Film 2. Solar Screen 3. Awning 4. Carport 5. Porch 6. None	1. Tight 2. Medium 3. Loose 4. Very Loose	# of windows With the same Description	1. Evaluate 2. Add Storm 3. Weatherize 4. Replace 5. Solar Scrn 6. None	C - Charcoal B - Bronze G - Gray	1. 5/16 2. 3/8 **F.Color** B M W

S h a d e

Windows	Type	Slider	Frame	Color	Glazing	Interior	Exterior	%Shade	Leakiness	Wall	Num	Retro	W '	H '	Fab	Frm	F.C
WIND 01																	
WIND 02																	
WIND 03																	
WIND 04																	
WIND 05																	
WIND 06																	
WIND 07																	
WIND 08																	
WIND 09																	
WIND 10																	
WIND 11																	
WIND 12																	
WIND 13																	
WIND 14																	
WIND 15																	
WIND 16																	
WIND 17																	
WIND 18																	
WIND 19																	
WIND 20																	

Housing App#: ____ ClientID: ____ ____ ____

ClientName: ____ Day Phone: ____ Assessors: Date:

Door Type	StormDoor	Number	Measure	Swing	Lockset	Air Seal	Threshold Oak/Bumper	Hinge	Strike
1. H-Core Wood 4. Sngl Sliding Glass 2. S-Core Wood 5. Dbl Pane Glass 3. Insulated Steel	1. Adequate 2. Deteriorated 3. None	# of Doors With the same Description	1. Repair 2. Replace	1. Right Hand 2. Left Hand	1. DeadBolt 2. Knob 3. Combo	1. Jamb Up 4. V-Seal (C/B) 2. Q-Lon 3. Sweep (M/B)	1. 3/4 Oak 4. 1 x 5/8 Bumper 2. 1 Oak 5. 1/2 Bumper 3. 1 Bumper 6. 3/4 Bumper (B)	1. Reg 2. NRP	1. Reg 2. Lrg

DoorCode	DoorType	Area	StormDoor	WallCode	Number	Measure	Swing	Width	Height	Thick	Lockset	Air Seal	Thresh	Hinge	Strike	Viewer
DOOR 01																
DOOR 02																
DOOR 03																
DOOR 04																
DOOR 05																
DOOR 06																

Unfinished Attic

AtticType	JoistSpace	Type	Material
1. Unfloored 2. Floored 3. Cathedral / Flat	1. 16 in 2. 18 in 3. 24 in	1. Batts 2. Blown 3. Other	1. Fiberglass 2. Rockwool 3. Cellulose

Existing Insulation

AtticCode	AtticType	Joist Sp	Area	Type	Material	Depth
UFA 01						
UFA 02						
UFA 03						

Mobile Home Ceiling

Roof Type	Roof Color	Exist Insula
1. Bowstring 2. Flat 3. Pitched	1. Reflective 1. Shaded 2. Normal	1. Batt/Blanket 1. Loose Fill 2. Foam Core

Type	Color	Insula	Depth in

Cathedral % ____ Roof Height at Center ____

Additional Framing

Type: 1. Cathedral 2. Kneewall 3. Skylight — Type ____ Sq ft. ____

Centers: 1. 16 in 2. 18 in 3. 24 in — O/C ____

Heat Sources: 1. WH / Furn 2. Exh Fan 3. Rec Lght — HeatSrc ____

Hatch: 1. Replace 2. WZNstrip 3. Batt/Baffle — Hatch ____

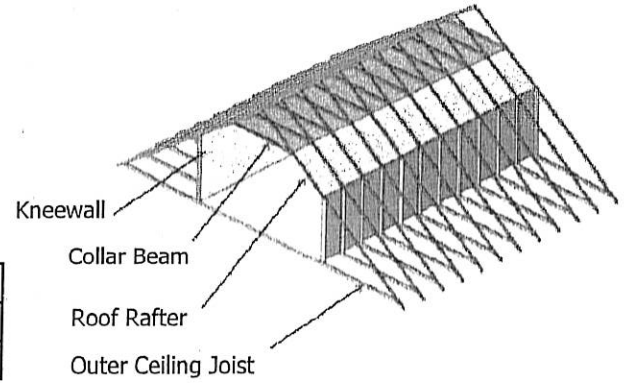
Stairbox: Exist ○ Add ○ Batt/Baffle ○

Finished Attic

Area Type	Floor Type	Type	Material
1. Outer Ceiling Joist 2. Collar Beam 3. Kneewall 4. Roof Rafter	1. Unfloored 2. Floored	1. Batts 2. Blown 3. Other	1. Fiberglass 2. Rockwool 3. Cellulose

Existing Insulation

AtticCode	AreaType	Floor	Area	Type	Material	Depth
FA 01						
FA 02						
FA 03						



The four parts of a finished attic define the envelope of the heated area

Housing App#: ____ ClientID: ____ ____ ____

ClientName: ____ Day Phone: ____ Assessors: ____ Date: ____

Foundations

Foundation Type

1. Conditioned
2. Non Conditioned
3. Vented Non Cond.
4. Unintentionally Cond.
5. Uninsulated Slab
6. Insulated Slab
7. Exposed Floor

FoundCode	FoundType
FD 01	
FD 02	
FD 03	

Floor Area (sq ft) ____

Exist. Insul. R-Value ____

Sill Joist Spacing (in) ____

Perimeter to Insul (ft) ____

F. Wall Height (ft) ____

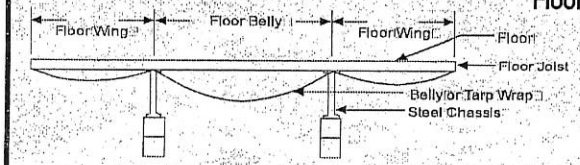
Height Exposed (%) ____

Perimeter (ft) ____

Exist. R-Value ____

Foundation Insulation options ◎ Floor ◎ None

Mobile Home Floor



Floor Joist Direction ◎ Lengthwise ◎ Widthwise

Is there a Skirt? ◎ Yes ◎ No

Floor Wing Description

Joist Size (in) ____

Loose Insul (in) ____

Batt Insul. Location

1. Attached to flooring
2. Between Joist
3. Attached Under Joist
4. None"

Location ____ Thickness ____

Floor Belly (Center) Desc.

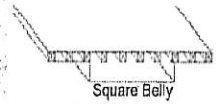
Joist Size (in) ____

Loose Insul (in) ____

Batt Insul. Location

1. Attached to flooring
2. Between Joist
3. Attached Under Joist
4. Draped Below Joist
5. None

Location ____ Thickness ____



Belly Configuration

◎ Square
◎ Rounded
◎ Flat

Belly Condition

◎ Good
◎ Average
◎ Poor

Max Depth Belly Cavity (in) ____

Mobile Home Shell (Continued)

Walls

MH Insulation

1. Batt/Blanket (in)
2. Loose Fill (in)
3. Foam Core (in)

MH Type / Thick ____

Enter the wall area not accessible for insulating.

Uninsulatable Area (sq ft) ____

Windows

Average Size		Number Facing			
Width	Height	North		East	
		South		West	

Doors

Average Size		Number Facing			
Width	Height	North		East	
		South		West	

Carport / Porch / Roof

Width ____ Length ____

Orientation N E S W

Mobile Home Additions

Use the "A" suffix in the Wall, Window, Door Code to signify a MH Addition; ie Wall01A, Win01A, D01A
Utilize the Wall, Window, and Door data collection pages, to record MH Addition information

Walls

Stud Size ____

Orientation North East South West

Ventilation Ventilated Not Ventilated

MH Addition Insul

1. Batt/Blanket (in)
2. Loose Fill (in)
3. Foam Core (in)

MH Addition - Wall config

1. Max Wall height at Interior wall
2. Max Wall height in Rm center
3. All Addition Wall the same height

MH Type / Thick ____

Addition Interior Wall Max Height ____ Max Width ____

Windows

Average Size		Number Facing			
Width	Height	North		East	
		South		West	

Doors

Average Size		Number Facing			
Width	Height	North		East	
		South		West	

MH Addition - Floor Type

1. Crawl Space
2. Slab on Grade
3. Exposed Floor

Joist Size ____

Addition Floor Batt

1. Attach to flooring
2. Between Joist
3. Attach Under Joist
4. None

Depth in ____ Add inches ____

FlrLength ____ Width ____

Ceiling Joist Size ____

Roof Color

1. Reflective
1. Shaded
2. Normal

Exist Insula

1. Batt/Blanket
1. Loose Fill
2. Foam Core

Depth in ____

Housing App#: _____ ClientID: _____ _____ _____

ClientName: _____ Day Phone: _____ Assessors: Date:

