

Department of Energy

State Plan and Application

Submittal Date: May 3, 2018

Approved: Pending

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OMB Number: 4040-004 Expiration Date: 10/31/2019

APPLICATION FOR FEDERAL ASSISTANCE SF-424	Version 02
1. Type of Submission: Preapplication X New Application Changed/Corrected Application Revision	
3. Date Received	4. Applicant Identifier: EE0007934
5a. Fed Entity Identifier:	5b. Federal Award Identifier: DE-EE0007934
State Use Only:	
6. Date Received by State:	7. State Application Identifier: EE0007934
8. APPLICANT INFORMATION:	
a. Legal Name: State of Nevada	
b. Employer/Taxpayer Identification Number (EIN/TIN): 886000022	c. Organizational DUNS: 179258715
d. Address:	
Street 1: 1830 College Parkway, Suite 200	
Street 2:	
City: Carson City	
County: CARSON CITY	
State: NV	
Province:	
Country: U.S.A.	
Zip / Postal Code: 897060000	
e. Organizational Unit:	<u></u>
Department Name: Business and Industry	Division Name: Nevada Housing Division
f. Name and contact information of person to be contacted on matters involving this	application:
Prefix: Mr First Name: Patrick	
Middle Name:	
Last Name: Conway	
Suffix: Title: Weatheringties Program Supervisor	
Title: Weatherization Program Supervisor	
Organizational Affiliation: Nevada Housing Division	
Telephone Number: 7756872242	Fax Number: 7756874040
Email: patrick.conway@housing.nv.gov	

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APPLICATION FOR FEDERAL ASSISTANCE SF-424	Version 02
9. Type of Applicant:	
A State Government	
10. Name of Federal Agency:	
U. S. Department of Energy	
11. Catalog of Federal Domestic Assistance Number:	
81.042	
CFDA Title:	
Weatherization Assistance Program	
12. Funding Opportunity Number:	
DE-WAP-0002018	
Title:	
2018 Weatherization Assistance Program Funding	
13. Competition Identification Number:	
Title:	
14. Areas Affected by Project (Cities, Counties, States, etc.):	
Statewide	
15. Descriptive Title of Applicant's Project:	
Nevada's Low Income Weatherization Assistance Program - Formula Grant	

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OMB Number: 4040-004 Expiration Date: 10/31/2019

APPLICATION F	FOR FEDERAL ASSISTANCE SF-424			Version 02
16.Congressional Di	strict Of:			
a. Applicant:	Nevada Congressional District 02	b. Program/Project:	NV-Statewide	
Attach an additional	list of Program/Project Congressional Districts if needed:			
17. Proposed Projec	t:			
· · · · · · · · · · · · · · · · · · ·	07/01/2017	b. End Date:	06/30/2018	
18. Estimated Fundi	ng (\$):			
a. Federal	871,308.00			
b. Applicant	0.00			
c. State	0.00			
d. Local	0.00			
e. Other	0.00			
f. Program Income	0.00			
g. TOTAL	871,308.00			
a. This applica X b. Program is	bject to Review By State Under Executive Order 12372 Process ation was made available to the State under the Executive Order subject to E.O. 12372 but has not been selected by the State for not covered by E.O. 12372	12372 Process for review o	n:	
20. Is the applicant I	Delinquent On Any Federal Debt? (If "Yes", provide explanatio	n)		
herein are true, com comply with any res	pplication, I certify (1) to the statements contained in the list plete and accurate to the best of my knowledge. I also providulting terms if I accept an award. I am aware that any false, fic riminal, civil, or administrative penalties. (U.S. Code Title 218,	e the required assurances*: titious, or fraudulent stater	and agree to	
I AGREE				
** The list of certifica specific instructions.	tions and assurances, or an internet site where you may obtain	this list, is contained in the a	nnouncement or agency	
Authorized Represe	entative:			
Prefix:	Mr First Name: Steve			
Middle Name:				
Last Name:	Aichroth			
Suffix:				
Title:	Administrator			
Telephone Number:	7756872246	Fax Number: 7756	874040	
Email:	saichroth@housing.nv.gov			
Signature of Authoriz	zed Representative:		Date Signed:	
Authorized for Local Repro	duction			Standard Form 424 (Revised 10/2005) Prescribed by OMB Circular A-102

${\bf BUDGET\ INFORMATION\ -\ Non-Construction\ Programs}$

1. Program/Project Identification No. EE0007934		Program/Project Title Weatherization Assistance Progra	am	
3. Name and Address State of Nevada 1830 College Parkway, Suite 200 Carson City, NV 897060000			4. Program/Project Start Date	07/01/2017
			5. Completion Date	06/30/2018

SECTION A - BUDGET SUMMARY						
Grant Program		Estimated Uno	bligated Funds	N	New or Revised Budg	get
Function or Activity (a)	Federal Catalog No. (b)	Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Federal	81.042	\$ 0.00		\$ 871,308.00		\$ 871,308.00
2.						
3.						
4.						
5. TOTAL		\$ 0.00	\$ 0.00	\$ 871,308.00	\$ 0.00	\$ 871,308.00

SECTION B - BUDGET CATEGORIES					
6. Object Class Categories		Grant Program, Fu	nction or Activity		Total
	(1) GRANTEE ADMINISTR ATION	(2) GRANTEE T&TA	(3) SUBGRANTE E ADMINISTR	(4) SUBGRANT EE T&TA	(5)
a. Personnel	\$ 13,834.00	\$ 6,448.00	\$ 0.00	\$ 0.00	\$ 20,282.00
b. Fringe Benefits	\$ 5,911.00	\$ 3,216.00	\$ 0.00	\$ 0.00	\$ 9,127.00
c. Travel	\$ 0.00	\$ 18,783.00	\$ 0.00	\$ 0.00	\$ 18,783.00
d. Equipment	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
e. Supplies	\$ 3,800.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 3,800.00
f. Contract	\$ 8,520.00	\$ 29,553.00	\$ 76,972.00	\$ 73,000.00	\$ 807,816.00
g. Construction	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
h. Other Direct Costs	\$ 11,500.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 11,500.00
i. Total Direct Charges	\$ 43,565.00	\$ 58,000.00	\$ 76,972.00	\$ 73,000.00	\$ 871,308.00
j. Indirect Costs	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
k. Totals	\$ 43,565.00	\$ 58,000.00	\$ 76,972.00	\$ 73,000.00	\$ 871,308.00
7. Program Income	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

${\bf BUDGET\ INFORMATION\ -\ Non-Construction\ Programs}$

Program/Project Identification No. EE0007934		Program/Project Title Weatherization Assistance Program	nm	
3. Name and Address State of Nevada 1830 College Parkway, Suite 200 Carson City, NV 897060000			4. Program/Project Start Date	07/01/2017
			5. Completion Date	06/30/2018

SECTION A - BUDGET SUMMARY						
Grant Program	F 1 1	Estimated Unc	bligated Funds	N	New or Revised Budg	get
Function or Activity (a)	Federal Catalog No. (b)	Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1.						
2.						
3.						
4.						
5. TOTAL		\$ 0.00	\$ 0.00	\$ 871,308.00	\$ 0.00	\$ 871,308.00

SECTION B - BUDGET CATEGORIES						
6. Object Class Categories		Grant Program, Function or Activity				
	(1) PROGRAM OPERATION S	(2) HEALTH AND SAFETY	(3) LIABILITY INSURANCE	(4)	(5)	
a. Personnel	\$ 0.00	\$ 0.00	\$ 0.00		\$ 20,282.00	
b. Fringe Benefits	\$ 0.00	\$ 0.00	\$ 0.00		\$ 9,127.00	
c. Travel	\$ 0.00	\$ 0.00	\$ 0.00		\$ 18,783.00	
d. Equipment	\$ 0.00	\$ 0.00	\$ 0.00		\$ 0.00	
e. Supplies	\$ 0.00	\$ 0.00	\$ 0.00		\$ 3,800.00	
f. Contract	\$ 530,771.00	\$ 79,000.00	\$ 10,000.00		\$ 807,816.00	
g. Construction	\$ 0.00	\$ 0.00	\$ 0.00		\$ 0.00	
h. Other Direct Costs	\$ 0.00	\$ 0.00	\$ 0.00		\$ 11,500.00	
i. Total Direct Charges	\$ 530,771.00	\$ 79,000.00	\$ 10,000.00		\$ 871,308.00	
j. Indirect Costs	\$ 0.00	\$ 0.00	\$ 0.00		\$ 0.00	
k. Totals	\$ 530,771.00	\$ 79,000.00	\$ 10,000.00		\$ 871,308.00	
7. Program Income	\$ 0.00	\$ 0.00	\$ 0.00		\$ 0.00	

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OMB Approval No. 0348-0044

U.S. Department of Energy BUDGET INFORMATION REMARKS

(Grant Number: EE0007934)

Remarks

Future Adjustment of Funding Due to to Delays with the Federal Budget Approval Process

Since the Department of Energy (DOE) has not announced the available funding for Program Year 2018, DOE has informed states to use the allocation amount awarded in Program Year 2016 for the purpose of completing this draft application, which is \$871,308 per WPN 16-2a. Therefore, the amounts in this draft application are for planning purposes. It is expected that the actual allocation of DOE funding will be adjusted from the amount of \$871,308 making it necessary for this draft application to align with the actual DOE appropriation of the Weatherization Assistance Program. DOE will determine the amount of funds that will be available for obligation by the State of Nevada based on available appropriations. Then, the actual DOE allocation will be used to complete the final DOE application for funding. Most all budget amounts included in this draft application are expected to be modified but all five sub-grantees identified in this draft application are still expected to be awarded a contract from the Nevada Housing Division unless the DOE allocation is so low that it only makes sense to funded one or two subgrantees. Furthermore, the Nevada Housing Division intends to use the maximum Training and Technical Assistance allocation allowed by DOE for Program Year 2018 once that amount is determined. When these adjustments are made this will become the final DOE application (State Plan) for Program Year 2018.

Budget for Financial Audits

There is no cost category for financial audits because other funds are used to pay this cost for both the Grantee and Sub-grantees. The cost for financial audits typically occur after the close of the program year and do not work well when charged to the actual grant that is being auditied.

U.S. DEPARTMENT OF ENERGY



BUDGET JUSTIFICATION FOR FORMULA GRANTS

Applicant: State of Nevada

Award number: EE0007934

Budget period: 07/01/2017 - 06/30/2018

 PERSONNEL - Prime Applicant only (all other participant costs are listed in 6 below and form SF-242A, Section B. Line 6.f. Contracts and Sub-Grants).

Positions to be supported under the proposed award and brief description of the duties of professionals:

Position	Description of Duties of Professionals		
Program Supervisor	This position is responsible for the overall management of the state's program including; developing program policy and procedures, developing budgets, awarding Subgrantee funds, negotiating independent contracts, ensures compliance with state/federal rules and regulations, supervising other NHD Weatherization staff, review Subgrantee performance and financial oversight. All Salaries and fringe for DOE are based on 12% of the total budget as DOE is approximately 12-14% of NHD's funds. The other 88% for staff and fringe are paid by the FEAC Program (78%) and the HEROS Program (10%)		
Training and Technical Assistance Coordinator	This position is responsible for providing field and classroom training to all of the program's subgrantees and their contractors. The position is also responsible for updating the training manuals. Also performs on-site field monitoring and works with subgrantee staff on methods to improve quality and effectiveness in the field. All Salaries and fringe for DOE are based on 12% of the total budget as DOE is approximately 12-14% of NHD's funds. The other 88% for staff and fringe are paid by the FEAC Program (78%) and the HEROS Program (10%)		
Grants and Projects Analyst II	GPA II is responsible for database entry, subgrantee file and office review and day to day correspondence with clients and subgrantees. Also responsible for Subgrantee Administrative Manual and administrative form updates. All Salaries and fringe for DOE are based on 12% of the total budget as DOE is approximately 12-14% of NHD's funds. The other 88% for staff and fringe are paid by the FEAC Program (78%) and the HEROS Program (10%)		

Direct Personnel Compensation:

Position	Salary/Rate	Time	Direct Pay
Program Supervisor	\$65,046.00	11.9992 % FT	\$7,805.00
Training and Technical Assistance Coordinator	\$53,731.00	11.9987 % FT	\$6,447.02
Grants and Projects Analyst II	\$50,235.00	12.0036 % FT	\$6,030.01
		Direct Pay Total	\$20,282.03

2. FRINGE BENEFITS

- a. Are the fringe cost rates approved by a Federal Agency? If so, identify the agency and date of latest rate agreement or audit below, and attach a copy of the rate agreement to the application.
- b. If a. above does not apply, please use this box (or an attachment) to further explain how your total fringe benefits costs were calculated. Your calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total). If there is an established computation methodology approved for state-wide use, please provide a copy. Also, please fill out the table below with the Fringe Benefits Calculations.

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The cost basis is determined by the state Administrative Personnel Department and differs for each State employee. The fringe benefit package for the State of Nevada is based on position, grade, employer/employee or employer paid specific rates benefits package. Benefits packages can range from approximately 37-50%. This variation is due to the employees retirement choice of employee/employer paid or employer paid only, Health Insurance rates of the employees choice of the HMO or Self-funded programs and when the employee started in state service as the retirement packages have changed over the years:

Group Ins. Varies .12946, GPAIII, .15617 comp, .16703GPA II
Retirement .28080, GPAIII.2800 comp, .14500GPAII

Workers Comp
Personnel Assessment
Unemployment Ins
Payroll Assment
Retirement Group Ins.
Medicare

.012 of gross salary
.006 of gross salary
.001 of gross salary
.001 of gross salary
.021 of gross salary
.025 of gross salary

All Salaries and fringe for DOE are based on 12% of the total budget as DOE is approximately 12-14% of NHD's funds. The other 88% for staff and fringe are paid by the FEAC Program (76%), the HEROS Program (7%), and the LIHEA Program (5%).

Fringe Benefits Calculations

Position	Direct Pay	Rate	Benefits
Program Supervisor	\$7,805.00	46.7069 %	\$3,645.47
Training and Technical Assistance Coordinator	\$6,447.02	49.8762 %	\$3,215.53
Grants and Projects Analyst II	\$6,030.01	37.5787 %	\$2,266.00
		Fringe Benefits Total	\$9,127.00

3. TRAVEL

 a. Please provide the purpose of travel, such as professional conference(s), DOE sponsored meeting(s), project management meeting, etc. If there is any foreign travel, please identify.

Purpose of Trip	Number of Trips	Cost Per Trip	Total
Subgrantee Office Review and Financial Review Ely - 2 person 2 Days. If able to schedule their visit together the cost of mileage and car will be less and budget will be adjusted	2	\$650.00	\$1,300.00
On Site Inspections Las Vegas to Ely, Elko and surrounding rurals - Driving 1 person 4 days	1	\$1,000.00	\$1,000.00
Lead and Mold Training, May be out of State, 1 person	1	\$1,297.00	\$1,297.00
Home Performance Coalition Annual Conference - 1 person	1	\$3,694.00	\$3,694.00
Various Day trips for monitoring and meeting locally in Las Vegas, Reno and Carson City. This includes visits for technical support, office review, local monitoring for both field staff, financial and office/administrative assistance. Approximately 1 trips month at \$40	11	\$40.00	\$440.00
QCI Training and Testing for Energy Auditor, 5 days, 1 Person, NHD - Staff	1	\$3,200.00	\$3,200.00
BPI Certification in Phoenix, Arizona at Southwest Building Science Training and Center, Boot Camp and Testing 1 person 9 days (two separate trips)	1	\$3,512.00	\$3,512.00
Infrared Training Level II Certification, Energy Auditor	1	\$1,540.00	\$1,540.00
On site field inspections, Reno and Carson City - 1 Person, 4 days travel by air from LV to Reno	2	\$1,400.00	\$2,800.00
		Travel Total	\$18,783.00

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Budget Justification EE0007934

Please provide the basis for estimating the costs, such as past trips, current quotations, Federal Travel Regulations,
 etc. All listed travel must be necessary for the performance of the award objectives.

Costs are based on approved GSA and state travel reimbursement rates, motorpool, airline, parking, ground transportation, meals and registration and tutorials. All are based GSA rates and prior costs for travel, these are only estimates. Trips may need to be adjusted or reimbursed by other discretionary or utility funding sources if budgets are exceeded. Certain costs such as PAC, Public Hearing and DOE required meetings are DOE requirements only and can only be charged to DOE. At this time it is unknown if there will be any other DOE required meetings for the program manager or if there will be a DOE Conference, therefore funds have not been budgeted for these activities.

4.	EQUIPMENT	- Equipment is g	generally de	efined as a	an item with	an acquis	sition cost	greater that	an \$5,000	and a	useful	life
ex	pectancy of m	ore than one ye	ar.									

a.	List all proposed equipment belo	ow and briefly ju	stify its need as	it applies to the	objectives of the award.
Equip	oment	Unit Cost	Number	Total Cost	Justification of Need

b. Please provide a basis of cost such as vendor quotes, catalog prices, prior invoices, etc. and justify need. If the Equipment is being proposed as Cost Share and was previously acquired, please provide the source and value of its contribution to the project and logical support for the estimated value shown. If it is new equipment which will retain a useful life upon completion of the project, provide logical support for the estimated value shown. Also, please indicate whether the Equipment is being used for other projects or is 100% dedicated to the DOE project.

No equipment purchases are planned with DOE funding.

- 5. <u>SUPPLIES</u> Supplies are generally defined as an item with an acquisition cost of \$5,000 or less and a useful life expectancy of less than one year. Supplies are generally consumed during the project performance.
 - a. List all proposed supplies below, the estimated cost, and briefly justify the need for the supplies as they apply to the objectives of the award. Note that all direct costs, including Supply items, may not be duplicative of supply costs included in the indirect pool that is the basis of the indirect rate applied for this project.

General Category	Cost	Justification of Need
Miscellaneous Supplies and Services	\$3,800.00	
Materials and Supplies Total	\$3,800.00	

b. Please provide a basis of cost for each item listed above and justify need. Examples include vendor quotes, prior purchases of similar or like items, published price list, etc.

Based on historical data, each year supplies such as toner cartridges, office supplies, folders, paper, envelopes, binders etc need to be purchased that are typically expended over the course of the year. These items are purchased as needed but it is estimated that the monthly cost to the DOE funded program is approximately \$317.

6. <u>CONTRACTS AND SUBGRANTS</u> - Provide the following information for New proposed subrecipients and subcontractors. For ongoing subcontractors and subrecipients, this information does not have to be restated here, if it is provided elsewhere in the application; under Name of Proposed Sub, indicate purpose of work and where additional information can be found (i.e weatherization subgrants, Annual File section IV.1).