Heating Equipment Type		Fuel Type		Equipment Location
1. Gravity Furnace	6. Heat Pump	1. Natural Gas	5. Oil	1. Heated Space
2. Forced Air Furnace	7. V-Space heater	2. Electricity	6. Propane	2. Uncond. Space
3. Sealed Combustion	8. UnV-Space Heater	3. Wood	7. Coal	3. Unintentional Heated
4. Fixed Elect Resistance	9. V-Wall Furnace	4. Kerosene	8. Other	
5. Portable Electric	10. UnV-Wall Furnace			

Uninsulated Supply Ducts

Duct Type Rect/Round	Length	Width	Height if Rectangular	Diameter if Circular

MH	Primary Sys	SysCode	EquipType	FuelType	% Supplied	Equip Location	Manufacturer	Model	Sq'	Watt	Amp	Volt		HSPF or	Yr.Purch.
		HS01											Heat Pump Details		
		HS02													
		HS03													

Required Heating System Details

Input Heating Units		Condition	
1. No Input	4. Lbs/hr	1. Good	4. Broken (non-function
2. kBTU/hr	5. CCM	2. Fair	5. None
3. Gals/hr		3. Poor (functions)	

Mobile Home Heating System Details

MH Duct Location	MH Duct Insulation Location	
1. Floor	1. Above Duct	4. No Insulation
2. Ceiling	2. Below Duct	
3. None	3. Around or Ductboard	

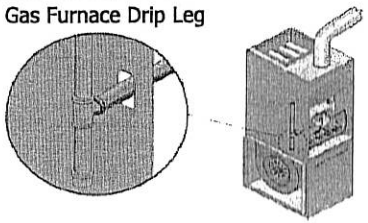
SysCode	MH Duct Loc	MH Duct Insul. Loc
HS01		
HS02		
HS03		

SysCode	InputUnits	InputRating	Output Cap. (in heat units)	SS Eff. %	EquipCond.	Smart Therm	Auto Vent Damper Present	Auto Vent Damper Recomd	Flue Dia	Pilot Light / IID IID	Pilot Light / IID PilotLight	Pilot Light / IID Summer	PowerBurn	Retention Head Present	Retention Head Recomd
HS01															
HS02															
HS03															

Additional Heating System Details

Burner Condition	Pilot Condition	Elect. Serv. Switch
1. Good	1. Good	1. Good
2. Fair	2. Fair	2. Fair
3. Poor (working)	3. Poor (working)	3. Poor (working)
4. Broken (not working)	4. Broken (not working)	4. Broken (not working)

Gas Furnace Drip Leg



Thermosstat Type

1. Mech (bimetallic)
2. Mech (mercury)
3. Elect (no setback)
4. Elect (w/ setback)

SysCode	BurnerCond	PilotCond	E.Serv.Switch	C/O levels	GasLeak	Cracked Heat Exchanger	Fuel Shut Off Not Present	Drip Leg Not Present	Therm.Type	Day Setting	Night Setting
HS01											
HS02											
HS03											

SysCode	Additional Comments
HS01	
HS02	
HS03	

Housing App#: ClientID: Assessors: Date:

ClientName: Day Phone:

Cooling System Details

AC Unit Type
1. Central
2. Window
3. Heat Pump
4. Evaporative

AC Code	Additional Comments
AC0___	
AC0___	

AC Code	AC Type	AC Manufacturer	AC Model #	Area Cooled (sq')	Size (kBTU/hr)	SEER	Or Year Purchase
AC01							
AC02							
AC03							
AC04							

Mobile Home Additional Comments

Mobile Home Cooling System Details

EfficiencyUnits	DuctLocation	DuctInsul.
1. COP	1. Floor	1. Above Duct
2. EER	2. Ceiling	2. Below Duct
3. SEER	3. None	3. Around Duct
		4. None

Primary	Mobile Home	Capacity (kBTU/hr)	Eff. Rating	Eff. Units	DuctLoc	Insul	% Cooled

Ducts / Infiltration

Air and Duct Leakage Method

- Whole House Blower Door Infiltration
- Blower Door Subtraction
- Duct-Blower Pressure Test
- Pressure Pan Measurements

WHOLE HOUSE INFILTRATION REDUCTION / BLOWER DOOR

Pre Infiltration Reduction — Leakage (CFM) ____ Pressure Differential (Pa) ____ Comment ____

WHOLE HOUSE PRE / POST BLOWER DOOR MEASUREMENTS

Pre WZN — Leakage (CFM) ____ Pressure Differential (Pa) ____

Duct Operating Pressures Pre Duct Sealing — Supply (Pa) ____ Return (Pa) ____

BLOWER DOOR SUBTRACTION

Pre WZN, Registers OPEN — Leakage (CFM) ____ Pressure Differential (Pa) ____

Pre WZN, Registers CLOSED — Leakage (CFM) ____ Pressure Differential (Pa) ____ Duct/House Pres Diff(Pa) ____

Duct Operating Pressures Pre Duct Sealing — Supply (Pa) ____ Return (Pa) ____

DUCT BLOWER PRESSURE TEST

Pre Duct Sealing	Total	Outside
Fan Flow (CFM)		
Duct Pressure (Pa)		
House Pressure (Pa)		

Pre Infiltration Reduction — Leakage (CFM) ____ Pressure Differential (Pa) ____

Duct Operating Pressures Pre Duct Sealing — Supply (Pa) ____ Return (Pa) ____

PRESSURE PAN MEASUREMENTS

Pre Duct Sealing — Sum of Pressure Pan Reading (Pa) ____

Pre Infiltration Reduction — Leakage (CFM) ____ Pressure Differential (Pa) ____

Duct Operating Pressures Pre Duct Sealing — Supply (Pa) ____

PRESSURE PAN MEASURMENTS

Location	Pre	Post

CARBON MONOXIDE READINGS

Appliance	Pre	Post

Notes:

Housing App#: ____ ClientID: ____ ____ ____
ClientName: ____ Day Phone: ____ Assessors: Date:

BASELOADS

Water Heater(s)

WH Code	Manufacturer	Model:	Serial #:
WH01			
WH02			

Fuel Type	Equipment Location	Input Units
1. Natural Gas	1. Heated Space	1. kBTU
2. Electricity	2. Uncond. Space	2. kW
3. Propane	3. Unintentional Heated	

If WH wrap is present, skip Insul.Thick & Insul,Type

Is the first 5' of WH supply pipe insulated?

Insulation Type
1. Fiberglass
2. Polyurethane

WH Code	Fuel Type	Equip.Loc.	Rated Input	Input Units	Gallons	WH Wrap	Pipe Insul.	Original Tank Insul. Thick.	Insul. Type	Water Heater Condition Good	Fair	Poor	Burner Condition Good	Fair	Poor	CO Level	WH Stand
WH01																	
WH02																	

Comments:

Shower Heads

# of Shower Heads	
Shower Use (min/day)	
Average GPM	

Refrigerator

Manufacturer ____ Model ____

Refrigerator Style		Defrost		Refrigerator Location	Size cu ft
1. Top Freezer	4. Sngl Door w/ Freezer	1. Automatic	3. Partial Auto	1. Heated Space	
2. Side by Side	5. Bottom Freezer	2. Manual	4. Other	2. Uncond. Space	
3. Single Door	6. Other			3. Unintentional Heated	

Available Space Dimesions

Height(in) ____
Width(in) ____
Depth(in) ____

Ice Maker

Door Type	Door Swing	Freezer Type
Single	Right Hand	Top
Double	Left Hand	Bottom

Consumption

Label / Database Annual Consumption

kWhr/yr	Refrig Age		Door Seal Condition
	1. < 5 Yrs.	3. < 15 Yrs.	1. Good
	2. < 10 Yrs.	4. > 15 Yrs.	2. Some Wear
			3. Visible Gaps

Or

Metered Consumption

Minutes ____ Defrost
Meter kWh ____ Manual Defrost
Temp F ____ Includes Defrost Cycle

Lighting System

Room Description		Location		Lamp Type
1. Family	5. Dining	1. Ceiling	4. Wall	1. Standard
2. Kitchen	6. Bedroom	2. Floor	5. Closet	2. Floor
3. Living	7. Bathroo	3. Table	6. Other	3. Other
4. Rec	8. Utility			

Light Code	Room Desc	Room Location	Lamp Type	Qaunt.	Size (watts)	Usage (hr/day)
LT01						
LT02						
LT03						
LT04						
LT05						
LT06						
LT07						
LT08						
LT09						
LT10						

Housing App#: ____ ClientID: ____ ____ ____

ClientName: ____ Day Phone: ____ Assessors: Date:

HEALTH & SAFETY

Whole House

Carbon Monoxide Measurements

Alarms Needed

- Smoke Detector
- CO Monitor

Rm with Heating System (ppm) ____

Rm with Water Heater (ppm) ____

Living Area (ppm) ____

Kitchen (ppm) ____

Comments

Building Shell

Attic

- Recessed Lights Present
- Chimney/Flue Incorect Shielding
- Wiring/Electrical Problems
- Inadequate Ventilation
- Water Leaks Present
- Moisture Problems Evident
- Vermiculite Present
- Other Problems

Walls

- Wiring/Electrical Problems
- Water Leaks Present
- Moisture Problems Evident
- Lead Based Paint is Likely
- Asbestos in Siding is Likely
- Other Problems

Crawlspace / Basement

- Vapor Barrier Needed
- Wiring/Electrical Problems
- Water Leaks Present
- Plumbing Leaks Present
- Moisture Problems Evident
- Other Problems

Equipment

Worse Case Condition Draft Measurements - SPACE HEATING SYSTEM

Date	Conducted During: Audit	Conducted During: Inspection	SysCode	Outdoor Temp (F)	Draft (Pa or in H20)	Spillage Time(sec)	Comments
			HS0__				
			HS0__				
			HS0__				

Worse Case Condition Draft Measurements - WATER HEATING SYSTEM

Date	Conducted During: Audit	Conducted During: Inspection	SysCode	Outdoor Temp (F)	Draft (Pa or in H20)	Spillage Time(sec)	Comments
			WH0__				
			WH0__				

Wood Stove / Fireplace

- Wood Stove / Fireplace is Present
- Improper Venting
- Inadequate Combustion Air

Clothes Dryer

- Improper Venting

Cook Stove CO Measurements

CO Measurement Oven (ppm) ____

CO Measurement Burner 1 (ppm) ____

CO Measurement Burner 2 (ppm) ____

CO Measurement Burner 3 (ppm) ____

CO Measurement Burner 4 (ppm) ____

Gas Leak Present

Exhaust Fans

Bathrooms

- Missing
- Non Operational
- Improper Venting

Kitchen

- Missing
- Non Operational
- Improper Venting

Air-to-Air Heat Exchanger

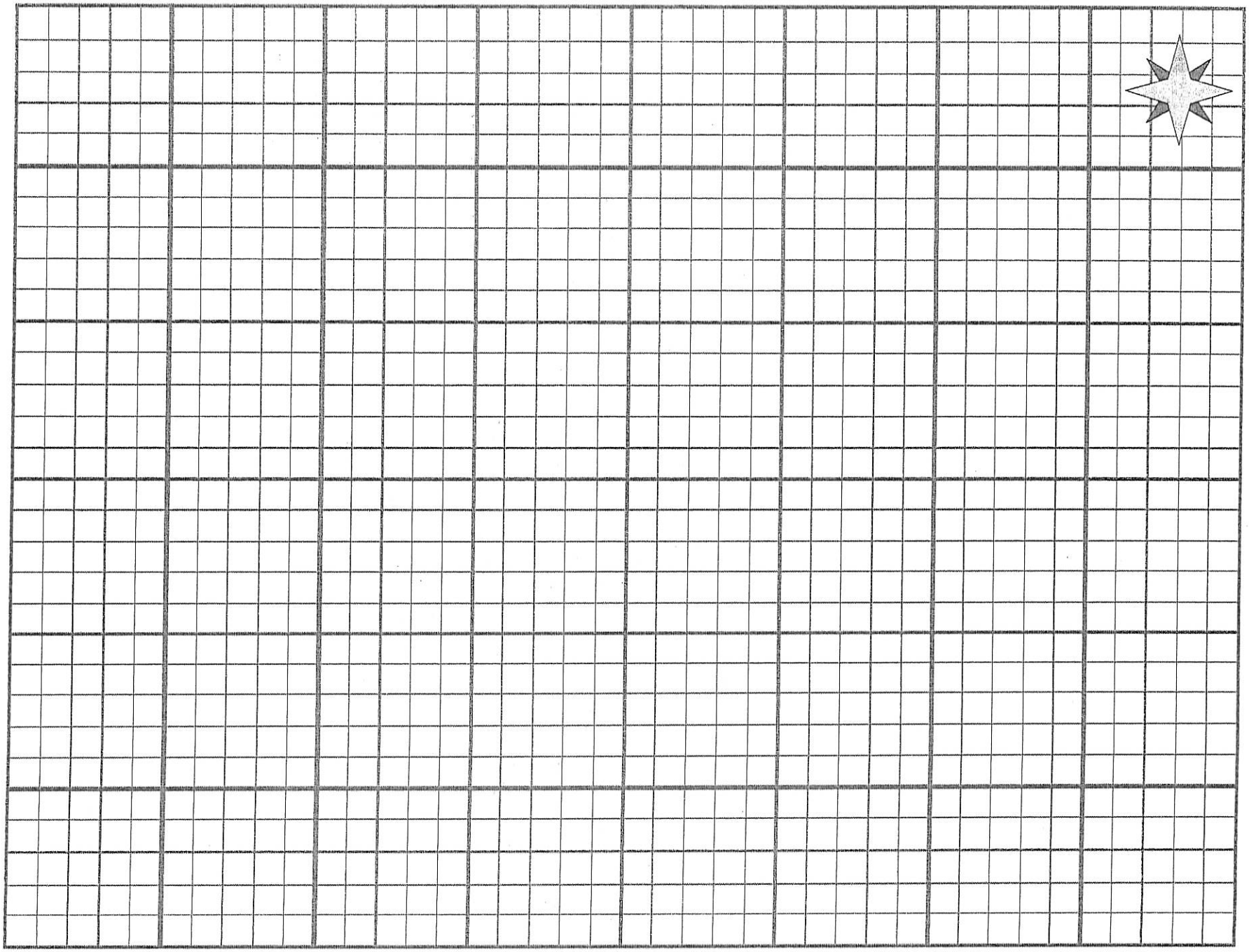
Exist Non Operational

Housing App#:

ClientName:

Include the locations of; Heaters, A/C Units, Water Heaters, Attic Hatches, and Vents

Shielded - closely surrounded by other buildings Normal - surrounded by trees / other bldgs Exposed



MONTHLY WEATHERIZATION PRODUCTION REPORT FOR _____

Agency Name _____

Contact Person _____ Contract # _____

Total number of BWRs submitted with this report _____

County	Job Numbers

County	Job Numbers

County	Job Numbers

Weatherized Units Finished

Single Family Site Built (Own)	
Single Family Site Built (Rent)	
Multi-Family	
Mobile Home (Own)	
Shelter	
Total	0

Total People Assisted in Households

Elderly*	
Persons with disabilities*	
Native American*	
Children*	
Total	0

Units By Occupancy

Elderly-Occupied*	
Disabled-Occupied*	
Native American-Occupied*	
Children-Occupied*	
High Residential Energy User*	
Household with High Energy Burden	

Units By Primary Heating Fuel

Natural Gas	
Fuel Oil	
Electricity	
Propane/LPG	
Kerosene	
Wood	
Other	
Total	0

Other Unit Types (not included in total units)

Re-weatherized	
Low Cost/No Cost	
Total Number of Dwellings In Progress (On the Back)	
Total Number of Request for Assistance on File	
Leveraged Units (Units completed with other funds Not in DOE budget)	

(*) Asterisk allows overlap

Certification

I certify that the information provided herein is true and accurate to the best of my knowledge.

Name _____ Signature _____

Title _____ Date _____

Work In Progress Report

This Report is Due to ADECA-EWT By the 5th Working Day of Each Month

	Client Name	Job Number	Date Assessed	Date Started	Date Completed	Comments
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

Instructions

Please complete this report for all dwellings shown as being in progress on the Weatherization Production Progress Report.

Name	From client file
Job Number	From client file
Date Assessed	From Job Order sheet or Work Order
Date Started	Date construction work started on dwelling
Date Completed	Date construction work completed on dwelling

RENTAL RELEASE FORM

This is to certify that I, _____ (Homeowner), give my permission for the Weatherization Assistance Program conducted by the _____ (Agency) to perform the specified weatherization measures on the home owned by me which is occupied by _____ (Tenant). I do hereby release and pledge to hold blameless the _____ (Agency), its staff and volunteer assistants, from any liability whatsoever in the performance of this authorization or eventually arising there from. If the above-named tenant is occupying the dwelling either rent free, or renting as per agreed terms, I further agree that the tenant shall not be evicted from the dwelling for at least one year (or longer) provided he/she complies with the obligations and responsibilities agreed upon in allowing him/her to occupy this dwelling. Also, if the tenant is renting, I agree not to raise the rent for a period of one year on said tenant due solely to the increased value of the dwelling because of the weatherization assistance, and no undue or excessive enhancement shall occur to the values of the dwelling unit(s).