Name of Proposed Sub	Total Cost	Basis of Cost*

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Budget Justification EE0007934

DOE Technical and Health and Safety Trainings \$10,763.00 The cost above is for trainings associated with DOE inspection requirements such as QCI, BPI, LRRP, Lead and Mold, Infrared, etc. This cost is an estimate for contracting with certified trainers and conducting in-house courses for our sub-grantees such as infrared, WxPro and Lead and Mold trainings. It also includes cost for courses necessary for the state's inspector such QCI, BPI and LRRP certifications. Sub-grantees \$769,743.00 HELP of Southern Nevada (HELP) \$ 339,477 Community Services Agency (CSA) \$ 119,310 Rural Nevada Development Corp(RNDC)\$ 91,580 Nevada Rural Housing Authority (NHRA)\$ 61,579 Las Vegas Urban League (LVUL) \$ 157,797 Overall State funding cost basis was based on population in each service area with information provided by State of Nevada Demographer's website based on 2010 census data and adjusted to recent estimates. Due to the costs of delivery in the rural areas of Nevada and the large driving distances and the costs to provide service in these areas an additional 2% is being provided to the two rural service providers. There also has been some adjustments due to past performance of sub-grantees in the prior program year and the need to provide DOE funding in the rural areas because of DOE funding being an eligible funding source in areas were FEAC funding is not available because it is harder to spend State funds in the rural areas due to the need to pay into the Universal Energy Charge. **Equipment Maintenance Contracts** \$3,520.00 Historical Data and current year invoices Equipment maintenance contracts for printers, copiers, etc. Equipment contracts is less than the small purchase threshold of \$5,000 threshold. The total of \$3,520 is for maintenance contract on a color copier Weatherization Staff utilizes plus a few other contracts weatherization maintains. Legal and Other \$5,000.00 This is the cost of legal counsel to participate in state plan and PAC meetings, review contracts, request for proposals, request for quotations, awards, etc. and is based on historical and annual costs. This is a cost under grantee admin. IT Contracts, Database Development and Maintenance \$18,790.00 In calendar year 2015 the NHD put out a competitive bid through the RFP process to receive proposals for a new database. 6 vendors applied and the winning bid was the low bidder and is the State of North Dakota's Energy and Environmental Resource Center (EERC) The above cost will be for IT contract with the EERC who is the approved vendor to provide NHD with a new database and energy audit tool. Total cost for the annual service is \$36,000 approximate, \$18,790 is anticipated to be charged to DOE. The contract was executed on January 1, 2016 and is for a total of 5 years. Contracts and Subgrants Total \$807,816.00 *For example, Competitive, Historical, Quote, Catalog

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Budget Justification EE0007934

7. OTHER DIRECT COSTS - Other direct costs are direct cost items required for the project which do not fit clearly into other categories. These direct costs may not be duplicative of costs included in the indirect pool that is the basis of the indirect rate applied for this project. Examples are: conference fees, subscription costs, printing costs, etc.

a. Please provide a General Description, Cost and Justification of Need.

General Description	Cost	Justification of Need
Direct Program and Office Cost	\$11,500.00	Costs are for other direct costs not budgeted elsewhere and necessary for the operations of a state weatherization assistance program office. These costs include appropriate shares of IT support, phone and voice mail, utilities, insurance, rent, conference call line, internal assessments, technical books and publications. All costs proposed are being used in support of the WAP program. All costs included in Other Direct Costs are properly segregated from indirect costs to ensure there are not duplicate charges.
Other Direct Costs Total	\$11,500.00	

 Please provide a basis of cost for each item listed above. Examples include vendor quotes, prior purchases of similar or like items, published price list, etc.

These costs are based on prior year actual expenditures as included in our administrative budget for the DOE Weatherization Assistance Program. Also included are printing charges for outreach for quality control postcards. Costs are based on prior purchases of similar or like items.

All costs included in Other Direct Costs are properly segregated from indirect costs to ensure there are not duplicate charges. All costs proposed are being used in support of the WAP program.

8. INDIRECT COSTS

- a. Are the indirect cost rates approved by a Federal agency? If so, identify the agency and date of latest rate agreement or audit and provide a copy of the rate agreement.
- b. If the above does not apply, indicate the basis for computation of rates, including the types of benefits to be provided, the rate(s) used, and the cost base for each rate. You may provide the information below or provide the calculations separately.

Indirect costs are not being requested on this application for federal assistance.

The name and phone number of	the individual responsible for	or negotiating the	State's indirect cost rates.
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Name: Phone Number:

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OMB Control No: 1910-5127
Expiration Date: 02/29/2020
LLS Department of Energy

U.S. Department of Energy WEATHERIZATION ASSISTANCE PROGRAM (WAP) WEATHERIZATION ANNUAL FILE WORKSHEET

(Grant Number: EE0007934, State: NV, Program Year: 2018)

IV.1 Subgrantees

Subgrantee (City)	Planned Funds/Units
Community Services Agency (Reno)	\$119,310.00 11
HELP OF SOUTHERN NEVADA (LAS VEGAS)	\$339,477.00 34
Las Vegas-Clark County Urban League (North Las Vegas)	\$157,797.00 15
Nevada Rural Housing Authority (Carson City)	\$61,579.00 5
Rural Nevada Development Corp. (Ely)	\$91,580.00 8
Total:	\$769,743.00
Total.	73

IV.2 WAP Production Schedule

Weatherization Plans	Units
Total Units (excluding reweatherized)	73
Reweatherized Units	0
Note: Planned units by quarter or category are no longer required, no information required for persons.	

Average	Average Unit Costs, Units subject to DOE Project Rules					
VEHICL	VEHICLE & EQUIPMENT AVERAGE COST PER DWELLING UNIT (DOE RULES)					
A	Total Vehicles & Equipment (\$5,000 or more) Budget	\$0.00				
В	Total Units Weatherized 73					
C	Total Units Reweatherized 00					
D	Total Dwelling Units to be Weatherized and Reweatherized (B + C)	73				
Е	Average Vehicles & Equipment Acquisition Cost per Unit (A divided by D) \$0.00					
AVERAC	AVERAGE COST PER DWELLING UNIT (DOE RULES)					
F	Total Funds for Program Operations	\$530,771.00				
G	Total Dwelling Units to be Weatherized and Reweatherized (from line D) 73					
Н	Average Program Operations Costs per Unit (F divided by G) \$7,270.84					
I	Average Vehicles & Equipment Acquisition Cost per Unit (from line E)	\$0.00				
J	Total Average Cost per Dwelling (H plus I)	\$7,270.84				

IV.3 Energy Savings

	Units	Savings Calculator (MBtus)	Energy Savings
This Year Estimate	73	29.3	2139
Prior Year Estimate	84	29.3	2461
Prior Year Actual	11	29.3	322

OMB Control No: 1910-5127

Expiration Date: 02/29/2020

U.S. Department of Energy WEATHERIZATION ASSISTANCE PROGRAM (WAP) WEATHERIZATION ANNUAL FILE WORKSHEET

(Grant Number: EE0007934, State: NV, Program Year: 2018)

IV.4 DOE-Funded Leveraging Activities

DOE funds have not been specifically budgeted for the leveraging of non-federal sources of funds.

IV.5 Policy Advisory Council Members

☐ Check if an existing state council or commision serves in this category and add name below

	Type of organization:	Unit of State Government
	Contact Name:	Betsy Ransdell
Betsy Ransdell, Energy Assistance Program Specialist	Phone:	7756840552
	Email:	bransdell@dwss.nv.gov
	Type of organization:	Utility
Vindanta Interiola Canina Analant	Contact Name:	Kimberly Lukasiak
Kimberly Lukasiak, Senior Analyst	Phone:	7023643176
	Email:	kimberly.lukasiak@swg.com
	Type of organization:	Unit of State Government
Matthew Tuma, Deputy Director	Contact Name:	Matthew Tuma
Iviatulew Tullia, Deputy Director	Phone:	7756871850
	Email:	mtuma@energy.nv.gov
		Non-profit (not a financial institution)
Michala Montova Operations Manager	Contact Name:	Michele Montoya
Michele Montoya, Operations Manager	Phone:	7757866023
	Email:	mmontoya@csareno.org
	Type of organization:	
Robert Cooper	Contact Name:	Robert Cooper
Robert Cooper	Phone:	7758490703
	Email:	fmdoherty@sbcglobal.net
		Non-profit (not a financial institution)
Tamera Saida	Contact Name:	Tamera Saida
Tamera Sarca	Phone:	70279505751315
	Email:	tsada@HELPSONV.ORG
		Unit of State Government
Tim Whitright	Contact Name:	Tim Whitright
This windight	Phone:	7024867259
	Email:	twhitright@housing.nv.gov

IV.6 State Plan Hearings (Note: attach notes and transcripts to the SF-424)

Date Held	Newspapers that publicized the hearings and the dates the notice ran
04/26/2018	A copy of the public posting is attached to the SF-424. The Public Hearing Posting Notice complies with NRS 232.2175 and NRS 241.015 and is detailed below. The process for posting public notices within the State of Nevada and according to Business and Industry directives is as follows: The Nevada Housing Division does not publish advertisements in any publications and this has been the process for several years and has been very effective. By posting to the Nevada's Public Notice Website and also the Nevada Housing Division Website Hearing adequate public notice is given to interested parties and is common practice of public notices throughout the state agencies of Nevada. The Public Hearing was publicized by posting a notice on two websites and a total of four physical locations and by emailing to all current sub-grantees and other interested parties. The Public Hearing notice was posted on Friday, April 6, 2018 and was noticed in the following places; Nevada Housing Division Website, Nevada's Public Notice Website, Nevada Housing Division's Offices in Carson City and Las Vegas, Nevada State Library and Archives in Carson City, and Nevada Attorney General's Office in Carson City. The Public Hearing Notes and Public Hearing Recording are attached to the SF424 document.

IV.7 Miscellaneous

Recipient Business Officer - Steve Aichroth, Administrator, Nevada Housing Division, saichroth@housing.nv.gov, phone: (775) 687-2246, 1830 College Parkway, Suite 100, Carson City, NV 89706

Recipient Principal Investigator - Patrick Conway, Weatherization Program Supervisor, Grants & Projects Analyst III, Nevada Housing Division, patrick.conway@housing.nv.gov, phone: (775) 687-2242, 1830 College Parkway, Suite 100, Carson City, NV 89706

The Policy Advisory Council meets at least once a year; in the Spring to review the DOE State Plan and to attend to any other pending business. If there is

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another meeting, it is set to review year to date production and end of year production from the prior year and to see if sub-grantees met their goals for the prior fiscal year and to see if they are on track for the current year.

Attached to the SF424 is a copy of the Draft Minutes from the most recent PAC Meeting on April 19, 2018. These minutes will stay in draft format until the PAC convenes to review and adopt at their next meeting, which is anticipate in September of 2018.

PAC Members fill the following categories:
Michele Montoya - Subgrantee Representative
Tim Whitright - NHD Representative
Kimberly Lukasiak - Utility
Matthew Tuma - At Large, Consumer Group (Energy) Representative
Betsy Ransdell - DHHS Representative

Tamera Saida - At Large, Consumer Group (Low Income) Representative

Robert Cooper - At Large Representative.

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WEATHERIZATION ASSISTANCE PROGRAM SUBGRANTEE INFORMATION

State: NV Grant Number: EE0007934 Program Year: 2018

	State: N	V Grant Number: E	E0007934 Pr	ogram Yea	r: 2018	
Name:	Community Services Agency			Contact: DUNS:	Cloyd Phillips 010975894	
Address:	PO Box 10167 Reno, NV 89510-0000			Phone: Fax: Email:	(775) 786-6023 (775) 786-5743 cphillips@csareno.org	
Counties served:	WASHOE County	Tentative allocation: Planned units: Type of organization: Source of labor:	11 Non-profit orga	nization	Congressional districts served:	CD NV-02
Name:	HELP OF SOUTHERN NEVADA			Contact: DUNS:	Fuilala Riley 165099326	
Address:	1640 E FLAMINGO ROAD, Suite 10 LAS VEGAS, NV 89119-5280	00		Phone: Fax: Email:	(702) 369-43571239 (702) 369-4089 friley@helpsonv.org	
Counties served:	CLARK County	Tentative allocation: Planned units: Type of organization: Source of labor:	34 Non-profit orga	nization	Congressional districts served:	CD NV-01
Name:	Las Vegas-Clark County Urban Lea	ngue		Contact: DUNS:	Kevin Hooks 148299733	
Address:	3575 W Cheyenne Ave, Ste #101 North Las Vegas, NV 89032-0000			Phone: Fax: Email:	(702) 473-5000 (702) 912-1198 khooks@lvul.org	
Counties served:	CLARK County	Tentative allocation: Planned units: Type of organization: Source of labor:	15 Non-profit orga	nization	Congressional districts served:	CD NV-01
Name:	Nevada Rural Housing Authority			Contact: DUNS:	Gary Longaker 787020945	
Address:	3695 Desatoya Drive Carson City, NV 89701-0000			Phone: Fax: Email:	(775) 887-1795124 (775) 283-0110 glongaker@nvrural.org	
Counties served:	STOREY County LYON County CHURCHILL County CARSON CITY DOUGLAS County	Tentative allocation: Planned units: Type of organization:	5 Non-profit orga	nization	Congressional districts served:	CD NV-02
		Source of labor:	Contractors			

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MINERAL County ELKO County

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WEATHERIZATION ASSISTANCE PROGRAM SUBGRANTEE INFORMATION

State: NV Grant Number: EE0007934 Program Year: 2018

Name: Rural Nevada Development Corp. Contact: Mary Kerner DUNS: 799925276 Phone: (775) 289-8519 1320 Aultman Street Address: Fax: Ely, NV 89301-0000 (775) 289-8214 Email: mary@rndcnv.org LINCOLN County CDCounties Congressional Tentative allocation: \$91,580.00 served: **EUREKA County** NV-02 districts served: Planned units: 8 **HUMBOLDT** County Type of organization: Non-profit organization ESMERALDA County WHITE PINE County NYE County PERSHING County LANDER County

Source of labor: Contractors

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(Grant Number: EE0007934, State: NV, Program Year: 2018)

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

V.1 Eligibility

V.1.1 Approach to Determining Client Eligibility

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

The state defines "low income" as a household whose total gross income is at or below 200% of the national poverty income guidelines established by the Office of Management and Budget. The Nevada Housing Division (NHD) will ensure compliance with Section 440.16 (a & b) through the use of Nevada's Weatherization Application and Eligibility Determination Worksheet. Each application identifies the applicant's household income, age of all family members, fuel source and whether they are elderly, disabled, or of Native American descent. Priority assistance is granted to households whose members are elderly, disabled or contain children under 6 years of age. Priority is also given to high energy consuming dwelling units.

Describe what household eligibility basis will be used in the Program

The State's DOE funded program eligibility is based on income at or below 200% of the poverty level determined in accordance with criteria established by OMB (above). NHD Subgrantee Administrative Manual outlines allowable client eligibility documentation which could include pay stubs, Social Security benefits letter, and other applicable documentation of income. This manual is reviewed annually and updated as needed. During the file monitoring, files are reviewed for all required documents. A copy of the Subgrantee Manual is being attached to this application.

Poverty income guidelines are distributed annually and the Client Eligibility worksheet is also updated at that time. Subgrantees utilize a Client Eligibility Worksheet which gives preference to elderly, disabled and families with children under six years of age. Also, households with a high energy burden are given preference. Where an applicant receives income for a part of the applicable tax year, their partial income may be annualized to determine eligibility. If there is a waiting list and a client is not served promptly, client eligibility documentation is reverified and updated every 12 months. Health and Human Services guidance is used for providing services to Qualified Aliens. Nevada utilizes the Poverty Income Guidelines and Definition of Income provided by DOE annually which includes annual revisions that are then distributed to the subgrantees to use when qualifying clients for the DOE program.

The total number of eligible households estimated at or below 200% of poverty within the State of Nevada is approximately 350,000. Based on population in each service area with information provided by Nevada State Demographer's website from 2010 US Census estimates and 2016 projections. State population information is as follows: 68.5% in Clark County, 15.5% in Washoe County, 8% in Eastern Rural, and 8% in Western Rural.

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

The state of Nevada WAP utilizes guidance provided by Health and Human Services under the Low-Income Home Energy Assistance Program (LIHEAP). The guidance is as follows:

WAP services are provided only to U.S. citizens or qualified aliens.

"Qualified aliens" are defined in section 431 of Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), commonly known as the Welfare Reform Law. The Act covers the larger groups of legal immigrants (legal permanent residents, refugees, asylees, individuals paroled into the U.S. for a period of at least 1 year, individuals whose deportation has been withheld, individuals granted conditional entry, and certain individuals who are victims of domestic abuse). Qualified aliens are eligible to receive assistance and services under the LIHEAP program so long as they meet other LIHEAP program requirements.

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As States set their eligibility requirements for LIHEAP-funded benefits, they are to ensure that they are in full compliance with Federal provisions related to verification of qualified alien status in providing services. State procedures for verifying U.S. citizenship or immigration status of applicants should be in accordance with the United States Department of Justice's (DOJ) Interim Guidance on Verification of Citizenship, Qualified Alien Status and Eligibility under Title IV of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, published November 17, 1997 (62 FR 61344). In addition, States should refer to LIHEAP-IM-98-25, dated August 6, 1998, which discusses the DOJ Interim Guidance and its applicability under the LIHEAP program.

V.1.2 Approach to Determining Building Eligibility

Procedures to determine that units weatherized have eligibility documentation

Only units weatherized September 30, 1994 and prior are eligible for re-weatherization.

NHD Subgrantee Administrative Manual outlines allowable eligibility documentation which could include pay stubs, Social Security benefits letter, and other applicable documentation of income.

Building eligibility will be determined by following the final rule published on December 8, 2000, where DOE provided guidance on what types of large multifamily building may be subject to the 50% threshold (65 Fed. Reg. 72210, December 8, 2000). Certain buildings containing rental units may comply with the income eligibility requirements when 50 percent of those dwellings units are eligible dwelling units rather than the established 66 percent identified in the regulations (10 CFR §440.22(b)(2)). The buildings that are subject to the 50 percent threshold are duplexes, four-unit buildings and certain eligible types of large multifamily buildings. For all other multi-family units not less than 66% of the dwelling units must be eligible in order to weatherize the entire building. Benefits in rental units will accrue primarily to the low-income tenants residing in the units.

The weatherization of non-stationary campers and trailers is not allowed. No undue or excessive enhancements are made on rental properties. On rental properties, a 50% landlord contribution is required for capital improvements, unless it is a repair item of less than \$2,000. A landlord contribution is not required on single family and mobile homes rentals.

NHD utilizes a Weatherization Service Agreement which landlords or property managers are required to sign prior to work commencing, stating that rents cannot be raised due to work being done from weatherization for a minimum 1 year along with other tenant protections.

Describe Reweatherization compliance

NHD has established a central database with all records from July 1998 (when NHD took over the program from the Welfare Division) through present day. All clients who request services are checked in the central database to see if they were previously weatherized. If they were weatherized with DOE funds on or after October 1, 1994 they are not eligible to be weatherized with DOE funds. When possible these clients can be reweatherized with other non-DOE funds. Preference is given to dwellings that have never received WAP services. Dwellings weatherized from September 30, 1994 and earlier are eligible for reweatherization.

Describe what structures are eligible for weatherization

Single Family, manufactured housing and multi-family dwellings are all eligible for weatherization. Nevada does not weatherize travel trailers or other non-stationary campers that are registered with the Department of Motor Vehicles or are not considered permanent stationary housing.

A copy of the State Historic Preservation Programmatic Agreement signed on by the Nevada Housing Division's Administrator on 10/29/10 and is attached to the SF-424. A Program Comment was issued by the ACHP on March 11, 2013 pursuant to 36 CFR 800.14(e), published in the Federal Register on March 14, 2013, and extends the duration of the existing 44 Programmatic Agreements – and any future agreements that may be executed under the prototype Programmatic Agreement – until December 31, 2020.

Describe how Rental Units/Multifamily Buildings will be addressed

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Rental units may be weatherized, however, a 50% landlord contribution is required for replacement of all capital improvement items such as HVAC equipment, windows and water heaters. A landlord contribution is not required on single family and mobile homes rentals. 10 CFR 440.22 (b)(2) may be used on 2-4 units and 5+ units.

Renters' rights are protected from eviction by having the landlord sign the Landlord Weatherization Service Agreement that states they will not raise the rent due to WAP repairs that may have increased the value of the property. Also, landlords may not evict for other than normal circumstances but not due to the weatherization of the property garnering more rents on the open market. Rental units are protected in accordance with 440.22(b)(3) and renters rights are protected as specified in 440.22(b) 3 and (c)-(e) The Weatherization Service Agreement must be signed by the landlord or management company prior to work beginning.

Describe the deferral Process

A copy of NHD's deferral form can be found in the NHD's Health & Safety Policy which is attached to the SF 424.

Deferrals are required for a variety of reasons such as condition of the structure: building integrity or the ability to effectively weatherize the structure. Also if the dwelling is slated for redevelopment. If there are Health and Safety conditions that might exist but are able to be remedied by the homeowner, 30 days are given for the homeowner to correct. If 30 days pass and the problem has not been corrected the file is closed and the client can requalify and reapply when they have made the corrections to the property. When there are issues that cannot be corrected or there are unsafe conditions for the contractors staff (illegal substance abuse) the dwelling can be permanently deferred. If a property is beyond the scope of weatherization it may also be permanently deferred. When possible, the client is notified of other programs and agencies that might be able to address rehabilitation of the property. When properties are deferred the client is given a copy of the deferral form notifying them why the property is either temporarily deferred or permanently deferred. The client is asked to sign and acknowledge receipt of the form.

V.1.3 Definition of Children

Definition of children (below age): 6

V.1.4 Approach to Tribal Organizations

 $\hfill\Box$ Recommend tribal organization(s) be treated as local applicant?

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

Low income tribal members and other low income persons are treated equally. The Housing Division does not recommend nor are there sufficient funds to provide DOE weatherization funding directly to members of Native American tribes. Low income members of Native American tribal organizations will receive benefits equivalent to assistance provided to other eligible persons living within the program's service areas. Approximately 4% of Nevada's population is comprised of individuals of Native American descent.

V.2 Selection of Areas to Be Served

The service areas proposed for the program year are based on the following: the estimated number of eligible households located in each county; the availability of funds to provide assistance to the rural counties, and the availability of qualified service providers. The Weatherization Program's service area include service to most all areas and counties within the state and revenue streams have been adjusted to assure sufficient funds are available to provide assistance in the rural areas of the state. There are five service areas:

Clark County contains 68.5% of the state's eligible population and has been divided into two service areas:

- (1) the City of Las Vegas, the City of Henderson and southern rural Clark County 48%; and
- (2) the City of North Las Vegas and northern rural Clark County 20.5%.
- (3) Washoe County comprises 15.5% of the eligible population and is a separate service area.

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- (4) The western rural service area which is comprised of Carson, Churchill, Douglas, Lyon and Storey counties and contains approximately 8% of the eligible population.
- (5) The eastern rural service area which is comprised of Esmeralda, Elko, Eureka, Humboldt, Lander, Lincoln, Mineral, Nye, White Pine and Pershing counties contains 8% of the states eligible households.

The total distribution of Weatherization funding is mostly based on population, except in eastern and western rural service areas. In these areas an additional 2% each was provided to assist with the higher costs of doing business in remote areas of the state.

DOE is one of five funding sources available to the State of Nevada for our Weatherization Assistance Program. The actual awards of DOE funding may not reflect the above percentages because some subgrantees are better suited to expend funds from a particular source. The State's total distribution of funds to the subgrantees in each service area above equals the percentage distribution. However, adjustments may be made to based on the performance of the Subgrantees.

V.3 Priorities for Service Delivery

Priority is given to the elderly, persons with disabilities, families with children under 6 and high energy users. Priority assistance is determined by a point evaluation matrix which awards additional points to high residential energy users due to the utilization of heating oil or propane as their primary source of heating. A household that qualifies for and receives Energy Assistance payments from the Division of Welfare and Social Services is defined as having high energy burden.

V.4 Climatic Conditions

Nevada's climate varies dramatically from north to south. Perhaps the clearest indicator of the climatic conditions being addressed by the Weatherization Program are the number of heating and cooling degree days associated with each area scheduled to receive weatherization assistance. Typically the northeastern portion of the state has the highest number of heating degree days while Clark County has the highest number of cooling degree days. Listed below are the heating and cooling degree days associated with the various service areas of the state and derived from the period of time from 1961-1990:

* Average Heating Degree Days (Base 65 F)

Clark County & Henderson 2,601

Western Service Area & Washoe County 6,022

Eastern Service Area 7,236

* Average Cooling Degree Days (Base 78 F)

Clark County & Henderson 3,201

Western Service Area & Washoe County 508

Eastern Service Area 320

*Source: **Mechanical Engineering Department**

University of Nevada - Reno

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V.5.1 Technical Guides and Materials

The Nevada Housing Division worked with the Southwest Building Science Training Center to update our field guides to align specifications, objectives and desired outcomes outlined in the Standard Work Specifications for Home Energy Upgrades (SWS). The new Field Guide, aligned with the SWS, has been approved by DOE and went into effect on July 1, 2015, at the beginning of PY 15. It can be accessed at: https://swbstc.org/resources/nv-field-guide

Since it has been three years since it was first approved on April 21, 2015, the Nevada Housing Division is currently seeking re-approval of our field guide. However, at this time no variances have been requested.

The State of Nevada Program Assurances have been updated to include language that all DOE funded units shall be inspected by a Quality Control Inspector (QCI) for its final inspection ensuring that all work meets the minimum specifications outlined in the SWS in accordance with Weatherization Program Notice 15-4.

The program's Subgrantees are responsible for the installation of DOE approved measures. All work done is consistent with NHD's DOE approved energy audit and materials used are consistent with Appendix A - Standards for Weatherization Materials. Typical Measures include:

- 1. Insulation: ceiling, floor, side wall and duct.
- 2. Duct leakage sealing (return, plenum and supply systems).
- 3. Shell infiltration sealing; i.e., replace broken glass, window and exterior door replacement, door weather-stripping, caulking, and evaporative cooler covers.
- 4. Insulation of water heater and water heater pipes.
- 5. Low-flow showerheads.
- 6. Solar screens (Southern Nevada)
- 7. Heating and cooling system repairs and/or replacements.
- 8. Compact fluorescent light bulbs.
- 9. Refrigerator replacement. (Stand alone freezers, units with water or ice makers are not allowed.)

Blower door diagnostics will be performed on each single family and mobile home unit receiving weatherization assistance to ensure compliance with Indoor Air Quality Standards. A blower door duct test will be done in multifamily buildings when changing out HVAC units. A combustion appliance safety inspection will be performed on each dwelling unit containing a combustion appliance (furnaces, water heaters, ovens, cook tops and gas dryers) when shell sealing will be performed. A final QCI inspection will be performed by the program's Subgrantees on each home receiving weatherization assistance with DOE funding.

The Nevada Housing Division has recently received approval from DOE for our procedure to Measure R-Values in Enclosed Cavities.

V.5.2 Energy Audit Procedures

Audit Procedures and Dates Most Recently Approved by DOE

Single-Family:	REM Design last approved by DOE on May 3, 2012. In the process of replacing the energy audit tool with WxPro.
Manufactured Housing:	REM Design last approved by DOE on May 3, 2012. In the process of replacing the energy audit tool with WxPro.
Multi-Family:	Nevada falls below the 20% threshold. Multifamily projects are funded with FEAC dollars, and if the situation occurred, a DOE multifamily project would be submitted to our PO for review and approval.

Comments

NHD has been working with the University of North Dakota, Energy & Environmental Research Center (EERC) to update our energy audit tool and database with a web-based system for use on both single-family and manufactured housing units. Unfortunately, the process has been going slower than we anticipated as testing has revealed many differences between the states of Nevada and North Dakota weatherization programs requiring significant modifications to the system. NHD and EERC have been receiving guidance and direction from Glen Salas on the process of submitting the new audit tool to DOE for review and approval. The process has taken much longer then originally anticipated. NHD was hoping to have the system available by July 1, 2017 at the start of last program year. However, due to the delays we will continue to use REM Design pending the complete adaption and adoption of Wx Pro. NHD expects to now lauch WxPro for DOE funded projects by July 1, 2018.

The State of North Dakota currently uses a similar version of this software, which has been previously approved by DOE. If for some reason DOE approval cannot be achieved, Nevada will continue to use REM Design as its permanent energy auditing tool.

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Both REM Design and WxPro will be used for site-built single family and manufactured housing. When proposing to weatherize a multifamily complex an energy audit will be completed and submitted to our DOE project officer for approval.

State program policy prohibits the installation of any conservation measures having an aggregate savings to investment ratio of less than one. The program's Weatherization Field Manual requires the measures to be installed in accordance with their relative savings to investment ratios. Exempt from the cost-effectiveness test are those measures reducing or eliminating any problems affecting a client's health or safety and related incidental repairs as determined in the current Health and Safety Plan (attached).

All work done is to be consistent with Nevada's DOE Approved Energy Audit and Standard Work Specification (SWS). Materials used are consistent with Appendix A (Standards of Weatherization Materials).

V.5.3 Final Inspection

All individuals who perform final inspections and monitoring including Sub-grantee and NHD are required to be QCI certified. However, due to the length of time it takes to obtain certifications, both NHD and at least one of our Sub-grantees, have had to contract with other Sub-grantees and/or third-party agencies for OCI services.

NHD provides to all Sub-grantees a copy of relevant policies and procedures that govern the QCI process in accordance with WPN 15-4. Every DOE funded weatherization unit reported as a completed unit receives a final inspection ensuring all work meets the minimum specifications outlined in the SWS in accordance with 10 CFR 440.16(g)

If through statewide monitoring, a pattern of fails are evident, the responsible agency will receive disciplinary action and the possibility of the reallocation of current funding and the loss of future funding. The severity of the loss depends on the nature and severity of the failures.

In Sub-grantee agencies where the Auditor performs the audit, creates the work order and performs the final quality control inspection the Nevada Housing Division performs quality assurance reviews on at least 10% of all completed units. In agencies where the QCI has no prior involvement in the work on the home or the audit the NHD inspector performs at least 5% review of all completed units. However, the Nevada DOE program in some areas is so minimally funded that it does not allow for a separate auditor and inspector. Nevada does its best to serve all areas of the state with some areas only receiving a small portion of funding. With regard to the Subgrantees Nevada has 2 agencies that 1 person operations and will follow the Independent Auditor/QCI model. In the other 3 agencies the Independent QCI model may be followed per page 5 of 15-4. In practice in prior years, at least 10% of all DOE funded projects are inspected by NHD.

The State will use the standard option of the Independent QCI.

Specific language regarding QCI inspections on all DOE funded work is contained in the Weatherization Program Assurances which have been attached to the SF-424. Below is an except from that document.

"The Subgrantee is to conduct an inspection on each household weatherized no later than three (3) weeks following the work being reported as completed by the Contractor(s) or installer. Subgrantee may not reimburse the Contractor for costs related to any work which has not passed final inspection. All units completed and funded in part or entirely with DOE funding shall be inspected by a Quality Control Inspector (QCI) for its final inspection ensuring that all work meets the minimum specifications outlined in the SWS in accordance with Weatherization Program Notice 15-4."

With the update of the new database, the audit and the final inspection shall all be web based and aligned with SWS ensuring that work is completed in accordance with the work quality requirements outlined in WPN 15-4. Both the NHD and Sub-grantees will be using this coordinated process for inspections and monitoring.

Final inspections are performed on 100% of the units weatherized at the Sub-grantee level.

V.6 Weatherization Analysis of Effectiveness

Effectiveness of Sub-grantee weatherization projects is assessed by adherence to energy audits using a tool approved by the Department of Energy and also by monitoring of completed units done by NHD. NHD sends out monthly quality assurance postcards to clients after weatherization is complete to receive feedback on their experience and interactions with subgrantee staff, contractors and NHD monitors. It provides good insight into program perceptions and expectations and if those expectations were met or how we can improve these interactions.

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Productivity and energy savings between Sub-grantees is not compared as housing stock is dissimilar in different areas of Nevada and also varying funding which is based on population. Sub-grantee production is compared to projected or expected outcomes that NHD establishes when grant funding is awarded. Benchmarks are established by NHD and evaluated quarterly. If the Sub-grantee is not meeting expected benchmarks NHD meets individually with that Sub-grantee to see how production can be improved and what are the obstacles to that may need to be overcome.

When a Sub-grantee is not meeting their goals and also during office and field monitoring NHD assesses what Training and Technical Assistance (T&TA) activities are required. Each year Sub-grantees are queried on T&TA needs. Also, during Sub-grantee meetings, time is devoted to T&TA questions Sub-grantees might have and observations of NHD staff found during field and office visits.

Training capability is assessed in the field during monitoring visits. A Summary Field Report is completed after each visit and there is an exit interview with Sub-grantee staff outlining strengths and weaknesses. A plan of corrective action is required within 30 days when findings were noted.

All Sub-grantee field staff must be BPI certified. Training by NHD is ongoing and takes on formal and also informal training. If a contractor's work is found not to be up to standard they are shown the correct way to install. All work completed in the field is done by licensed contractors who are aware of building and code requirements and must work to those standards. All final inspections and field monitoring will be done by a QCI certified staff member. Work in the field will need to be done to meet the Standard Work Specifications (SWS) adopted by NHD and approved by DOE.

Performance reviews are done as stated above with summary reports of finding which must be responded to within 30 days. NHD spot checks any work that did not pass inspection. Work is done at the contractors expense.

NHD is constantly reviewing our management mechanisms and will affect change when necessary or when problems are observed.

Every year a financial review of all subgrantees is undertaken by NHD Audit/Accounting Staff. All subgrantee financial systems and processes are reviewed at that time.

During the annual file review NHD conducts a review of the invoiced costs to ensure that no duplicate billing has occurred and that all costs billed are based on the approved costs. Sub-grantees are required to engage in a competitive bid process with 5 - 1 year extensions allowed.

Subgrantees must be successful in administrating cost effective programs designed to assist the program's targeted population. Monitoring reports, financial audits, on-site inspections and client survey reports indicate if subgrantees are administering cost effective programs and are in compliance with state and federal rules and regulations.

All Sub-grantee agency staff receive basic weatherization training, blower door diagnostics, combustion appliance testing, energy auditing, inspection protocol and Lead Safe Work Practices. All Sub-grantees must have staff members certified through the Building Performance Institute's Building Analyst series. Also, all Sub-grantees must have at least one OCI on staff or under contract to meet the DOE program requirements.

Below is an analysis of the current program the Sub-grantees are administering through March 19, 2018. For the current program year, the total goal for all Sub-grantees for the current program year is 84. As of March 19, 2018, 36 units have been completed.

SUBGRANTEES	GOALS	PRODUCTION THROUGH MARCH 31, 2018		
LVUL	14	13		
HELP	35	11		
CSA	11	5		
RNDC	18	7		
NRHA	6	0		

All Subgrantees anticipate spending out but a couple are a little slow at rolling out their DOE funding but each has qualified applications and work is in process. Subgrantees have until June 30th to complete production and until July 10, 2018 to report it to NHD.

V.7 Health and Safety

The Nevada Weatherization Health and Safety Plan (Plan) is being submitted as an attachment to this application. It has been updated using the DOE template and Table of Issues per WPN 17-7.

NHD will be training the Sub-grantees on the new Plan once it has been approved by DOE.

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The Plan includes:

- Intake procedures (e.g., capturing per-existing occupant health conditions).
- Deferal policies due to Health and Safety reasons (e.g., client nofitication, list of measures, appeal process, referal of clients to other services).
- An expresssion of the Health and Safety cost limit as a percent of the average cost per unit.
- Details on training plans for Health and Safety issues including continued training on ASHRAE 62.2-2016.

V.8 Program Management

V.8.1 Overview and Organization

The Weatherization Assistance Program is administered within the Nevada Housing Division (NHD), a division of the state's Department of Business and Industry. NHD utilizes tax-exempt and taxable mortgage revenue bonds to provide a source of mortgage revenue that cannot be supplied by the private sector to low- and moderate-income households. NHD administers the Single and Multi-Family Bond Programs, Loan Servicing Program, HOME Program and the Low Income Housing Trust Fund.

DOE funding is a small portion of the State of Nevada's Weatherization Assistance Program. NHD's main funding source for weatherization activities is the universal energy charge, a user fee on customer's utility bills. The program is called Funds for Energy Assistance and Conservation (FEAC) and it generates approximately three time the amount of funds annually awarded by DOE. NHD also uses funding provided by the Governor's Office of Energy (GOE) and Housing Trust Funds to augment the state's Program. Although NHD does receive some Low Income Home Energy Assistance Program (LIHEAP) funds, NHD does not directly administer this program. NHD receives a 5% pass through of LIHEAP funds annually from our Department of Health and Human Services. The majority of these funds go towards the Energy Assistance Program. Whenever possible NHD tries to leverage various funding sources in projects to allow for more measures and added energy savings, choosing the best funding source(s) for each project to maximums benefits.