I also agree to pay for 25% (twenty-five percent) of the total construction costs of the weatherization assistance on this dwelling. I understand that the advance payment will be made to the _____ (Agency) who will place payment in an escrow account and payment will not be made to the contractor until after the final inspection and the inspector is satisfied with the quality of the work.

_____
(Signature of Owner) (Date)

_____
(Signature of Tenant) (Date)

PROPERTY ADDRESS OR LOCATION OF DWELLING:

_____

_____

_____
(Post Office Box Is Not Acceptable)

I have lived in the above dwelling since _____ and do not plan to move in the immediate future.
(Month) (Year)

_____
(Signature of Tenant) (Date)

STATE of ALABAMA
POLICY MEMORANDUM
REPAYMENT GUIDELINES of
WEATHERIZATION FUNDS

RE: Properties Receiving Weatherization Assistance

Dwellings that have been weatherized utilizing DOE/LIWAP funds **may not be sold for a period of one year** from the date of the final inspection as indicated on the Building Weatherization Report (BWR). In the event that homeowner or property owner chooses to sell before the one-year period, then he/she will have to refund all weatherization funds utilized to weatherize the dwelling.

I have read and understood the policy and do hereby agree to abide by the above guidelines.

_____ _____

Signature of Homeowner Date

_____ _____

Weatherization Coordinator Date

Revised 4/1/15

Client File Checklist

Client Information

- ☐ Weatherization Application
- ☐ Proof of Ownership
- ☐ Identification (Picture ID & SS Cards)
- ☐ Income Verification
- ☐ Priority Points Worksheet
- ☐ Directions to Home

Client Education

- ☐ Client Education Information and Agreement
- ☐ Renovate Right Pre-Renovation Form
- ☐ Mold Inspection and Release Form
- ☐ Health and Allergy Concerns Form
- ☐ Health and Safety Checklist

Client Consent

- ☐ Homeowner Consent Form
- ☐ Rental Release Form (if applicable)
- ☐ Repayment Guidelines
- ☐ Utility Consumption Survey Approval Form
- ☐ Client Complaint and Resolution (if applicable)
- ☐ Weatherization Deferral Form (if applicable)
- ☐ Warranty for Weatherization Work

Home Information

- ☐ Before and After Pictures
- ☐ Priority Measures List and/or Energy Audit
- ☐ Historic Preservation Review
- ☐ Assessment Booklet
- ☐ Combustion Appliance Readings
- ☐ Lead Safe Weatherization Documentation (if applicable)

Contractor Information

- ☐ Job Order/Bid Sheet
- ☐ Authorization to Proceed
- ☐ Change Order (if applicable)
- ☐ Invoice

Final Inspection

- ☐ QCI Final Inspection Form
- ☐ Building Weatherization Report
- ☐ Client Sign-Off

Signature_____ Date _____

I have reviewed the contents of this Client File and attest that forms indicated above are present and complete.

Utility Consumption Survey Approval Form

I, _____ give the _____
(Client Name) (Utility Company)

permission to release my utility bills to the _____
(Agency)

for the purpose of tracking the effectiveness of the Weatherization Assistance Program sponsored by the Department of Energy (DOE) and the Energy Division of the Alabama Department of Economic and Community Affairs (ADECA). This waiver provides access to all billing information, including both consumption and expenditure data.

Utility1:
My account number is: _____
Account Number

Utility 2:
My account number is: _____
Account Number

_____ _____
Applicant Signature Date

MONTHLY EXPENDITURE REPORT

WEATHERIZATION ASSISTANCE PROGRAM

GRANT NUMBER _____

REPORT NUMBER _____

TO: **Alabama Department of Economic & Community Affairs**
Energy Division
P. O. Box 5690
Montgomery, Alabama 36103-5690
Attn: Brenda Mock

FROM:

REPORT OF ACTUAL EXPENDITURES FOR THE PERIOD ENDING _____

ELIGIBLE ACTIVITY	GRANT BUDGET	ACTUAL EXPENDITURES	ESTIMATED EXPENDITURES	FUNDS PREVIOUSLY RECEIVED	AMOUNT OF THIS REQUEST	BUDGET BALANCE
ADMINISTRATION						$0.00
T&TA						$0.00
PROGRAM OPERATIONS						$0.00
LIABILITY INSURANCE						$0.00
FINANCIAL AUDIT						$0.00
EQUIPMENT						$0.00
HEALTH & SAETY						$0.00
TOTALS	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

ACTUAL CURRENT CASH BALANCE $_____

I certify that, to the best of my knowledge and belief, that this report is true in all respects and that all funds have been and will be expended for the purpose of the grant agreement referenced and that the amount now requested represents our immediate cash needs and complies with the Cash Management Improvement Act.

ADECA APPROVALS:

Signature of Authorized Official — Date

Director, Energy Division — Date

WARRANTY FOR WEATHERIZATION WORK

Client Name: _____

Address: _____

_____

Date of Final Inspection: _____

Weatherization work performed on your home is warranted from defects due to defective materials or workmanship for a period of one (1) year from the date of Final Inspection listed above.

Should defects from materials or workmanship arise, correction will be made at no cost to the owner/client.

If defects arise the owner/client must contact the Community Action Agency administering the weatherization program to alert them to the issue within a year of the date listed above. The Community Action Agency will ensure the contractor corrects the problem.

Issues that arise outside of the one year warranty will not be covered.

Client Name: _____

Client Signature: _____

Date: _____

Agency: _____

Agency Representative Signature: _____

Date: _____

Weatherization Deferral Form

Project Number and Energy Audit Date

Client Name

Address

City & Zip Code

Home or Message Phone Work Phone

Deferral of weatherization work on the above home is based on the following condition(s):

Recommended measures for remedying the existing condition(s) are as follows:

I certify that the above information is complete and accurate.

Signature of Agency Representative Date

Client Information: I understand weatherization work has been deferred on my home for the above reasons. I understand the conditions under which weatherization work may continue. I understand I must contact the weatherization agency within 12 months of original application date if conditions have changed and that these changes may allow work to resume. I understand if I contact the weatherization agency more than 12 months after the original application date I will need to reapply for weatherization services.

Client Signature Date

STATE OF ALABAMA

_____COUNTY

ATTACHMENT A TO

WEATHERIZATION CONTRACT

DATED: _____

JOB NO: _____

CLIENT NAME: _____

ADDRESS: _____

_____

CONTRACTOR: _____

AUTHORIZATION TO PROCEED

1. The contractor listed above is hereby authorized to proceed, and hereby agrees to proceed, with Weatherization of the home of the Client listed above, as described in the Contractor's Bid Sheet for this job.
2. Contractor agrees to commence work within three weeks from the date of the execution of attachment A and to complete work within four weeks from date of execution of Attachment A, or date agreed upon between the contractor and the Energy Program Manager/Local Agency.
3. For the consideration named herein, contractor agrees to furnish all labor, equipment and materials to do all the work listed in his Bid Sheet dated _____.

For the amount herein stated:

Materials $ _____ **Labor $** _____ **Total $** _____

Attachment A executed the _____ day of _____, 20____.

_____

WEATHERIZATION PROGRAM DIRECTOR

_____

CONTRACTOR (OR REPRESENATIVE)

ADECA-Energy 12/08

Building Weatherization Report (BWR)

OMB Approved Number. 38-R0198

☐ Check here if both DOE and LIWAP home

County _____ Job# _____ Number of Priority Points _____ Assessor _____ Contractor _____

Date Assessed _____ Date WX Work Started _____ Date WX Work Completed _____ Final Inspection Date _____

1. Client Information Applicant Name _____ Physical Address _____

☐ Own ☐ Rent City & Zip Code _____ Phone Number _____

No. of Total Occupants _____: No. Children _____ No. Elderly _____ No. Disabled _____ No. Native Americans _____ No. Other _____

2. Building Information *Household Type:* ☐ Site Built ☐ Mobile Home ☐ Multi Family ☐ Comfort Zone Weatherization

Structure Info: ☐ One-Story ☐ Two-Story ☐ Wood ☐ Brick ☐ 8" Masonry ☐ Vinyl Siding ☐ Asbestos Siding ☐ Other _____

Floor Area _____ Sq Ft No. of Windows on House _____ No. of Storm Windows Pre-WX _____ No. of Exterior Doors _____ No. of Window A/C Units _____

3. Primary Heat Source ☐ Electricity ☐ Propane ☐ Natural Gas ☐ Kerosene ☐ Wood ☐ Fuel Oil ☐ Other: _____

Method of Heat ☐ Space Heater(s) # _____ ☐ Radiant Heat ☐ HVAC (Tune-up & Filters Ordered?) ☐ Wall/Floor Furnace ☐ Other: _____

4. House Condition before Weatherization ***Upon Assessment***

GOOD (tight) **FAIR** (cracks, loose fit) **POOR** (holes, cracks, leaks)

HOUSE COMPONENT	GOOD	FAIR	POOR
CELLAR / CRAWL SPACE	☐	☐	☐
WINDOWS	☐	☐	☐
DOORS	☐	☐	☐
EXTERIOR WALLS	☐	☐	☐
ROOF	☐	☐	☐

Whole Home Inspected for Insulation? ☐ Yes ☐ No

INSULATION	Existing Inches	Existing R-Value	Inches Added	Updated R-Value
ATTIC				
SIDEWALL				
FLOOR				
DUCTS				

5. Measure Costs *If not listed below, itemize on Worksheet*

		Material	Labor
Insulation	☐ Attic		
	☐ Sidewall		
	☐ Floor/Belly		
Smart Thermostat			
Compact Fluorescent Lamps (CFLs)			
Repairing, Sealing and/or Insulating Ducts			
Floor Insulation			
Vapor Barrier			
Refrigerator: (Includes Delivery, Install & Removal)			
Measures Related to Incidental Repairs			
*Other General Energy Saving Measures (On Back)		$0.00	$0.00
Caulking	Tubes Used # _____		
Windows	Glass Replacement # _____		
	Storm Windows # _____		
	Glazing # _____		
	**Replacements # _____		
Exterior Doors	Repairs # _____		
	**Replacements # _____		
	Weatherstripping # _____		
	Thresholds # _____		

6. Cost Summary

Materials	$0.00
Labor	$0.00
Agency	
TOTAL	**$0.00**

7. H&S Cost Summary

Materials	$0.00
Labor	$0.00
TOTAL	**$0.00**

(Itemize on Worksheet)

8. Blower Door #'s

Pre _____

Target _____

Post _____

My signature certifies that all information reported on this form is accurate.

WX Coord. _____ Date _____

*** See Priority List, Itemize on Worksheet**

**** Justification Required**

5. Measures: (continued from front)

ITEM	Material Cost	Labor Cost
TOTAL	$0.00	$0.00
	Above total transferred to "Other"	Above total included in block 6

7. Health & Safety

ITEM	Material Cost	Labor Cost
CO Detector		
Smoke Alarm		
Fire Extinguisher		
TOTAL	$0.00	$0.00

Agency Cost - (Use figures from last report)

2.1 Tools & Equipment _____

2.2 Transportation _____

2.3 On-Site Supervision _____

Total $0.00 (a)

Number of Dwellings Completed _____ (b)

$0.00 ÷ _____ = _____

COMMENTS

CHANGE ORDER AUTHORIZATION

Date: _____

Client: _____ Job # : _____

Description of work changes agreed upon:

Materials: $_____ Labor: $_____ Total * $_____

_____ _____

WEATHERIZATION COORDINATOR CONTRACTOR (OR REPRESENTATIVE)

Description of Changes	**Dollar Amount of Change**
1.	$
2.	$
3.	$
4.	$
5.	$
6.	$
7.	$
8.	$
	Total * $

* Totals should be the same

If Change Order is more than 10% of original bid it must be approved by ADECA

WEATHERIZATION CLIENT EDUCATION INFORMTION AND AGREEMENT

I acknowledge the receipt of the client education materials as indicated on this form. Upon signing this form, I acknowledge that I may no longer be eligible for weatherization services at this residence. I release the State of Alabama, the local weatherization agency and its employees from all further responsibilities for the completed improvements. If a smoke alarm, carbon monoxide detector, or set back thermostat has been installed, I assume all responsibility regarding battery replacement and testing as recommended by the manufacturer.

In return for receiving weatherization services, I agree to do the following:

Read the following client education materials left by the agency (indicate pamphlets given to client).

____ The Lead-Safe Certified Guide to Renovate Right

____ Energy Savers Booklet Tips on Saving Energy & Money at Home

____ A Brief Guide to Mold, Moisture, and Your Home

____ Carbon Monoxide-Guard Against A Silent Killer

____ A Citizen's Guide to Radon: The Guide to Protecting Yourself and Your Family from Radon

Have furnace filters cleaned or replaced at least every other month.

Where possible, keep the thermostat at 60 degrees in the winter and at 76 degrees in the summer.

Where possible, turn down the thermostat 10 or more degrees at night or when away from the home for more than two (20) hours.

During the winter, try to open all south facing window coverings on sunny days and close all window coverings at night to hold the heat.

Make sure heating vents and registers are not blocked.

Have the coils on refrigerators and freezers cleaned at least once a year.

Use kitchen and bathroom fans to reduce excessive moisture buildup.

In the summer, use natural ventilation and window shading to help cool the home.

Effectively use kitchen and other household appliances to save energy.

Be efficient in using hot water.

_____ _____

Weatherization Recipient Date

Client Grievance Form

Client Information

First Name	Middle	Last Name
Date	Program	Phone
Physical Address	City	Zip Code

Nature of Grievance:

- ☐ Denial of Service
- ☐ Ineligible
- ☐ Deferral Policy
- ☐ Application not handled in timely manner
- ☐ Dissatisfaction with work

Details of Grievance:

_____

_____

Action Taken:

- ☐ Client directed to appropriate program staff
- ☐ Client received copy of agency dispute resolution process and Service Review Request
- ☐ Client sent copy of agency dispute resolution process and Service Review Request
- ☐ Other

Details of Action Taken:

_____

_____

Program Staff contacted: ☐ Yes Date contacted: _____

Name of Program Staff Contacted: _____

☐ Copy of Client Grievance Form in clients file ☐ Grievance noted in program database

Grievance Received By: _____

WEATHERIZATION CLIENT SIGN-OFF

I _____, herby attest to the following:

- ☐ Weatherization Work done on my home has been completed.
- ☐ I have been made aware of any warranties available to me.
- ☐ I have been informed of maintenance requirements for equipment which may have been installed.
- ☐ The worksite was left clean.
- ☐ I am satisfied with the weatherization work performed on my home.

_____ _____

Client Signature Date

_____ _____

Weatherization Coordinator Date

GRIEVANCE POLICY

1. Local agencies have the responsibility to resolve all client complaints, including applicant denials, project deferrals, and work quality issues.

   a. A grievance must be filed in writing for a local agency to take action.

   b. Local agencies' process must include the following client rights:

      (1) Have a representative speak on behalf of the client, including an interpreter if needed.

      (2) Review and obtain copies of the client's file.

      (3) Present oral and written statements.

      (4) Call witnesses, and question or cross-examine witnesses.

2. Local agencies will inform all clients at time of application of their right to file a grievance and request a fair hearing. Local agencies will also be responsive to requests for information regarding the dispute resolution process.

3. Clients may withdraw a grievance at any time with the understanding that they may re-enter the process at the point they withdrew if a complaint is not resolved.

4. Local agencies must:

   a. Document each step of a grievance proceeding, including communication with the client.

   b. Inform ADECA of final resolution if complaint or grievance is settled quickly.

   c. Provide ADECA with the minutes of the grievance hearing and all applicable complaint and grievance documentation of the case.

5. ADECA's role and responsibilities:

   a. Monitor local agency's use of complaint/grievance process.

   b. Be available for technical assistance and consultation.

   c. Review complaints that ADECA receives, and determine if client has gone through all steps of approved dispute resolution process. If not, refer client to local agency to complete approved process.

   d. Provide local agency with a formal ruling on each case within thirty (30) days of receipt of case documentation.

Health and Allergy Concerns Form

NOTICE OF WARNING

TO: RECIPIENTS OF AIRBORNE INSULATION/TWO-PART FOAM

FROM: _____

Please be advised that the use of airborne insulation and/or two-part foam may be hazardous to your health. Particular individuals with respiratory and breathing disorders should exercise extreme caution when the possibility of contact with insulation and/or two-part foam is imminent.

Because of the threat of possible illness resulting from the use of insulation and/or two-part foam, _____ (Agency) requires that all occupants of the household with potential illnesses vacate the premises during the insulation process.

THIS AGENCY WILL INSTALL CELLULOSE INSULATION THAT IS BLOWN AND/OR TWO-PART FOAM UNDER THE FOLLOWING TERMS AND CONDITIONS:

1. THE PREMISES MUST BE VACATED OF INDIVIDUALS WITH POTENTIAL ILLNESSES THAT COULD BE EXACERBATED OR CAUSED FROM THE INSTALLATION OF INSULATION AND/OR TWO PART FOAM AND MUST REMAIN SO FOR A REASONABLE TIME AFTER INSTALLATION.