Currently there are three full time positions funded through the state's Weatherization Program; Program Supervisor, Grants and Projects Analyst II and a Weatherization Compliance Inspector. The Compliance Inspector is working towards obtaining his QCI certificates. NHD currently uses Home Energy Connection, a third-party agency for QCI services.

NHD has a Subgrantee Administrative Manual that is reviewed annually and updated as necessary. The manual includes overall program management which includes inventory control, the application process, database operation, management, procurement and other necessary program information.

A copy of the NHD organizational chart is included as an attachment.

V.8.2 Administrative Expenditure Limits

NHD intends to award an additional 5% administrative funds to Sub-grantees receiving \$350,000 or less of DOE weatherization funds. This decision is based on the high costs associated with the program's administrative, financial management, and operating costs. In recent years, administrative costs have continued to rise. Sub-grantees accept the 10% administrative limit but feel it is becoming more and more difficult to make this program pencil.

NHD utilizes 5% administration for DOE WAP and currently has only 3 employees. DOE funding only pays for a small portion of the State's staff salaries, around 12% to 14%. NHD is fortuate to have other funding sources for weatherization to cover the remaining portion of salaries since Nevada's DOE allocation is so small.

V.8.3 Monitoring Activities

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Each Sub-grantee is responsible for administering their program in accordance with the rules and regulations established in 10 CFR, Part 440 and 2 CFR, Part 200, applicable OMB circulars, Weatherization Program Notices and other procedures DOE may require. Monitoring of Sub-grantees encompasses monitoring policy and procedures outlined in WPN 16-4 and are included in our Sub-grantee Administrative Manual, Field Manuals and other related documents.

As identified below, NHD monitoring staff are paid from both the Administrative Budget and the Training and Technical Assistance Budget. Based on the current estimated DOE allocation of \$871.308, it is anticipated that 21 percent of the Administrative Budget (\$9,149) and 27 percent of the Training and Technical Assistance Budget (\$15,660) will be allotted for monitoring activities for Program Year 2018.

The NHD staff involved in the monitoring process include the Weatherization Program Supervisor, the Grants and Projects Analyst II, the Weatherization Compliance Inspector and the Accountant III. For the current program year, NHD is also using a third-party agency, Home Energy Contection, for Quality Control Inspector (QCI) services. Individual duties are further explained in the subsequent details of the monitoring process below.

All Sub-grantees receiving WAP funding are monitored annually and the monitoring encompasses the following: Financial/Administrative/Procurement Equipment/Inventory/Materials Eligibility Quality Assurance Records Retention **Qualifications and Training** Feedback and Reporting On-Site Inspections Assessments, Energy Audits and Health & Safety

Office and Financial Review:

The Nevada Housing Division (NHD) conducts a comprehensive Office and Financial Review of each Sub-grantee at least once annually utilizing NHD's monitoring document. The visit consists of the following: file reviews of client files, insurance and maintenance records, financial desk review and annual review of financial statements, inspection of tools and equipment, and procurement practices. Any required subsequent visit will include a review of corrective action taken on prior findings. The Grants and Projects Analyst II performs the file review and Accountant III perform the financial review.

Files are reviewed with regard to income verification/eligibility, completion of all required forms, adherence to priority measures, prioritization of clients (elderly, disabled, children, etc.) and documentation of contractor invoices. Upon completion of the review, an exit interview is conducted with the Sub-grantee's executive director/president or representative and a written report is submitted within 30 days following the review. The written report identifies any findings, required corrective action and deliverables within a specified time frame. NHD works with the Sub-grantee in developing any training or technical assistance designed to correct the identified problems. Failure to comply with the report's recommendations or other corrective actions may result in the withholding of requested funds until resolution has been achieved. A questionnaire is sent to a sampling of clients receiving weatherization assistance requesting their comments and opinion on the assistance provided. These questionnaires are reviewed every couple of months by NHD staff and if necessary, forwarded to the respective agency for follow up. Work detailed above is the responsibility of the Grants and Projects Analyst II.

Each Sub-grantee is required to have an agency-wide audit conducted at the close of their fiscal year, however, depending on funding the DOE program is not always reviewed. Any audit findings regarding the Federally Funded WAP program and corresponding resolutions will be reviewed by the Accountant III and forwarded to the Sub-grantee's president/executive director. The Weatherization Program Supervisor is responsible for overseeling all aspects of the Subgrantee monitoring process and its successful conclusion.

Description Of On-Site Monitoring: A minimum 10% field review is conducted that includes; measures installed by the Sub-grantees will be inspected by the Weathierization Compliance Inspector and third-party QCI consultant to ensure compliance with the specifications outlined in Appendix A of 10 CFR, Part 440 (Standards for Weatherization Materials) and energy audits conducted on a DOE approved energy audit tool. During the course of the monitoring visits, the prices being paid for materials are discussed and comparisons are made with respect to the contracted costs approved by the Sub-grantee at the onset of the program year. The prices paid for a specific item will vary from one Sub-grantee to the other depending on the availability of materials and the distance from the supplier. Pre, during and post-work inspections are made by NHD staff over the course of the monitoring visit. These inspections are necessary to ensure the measures recommended by the energy audit and applicable Health and Safety standards are in fact being followed. On-site post inspections compare the measures generate from the energy audit to the completed measures. The energy audit tool determines which measures are most cost effective and ranks them in ascending order. The energy audit tool takes into consideration factors such as type of housing stock, heating/cooling degree days, cost of energy, and installed costs.

For on-site monitoring by NHD and in cases where the Sub-grantee's energy auditor performs the audit, creates the work order, and performs the

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final QCI, NHD will perform quality assurance reviews on at least 10 percent of all completed units. In the cases where the audit and final inspection are done by the same person NHD's QCI will ensure that the individual performing these tasks is able to consistently perform both tasks. The NHD QCI will evaluate that these processes are performed consistently and correctly or if additional training is required. In the larger Sub-grantee agencies where the duties of energy auditor and final inspector are segregated, NHD may perform a minimum of 5% inspections but will usually inspect 10% of the completed projects. In cases where significant deficiencies are found during the monitoring visit NHD will increase the number and frequency of these inspections. Field monitoring in the prior and current year have not revealed any significant deficiencies in either quality of work or final inspection processes.

When the Sub-grantee'sl QCI fails to adequately inspect to the guidelines in the field guide additional training will be provided and a follow up visit will be performed within 30 days. If the follow up still reveals inconsistencies, NHD will require that an independent QCI be hired by the Sub-grantee to do this task or DOE funds will be re-allocated to another Sub-grantee.

NHD monitoring will be performed by the State Monitor who will be QCI certified prior to undertaking any DOE inspections. In the event that the NHD Monitor is not QCI certified NHD will contract with a QCI certified third party. NHD has a full time permanent Weahterization Compliance Inspector position. The position is paid for out of T&TA (please see the attached budget for review of % of salary). T&TA activities are outlined in the budget. NHD utilizes a Weatherization Inspection Form for all final inspections. The Weatherization Compliance Inspector conducts an exit interview and provides a written summary of field findings. Progress Reports or Report Cards provide an overall score for work in the field. Corrective action on all fails is required with 100% reinspection required by Sub-grantee field staff. From time to time NHD includes re-inspections of these fails when out in the course of their regular monitoring. For the current program year, field monitoring has been ongoing and includes units in progress and also units completed within the past 60-90 days. As stated above, this year the Weatherization Compliance Inspector is being assisted by a QCI certified third-party agency as the Weatherization Compliance Inspector has already obtained his BPI certification.

Through the course of the grant period, each Sub-grantee's financial status reports are continually reviewed to determine the actual program support, material and health/safety costs of the homes being weatherized. These reviews are necessary to ensure compliance with the average cost per unit weatherized established by DOE is not exceeded. Sub-grantee monthly expenditures are reported by budget category and reviewed by the Grants and Projects Analyst II and NHD accounting staff prior to reimbursement. The method of dealing with various problems which may arise between NHD and it's Sub-grantees is dependent upon the severity of the problem. Normally, NHD staff will contact the Subgrantee's program manager and discuss the nature of the problem, determine how and by whom the problem will be resolved and in what time frame. If it is determined the problem could be corrected through more in-depth training or technical assistance, NHD will recommend this course of action and ensure that funds are appropriated to do so. Should the problem remain unresolved, the Weatherization Program Supervisor will contact the Sub-grantee's exective director/president and explain that failure to correct the problem could jeopardize future funding. Annually, NHD will summarize and review each Sub-grantee's audit, monitoring reports and findings for internal assessment of Sub-grantee's needs, strengths, and weaknesses. The results of this annual assessment will be re-evaluated during the annual planning process.

At present in the sourthern portion of Nevada, on-site inspections of completed DOE funded weatherization project have commenced for HELP of Southern Nevada, Las Vegas Urban League and Rural Nevada Development Corporation. These inspection will occur in the months of March For the northern portion of the State, inspections will be scheduled for Community Services Agency and Nevada Rural Housing Authority on the week of May 14th. Monitoring inspections have been scheduled and will continue to the end of the fiscal year. If necessary, additional monitoring inspections will be scheduled as needed to meet the percentage inspection base on the final numbers. A minimum of ten Quality Control Inspections will be completed by August 30, 2018. Six in the southern portion of Nevada and four in the northern portion of the State.

Office and File Monitoring has been scheduled for Community Services Agency, HELP of Southern Nevada, and Las Vegas Urban League. Nevada Rural Housing Authority and Rural Nevada Development Corporation will be scheduled before June 30 2018. It is anticipated that all Office and File Reviews will be complete before July 31, 2018. Prior year's Office and File monitoring did not expose any significant program issues other than missing paperwork in the file, which was corrected.

Financial Reviews for all Sub-grantees are in progress, with the site visits conducted and the reports should be completed by June 30, 2018. Las Vegas Urban League commenced in March. Nevada Rural Housing Authority is scheduled for April. HELP of Southern Nevada and Community Services Agency are scheduled for May. Rural Nevada Development Corporation is scheduled for June. Prior year's financial reviews did not reveal any inconsistancies or issues of any waste, fraud or abuse.

V.8.4 Training and Technical Assistance Approach and Activities

Tier I trainings (QCI and BPI) will be performed on a class by class basis by any accredited Weatherization Training Center. Tier II (LRRP, OSHA, CAS and Blower Door Training) will occur as necessary as identified by the Weatherization Compliance Inspector. NHD and its Sub-grantees do not have a contract with any specific training center but the following training center and programs are anticipated to be used:

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- Southwest Building Science Training Center, Arizona
- Opportunity Council, Washington State
- American Institute of Building Science, Genoa, Nevada
- Home Energy Connection, Las Vegas Nevada (Other training centers and programs may also be used based on need.)

In Program Year 2017, Training and Technical Training (T&TA) activities/funding will be used to support the Weatherization Compliance Inspector position at NHD plus QCI training of Sub-grantee staff, ASHRAE 62.2- 2016, BPI certifications, and other required trainings and monitoring activities. The Weatherization Compliance Inspector will use T&TA funds to obtain his QCI certification, which is anticipated to be in the fall of 2018. NHD will allocated funds to send one NHD staff member to Home Performance Coalition Annual Conference. One or two NHD staff members may also attend other technical trainings such as use of infrared technology. The remaining T&TA funds will be used for other training and travel costs any BPI re-certification needs, EPA, Lead, contractor training and jurisdictional requirements/needs.

In Program Year 2018, NHD intends to work closely with our DOE Project Officer to develop a pilot program for measuring R-values in enclosed cavities using infrared technology. It is hoped that infrared cameras may provide a method to accurately access insulation levels in sidewalls without invasive testing. DOE has stated it want to make sure that the data and method is 100% defensible. NHD agrees entirely and welcomes DOE assistance with this matter. T&TA funding will be used for equipment and infrared training as may be needed by the Sub-grantees to move this endeavor forward.

NHD will assess any ongoing T&TA needs of Sub-grantees based upon the findings related to federal and state program reviews, monitoring reports, monthly status reports, client satisfaction questionnaires, and financial and compliance audits. NHD monitoring is designed to maximize energy savings through the correct implementation and usage of the DOE approved energy audit tool for signal family dwellings and manufactured housing. T&TA funds will be provided to correct noted deficiencies and to improve the overall effectiveness of the Sub-grantees performance. As indicated earlier, T&TA activities will be limited by the amount of available funds. NHD requires at least 1 field staff member of each Sub-grantee maintain BPI and QCI certifications. As stated elsewhere in this plan all DOE completions must be inspected by a QCI certified inspector. Nevada has 5 Sub-grantees and 1 Weatherization Compliance Inspector and Nevada requires a minimum of 1 QCI certified employee per Sub-grantee and 1 for the State which should be adequate coverage to complete all inspections. In the event that a Sub-grantee does not have a QCI certified inspector, coverage will be provided by one of the other Sub-grantee QCI certified staff. Currently 4 out of 5 Sub-grantees have at least 1 certified staff member. Rural Nevada Development Corporation is in the process of having their contract inspector QCI certificed but will continue to use the QCI inspector from Las Vegas Urban League until he passes his QCI tests. Currently NHD is using a third-party agency for QCI services and will continue to do so until the Weatherization Compliance Inspector obtains his certificate.

NHD's Grants and Projects Analyst II maintains a training log and is aware when certifications are up for renewal. NHD requires mandatory BPI and Health and Safety trainings for all energy auditors and inspectors which enables the Weatherization Compliance Inspector to assess competency in the following disciplines: QCI, Blower Door, Combustion Appliance Safety, ASHRAE 62.2-2016, Lead Safe Weatherization, Mold Awareness and other Health and Safety program requirements. BPI and Health and Safety trainings are mandatory for new Sub-grantee and contractor staff within 6 months of hire. Prior to receiving training the new hire is unable to work on a job without working with a senior staff person who has taken the required classes.

NHD verifies that all required trainings have been completed and certifications are up to date during our annual Office Review. NHD request to see copies of all licensing and certifications.

Both at the State and Sub-grantee level inspectors were trained and received their QCI certifications. As new inspector enter the program, QCI training will continue for new inspectors and any weatherization inspectors who have yet to pass the QCI testing.

The EPA Lead Renovator training is contracted out and certification is required for all subgrantee staff. Contractors are required to have Firm Status prior to working on any pre'78 housing stock. Additionally,contractor staff must receive renovator certification within 90 days of hire and cannot work on pre'78 housing stock until certification is received. All five (5) Sub-grantees and their contractors have received the Lead Renovator training and have certifications. All Contractors working on the program have Firm Status as required by the EPA. During the office reviews all required certifications and licensing are reviewed and are current.

The quality of field work is evaluated during each monitoring visit to ensure compliance with the SWS, Field Manual and all Policy and Procedures. All clients are provided with a copy of "Your Home Energy Savers Booklet". During the assessment process and the final inspection clients are counseled on how to conserve energy and about the measures which have been installed and how to properly maintain the measures installed.

NHD also reviews feedback from DOE monitoring, internal state reviews, QA visits and incorporates any feedback received. NHD's database is continually updated with all records (28,407) since the NHD took on the Weatherization Assistance Program in the late 1990's. This database is used to confirm whether a project was weatherized previously.

NHD does not compare effectiveness and energy savings achieved between Sub-grantees as housing stock, heating and cooling degree days and funding vary for each Sub-grantee. NHD sets benchmarks with number of units reviews monthly to see if each Sub-grantee is on track.

NHD also has available a weatherization field guide and administrative manual for Sub-grantees and their contractors. The Sub-grantees are notified of these

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documents under the program assurances of the State contract issued each year. Each time the administrative manual is updated, the updated sections are sent directly to the Sub-grantees. The weatherization field guide was prepared by Southwest Building Science Training Center and is available at the following link: http://swbstc.org/resources/nv-field-guide

Program Outreach and Client Education Comments:

Sub-grantees distribute the following printed materials to clients consistent with the Health and Safety Plan and NHD directives:

- A Brief Guide to Mold, Moisture and Your Home EPA
- A Citizen's Guide to Radon EPA (when required in the service area).
- · Asbestos in the Home, A Homeowner's Guide
- Renovate Right (Lead Safe Work Practices)

For PY 2016 (July 1, 2016- June 30, 2017), all of the subgrantees were monitored for field compliance, office review and file reviews and financial compliance. For PY 2017, field monitoring is ongoing, file, office and financial reviews are in process and will be completed by the end of the fiscal year.

Major findings:

There were no major findings such as waste, fraud and abuse from the prior monitoring visits and of the inspections/visits this year there have been no major findings.

Trends with respect to findings, concerns or other issues:

No trends were noted or documented, minor issues with missing paperwork or permits if found were corrected with adding that documentation to the files if deficient. All Sub-grantees have staff with long history with the program and are aware of guidelines and seek assistance from NHD when in doubt. NHD holds regular meetings to discuss best practices, policies and considers potential solutions to identified problems.

Needed T&TA:

When Sub-grantee staff's BPI certifications are up for renewal CEU's are obtained from ongoing training opportunities. This year CEU's were available at the Home Energy Performance Conference in Apirl of 2018 and the Energy OutWest Conference in May of 2018, which has been budgeted in the current budget cycle. Many of our Subgrantee's are intending to sent staff members to both these conferences.

Technical assistance is provided as needed. When new staff members are hired at the Sub-grantee or contractor level, NHD's requires QCI and BPI certifications. Also, WxPro training, Infrared training, applicable Health and Safety trainings pursuant the requirements in the NHD Weathierization Health and Safety Plan, and ASHRAE 62.2-2016 training will now be required. Most all of these trainings our contracted with third party agencies. However, in program year 2018, the Weatherization Compliance Inspector will be conducting field training regarding energy audits, whole house evaluations, right sizing HVAC systems. Standard Work Specifications, and measuring R-values in enclosed cavities such as walls in accordance with our recently approved process.

Programmatic and Administrative training takes place annually by the Grants and Projects Analyst II and in most cases is done at the offices of the Sub-grantee. During the current program year, only Rural Nevada Housing Corportation had their administrative training conducted via conference call due to the remote location of their office in northeastern Nevada. All Sub-grantees have staff members that have been involved in the program for several years but still received update trainings.

The majority of the financial staff at the Sub-grantee level are seasoned employees and have been working in the Weatherization Assistance Program for several years. Financial reviews are conducted annually and also the Financial Status Reports submitted monthly are reviewed by NHD accounting staff. Sub-grantees must conform to the Uniform Administration Requirements (2 CFR Part 200) and GAAP principles. Subgrantee Financial Audits are reviewed annually by the Accountant III.

Subgrantees considered At Risk:

Rural Nevada Housing Corporation (RNDC) has been placed on an action plan due to a slow start this year. RNDC is slightly behind with its State weatherization funding under the FEAC program and also the DOE portion of the weatherization program. RNDC is only two units from behind with their DOE funding and four units behind with all funding combined. RNDC has stated that they should be able to expend all of their DOE fundings this year.

Outcome activities involving T&TA and monitoring training

All Sub-grantees provide 100% final inspection on all weatherized dwelling units. All Sub-grantees provide 100% reinspection on any failed units. Training needs may be access from these inspections.

NHD is working to address all issues associated with DOE's last monitoring visit keeping our Project Office regularly update on our progress.

Client Education: Upon the completion of every weatherization project a walk through is performed by the Sub-grantee inspector with the client prior to signing off the work completed in the home. This provides an opportunity to explain the proper operation and maintenance of the measures

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installed, warranty information and additional ways the client can save energy. Each client is provided with a copy of "Your Home Energy Savers Book" a publication containing low cost/no cost energy savings tips.

V.9 Energy Crisis and Disaster Plan

The State of Nevada does not intend to use DOE funds for Energy Crisis Relief.

Nevada Housing Division Weatherization Health and Safety Plan

☑ POLICY SUBMITTED WITH PLAN

1.0 — GENERAL INFORMATION

Grantees are encouraged to enter additional information here that does not fit neatly in one of the other sections of this document.

This Weatherization Health and Safety Plan replaces all prior plans. Throughout this Plan the use of the term "Energy Auditor" means all of the Sub-grantee's field staff including inspectors, auditors, assessors and field supervisors.

If Health and Safety issues exceed the capacity of the Weatherization Assistance Program, referrals should be made to appropriate local, state and federal agencies whenever possible.

Health and Safety items not listed in this Plan may be approved on a case-by-case basis by the Nevada Housing Division (NHD) if there necessity is justified in accordance with the total package of energy conservation measures.

2.0 — BUDGETING

Grantees are encouraged to budget Health & Safety (H&S) costs as a separate category and, thereby, exclude such costs from the average cost per unit cost (ACPU) limitation. This separate category also allows these costs to be isolated from energy efficiency costs in program evaluations. Grantees are reminded that, if H&S costs are budgeted and reported under the program operations category rather than the H&S category, the related H&S costs must be included in the calculation of the ACPU and cost-justified through the approved energy audit.

Sel	ect	wh	ich	op	tior	١is	used	be	low.

Separate Health and Safety Budget

✓

Contained in Program Operations

3.0 – HEALTH AND SAFETY EXPENDITURE LIMITS

Pursuant to 10 CFR 440.16(h), Grantees must set H&S expenditure limits for their Program, providing justification by explaining the basis for setting these limits and providing related historical experience.

Low percentages should include a statement of what other funding is being used to support H&S costs, while larger percentages will require greater justification and relevant historical support. It is possible that these limits may vary depending upon conditions found in different geographical areas. These limits must be expressed as a percentage of the ACPU. For example, if the ACPU is \$5,000, then an average expenditure of \$750 per dwelling would equal 15 percent expenditures for H&S.

15 percent is not a limit on H&S expenditures but exceeding this amount will require ample justification. These funds are to be expended by the Program in direct weatherization activities. While required as a percentage of the ACPU, if budgeted separately, the H&S costs are not calculated into the per-house limitation. DOE strongly encourages using the table below in developing justification for the requested H&S budget amount. Each H&S measure the Grantee anticipates addressing with H&S funds should be listed along with an associated cost for each measure, and by using historical data the estimated frequency that each measure is installed over the total production for the year.

It is also recommend reviewing recent budget requests, versus expenditures to see if previous budget estimates have been accurate. The resulting "Total Average H&S Cost per Unit" multiplied by the Grantee's production estimate in the Annual File <u>should</u> correlate to the H&S budget amount listed in the Grantee's state plan.

Should a Grantee request to have more than 15 percent of Program Operations used for health and safety purposes, DOE will conduct a secondary level of review. DOE strongly encourages use of this H&S template and matrix to help expedite this process

H&S Measure Matrix - Optional					
Double Click To Open For Editing					
Cel	Is this shade auto cal	culate			
<u>Enter</u> Measure ↓	<u>Enter</u> Cost ↓	Enter Frequency % ↓	Auto Calculates		
Primary Heating System Replacement	\$3,432.11	6.0%	\$205.93		
Primary Cooling System Replacement	\$4,740.00	3.0%	\$142.20		
Water Heater Replacement	\$1,394.88	6.0%	\$83.69		
Water Heater Flue Vent	\$75.00	3.0%	\$2.25		
ASHRAE 62.2 (Exhaust fans)	\$767.76	47.0%	\$360.85		
CO Alarms	\$77.52	92.0%	\$71.32		
Smoke Alarm	\$40.00	8.0%	\$3.20		
Hazard Material Containment	\$196.25	22.0%	\$43.18		
Spring Hinge for Garage Door	\$90.00	6.0%	\$5.40		
Cap of Gas Fire Place	\$63.33	8.0%	\$5.07		
Combustion Air Vents	\$46.29	19.0%	\$8.80		
HVAC Repair	\$228.50	8.0%	\$18.28		
Evap Cooler Replacement	\$2,100.00	3.0%	\$63.00		
Appliance Direct Venting Repairs	\$191.67	8.0%	\$15.33		
LSW, OSHA & Other Testing	\$275.00	20.0%	\$55.00		
Total Average H&S Cost Per Unit \$1,083.4					
Enter Estimated Production (Annual File: IV.2 WAP Production Schedule) →					
Enter Estimated Program Operations Budget → 530772					
H&S Budget (Total Average H&S Cost Per Unit * Estimated Production) \$79,094.4					
Requested H&S Percentage Per Unit (H&S Budget/Program Operations) 14.9%					

4.0 - INCIDENTAL REPAIR MEASURES

If Grantees choose to identify any H&S measures as incidental repair measures (IRMs), they must be implemented as such under the Grantee's weatherization program in all cases – meaning, they can never be applied to the H&S budget category. In order to be considered IRMs, the measure must fit the following definition and be cost justified along with the associated efficiency measure;

Incidental Repairs means those repairs necessary for the effective performance or preservation of weatherization materials. Such repairs include, but are not limited to, framing or repairing windows and doors which could not otherwise be caulked or weather-stripped and providing protective materials, such as paint, used to seal materials installed under this program. (10 CFR 440 "Definitions")

Incidental Repair measures are those repairs that are necessary for the effective performance or preservation of energy saving measures/materials. All estimated incidental repair costs, including labor and materials must be included on the SIR report generated for the project work order. Cumulative repair costs must not cause the overall job to fall below an SIR of 1.0.

Incidental Repairs must be justified in the client's file with an explanation for the need and relationship to a specific energy conservation measure or group of energy conservation measures.

The following health and safety repairs should be charged as Incidental Repairs and are to be included in the total SIR of the project; they are not to be charged to the Health and Safety budget. All work should be done in accordance with the applicable Sections of this Health and Safety Plan.

Section 7.1 - Air Conditioning and Heating Systems (Secondary Heating Units)

• Unsafe secondary heating units may receive minor repairs including electric space heaters. Repairs to unvented secondary heating units are not allowed.

Section 7.5 - Biologicals and Unsanitary Conditions

- Repair of biological-creating conditions as indicated but not limited to below:
 - Repair of plumbing and sewer leaks inside the dwelling unit or plumbing leaks outside the dwelling unit such as hose bibs (garden hose faucets) that may be leaking and draining against the foundation.
 - Repair of water damaged materials that <u>must</u> be repaired to allow for installation of energy saving materials.
 - Repair of water damaged material that will dry after the offending repair is complete and isn't required to perform weatherization is <u>NOT</u> allowed.

Section 7.6 - Building Structure and Roofing

- Minor roof repairs to preserve new attic insulation;
- Spray polyurethane foam used as a roof coating of mobile homes;
- Repairing water-damaged flooring as part of replacing a water heater;
- Providing protective materials, such as paint, used to seal materials;
- Minor structural repairs that are necessary to allow for effective weatherization; and
- Framing or repairing windows and doors which could not otherwise be caulked or weatherstripped are eligible.

Section 7.9 - Electrical

- Minor electrical repairs are eligible when the installation of an energy conservation measure requires the repair of an existing hazardous, undersize circuit or installation of a necessary new circuit.
- Electrical testing is an eligible Health and Safety expenditure and should <u>NOT</u> be charged as an Incidental Repair measure.

Section 7.14 - Injury Prevention of Occupants and Weatherization Workers

- When necessary to effectively weatherize a dwelling unit, minor repairs and installations may be made to stairs, grab-bars, handrails, porch deck boards or other weak structures.
- Hazards items that protrude out in away where the item may be or become dangerous may be removed to create a safe work environment.

Section 7.16 - Mold and Moisture

• Limited water damage may be repaired in order to weatherize the dwelling unit if resulting in long-term stability and durability of the energy conservation measures.

- Minor repairs to control the source of moisture include:
 - Repairs to plumbing or sanitary leaks causing moisture problems or damage;
 - Repairs to gutter and downspouts to direct water away from the building and/or foundation where evidence of moisture problems or damage;
 - Installation of splash blocks or extensions to direct gutter and/or downspout drains away from the building and/or foundation where evidence of moisture problems or damage;
 - Installation of flashings to direct water away from the building and/or foundation where evidence of moisture problems or damage;
 - Installation of sump pumps and associated plumbing and electrical to prevent bulk moisture build-up in basements or crawl spaces;
 - Minor drainage or landscape modifications necessary to divert roof or natural water runoff from infiltrating into the foundation that does not require motorized earth moving equipment;
 - o Installation of a moisture/vapor barrier installed in dwelling units with dirt floors in the basement or crawlspace whenever feasible; and
 - Other minor repairs that may be necessary to control moisture infiltration into the dwelling unit.
- Mold testing or general mold cleanup is not an allowable cost either as an Incidental Repair or a Health and Safety measure.

Section 7.17 - Pests

• Pest remediation is only allowed where infestation will prevent weatherization and/or impact the long-term stability and durability of the energy conservation measure(s).

Section 7.18 - Radon

- The following radon precautionary measure are eligible:
 - o Installing a vapor barrier of 6 mill or greater;
 - Sealing any observed floor and/or foundation penetrations, including open sump pits;
 - Isolating the basement from the conditioned space;
 - Installing crawlspace venting; and
 - Installing other EPA radon precautionary measures based on the Healthy Indoor Environmental Protocols for Home Energy Updates that may be beneficial to reduce radon exposure.
- Radon testing is an eligible Health and Safety expenditure and should <u>NOT</u> be charged as an Incidental Repair measure.

Section 7.22 - Window and Door Replacement, Window Guards

- Repair or replacement of windows that allow water infiltration into a building structure may be allowed as an Incidental Repair measure.
- Repair or replacement of doors that allows water infiltration into a building structure may be allowed as an Incidental Repair measure.
- Repair of trim and/or flashings around windows or doors to prevent water infiltration may be allowed as an Incidental Repair measure.
- Replacement of skylights that leak water and have visible evidence of moisture damage (beyond water staining) and deterioration of the window assembly or building material around the window may be allowed as an Incidental Repair measure.
- Window guards are not eligible as either an Incidental Repair measure or a Health and Safety cost.

5.0 - DEFERRAL/REFERRAL POLICY

Deferral of services may be necessary if H&S issues cannot be adequately addressed according to WPN 17-06 guidance. The decision to defer work in a dwelling is difficult but necessary in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved and/or alternative sources of help are found. If, in the judgment of the auditor, any conditions exist which may endanger the health and/or safety of the workers or occupants, the unit should be deferred until the conditions are corrected. Deferral may also be necessary where occupants are uncooperative, abusive, or threatening. Grantees must be specific in their approach and provide the process for clients to be notified in writing of the deferral and what conditions must be met for weatherization to continue. Grantees must also provide a process for the client to appeal the deferral decision to a higher level in the organization.

Grantee has developed a comprehensive written deferral/referral policy that covers both H&S, and other deferral				
reasons?				
Yes ☑ No □				

Where can this deferral/referral policy be accessed?

The State of Nevada Deferral Policy is presented below in the next paragraph. A blank copy of the Weatherization Deferral Notice is contained in Section 6.0. A Microsoft Word version of this form is available from the Nevada Housing Division.

Deferral may be necessary if Health and Safety issues cannot be adequately addressed. The decision to defer work in a dwelling is difficult, but necessary in some cases. This does not mean that assistance will never be available, but that work must be postponed until the problems can be resolved and/or alternative sources of help are found. In the judgment of the Energy Auditor, any existing conditions that may endanger the health and/or safety of the workers or occupants may cause weatherization to be deferred. Deferral may also be necessary where occupants are uncooperative, abusive, or threatening. Sub-grantee staff and contractors, are expected to pursue reasonable options, including referrals and to use good judgment in dealing with difficult situations.

Sub-grantees should use the Weatherization Deferral Notice form anytime it is necessary to defer a project. The form needs to contain a clear description of the problem, conditions under which weatherization could continue, and the client's signature indicating that they understand and have been informed of their options. Copies of the completed form shall be provided to the client and one shall be maintained in the client's file.

If the client refuses to sign the form or if the situation is such that the Energy Auditor must leave the property immediately such as in the case of threats or potential violence, the Energy Auditor will note that on the form. In these cases, the form may be mailed to the client with a notice closing out the project.

Deferral conditions may include:

- 1. The client has known health conditions that prohibit the installation of insulation and other weatherization materials.
- 2. The building structure or its mechanical systems, including electrical and plumbing, are in such a state of disrepair that the conditions cannot be resolved within these guidelines and at reasonable costs (i.e., repairs are beyond incidental).
- 3. The house has sewage or other sanitary problems including pet/animal excrement that can't be corrected through weatherization and would further endanger the client and weatherization installers if weatherization work were performed.
- 4. The house has been condemned or electrical, plumbing, or other equipment has been "red tagged" by local or state building officials or utility companies and weatherization funds are not sufficient or corrective measures are not allowable costs.
- 5. The house has moisture or potential moisture problems that cannot be resolved under existing health and safety guidelines and with Incidental Repairs measures.

- 6. Dangerous conditions in the dwelling unit due to high carbon monoxide levels in combustion appliances or the venting which cannot be resolved under existing health and safety guidance. Sub-grantees should take immediate action to ensure the appliance is not used, including instructing the client to contact a combustion appliance repair/replacement specialist.
- 7. The client is uncooperative, abusive, or threatening to Energy Auditor, other staff or contractors.
- 8. The extent and condition of lead-based paint or any other identified hazardous condition in the house that could potentially create further health and safety hazards.
- 9. Pest infestation that cannot be reasonably removed or poses health concerns for workers.
- 10. In the judgment of the Energy Auditor, any condition exists which may endanger the health and/or safety of the contractor work crew or subcontractor.
- 11. Dwelling units with conditions that have the potential to create a health concern requiring more than Incidental Repair measures should be deferred.

Normal Deferral Fee: In some cases, it may be necessary to use the services of a licensed contractor to make a determination regarding the necessity to issue a deferral. This is an eligible Program Operation expenses. The maximum cost a licensed contractor may be paid for evaluation of a deferral situation is \$100. This amount is what is meant when the phrase "normal deferral fee" is used in this Health and Safety Plan.

Appeal Process: Sub-grantees shall allow for the client to appeal the deferral decision of the Energy Auditor to the program manager or other appropriate management position at a higher level in their organization, except in the case when the client was uncooperative, abusive or threatening in anyway.

6.0 — HAZARD IDENTIFICATION AND NOTIFICATION FORM(S)

Documentation forms must be developed that include at a minimum: the client's name and address, dates of the audit/assessment and

when the client was informed of a potential H&S issue, a clear description could continue, and the client(s) signature(s) indicating that they understand	
Documentation Form(s) have been dev	veloped and comply with guidance?
Yes ☑	No □
WEATHERIZATION D	DEFERRAL NOTICE
Client:	Phone:
Client:	City:
Problems with combustion appliances we are unable to co [Furnace/Heater] Water Heater] Range/ Other	orrect: Oven Clothes Dryer
Extensive repair of structure or mechanical systems is requestion. Structure Plumbing Electrical Heating	
Sanitation problems are present which could endanger the Sewage Other:	

Severe moisture problems are present:						
Structure Crawl Space Attic						
Other:	ther:					
Harmful pesticide residue / ☐ Hazardous pest/insect infestation is present in:						
Dwelling Yard Crawl Space Attic						
Other:						
						
Excessive peeling paint on pre-1979 home:						
☐ Interior Work Area ☐ Exterior Work Area ☐						
Other:						
	_					
Other problems:						
If these problems can be satisfactorily corrected within 30 days from the date of this notifi	cation, then we will					
resume work on this property. If the problems are not corrected within this time period, w						
are unable to make the necessary corrections and your file will be closed.	•					
,						
Please contact our office at the number below to determine if we can assist in referring	you to other programs					
or agencies or to report that all problems have been corrected.						
Agency:Phone:						
<u> </u>						
I/we have read (or had explained) the contents of this form.						
Occupant:Date:						
Weatherization Agent:Date:						

7.0 — HEALTH AND SAFETY CATEGORIES

For each of the following H&S categories identified by DOE:

- Explain whether you concur with existing guidance from WPN 17-06 and how that guidance will be implemented in your Program, if you are proposing an alternative action/allowability, or if the identified category will not be addressed and will always result in deferral. Alternatives must be comprehensively explained and meet the intent of DOE guidance.
- Where an Action/Allowability or Testing is "required" or "not allowed" through WPN 17-06, Grantees must concur, or choose to defer all units where the specific category is encountered.
- "Allowable" items under WPN 17-06 leave room for Grantees to determine if the category, or testing, will be addressed and in what circumstances.
- Declare whether DOE funds or alternate funding source(s) will be used to address the particular category.
- Describe the explicit methods to remedy the specific category.
- Describe what testing protocols (if any) will be used.
- Define minimum thresholds that determine minor and major repairs
- Identify minimum documentation requirements for at-risk occupants
- Discuss what explicit steps will be taken to educate the client, if any, on the specific category if this is not explained elsewhere in the Plan. Some categories, like mold and moisture, require client education.
- Discuss how training and certification requirements will be provided for the specific category. Some categories, like Lead Based Paint, require training.
- Describe how occupant health and safety concerns and conditions will be solicited and documented

Grantees may include additional H&S categories for their particular Programs. Additional categories must include, at a minimum, all of the same data fields as the DOE-provided categories. Two additional tables have been created to utilize.