2. THIS AGENCY MUST BE NOTIFIED OF ANYONE WITH RESPIRATORY/BREATHING PROBLEMS OR PROBLEMS OF PAST RESPRITRATORY ILLNESSES. (THIS AGENCY MAY CHOOSE TO USE ALTERNATIVE INSULATING MATERIALS).

3. THE AGENCY, _____ WILL NOT ASSUME RESPONSIBILITY OR LIABILITY FOR ANY ALLEGED INJURIES/ILLNESS RESULTING FROM THE INSTALLATION OF INSULATION OR TWO-PART FOAM FOR FAILURE OF OCCUPANTS TO FOLLOW THE WRNINGS.

I/WE HAVE RECEIVED A COPY OF THE ABOVE WARNING AND UNDERSTAND THE NATURE OF THESE WARNINGS. I/WE AGREE TO COMPLY WITH THE WARNINGS.

_____

CLIENT SIGNATURE DATE

_____

AGENCY REPRESENATIVE DATE

Weatherization Works

Health and Safety Inspection Check List

Agency: _____ Job Number #: _____

Inspector _____ Client: _____

Address _____ Date of Assessment: _____

Appliances and Mechanical Systems	Pass	Fail	WX Plan	Recommendation
Heating System				
Water heater - improperly vented; tank leakage				
Electrical System - inadequate service; not grounded properly; exposed wires/ or connections				
Plumbing Facilities - water supply or drain leak; unsanitary conditions				
Appliances - gas leaks; poor electrical connections; CO				
Specify Other:				
Indoor Air Quality	**Pass**	**Fail**	**WX Plan**	**Recommendation**
Moisture Problems - mold or mildew present				
Standing Water in low areas				
Friable Asbestos: Material that may be asbestos exposed in living area				
Ventilation				
Structural Hazards	**Pass**	**Fail**	**WX Plan**	**Recommendation**
Roof Condition				
Wall Condition				
Foundation Condition				
Floor Condition				
Ceiling Condition				
Interior and Exterior Stairways				
Window and Door Condition				
Smoke Detectors -one per floor in working order				
Lead Paint - peeling paint that may contain lead				

Other: _____

Based on our initial review of your building, we have identified the above potential health or safety problems. This is a limited visual inspection. These are the existing conditions as of the date below. By signing below, I acknowledge that I have been informed of the conditions and may have to address some of the items prior to any weatherization work.

Customer Signature: _____ Date: _____

Owner Signature: _____ Date: _____
(If different from customer)

Agency Representative: _____ Date: _____

Original – Agency File
Copy – Client

Weatherization Works

Health and Safety Inspection Check List:

1. Moisture Areas: Existing conditions *(check all that apply)*

_____ Damp atmosphere in house
_____ Client complaint of allergy-like symptoms
_____ Visible mold growth *(if "Yes", go to #2)*
_____ Evidence of water penetrating the home *(stains, moist areas)*
_____ Evidence of conditions that might allow water in the home *(poor grading, bad flashing, bad/missing gutters)*
_____ Actual construction defect or deterioration that allows water into the home *(roof, decks, windows, concrete slabs, lack of vapor barrier)*
_____ Plumbing defects *(leaking drains, pipes or toilets, missing caulk on sinks or tubs)*
_____ HVAC problems *(dirty, moist filters, poor condensation drainage)*
_____ Dryer vented indoors, inadequate ventilation for a kitchen, bath or other high moisture area
_____ Any source of condensation

2. Mold Areas

Checklist		Existing Mold	Sq. Ft. of Area	Cleanup to be Done by Client/Landlord (10 sq. ft +)
_____	Bath (location)_____	☐	_____	☐
_____	Shower (location)_____	☐	_____	☐
_____	Kitchen	☐	_____	☐
_____	Laundry area	☐	_____	☐
_____	Basement walls	☐	_____	☐
_____	Crawlspace	☐	_____	☐
_____	Exterior walls	☐	_____	☐
_____	Attic/Ceilings	☐	_____	☐
_____	Other(*specify*)_____	☐	_____	☐

☐ Existing mold was found in your home. The mold is located in the areas checked under the Existing Mold column.

- ☐ Weatherization work cannot be done until the mold in the areas checked under the Cleanup column has been cleaned up. You (or your landlord) are responsible for the cleanup.
- ☐ Any item checked in the Existing Mold column but not requiring client cleanup will either be not disturbed during the weatherization work or remediated by the contractor/crew. If the mold will not be disturbed, it does not need to be cleaned up in order to proceed with weatherization. However, it is advisable to clean all areas affected by mold.

☐ Visible evidence of moisture, but no visible evidence of existing mold was found.

Comments: _____

By signing below, I acknowledge that I have been notified there is existing mold in the home prior to any weatherization work being done. If the mold has to be cleaned up before weatherization work can begin, I agree to have it cleaned up and then contact the agency so the weatherization work may proceed.

Client Signature: _____ Date: _____

Owner Signature: _____ Date: _____
(If different from client)

Agency Representative: _____ Date: _____

Original – Agency File
Copy – Client

Historic Eligibility Review

Job Number: _____

Address: _____

_____

Year the house was built: _____

Generally houses that are 50 years old or older are considered historic, and may be eligible for the National Register of Historic Places. If you have questions about the potential eligibility of this house, please contact the Alabama Historical Commission.

General measures to be performed:

Do the above measures stay within the parameters of the Programmatic Agreement, Appendix A or Appendix B?

☐ Yes

☐ No

If "No", cooperation with the SHPO through a Section 106 Review is required before work commences.

Document the measures taken for each home through before and after pictures, and include a picture of the home from the public right-of-way.

I certify that the above statements are correct:

Signature of Agency Representative: _____ Date: _____

Homeowner Consent Form

TO BE COMPLETED BY HOMEOWNER:

I, _____ certify that I am the owner for the property located at: _____

_____

I do hereby authorize the _____, to make certain
(Agency)
repairs to the said dwelling as shown on the work order, with the understanding that there shall be no charge to anyone for either labor or materials, and I do hereby release and pledge to hold blameless the _____
(Agency)
its staff and volunteer assistants, from any liability whatsoever in the performance of this authorization or eventually arising therefrom. I further certify that I have given my permission to allow work on the property listed above.

_____ _____
Homeowners Signature Date

_____ _____
Weatherization Coordinator Signature Date

**Note: Rental Release Form is to be filled out if home is occupied by renter.

INSTRUCTIONS FOR MONTHLY EXPENDITURE REPORT

After the grant agreement has been fully executed, a Monthly Expenditure Report must be submitted no later than the 10th calendar day of each and every month of the grant grant period to ADECA at the address listed on the form.

GRANT NO.: Enter the full Grant number from page 1 of the fully executed grant agreement.

REQUEST NO.: Reports should be numbered sequentially beginning with #1. A report should be submitted for each calendar month of the grant period even if there was no activity or if no funds are being requested. DO NOT SKIP A MONTH! A monthly report will not be processed until ADECA has reviewed and approved a report for the previous calendar month.

FROM: Enter the full name of the agency as shown in the grant agreement.

REPORT OF ACTUAL EXPENDITURES FOR THE PERIOD ENDING: Enter the date through which expenditures are being reported. This date should be the last day of each calendar month or, for an interim report, the last date a transaction was posted to the official books of account before this report was completed.

GRANT BUDGET: Enter the amount from the latest program budget which has been approved by ADECA.

ACTUAL EXPENDITURES: From the agency's official books of account, enter the actual amount of expenditures for each eligible activity as of the date entered above.

ESTIMATED EXPENDITURES: CAA's may request funds sufficient to meet all obligations. The estimated amount of funds needed between the date this report is prepared and the date the funds are received form ADECA may be requested. Additionally, funds may be requested to cover immediate cash needs subsequent to receipt of funds from ADECA. CAA's are required to maintain documentation on methods used to determine immediate cash needs.

FUNDS PREVIOUSLY RECEIVED: Enter the amounts previously requested from ADECA for each eligible activity. Include any funds which have been requested but not received as of the date of this report.

AMOUNT OF THIS REQUEST: Enter an amount equal to your total cash needs (actual expenditures plus estimated expenditures) less the funds previously requested. When more funds have been requested than actually needed, enter the negative amount in parentheses. Repeated requests for funds in excess of immediate cash needs shall result in the CAA being placed on a reimbursement basis.

BUDGET BALANCE: Enter the amount of funds, by budget line item, remaining to be drawn after this request.