7.1 – Air Conditioning and Heating Systems					
	(Concurrence, Alterna	ative, or Deferral		
Concurrence with G	currence with Guidance ☑ Alternative Guidance □ Results in Deferral □				
Air Conditioning Unallowable Measure ☐ Heating Unallowable Measure ☐					
		Fundir	ng		
DOE ☑	LIHEAP 🗆	State □	Utility 🗆	Other 🛘	
How	do you address ur	safe or non-function	ning primary heati	ng/cooling systems?	
Lloating					

Heating

Due to extreme freezing temperatures in all areas of the State of Nevada "Red tagged," in operable, or nonexistent primary heating system may be replaced, repaired, or installed in all climate zones throughout Nevada. Primary source unvented combustion (natural gas, propane, or kerosene) space heaters are required to be removed and properly disposed of prior to weatherization. The primary heating source must be replaced with a vented unit. The replacement unit should be sized so it is capable of heating the entire dwelling unit.

Solid fueled space heaters including wood stoves, coal stoves, pellet stoves and fireplaces. Wood, coal and pellet fired furnaces and boiler systems should be treated as vented heating systems. Assess solid fuel-fired appliances to ensure safe installation prior to weatherization activities taking place. Repair or removal is an allowed Health and Safety measure for primary and secondary solid fuel-fired heating appliances. Replacement is allowed for primary solid fuel heating appliances but replacement is <u>not</u> allow for secondary heating appliances. Repair of flues and proper installation (e.g., protection of combustibles), is required for both primary and secondary solid fuel heating appliances. Install replacement primary heaters and/or flues according to applicable codes, standards and manufacturer's instructions. Provide adequate combustion air. Flue repairs of a primary heating systems is an eligible Health and Safety measure.

Treat vented gas- and liquid fueled space heaters the same as furnaces in terms of combustion safety testing, repair and replacement. This applies to vented space heaters fueled by natural gas, propane, or oil.

Masonry Chimneys used by vented space heaters should be properly lined in compliance with the International Fuel Gas Code (IFGC). When the Sub-grantee installs new equipment it must meet local code requirements. Masonry chimneys that have been retired (i.e., not being used by existing equipment) should be assessed for energy savings opportunities such as air sealing and capping to reduce thermal bypass.

The Manufactured Home Construction and Safety Standards (https://portal.hud.gov/hudportal/HUD?src=/hudprograms/mhcss) requires all fuel-burning, heat-producing appliances in manufactured housing units, except ranges and ovens, to be vented to the outside. All fuel-burning appliances in manufactured housing units, except ranges, ovens, illuminating appliances, clothes dryers, solid fuel-burning fireplaces and solid fuel-burning stoves, must be installed to provide for the complete separation of the combustion system from the interior atmosphere of the manufactured home (i.e., to draw their combustion air from outside).

Cooling

Primary air conditioning system replacement, repair or installation is allow in dwelling units where current occupants are considered at-risk. Due to extreme heat based on Cooling Degree Days, all occupants of dwelling units in the following counties are considered at-risk in Carson, Clark, Churchill, Esmeralda, Eureka, Humboldt, Lander, Lincoln, Lyon, Mineral, Nye, Pershing, and Storey and no documentation is necessary in any of these counties. All occupants in dwelling units in Douglas and Washoe counties are considered at-risk and no documentation is needed with the exception of the Lake Tahoe Basin portions of these counties. In the counties

of Elko and White Pine only the following cities and immediate surrounding areas of Elko, Montell, Lund, and Sunnyside are the occupants of dwelling units considered at-risk and no documentation is necessary. Occupants in the rest of the areas in these two counties are <u>not</u> considered at-risk of extreme heat and in need of air conditioning unless there is a documented health issue.

In areas <u>not</u> identified in the preceding paragraph as being at-risk, the elderly, persons with a disabled and/or, a household with a child less than six years of age with a documented health issue may also be considered at-risk if appropriate documentation is provided to the Sub-grantee. This would then include dwelling units located in Elko and White Pine counties, and the Lake Tahoe Basin portion of Douglas and Washoe counties if documentation is provided for the identified category of persons.

Pursuant to Nevada Administrative Code 702.870 (3), a Sub-grantee shall provide weatherization assistance to eligible households based on the availability of money and the priority given to each eligible household using the information provide in the eligibility determination worksheet. The Sub-grantee shall give priority to eligible households in the following order of priority:

- (a) Eligible households requiring emergency assistance because: (1) The primary heating system of the household is inoperable or unsafe during the winter heating season; or (2) The primary cooling system of the household is inoperable or unsafe during the summer cooling season.
- (b) Eligible households that have one or more members who are: (1) Elderly persons; Persons with a disability; or Children less than six years of age.
- (c) All other eligible households.

Sub-grantees shall use proper sizing protocols such as WxPro outputs, Manual J, or other State approved sizing protocols based on post-weatherization housing characteristics including installed mechanical ventilation, when installing or replacing a heating or cooling system.

How do you address unsafe or non-functioning secondary heating systems, Including unvented secondary space heaters?

Unsafe secondary units, including space heaters, must be repaired, removed or rendered inoperable, or a deferral is required. (See Hazard Materials Disposal section for more information.) Replacement or installation of secondary units is not allowed. However, maintenance and repair of secondary source heating units is allowed.

DOE only allows minor repairs to be done to electric space heaters. This does not preclude the use of other funding sources for replacement of electric space heaters, but it is not encourage it because of:

- Lower output rating (size);
- Risk of fire; and
- Inadequate electrical systems in older dwelling units, which frequently cannot safely carry the power required operate an electric heater.

Work on such systems may make Sub-grantees liable for inadequate electric wiring and any damages that result.

Secondary unvented units that conform to the safety standards of ANSI Z21.11.2 may remain as back-up heat sources. DOE allows this flexibility primarily to provide low-income clients an emergency back-up source of heat in the event of electrical power outages. When selecting items to leave behind, give preference to codecompliant units that do not require electricity.

Secondary unvented units that do not meet ANSIZ21-11.2 must be removed and properly disposed of prior to weatherization but may remain until a replacement heating system is in place. Repair of secondary unvented units is not allowed. Secondary unvented units that meet the ANSI Z21.11.2, but are not operating safely, must be removed and properly disposed of.

An unvented gas- and liquid fueled space heaters that remains in a completed single-family house after weatherization shall:

- Not have an input rating in excess of 40,000 Btu/hour;
- Not be located in, or obtain combustion air from sleeping rooms, bathrooms, toilet rooms, or storage closet, except:
 - One listed wall-mounted space heater in a bathroom if permitted by the authority having jurisdiction which--:
 - Has an input rating that does not exceed 6,000 Btu/hour;
 - Is equipped with an oxygen-deletion sensing safety shut-off system; and
 - The bathroom has adequate combustion air;
 - One listed wall-mounted space heater in a bedroom if permitted by the authority having jurisdiction, which--:
 - Has an input rating that does not exceed 10,000 Btu/hour;
 - Is equipped with an oxygen-deletion sensing safety shut-off system; and
 - The bedroom has adequate combustion air.

Indicate Documentation Required for At-Risk Occupants

Appropriate documentation for an at-risk elderly person, a person with a disabled and/or, a household with a child less than six years of age is a written note from a licensed medical doctor stating that due to a health issue it may be beneficial to install or repair air conditioning in this dwelling unit. Elderly is defined as a person 62 years of age or older.

Documentation is only needed in counties and other areas where all occupants in the dwelling units are not already considered at-risk due to the high number of Cooling Degree Days.

Testing Protocols

Energy Auditor shall ensure the primary system is present, operable and performing correctly. Using a DOE approved audit process, the Energy Auditor shall check if the primary heating and/or cooling system can be installed as an energy conservation measure prior to replacement as a Health and Safety measure. If the measure is an approved weatherization expenditure and the audit justifies the cost with a Saving to Investment (SIR) ratio equal to or greater than 1.0, the measure must be performed and costs charged as an energy conservation measure. If the measure is NOT an eligible energy conservation measure, the measure must be charged as a Health and Safety measure. If the measure is to be installed as a Health and Safety measure, the Energy Auditor shall determine and document the at-risk occupant when installing air-conditioning as a Health and Safety measure.

On combustion equipment, the Energy Auditor shall inspect the chimney and flue and test for Combustion Appliance Zone depressurization. During diagnostic testing, if it is determined that a combustion appliance is NOT properly drafting, the cause must be determined and remedied. Costs associated with correcting the drafting issue(s) is an allowable Health and Safety if the remedy for the vent/drafting issue is NOT corrected by an energy conservation measure or direct component of the energy conservation measure. If the expected cost for repairing the draft/venting issue(s) is necessary to charge to Health and Safety and causes the cumulative Health and Safety cost for the dwelling unit to become "unreasonable" (as may be determined by the Sub-grantee's available per unit Health and Safety average) the job may need to be deferred until those issues are remedied by the owner unless other funding sources than DOE are available to address the matter.

For solid fuel appliances, maintenance, repair and replacement of <u>primary</u> source indoor heating units are allowed as a Health and Safety measure if health and safety of occupant(s) is a concern. (As previously stated, it should first be determined if the repairs or replacement measure can be charged as an energy conservation measure prior to using Health and Safety funds.) The Energy Auditor shall look for visual evidence of soot on the wall, mantel or ceiling or creosote staining near the flue pipe. Combustion Appliance Zone depressurization

diagnostics should be performed. No blower door depressurization should occur while a fireplace or woodstove is in operation. If the Combustion Appliance Zone depressurization diagnostics are performed, the Energy Auditor must be aware of and alert to the potential for back drafting. Pressurization blower door testing may be performed at the auditor's discretion.

Solid fuel heating sources also may create a separate Combustion Appliance Zone. This Combustion Appliance Zone should also be tested if it is located away from the other combustion appliances.

Assessing solid fuel fired appliances involves inspecting the venting/chimney and the overall installation to ensure it adheres to the applicable code: NRPA 211 or other as determined by authority having jurisdiction. Appliances should be inspected pre- and post-weatherization.

Fireplaces present special hazards that are affected by weatherization. If draft is poor, smoke may downdraft into the living space causing poor indoor air quality. It is likely the occupants will ventilate in these situations. Near the end of a wood fire, glowing coals will remain, radiating heat, while the draft lowers and allows the top of the chimney to cool, further reducing draft. The reduced oxygen available to the glowing coals causes production of carbon monoxide without the smoke that encourages space ventilation. This is potentially a dangerous situation as the carbon monoxide enter the living space due to the lowered draft, causes drowsiness of occupants, and sometimes worse. For this reason it is extremely important to make sure there is a carbon monoxide alarm installed in this combustion zone and occupants are educated to the danger signs and what to do.

Conduct pre- and post-weatherization worst case CAZ depressurization testing in spaces having a fireplace. Since there is no consensus method for verifying safe operation of fireplaces, Sub-grantees may propose their own testing policies and limits such as a Sub-grantee may want to use a depressurization limit of -5 in the Combustion Appliance Zone of any wood-burning combustion appliances, including fireplaces. If the Sub-grantee does not propose a policy and fireplaces are left operational, the vent must meet code or the dwelling unit cannot be weatherized.

To evaluate operation of other combustion appliances, the blower door can be set to run at 300 CFM (set up as for depressurization testing), or other appropriate flow rate, to mimic the airflow dynamics likely when the fireplace is in use.

The Energy Auditor should also performed a full DOE-approved energy audit prior to deciding how to categorize the cost of space heater repair or replacement. Safety inspections related to the space heater should include, but not be limited to, a check for adequate floor protection, and code-compliant clearances to walls and other combustible materials. Even though many vented space heaters are manufactured with spill switches it is still a requirement that a worst-case depressurization draft test be performed on all vented units.

Client Education

The Energy Auditor and/or contractor(s) shall discuss with the client how to use and maintain any new equipment installed and provide all instruction manuals and applicable paperwork. When combustion equipment is present, provide safety information including how to recognize depressurization.

Bulk Fuel Tanks: When not removed as part of the weatherization work discuss and provide information on proper disposal of bulk fuel tanks.

Training

Sub-grantee shall ensure that each Energy Auditor and contractor is trained on applicable health and safety activities in this Section. Energy Auditors must be trained inspectors with knowledge of Combustion Appliance Zone depressurization testing. At a minimum, Energy Auditors must have obtained their Building Analyst Professional certificate from the Building Performance Institute. All contractors and subcontractors that replace, repair and/or service HVAC equipment shall be licensed and/or certified by the Nevada State Contractors Board or Manufactured Housing Division as may be applicable.

7.2 – Asbestos – All

What is the blower door testing policy when suspected Asbestos Containing Material (ACM) is identified?

If Asbestos Containing Material (ACM) is identified that is friable during the dwelling unit inspection for the energy audit, a blower door test should <u>not</u> be done until the situation is addressed. "Friable" means the material can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand. Energy Auditor shall consultant with a Nevada Certified Asbestos Contractor/Consultant as may be necessary to resolve the matter if possible.

Do not perform a blower door test if it will disturb vermiculite unless testing has determined it does not contain asbestos.

	7.2a – As	bestos - in sidin	g, walls, ceilin	gs, etc.
	(Concurrence, Alterna	tive, or Deferral	
Concurrence with	Guidance ☑	Alternative Guid	dance 🗆	Results in Deferral □
		Fundir	ng	
DOE ☑	LIHEAP 🗖	State □	Utility 🛘	Other \square
How do you add	dress suspected ACM	's in siding, walls, or weatherization		e disturbed through the course of

The Sub-grantee and contractor shall take all reasonable and necessary precautions to prevent asbestos contamination in the dwelling unit when testing and/or working with siding, walls and ceilings suspected of Asbestos Containing Materials. Only properly trained and licensed contractors may disturbed Asbestos Containing Materials during the course of the weatherization work. When evaluating existing insulation in enclosed walls and ceilings, the Energy Auditor shall follow the NHD policy for *Measuring of R-Values in Enclosed Cavities*. All cost associated with asbestos remediation are to be charged to the Health and Safety budget. These costs may include testing, containment and/or disposal of Asbestos Containing Materials.

The existence of asbestos siding that is in good condition does not prevent installing dense-pack insulation from the exterior. Removing and re-installment of asbestos siding is permissible for purposes of installing wall insulation. However, cutting and drilling of siding containing asbestos is not allowed. It is recommended and preferred to perform interior blows when access allows. General abatement of asbestos siding or replacement with new siding is not an allowable Health and Safety cost. All Sub-grantees should have at least one contractor qualified to work with this type of material. Any excess costs incurred as a result of asbestos mitigation shall be charged to the Health and Safety budget.

If Asbestos Containing Materials are identified that are friable during the dwelling unit inspection for the energy audit, a blower door test should <u>not</u> be done until the situation is addressed. "Friable" means the material can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand. The Energy Auditor shall

consultant with a Nevada Certified Asbestos Contractor/Consultant as may be necessary to resolve the matter, if possible.

When a deferral is necessary due to Asbestos Containing Materials, the occupant must provide the Sub-grantee documentation that a certified professional performed the remediation before weatherization may commence.

Testing Protocols

The Energy Auditor shall conduct a visual inspection for possible Asbestos Containing Material in exterior wall surfaces and subsurface, floors, interior walls and ceilings. Suspected Asbestos Containing Materials identified during the inspection will be brought to the attention of the client. The condition of the Asbestos Containing Material will be assessed to determine if it is friable and occupants will be advised not to disturb the material.

As may be necessary to conduct the weatherization project, asbestos testing and/or containment by a properly trained and licensed contractor is an allowable Health and Safety cost. Per Asbestos Hazard Emergency Response Act of 1986 (AHERA) sample collection and testing must be conducted by a certified tester. The Energy Auditor shall work closely with the trained and licensed contractor in determining how best to address Asbestos Containing Materials.

Regardless of age, any sheetrock that will be either cut or drilled as part of the evaluation or weatherization process shall be assumed to be Asbestos Containing Material and must either be tested or contained by a properly trained and licensed contractor. Energy Auditors shall not drill or cut into sheetrock for purpose of determining the R-value in enclosed cavities. Only a trained and license contractor may perform this task.

An Energy Auditor may defer a weatherization project if he decides that the scope of the project due to Asbestos Containing Materials is not practical to complete and/or is beyond the Sub-grantee's resources to safely mitigate. Any decision to defer a project for this reason(s) will not be challenged by the Nevada Housing Division, Weatherization Assistance Program.

Client Education

If suspected Asbestos Containing Materials are discover and its condition is friable, occupants will be notified in writing not to disturb the material. Also, the client should receive the EPA pamphlet "Asbestos in the Home, a Homeowners Guide". If testing is performed, the client shall be provided a copy of the written report of the results.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence. A contractor trained and licensed to work with Asbestos Containing Materials may be contacted to detail out in writing what specific steps needs to be done to address the hazard and leave this information with the client. The contractor should be paid the normal deferral fee.

Training and Certification Requirements

All Energy Auditors must attend an asbestos awareness training to learn how to identify Asbestos Containing Materials and when Asbestos Containing Materials may pose a hazard to occupants or workers. This training and re-training shall be done by Nevada Occupational Safety and Health Administration (OHSA) pursuant to their recommendations for Energy Auditors.

Contractors working with asbestos and asbestos siding must be licensed and certified by Nevada OHSA prior to performing any testing and/or work on Suspected Asbestos Containing Materials.

	7.	2b – Asbestos -	in vermiculite	
		Concurrence, Alterna	ative, or Deferral	
Concurrence w	vith Guidance 🏻	Alternative Gui	dance \square	Results in Deferral
		Fundir	ng	
DOE ☑	LIHEAP 🗖	State □	Utility 🗆	Other 🗆
How d	o you address suspected	ACM's in vermiculi	te that will be dist	urbed through the course of
		weatherization	on work?	
When vermicu	lite insulation is present	STOP THE ENERGY	ALIDIT and do not n	perform a blower door test

When vermiculite insulation is present, STOP THE ENERGY AUDIT and do not perform a blower door test. Personnel should utilize proper respiratory protection if in areas containing vermiculite.

Vermiculite must be assumed to contain asbestos and the Energy Auditor shall issue a deferral. A contractor trained and licensed to work with Asbestos Containing Materials should be contacted to detail out in writing what specific steps needs to be done to address the hazard and leave this information with the client. The contractor should be paid the normal deferral fee.

Removal of vermiculite is beyond the scope of the weatherization program and Nevada Housing Division has determined there are no safe and practical procedures available to encapsulate vermiculite. If it has entered the duct system, it may be necessary for the entire house to be tested prior to proceeding with any weatherization work.

When a deferral is issued due to vermiculite, the client shall provide the Sub-grantee with documentation that a certified professional performed the remediation before work can commence and the dwelling unit must now tests clean.

Testing Protocols

The Energy Auditor shall conduct a visual inspection for the presents of vermiculite. Any vermiculite identified during the inspection shall be assumed to contain asbestos and the Energy Auditor shall stop the audit process and issue a deferral as stated above.