ACTUAL CURRENT CASH BALANCE: Enter the actual cash balance (+ or -) as of the date you are reporting actual expenditures. Normally it will be the last day of a calendar month.

CERTIFICATION AND SIGNATURE: Must be the original signature of the Board Chairman or individual appointed by the Board Chairman and on file in writing in the and Energy, Weatherization and Technology Division of ADECA.

Weatherization Mold Inspection and Release Form

CLIENT NAME: _____ ADDRESS: _____

Mold can be a problem in any home, but especially in those where there is an excessive amount of moisture or humidity present. In addition, if there are several people, pets, plants, or fish aquariums present, conditions exist for mold to grow. _____ (Agency) may not provide direct mitigation of existing mold problems. An assessment of your home included a visual check for mold.

During _____ (Agency) energy audit on _____ (Date), our auditor/estimator identified Mold growth in the following room(s):

_ Living/Bedroom Areas	_ Mold is visibly present	_ Bathroom Areas	_ Mold is visibly present
_ Laundry Areas	_ Mold is visibly present.	_ Combustion Areas	_ Mold is visibly present
_ Crawlspace Areas	_ Mold is visibly present.	_ Attic Areas	_ Mold is visibly present
_ Basement Areas	_ Mold is visibly present.	_ Other Location	_ Mold is visibly present

Other Location: _____

Moldy or musty odors are an indicator that there may be hidden mold growth.

Moldy or Musty Odors ____ present. ____ not present.

The Department of Energy generally does not allow Weatherization agencies to mitigate mold problems, but some actions associated with a cost effective energy saving measure may be taken to reduce moisture problems.

The _____ (Agency) will take the following measures that may help to mitigate existing moisture problems:

_____

_____

Check and Sign One of the Notification or Disclaimers Below

__**Moisture/Mold Disclaimer**: I have received information concerning moisture and mold conditions in my home, including the EPA booklet *"A Brief Guide to Mold, Moisture, and Your Home"* (if mold conditions have been identified) and I will take steps to reduce excessive moisture. I agree to hold (Weatherization Agency) harmless for any future moisture or mold problems that are not associated with the weatherization work. Maintain this copy in the client file.

_____ _____
Weatherization Client Date

_____ _____
Agency Auditor/Estimator Date

__**Deferral Disclaimer**: Advise the client that the _____ (Agency) cannot cost effectively resolve the identified mold or moisture. Document who will be responsible for the corrective action. Explain and list the conditions that justify the agency to "DEFER" the work and have the client sign and date in the space below indicating agreement to planned action. Maintain this copy in the client file.

_____ _____
Weatherization Client Date

_____ _____
Agency Auditor/Estimator Date

APPENDIX C

SAMPLE WEATHERIZATION CONTRACT

STATE OF ALABAMA

_____ COUNTIES

WEATHERIZATION ASSISTANCE PROGRAM

CONSTRUCTION CONTRACT

THIS AGREEMENT made and entered into this _____ day of _____**, 20XX**, is by and between the _____(Community Action Agency)_____, the designated contracting party for the Weatherization Assistance Program in this area, (hereinafter referred to as the First Party) and _____(Contractor)_____, (hereinafter referred to as the Second Party).

WHEREAS, the Energy Division of the Alabama Department of Economic and Community Affairs has allocated funds to the First Party to implement and coordinate a Weatherization Assistance Program designed to improve the energy efficiency and health & safety of residences of low-income families eligible for benefits within the Weatherization Program regulations; and

WHEREAS, the First Party desires to contract with a company or an individual to weatherize selected homes to standards established by the Department of Energy and the Energy Division of the Alabama Department of Economic & Community Affairs in accordance with all applicable laws and federal regulations.

NOW, THEREFORE, the parties hereto, in consideration of the premises and the mutual promises herein contained, hereby covenant and agree as follows:

1. THE SECOND PARTY SHALL:

1.1 Commence and complete all work by the dates agreed upon between the first and Second Parties as set forth in Attachment A to this contract, which specifies the work to be done at each site.

1.2 All weatherization work performed with DOE funds by the Second Party must meet the guidelines and specifications outlined in the Standard Work Specifications (SWS) provided by the Department of Energy (DOE) and the National Renewable Energy Laboratory (NREL). The Alabama Weatherization Field Guide will be updated to include specifications and references to the Standard Work Specifications (SWS) and must be adhered to when performing weatherization work., which the Second Party hereby warrants he/she has been given and is thoroughly familiar.

1.3 Provide and pay for all labor, materials, equipment, tools, transportation and other facilities and services necessary for the proper execution and completion of the specified work.

1.4 Be responsible to the First Party for the acts and omissions of his employees, subcontractors, and their agents and employees, and other persons performing any other work under a contract with the Second Party.

1.5 Keep the premises and rooms clean and free from accumulation of waste materials or rubbish caused by his operations, and at the completion of the work, remove all waste materials and rubbish from and about the project, as well as all materials and equipment on the site as part of the work performed. If the Second Party fails to clean up at completion of the work, the First Party

may do so, and the cost thereof shall be charged to the Second Party and may be offset against any obligation owed to the Second Party by the First Party.

1.6 Be responsible for initiating, maintaining, and supervising all construction work and safety precautions and programs in connection with the work. He shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury or loss to, (1) all employees on the work site and other persons who may be affected thereby, (2) all the work and all materials and equipment to be incorporated thereon, and (3) other property at the site or adjacent thereto. He shall comply with all applicable laws, ordinances, rules, regulations thereof and orders of any public authority having jurisdiction for the safety of person or property to protect them from damage, injury or loss. All damage or loss to any sub-contractor, or anyone for whose acts any of them may be liable, shall be remedied by the Second Party.

1.7 Re-execute any work that fails to conform to any requirements of the contract, and shall remedy any defects due to faulty materials or workmanship which appear within a period of one year from completion of the contract.

1.8 Hold the First Party harmless for liability or damage claimed for injury to persons or property for any cause relating to the work to be performed hereunder. The Second Party expressly agrees to indemnify the First Party from all liabilities, loss or other damage claims or obligations resulting from any injuries or loss of this nature.

2. TERM. This contract shall take effect on _____, and shall terminate on _____unless the contract is canceled or terminated as provided for below in section 11. Any extensions of time must be in the form of a contract amendment as outlined in Section 5.

3. **COMPENSATION.** In consideration of the services to be provided by the Second Party under the terms of this contract, the First Party shall pay to the Second Party as specified on the Attachment A(s) after the dwelling(s) have been inspected and accepted as outlined in Section 9 below. For purposes of this contract, the Second Party shall be considered and "independent contractor" and as such, the First Party shall not be responsible for the withholding of any federal, state, or local taxes, FICA taxes, unemployment compensation taxes or any other deductions and remittances associated with an "employer-employee" relationship.

4. CANCELLATION. Due to the nature of the weatherization program and its dependence on state and federal funds for program implementation, the First Party reserves the right, in the absence of such funding, to cancel this contact. In such event, the Second Party shall be entitled to all compensation due up to and including the date on which the cancellation is effective but none thereafter. The effective date will be the date written notice is given to the Second Party.

5. CHANGES. The First Party may, from time to time, request changes in the duties to be performed hereunder. Such changes, including any increase of decrease in the amount of the Second Party's compensation, which are mutually agreed upon by the between the First and Second Parties, must be incorporated in written amendment to this contract.

6. INSURANCE. The First Party shall not be responsible for the provision to the Second Party of and insurance whatsoever. This exclusion includes, but is not limited to, workmen's compensation insurance, medical insurance, disability insurance and liability insurance. The

Second Party shall provide liability insurance for such damages which could result form the use of vehicles and other equipment in the conduct of his duties under this contract and hereby agrees to hold the First Party harmless for liability for any such damages.

7. **INSPECTION.** After being notified by the Second Party that the dwellings to be weatherized under this contract are complete, the First Party will conduct an inspection of the completed dwelling(s) to ensure compliance with the terms and conditions of this contract. If additional work must be done on the dwelling(s) in order to meet applicable standards, the Second Party will be required to correct the deficiencies with 5 working days without additional compensation. The re-work will again be inspected under the same standards until the work is considered acceptable.

8. **BILLING PROCEDURES.** When the First Party has completed the inspection of the dwelling(s) and accepted the work, the Second Party shall submit and invoice to the First Party for payment. This invoice will be submitted in a predetermined manner on a standard form supplied by the First Party and will be processed and paid as soon as administratively possible. However, the First Party reserves the right to withhold payment for a completed dwelling(s) until any deficiencies are satisfactorily resolved.

9. **ATTACHMENTS.** Attachments(s), which designates the specific dwelling(s) to be weatherized under the terms of this contract, shall become a legal part of this contract, once agreed upon and signed by the First and Second Parties, and shall be attached to this contract document.

10. **OMB UNIFORM GUIDANCE FOR FEDERAL FINANCIAL AWARDS:** For any and all contracts or grants made by a non-Federal entity under a Federal Award, the non-Federal entity must comply with 2 CFR part 200, the OMB Uniform Administrative

Requirements, Cost Principles, and Audit Requirements for Federal Awards, which the U.S. Department of Energy (DOE) is specifically implementing in 2 CFR Part 910. Subrecipients of DOE grant must adhere to 2 CFR 910 and all of its subparts, including, but not limited to, Subpart B (2 CFR 910.120), General Provisions; Subpart D (2 CFR 910.350), Post Federal Award Regulations; Subpart E (2 CFR 910.401). Cost Principles, Subpart F (2 CFR 910.500), Audit Requirements; and all accompanying Appendices.

11. **TERMINATION:** A clause addressing a termination for cause and convenience must be included in all contracts in excess of $10,000. The following provisions apply to termination under this Agreement, whether termination by the First Party of Second Party. The performance of work under this agreement may be terminated in whole or in part for the following circumstances:

Termination for Convenience. This agreement may be terminated by either party with thirty (30) days written notice. Said notice shall specify the reasons for requesting such termination. If the First Party determines that the continuation of the work will serve no useful public purpose, this Agreement may be terminated by the First Party and the Second Party shall be entitled to necessary expenses incurred through the date of termination or the date services are last provided, whichever occurs first.

Termination for Cause. IF, through and cause the Second Party shall fail to fulfill in a timely manner its obligations under this Agreement, or if the Second Party shall violate any of the covenants, agreements or stipulations of the Agreement, and such failure or violation is not corrected within fifteen (15) days after such notice is given by the First

Party to the Second Party, the First Party shall thereupon have the right to immediately terminate or suspend this Agreement by giving written notice to the Second Party of such termination or suspension and specifying the effective date thereof.

In the event of termination, for either convenience or cause, all property, finished of unfinished documents, data, studies, surveys, drawings, maps, models, photographs, computer tapes, computer programs, and reports prepared the Second Party under the Agreement shall, at the option of the First Party, and in accordance with applicable State and Federal regulations, become the property of the First Party. The Second Party shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and other materials.

Notwithstanding the above, the Second Party shall not be relieved of liability to the First Party for damages sustained by the First Party by virtue of and breach of the Agreement by the Second Party and the First Party may withhold any payments to the Second Party for the purpose of setoff until such time as the exact amount of damages due the First Party from the Second Party is determined.

12. HEARING ON APPEAL: The Second Party shall have the right to appeal and determination to terminate made by the First Party; however, if the Second Party has failed to submit his appeal, in writing, within ten (10) calendar day from written notice of termination and/or has failed to request and receive approval for the First Party for extension of such, then he shall have no further right of appeal.

The hearing shall be conducted at the First Party's office in Rainsville, Alabama, or any other appropriate location at the First Party's discretion, with a written notification of the time, place, and subject matter by the First Party to the Second Party.

13. EQUAL EMPLOYMENT OPPORTUNITY: In accordance with 41 CFR 60-1.4(b) and the Executive Order 11246 (as amended by Executive Order 11375), for any federally assisted construction contract as defined by 41 CFR 60-1.3, the Contractor, during the performance of this agreement, hereby agrees as follows:

A. The Contractor will not discriminate against any employee or applicant for employment because or race, color, religion, or national origin. The Contractor will take affirmative action to ensure the applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

B. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

C. The Contractor will send to each labor union or representative of with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advertising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

D. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

E. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulation, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes if investigation to ascertain compliance with such rules, regulations, and orders.

F. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts of federal assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

G. The Contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each Subcontractor or Vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance; *Provided, however,* that in the event a Contractor becomes involved in, or is threatened with, litigation with a Subcontractor or Vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

The applicant further agrees to it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work; *Provided,* that if the applicant so participating is a State of local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of Contractors and Subcontractors with the equal opportunity clause and the rules, regulations, and relevant

orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into and contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a Contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon Contractors and Subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive order.

In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceeding.

14. COPELAND "ANTI-KICKBACK" ACT: For all prime construction contracts in excess of $2,000.00, the Contractor or Subrecipient shall comply with the Copeland (Anti-

Kickback" Act, 40 U.S.C. 3145, as supplemented by Department of Labor regulations (29 CFR Part 3), which prohibits a Contractor of Subrecipient from inducing any person employed in the construction, completion, or repair of a public work from giving up any compensation to which he or she is entitled to receive. In the event of a suspended or reported violation of the Copeland "Anti-Kickback" Act, the Department shall report such violation to the Federal awarding agency.

15. **CONTRACT WORK HOURS AND SAFETY STANDARDS ACT:** In the event this contract or grant award is for and amount in excess of $100,000 and involves the employment of mechanics and laborers, the Contractor or Subrecipient shall comply with the Contract Work Hours and Safety Standards Act, 40 U.S.C. 3701-3708, Specifically 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Said Act includes provisions which provide that a Contractor must compute the wages of mechanics and laborers on the basis of a standard 40-hour work week. If an employee works in excess of 40 hours during a work week, the employee must be compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours. Further, neither a laborer nor a mechanic can be required to work in unsanitary, hazardous or dangerous conditions.

16. **RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT:** If the Federal Award meets the definition of "funding agreement" under 37 CFR 401.2(a) and the recipient or Subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment of performance or experimental, developmental, or research work under that "funding agreement," the recipient of Subrecipient must comply with the requirements of 37 CFR Part 401, "Rights

to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements" and any implementing regulations issued by the awarding agency.

17. **CLEAN AIR ACT and FEDERAL WATER POLLUTION CONTROL ACT:** In the event this contract or grant award is for an amount in excess of $150,000, the Contractor or Subrecipient shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, 42 U.S.C. 7401-7671q, and the Federal Water Pollution Control Act, 33 U.S.C. 1251-1387. The Department shall report any suspected or reported violation to the Federal awarding agency and to the Environmental Protection Agency.

18. **ENERGY CONSERVATION:** The Contractor or Subrecipient shall comply with all mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act, 42 U.S.C. 6201 *et seq.*

19. **DEBARMENT AND SUSPENSION:** The Subrecipient is prohibited from using any Contractor or Subcontractor that has been debarred, suspended, or otherwise excluded from participation in Federal assistance programs (Executive Orders 12549 and 12689).

    The Subrecipient shall require participants in lower tier covered transactions to include the certification on Government-wide Debarment and Suspension (Non-Procurement) for it and its principals in any proposal submitted in connection with such lower tier covered transactions (See Code of Federal Regulations, 2 CFR Part 901). The Excluded Parties List System is available for access from the System of Award Management website at https://www.SAM.gov.

The Subrecipient certifies, by entering into this Agreement, that neither it nor its principals nor any of its Subcontractors are presently debarred, suspended, proposed from debarment, declared ineligible, or voluntarily excluded from entering into this Agreement by any Federal agency or by any Department, agency or political subdivision of the State. The term "principal" for purposes of this agreement means an office, director, owner, partner, key employee, or other person with primary management or supervisory responsibilities, or a person who has a critical influence on or substantive control over the operations of the Recipient.

The Subrecipient certifies that it has verified the suspension and debarment status for all Subcontractors receiving funds under the Agreement and shall be solely responsible for any recoupments or penalties that must arise from non-compliance. Subrecipients shall immediately notify the Department if any Subcontractor becomes debarred or suspended, and shall, at the Department's request, take all steps required by the Department to terminate its contractual relationship with the Subcontractor for work to be performed under this Agreement.

20. BYRD ANTI-LOBBYING ACT: Contractors and Subrecipients shall comply with the Byrd Anti-Lobbying Act, 31 U.S.C. 1352, and shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining and Federal contract,

grant or any other award covered by 31 U.S.C. 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal Award. Such disclosures are forwarded from tier to tier to the non-Federal Award.

21. **PROCUREMENT OF RECOVERED MATERIALS:** 2 CFR 200.322 provides that a non-Federal entity that is a state agency or agency of a political subdivision of a state and its Contractors must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency ("EPA") at 40 CFR 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of completion, where the purchase price of the item exceeds $10,000 or the value of the quantity acquired by the fiscal year exceeded $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing and affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

IN WITNESS WHEREOF, the First and Second Parties have executed this contract as of the date first above written.

_____	_____
First Party	Second Party
By: _____	By: _____
Title: Executive Director	Title: _____
Attest: _____	Attest: _____