The Energy Auditor shall not test the vermiculite. It is up to the owner to contract and pay for all tests and necessary mitigation measures to address this hazard.

Client Education

If vermiculite insulation is discovered client(s) will be notified in writing not to disturb the material. Also, the client should receive the EPA pamphlet "Asbestos in the Home, a Homeowners Guide".

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence.

Training and Certification Requirements

All Energy Auditors must attend an asbestos awareness training to learn how to identify asbestos containing materials and when asbestos containing materials may pose a hazard to occupants or workers. This training is to include how to recognize vermiculite. It shall be done by Nevada Occupational Safety and Health Administration (OHSA) pursuant to their recommendations for Energy Auditors.

Contractors used to issue deferrals and document procedures to address the potential hazard of Asbestos Containing Materials must be licensed and certified by Nevada OHSA.

7.	2c – Asbestos - oı	n pipes, furnaces	s, other small co	vered surfaces	
	C	oncurrence, Alterna	tive, or Deferral		
Concurrence with	Guidance 🗹	Alternative Guid	lance 🗆 F	Results in Deferral	
		Fundin	_		
DOE 🗹	LIHEAP 🗆	State 🗆	Utility 🗆	Other 🗆	
		, ,		\	
How do you addr		(e.g., pipes, furnaces the course of weathe		s) that will be disturbed t	hrough
contamination in appliances and sur Materials are presidetermines other pressure of an ord Contractor/Consultation (covering material determined to be Asbestos Contain (e.g., foam and path to be asbestos is removed. The remainder she disturbed Asbestos	the dwelling unit whe urfaces suspected of Assent the Energy Auditowise. "Friable" means dinary human hand. Tultant as may be necessary and in friable condition, a ing Materials prior to eaper covered fiberglass sheets on existing pipered, only the amount rould be encapsulated as Containing Materials	n testing and/or wor sbestos Containing Nor shall take precauti s the material can be the Energy Auditor shary to resolve the m d other small appliance to be encapsulate conducting blower does) do not require encessory to make the if necessary. Only prose of the course of the cours	king with pipes, furnal laterials. When susponary measures as if crumbled, pulverized all consultant with a latter if possible. I ces should be assumed by a contractor train por testing. Covering apsulation. Freplacing a heating see final connections play trained and light the weatherization	itions to prevent asbestos aces, boilers and other smeeted friable Asbestos Corit is asbestos unless testing, or reduced to powder by Nevada Certified Asbestos and and licensed to work as that are obviously not assessed contractors may work.	all ntaining g y the s d, if with sbestos
Safety costs if the	y are reasonable to pe	erform.	·	must provide the Sub-gra	
	•		•	eatherization may comme	
		Testing Pro	tocols		
boilers and other inspection will be	small appliances and s	surfaces. Suspected ion of the client. The	Asbestos Containing I condition of the Asb	ning Material on pipes, fur Materials identified during estos Containing Material the material.	g the
trained and licens Act of 1986 (AHER	sed contractor is an all RA) sample collection a with the trained and	owable Health and S and testing must be o	afety cost. Per Asbes conducted by a certifi	or containment by a prop tos Hazard Emergency Re ed tester. The Energy Aud est to address Asbestos	sponse
Containing Mater Any decision to de	ials is not practical to	complete and/or is b	eyond the Sub-grante	e of the project due to Asl ees resources to safely mit vada Housing Division,	

Client Education

If suspected Asbestos Containing Materials are discover and its condition is friable, occupants will be notified in writing not to disturb the material. Also, the client should receive the EPA pamphlet "Asbestos in the Home, a Homeowners Guide". If testing is performed, the client shall be provided a copy of the written report of the results.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence. A contractor trained and licensed to work with Asbestos Containing Materials may be contacted to detail out in writing what specific steps needs to be done to address the hazard and leave this information with the client. The contractor should be paid the normal deferral fee.

Training and Certification Requirements

All Energy Auditors must attend an asbestos awareness training to learn how to identify Asbestos Containing Materials and when Asbestos Containing Materials may pose a hazard to occupants or workers. This training and re-training shall be done by Nevada Occupational Safety and Health Administration (OHSA) pursuant to their recommendations for Energy Auditors.

Contractors working with asbestos must be licensed and certified by Nevada OHSA prior to performing any testing and/or work on Suspected Asbestos Containing Materials.

	7.5 – Bio	ologicals and Un	sanitary Condi	itions	
(Oc	dors, mustiness, b	acteria, viruses,	raw sewage, re	otting wood, etc.)	
	C	oncurrence, Alterna	tive, or Deferral		
Concurrence with	n Guidance ☑	Alternative Guid	dance \square	Results in Deferral	
		Unallowable M	easure \square		
		Fundin	ng		
DOE ☑	LIHEAP 🗖	State □	Utility 🗆	Other 🗆	
What guidance of	do you provide Sub-gr	antees for dealing w	ith biological and	or unsanitary conditions in h	nomes
		slated for weatl	nerization?		
Sub-grantees may	y work to remediate co	onditions that may le	ead to or promote I	biological concerns and unsar	itary

conditions and charge these costs to Incidental Repair measures as described in Section 4.0. Repair of biologicalcreating conditions as indicated include but are not limited to:

- Repair of plumbing and sewer leaks inside the dwelling unit or plumbing leaks outside the dwelling unit such as hose bibs (garden hose faucets) that may be leaking and draining against the foundation.
- Repair of water damaged materials that <u>must</u> be repaired to allow for installation of the associated
 efficiency measure. Repair of water damaged material that will dry after the offending repair is complete
 and isn't required to perform weatherization is NOT allowed.

Addressing odors, mustiness, bacteria, viruses, raw sewage, rotting wood, etc. are <u>NOT</u> eligible Incidental Repair measures nor eligible to be charge to the Health and Safety budget. A deferral may be necessary in cases where conditions in the dwelling unit pose a health risk to occupants and/or weatherization workers.

See Mold and Moisture (Section 7.16) from more information.

Testing Protocols

Energy Auditor shall notice any unsanitary conditions and investigate any unusual odors and try to determine their source.

Client Education

An Energy Auditor shall inform a client in writing of observed conditions and provide information on how to maintain a sanitary dwelling unit, if available. It may be appropriate to refer a client to other agencies or resources to assist with addressing the matter.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence.

Training

Energy Auditors shall be trained to recognize unsafe and unsanitary conditions. It is recommended that all Energy Auditors attend a Healthy Home course.

Energy Auditors shall also be trained to know when a condition warrants a deferral.

7.6 – Building Structure and Roofing					
		Concurrence, Alterna	tive, or Deferral		
Concurrence with	h Guidance 🗹	Alternative Guidance ☐ Results in Deferral ☐			
		Fundir	ng		
DOE ☑	LIHEAP 🗆	State □	Utility 🗆	Other \square	
\A/la = 4 =! al = = a	l a a	antone for doaling		/	

What guidance do you provide Sub-grantees for dealing with structural issues (e.g., roofing, wall, foundation) in homes slated for weatherization?

Building rehabilitation is beyond the scope of the Weatherization Assistance Program (WAP) and only Incidental Repair measures listed in Section 4.0 may be performed. 10 CFR Section 440.3 defines Incidental Repair measures as those repairs necessary for the effective performance or preservation of weatherization materials. Such repairs include, but are not limited to, framing or repairing windows and doors which could not otherwise be caulked or weather-stripped and providing protective materials, such as paint, used to seal materials installed under this program. WAP policies strictly prohibit roof replacements, structural repairs, or other non-energy related rehabilitation work.

Examples of Incidental Repair measures include sealing minor roof leaks to preserve new attic insulation and repairing water-damaged flooring as part of replacing a water heater. Spray polyurethane foam that is used for roof coating of mobile homes. (When two-part foam insulation is used clients are made aware of possible offgassing during the short curing period, and the associated risks to chemically sensitive people. If the client is unable to leave the dwelling unit and the intended work may exacerbate an occupant's health condition, the dwelling unit may need to be deferred.) Incidental Repair measures must be justified in the client file with an explanation for the need and relationship to a specific energy conservation measure (ECM) or group of ECMs.

While repair to a roof to protect the insulation to be installed is allowable, expanding this definition to include roof replacement or for other non-energy related repairs is not permissible. If the roof needs replacing the unit should either be referred to a rehabilitation program or the Sub-grantee must use other funds to cover the costs for this type of work.

Buildings that have been determined to have structural problems that are beyond the scope of weatherization services may need to be deferred until the dwelling can be made safe for workers and occupants. Workers must take all reasonable precautions against performing work on dwelling units that will subject workers and occupants to health and safety risks. Dwelling units whose structural integrity is in question should be deferred and referred to other programs.

See Code Compliance (Section 7.7), Mold and Moisture (Section 7.16), and Pests (Section 7.17) from more information.

How do you define "minor" or allowable structure and roofing repairs, and at what point are repairs considered beyond the scope of weatherization?

Minor structure and roofing repairs are to be considered as Incidental Repair measures and may be installed <u>only</u> when necessary to effectively weatherize the dwelling unit; otherwise these measures are not allowed. There is no specific dollar limit for any individual Incidental Repair measure as long as the entire packet of measures meet or exceed the Savings Investment Ratio (SIR) requirement of the energy audit. All estimated repair costs, including labor and materials, must be included in the SIR calculation. For each weatherized building, the cost of the total packet of energy conservation measures, added to the cost of all Incidental Repair measures for the building, must have a calculated SIR of 1.0 or greater to be eligible.

If priority lists are used, and these repairs are designated as Incidental Repairs, at what point is a site-specific audit required?

Not applicable, site-specific energy audits are required on all projects.

Client Education

After conducting a visual inspection, the Energy Auditor shall inform a client in writing of any structurally compromised areas. The Energy Auditor may use the services of a licensed contractor to make this determination when necessary. The contractor should be paid the normal deferral fee, if applicable.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence.

Training

Energy Auditors shall be trained on how to identify structural and roofing issues.

		7.7 – Code Co	mpliance	
		Concurrence, Alterna	tive, or Deferral	
Concurrence wit	h Guidance ☑	Alternative Guid	dance \square	Results in Deferral
		Fundin	ng	
DOE 🗹	LIHEAP 🗖	State □	Utility 🗆	Other 🗆
What guidar	nce do you provide Sul	o-grantees for dealin	g with code comp	liance issues in homes receiving
		weatherization	measures?	

It is the Sub-grantees' responsibility to ensure that all weatherization-related work conforms with applicable codes in jurisdictions where the work is being performed. State and local building codes must be followed when installing energy conservation measures. When correction of a preexisting code compliance issue is triggered and paid for with weatherization funds, the Energy Auditor shall cite the specific code requirement with reference to the energy conservation measure(s) that triggered the code compliance issue.

Code corrections that are required because of weatherization but are not a direct component of an energy conservation measure are to be charged to the Health and Safety budgets. Examples of these code corrections include the installation of carbon monoxide alarms, smoke detectors, and spring hinges for a door accessing a garage.

Correcting existing code violations in a dwelling unit is <u>NOT</u> allowed unless the code corrective action is required because of the installation of an energy conservation measure. Condemned properties and properties where "red tagged" health and safety conditions cannot be corrected under these health and safety standards should be

deferred.

Installation of space heaters requires knowledge of appropriate industry standards and compliance with the applicable building code(s) in the municipality where installation is taking place. Building permits shall be secured, where required for all space heater work. This is a program operations cost. The manufacturer approved initial start-up procedures must be followed before any heater is put into operation. Sub-grantees are reminded that even licensed heating contractors may not be aware of the stringent requirements of the Weatherization Assistance Program.

What specific situations commonly trigger code compliance work requirements for your network? How are they addressed?

Most typically the replacement of HVAC units and water heaters trigger code compliance especially as it relates to obtaining a building (mechanical) permits from State, county or city agencies having jurisdiction. The Sub-grantee shall ensure that the contractor has obtain passed/approved as final on any and all building permits required to on the job and place a copy of each permit in the client's file.

Client Education

After conducting a visual inspection, the Energy Auditor shall inform a client in writing of any code compliance issues that result in a deferral. The Energy Auditor may use the services of a licensed contractor to make this determination, if necessary. The contractor should be paid the normal deferral fee.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence.

Training

All field personnel (including Energy Auditors) are strongly encouraged to attend "building/construction code" instructional classes. The intent of the training is not to learn all codes for all trades, but to be aware of codes in the areas that Energy Auditors and contractors commonly encounter.

		7.8 – Combus	tion Gases		
		Concurrence, Alterna	ative, or Deferral		
Concurrence with	Guidance ☑	Alternative Gui	dance \square	Results in Deferral	
		Fundir	ng		
DOE ☑	LIHEAP 🗆	State □	Utility 🗆	Other \square	
What guid	ance do you provide	Sub-grantees for dea	aling with combus	tion gases in homes receiving	
		weatherization	measures?		
_					

Energy Auditors should check for proper venting to the outside for combustion appliances, including furnaces, gas dyers, boilers, space heaters, gas fireplaces, gas stoves and top burners, water heaters and any other applicable gas appliance.

Combustion appliance and their associated venting systems can present fire hazards. Energy Auditors shall identify inadequate clearances between combustion appliances (including venting systems). Correction of fire hazards is allowable when necessary to install energy conservation measures. Venting shall be corrected when testing indicates a problem and is also an eligible Health and Safety measure.

If unsafe conditions exist and is necessary to correct to perform weatherization and it cannot be addressed by repair or tuning, replacement of a combustion appliance is an allowable Health and Safety measure. However, with a DOE approved audit tool check to determine if the appliance can be justified as an energy conservation measure prior to replacement as a Health and Safety measure.

In the client file, it is necessary to maintain documentation justifying the replacement with a cost comparison between replacement and repair. Replacement units must meeting safety guidelines in current technical field guides.

See Air Conditioning and Heating Systems (Section 7.1) from more information.

Testing Protocols

In every dwelling unit, testing for carbon monoxide is required when combustion appliances are present. The testing should include furnaces, gas dyers, boilers, space heaters, gas fireplaces, gas ranges (ovens and top burners), water heaters and any other such combustion appliances as applicable. Energy Auditor should also monitor ambient carbon monoxide in the vicinity of combustion appliances.

Test naturally drafting appliances for spillage and monoxide levels during the Combustion Appliance Zone (CAZ) depressurization testing pre- and post-weatherization and before leaving the dwelling unit on any day when work has been done that could affect draft (e.g., tightening the dwelling unit, adding exhaust). Inspect venting of combustion appliances and confirm adequate clearances.

When only sealed combustion appliances are present or only non-combustion appliances exist (electric heat, etc.), CAZ depressurization testing and draft testing are not required.

How are energy auditors instructed to handle problems discovered during testing, and what are the specific protocols for addressing hazards that require an immediate response?

If necessary during testing due to unexpected problems arising, Energy Auditors should contact local gas company for immediate response or the fire department for potential fire hazards. Energy Auditors may also want to contact trained and license contractors to help resolve matters.

Client Education

The Energy Auditor shall provide client with combustion safety and hazards information.

Training

Energy Auditors shall be trained to know the action level for carbon monoxide and appropriate testing methods. Also, Energy Auditors should be able to determine when a building is excessively depressurized, and know the difference between air free and as-measured carbon monoxide.

		7.9 – Elec	trical		
	Co	oncurrence, Alterna	tive, or Deferral		
Concurrence with	h Guidance 🗹	Alternative Guid	dance 🗆	Results in Deferral	
		Fundin	g		
DOE ☑	LIHEAP 🗖	State □	Utility 🛘	Other \square	
What guidance	do you provide Sub-gr	antees for dealing v	vith electrical hazar	ds, including knob & tube w	iring,
	ir	homes slated for v	veatherization?		
When the health	and safety of the occup	pant(s) and/or work	er(s) is at risk, mino	r repairs, as defined below, a	re
	•			s are to be considered Incide	
Repair measures	and charged according	ly. However, electri	cal testing is an elig	ible Health and Safety cost if	
needed.					
	0.	•		ting dwelling units that conta	
knob-and-tube w	riring and identifying ov	erloaded electrical (circuits. Older electi	ric wiring, primarily knob-and	i-tube

wiring, located in a wall cavity or exposed on an attic floor was intended by code to have free air movement that

would cool the wire when it is carrying an electric current. Laboratory tests have shown that retrofitting thermal insulation around damaged knob-and-tube electric wiring can cause it to overheat, resulting in a fire hazard.

When knob-and-tube wiring is present in a dwelling unit, it should be determined if the walls and attic have active knob-and-tube wiring present. Walls that have live knob-and-tube wiring present are not to be insulated by the weatherization program. Attics that have live knob-and-tube wiring present can have insulation installed up to just below the wire but must be dammed to the sides and above to providing a minimum of 2" clear space between the wire and the dam. The knob-and-tube wiring "run" should be "marked" using surveyor's type tape or other marking device such as lawn flags. Open junction boxes located in the attic where insulation will be installed must be appropriately covered with metal covers and should also be marked with tape or other signage indicating their location for future service. Repairs to knob-and-tube wiring are not a direct component to insulating and should not be included in the cost of any energy saving measure.

Serious electrical hazards exist when gross overloads are present. Should Energy Auditors find such existing problems, they must notify the client. Energy conservation measures that involve the installation of new equipment such as air conditioners, heat pumps, or electric water heaters can exacerbate previously marginal overload problems to hazardous levels. The problem should also be noted in the client file. Installing or repairing circuits to allow for new appliances or "systems" recommended as energy conservation measures or other minor electrical repairs necessary for the effective installation of energy conservation measures or because of the installation of electronic weatherization measures are allowable and should be included with the cost of the energy conservation measure and should NOT be charged to the Health and Safety budget. The client must be notified if any unsafe conditions are found during the energy audit that cannot be addressed through weatherization.

How do you define "minor" or allowable electrical repairs, and at what point are repairs considered beyond the scope of weatherization?

Minor electrical repairs are to be considered as Incidental Repair measures and may be installed <u>only</u> when necessary to effectively weatherize the dwelling unit; otherwise these measures are not allowed. There is no specific dollar limit for any individual Incidental Repair measure as long as the entire packet of measures meet or exceed the Savings Investment Ratio (SIR) requirement of the energy audit. All estimated repair costs, including labor and materials, must be included in the SIR calculation. For each weatherized building, the cost of the total packet of energy conservation measures, added to the cost of all Incidental Repair measures for the building, must have a calculated SIR of 1.0 or greater to be eligible.

Testing Protocols

Visually inspect for the presents and condition of knob-and-tube wiring.

Check for any alterations that may create an electrical hazard. Also, check for any system issues that may result in a voltage drop.

Knob-and-tube wiring inspections and voltage drop detection are allowable Health and Safety expenses if they are necessary. Voltage testing should be done by a licensed and training electrical contractor if needed to diagnose issues.

Client Education

When electrical issues are the cause of a deferral, provide information to client on over-current protection, overloading circuits and basic electrical safety and risks.

Training

Energy Auditors shall be trained on how to identify electrical hazards and code compliance with agencies having jurisdictions.

7.10 – Formaldehyde, Volatile Organic Compounds (VOCs), Flammable Liquids, and other Air Pollutants	
Concurrence, Alternative, or Deferral	
Concurrence with Guidance ☑ Alternative Guidance □ Results in Deferral □	
Funding	
DOE ☑ LIHEAP □ State □ Utility □ Other □	
What guidance do you provide Sub-grantees for dealing with formaldehyde, VOCs, flammable liquids, and other air pollutants identified in homes slated for weatherization?	d
Formaldehyde vapors may be slowly released by some new carpets, oriented strand board (OSB), plywood, etc Volatile organic compounds (VOCs) are also emitted by some household cleaning agents. If items pose a risk to workers, removal is required but if removal cannot be performed or is not allowed by the client, the unit must deferred. Removal and proper disposal of dangerous pollutants is an allowed Health and Safety budget.	.0
See Hazardous Materials Disposal (Section 7.13) from more information.	
Testing Protocols	
Energy Auditor shall conduct inspection shall be based on sensory perception of pollutants.	
Client Education	
Inform client in writing of observed hazardous condition and associated risks and provide client written materi on safety issues and proper disposal of household pollutants.	ials
When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that met in order for weatherization work to commence.	nust
Training	
Energy Auditors shall be trained on how to identify potential hazards and when removal is necessary.	
7.	
7.11 – Fuel Leaks	
(Natural Gas and Propane Gas)	
Concurrence, Alternative, or Deferral	
Concurrence with Guidance ☑ Alternative Guidance □ Results in Deferral □	
Funding	
DOE ☑ LIHEAP □ State □ Utility □ Other □	
Remediation Protocols	
When a gas look is found on the utility side of service, the utility company must be contacted before work may	,

When a gas leak is found on the utility side of service, the utility company must be contacted before work may commence. If the leak is discovery during the work, the Energy Auditor or contractor shall notify the utility company and temporarily halt the work.

Gas leaks that are the responsibility of the client, not the utility company, must be repaired before weatherizing a dwelling unit. Unless directly associated with the installation or repair of an eligible combustion appliance as an Ancillary Item, all gas leak repairs are eligible Health and Safety costs but shall not be beyond the scope of the weatherization as defined below.

Gas Leak Testing: Test for gas leaks at all exposed and accessible piping and joints from utility coupling into, and throughout, the dwelling unit. Also, test all combustion appliances for gas leaks. If applicable, propane tanks shall be examined for leaks.

Testing can occur by an Energy Auditor using equipment designed for this purpose or by hiring a qualified
contractor for testing such as to perform a pressure test of the piping and joints. If a contractor is used for this
purpose, the cost is to be charged to the Health and Safety budget.
How do you define allowable fuel leak repairs, and at what point are repairs considered beyond the scope of
weatherization?
The cost for a fuel leak repair(s) may not exceed \$1,500 including replacement of a portion of a fuel lines, if
necessary.
Client Education
The Energy Auditor should inform the client in writing if fuel leaks are detected.
Training
Energy Auditors shall be trained on fuel leak testing.

7.12 – Gas Ovens / Stovetops / Ranges					
	(Concurrence, Alterna	ative, or Deferral		
Concurrence	with Guidance 🗹	Alternative Gui	dance \square	Results in Deferral	
		Fundi	ng		
DOE ☑	LIHEAP 🗆	State □	Utility 🗆	Other 🗆	
What guidance	ce do you provide Sub-gr			stoves/ranges in homes slated f	or
		weatheriz			
_	•			nance on or repair gas ranges,	
	· · · · · · · · · · · · · · · · · · ·		_	LIHEAP and State funds may be	
used but only	for a Combustion Applia			g appliance.	
		Testing Pro			
				on appliances are present. The s, gas ranges (ovens and top	
				le. Energy Auditor should also	
	ent carbon monoxide in t			ie. Effergy Additor should also	
THORITOI arribi	ent carbon monoxide in t	the vicinity of combu	stion appliances.		
Test naturally	drafting annliances for sr	nillage and carbon m	onovide levels durir	ng the Combustion Appliance Zon	۵
		-		the dwelling unit on any day who	
	<u> </u>	•	-	idding exhaust). Inspect venting o	
	ppliances and confirm ad		the awening and, a	dung exhausty. Inspect venting e	,
00111543616114	pphanees and commit ad	equate cicaranoco.			
When only se	aled combustion appliance	ces are present or on	lv non-combustion	appliances exist (electric range,	
	ressurization testing and	•	•	5,7	
,,,	6	6	- 4-		
See Combustion Gases (Section 7.8) for more information.					
Client Education					
The Energy Au	uditor shall inform the clie	ent of the importanc	e of using exhaust v	entilation when cooking and the	
importance of	f keeping burners clean to	limit carbon monox	ride.		
		Traini	ng		
Energy Audito	ors shall be trained to kno	w the action level fo	r carbon monoxide	and appropriate testing methods.	

7.13 – Hazardous Materials Disposal [Lead, Refrigerant, Asbestos, Mercury (including CFLs/fluorescents), etc.] Inlease indicate material where nolicy differs by mate

(picase material where poney affers by material)					
Concurrence, Alternative, or Deferral					
Concurrence with Guidance ☑ Alternative Guidance □ Results in Deferral □					
		Fundin	ng		
DOE ☑	LIHEAP 🗖	State □	Utility 🗖	Other \square	
Client Education					
The Energy Auditor shall inform the client in writing of concerns associated with specific hazardous waste					
materials being utilized and handled in the dwelling unit as may be applicable to the weatherization work being					
performed.					
		Tuninin			

Training

Energy Auditors shall be trained to know the health and environmental risks when working with hazardous waste materials and how to use appropriate personal protective equipment (PPE). Sub-grantees shall ensure that weatherization contractors know disposal requirements and appropriate locations of disposal sites.

Disposal Procedures and Documentation Requirements

Hazardous waste materials generate in the course of weatherization work shall be disposed of according to all local laws, regulations and/or federal guidelines, as may be applicable. Sub-grantees shall include in contract agreements for weatherization work language addressing proper disposal of hazardous waste materials. Disposal of hazardous waste materials may be charged to the Health and Safety budget.

Lead: Proper disposal of debris is required to adequately clean up the job site. Disposal of debris must meet federal, state and local regulations.

See Lead Based Paint (Section 7.15) from more information.

Refrigerant: As part of any refrigerator replacement program, Sub-grantees must reclaim refrigerant per the Clean Air Act of 1990, section 608, as amended by 40 CFR 82, 5/14/93. The appliance vendor, de-manufacturing center, or other entity recovering the refrigerant must possess EPA-approved section 608 type I or universal certification. Sub-grantees should ensure they have appropriate protocols in place that comply with all standards relating to the disposal of the existing appliances.

Asbestos: Proper disposal of debris is required to adequately clean up the job site. Disposal of debris must meet federal, state and local regulations.

See Asbestos (Section 7.2 and 7.2a) from more information.

Mercury: Proper disposal of fluorescent light bulbs is required to adequately clean up the job site. This includes compact fluorescent lamps (CFLs) and other fluorescent light bulbs, which are known to contain mercury. Disposal of the CFLs and fluorescent light bulbs must meet federal, state and local regulations.

7.14 – Injury Prevention of Occupants and Weatherization Workers				
(Measures such as repairing stairs and replacing handrails)				
Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑ Alternative Guidance □ Results in Deferral □				
Funding				
DOE ☑ LIHEAP □ State □ Utility □ Other □				
What guidance do you provide Sub-grantees regarding allowable injury-related repairs				
(e.g., stairs, handrails, porch deck board)?				
When necessary to effectively weatherize a dwelling unit, the weatherization contractor may make minor repairs				
and installations to stairs, grab-bars, handrails, porch deck board or other weak structures that are necessary to				
support the weight of a worker or will be in his path of travel in performing the weatherization measures. The				
contractor may also remove hazards that protrude out in away where the item may become dangerous to a				
worker or the client. These minor repairs shall be charged as Incidental Repair measures.				
The Energy Auditor shall inspect for hazards that may could cause an injury and address, if possible. If conditions				
exists that are beyond the scope of the weatherization program as defined below, it may be necessary to issue a				
deferral.				
When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must				
be met in order for weatherization work to commence.				
How do you define "minor" or allowable injury prevention measures, and at what point are repairs considered				
beyond the scope of weatherization? Quantify "minor" or allowable injury prevention measures.				
Minor allowable injury prevention measures are to be considered as Incidental Repair measures and may be				
installed to create a safe work environment to effectively weatherize the dwelling unit; otherwise these measures				
are not allowed. There is no specific dollar limit for any individual Incidental Repair measure as long as the entire				
packet of measures meet or exceed the Savings Investment Ratio (SIR) requirement of the energy audit. All				
estimated repair costs, including labor and materials, must be included in the SIR calculation. For each				
weatherized building, the cost of the total packet of energy conservation measures, added to the cost of all				
Incidental Repair measures for the building, must have a calculated SIR of 1.0 or greater to be eligible.				
Training				
Energy Auditors shall be trained to identify possible hazards that could result in injuries to clients and				
weatherization workers at the project site.				
The second secon				
7.15 – Lead Based Paint				
Concurrence, Alternative, or Deferral				

	7.15 – Lead Based Paint				
	C	oncurrence, Alterna	tive, or Deferral		
Concurrence with Guidance ☑ Alternative Guidance □ Results in Deferral □					
		Fundin	g		
DOE ☑	LIHEAP 🗖	State □	Utility 🗖	Other \square	
Safe Work Protocols					
Lead is highly toxic, especially to young children. Even low levels of lead in infants, children, and pregnant women					
are associated v	with impaired cognitive	function, behavior di	fficulties, fetal org	an development and other	

problems. Low levels of lead in children can cause reduced intelligence and impaired hearing. The most common source of lead exposure for children is lead paint in older dwelling units and the contaminated dust and soil it

generates. For this reason, it is very important weatherization work is completed in a lead-safe way.

Sub-grantees must ask if a resident of a pre-1978 dwelling unit has been identified as being lead poisoned while living in the dwelling unit. If the answer is yes, proceed with the inspection but coordinate with the local health department before disturbing any paint. If a child has lead poisoning, deferral is required until the child has been treated and is no longer determined to be lead poisoned. A deferral is required when the extent and condition of lead-based paint in the house would potentially create further health and safety hazards.

Contractors must follow the Environmental Protection Agency's (EAP) Lead, Renovation, Repair and Painting Program (RRP) when working in pre-1978 dwelling units unless testing confirms the area to be lead free. Containment is ALWAYS REQUIRED when lead based painted surfaces are disturbed. Complete lead abatement under the Weatherization Assistance Program is not an allowable expense.

Mobile Homes: Often, interiors of mobile homes were not painted but rather, paneling was applied to the surfaces. Therefore, pre-1978 mobile homes that were not painted by the manufacturer, occupant, landlord, or past owner of the unit before 1978, may be exempt from lead safe work (LSW) practices. However, Sub-grantees must verify the areas receiving weatherization measures have never been painted or were painted for the first time after 1978. If this is not verifiable, then LSW protocols must be followed. Painted exterior surfaces on pre-1978 mobile homes should not be drilled, scraped, sanded, or receive any other work that disturbs the paint unless LSW protocols are followed.

Lead Safe Work: This section does not cover all the requirements for lead safe work (LSW) practices but rather provides some highlights of specific requirements.

Containment: Containment is required in all cases when lead safe work (LSW) practices must be performed. The level of containment is determined by the surface area being disturbed. Containment is anything that stops dust and debris from spreading beyond the work area. The level of containment must be determined by the Certified Renovator before work is assigned to the contractor.

Level 1 Containment is required in pre-1978 dwelling units when LESS than 6 sq. ft. of interior painted surface per room or LESS than 20 sq. ft. of exterior painted surface will be disturbed. Level 1 containment consists of methods and means for preventing dust generation and contains debris generated during the work process. The specific containment used should be of appropriate type and size for the work being performed. Measures that may fall within this guideline include but are not limited to:

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

Level 2 Containment is required when weatherization activities will disturb MORE than 6 sq. ft. of interior surface per room or MORE than 20 sq. ft. of exterior surfaces. Level 2 containment consists of methods that define a work area that will not allow any dust or debris from the work area to spread. Level 2 containment requires the covering of all horizontal surfaces, constructing barrier walls, sealing doorways, covering HVAC registers with approved materials, and closing windows to prevent the spread of dust and debris. Measures requiring level 2 containment MAY include:

Drilling holes in interior walls for installing insulation

- Drilling holes and/or removing siding on exterior walls
- Cutting attic access into ceiling or knee walls
- Planing a door in place
- Replacing door jambs and thresholds
- Replacing windows or doors
- Furnace replacements

Disturbed Surface Area- When removing painted components or portions of painted components, the entire surface area removed is the amount of painted surface disturbed.

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

- Window replacement;
- Demolition of painted surfaces;
- Open-flame burning or torching;
- Machines to remove paint through high-speed operation without HEPA exhaust control; and
- Operating a heat gun at temperatures at or above 1100 degrees Fahrenheit.

Proper LSW clean-up and disposal debris is required to adequately clean up the job site. HEPA vacuum must be used to clean up the work areas and further cleaning may be necessary, based on the hazard. Disposal of debris must meet federal, state and local regulations.

Job site set up and cleaning verification is required by an EPA Certified Renovator. Also, installation of measures must be overseen by an EPA Certified Renovator. Sub-grantees will be monitored by the Nevada Housing Division Weatherization Compliance Inspector to confirm that Sub-grantee's contractors are using lead safe work practices. Sub-grantees are encouraged to obtain Pollution Occurrence Insurance.

Only those costs directly associated with the testing and lead safe work practices for surfaces directly disturbed during weatherization activities are allowable. These costs should be charged to the Health and Safety budget.

Testing Protocols

EPA-approved testing is allowed for the purposes of determining the presence of lead in paint that will be disturbed by installation of the weatherization measure(s). However, the testing methods must be economically feasible and justified.

Client Education

The Energy Auditor and/or contractor must follow pre-renovation education provisions for the Environmental Protection Agency's (EAP) Lead; Renovation, Repair and Painting Program (RRP).

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence.

Training and Certification Requirements

All Energy Auditors and contractors working on pre-1978 dwelling units must receive training to install measures in a lead-safe manner in accordance with Standard Work Specifications (SWS) and Environmental Protection Agency (EPA) protocols.

Sub-grantees and contractors shall obtain their EPA Renovation Lead Safe Firm certification. Sub-grantees and contractors must have at least one employee that is an EPA Certified Renovator pursuant to the requirements under the Lead, Renovation, Repair and Painting Program (RRP).

Documentation Requirements

Documentation in the client file must include:

- 1. A client signed acknowledgment of receipt of an EPA publication, "Renovate Rights, Important Lead Hazard Information for Families Child Care Providers and Schools (Renovate Rights);
- 2. Name of the Certified Renovator responsible for the project;
- 3. Any training provided on-site;
- 4. Description of specific actions taken;
- 5. Lead testing and assessment documentation; and
- 6. Photos of site and containment set up.

Sub-grantees shall maintain copies of their own and all contractors EPA Renovation Lead Safe Firm certifications and Certified Renovator certifications with their office files.

Client Notification Requirements: For occupied dwelling units, the Sub-grantee must have an adult tenant or homeowner sign an acknowledgement after receiving the EPA Renovate Right pamphlet. The Renovate Right pamphlet can also be sent by certified mail with receipt to be placed in the customer file.

In multi-unit housing, the agency must provide written notice to each affected unit (notice must describe general nature and locations of the planned renovation activities; the expected starting and ending dates; statement of how occupant can get Renovate Right pamphlet at no charge); or

Post informational signs (signs must describe general nature and locations of the renovation and the anticipated completion date) and post the EPA Renovate Right pamphlet. If Renovate Right pamphlet is not posted then agencies are required to provide information on how interested occupants can review a copy of the Renovate Right pamphlet or obtain a copy at no cost from the Weatherization Program.

If unable to hand-deliver, acknowledgement can be sent by certified mail, return-receipt requested. A copy of the receipt then goes into the client's file. The owner/occupant must acknowledge receipt of the EPA Renovate Right pamphlet indicating the address of the unit undergoing renovation, name and signature of owner or occupant, and the date of signature prior to the start of renovations. It must be in the same language as "contract for renovation" for an owner occupied (or the same language as the lease for occupant of non-owner occupied) target housing.

If the Sub-grantee cannot obtain a signed acknowledgment (either the occupant is not home or refuses to sign the form), then a self-certification form must be signed to prove delivery. This can be found at the back of the Renovate Right pamphlet.

The acknowledgement form must be filed and remain with the client. In addition to providing a copy of the Renovate Right pamphlet to owners and occupants, Certified Renovator must discuss the hazards associated with lead-based paint and lead dust, and describe how they will conduct LSW in the dwelling unit when possible.

7.16 – Mold and Moisture (Including but not limited to: drainage, gutters, down spouts, extensions, flashing, sump pumps, dehumidifiers, landscape, vapor retarders, moisture barriers, etc.) Concurrence, Alternative, or Deferral Concurrence with Guidance ☑ Alternative Guidance □ Results in Deferral □ Funding DOE ☑ LIHEAP □ State □ Utility □ Other □ What guidance do you provide Sub-grantees for dealing with moisture related issues (e.g., drainage, gutters, down spouts, moisture barriers, dehumidifiers, vapor barrier on bare earth floors) in homes slated for

A major indoor air quality problem is excess moisture or humidity in a dwelling unit. Too much moisture may result in moisture penetration, condensation, and build-up in walls and ceilings. Moisture accumulation may also cause wood rot. Too much indoor moisture or humidity can also lead to the growth of mold and mildew, which can cause adverse health effects for the occupants.

weatherization?

Limited water damage and source control repairs are eligible Incidental Repair measures. Limited water damage repairs that can be addressed by contractors are allowed when necessary in order to weatherize the dwelling unit and to ensure the long-term stability and durability of the measures. Source control that is a correction of moisture and mold creating conditions is also allowed when necessary in order to weatherize the dwelling unit and to ensure the long-term stability and durability of the energy conservation measure(s). However, source control is independent of latent damage and related repairs.

Exterior drainages needs be examined for possible issues affecting the dwelling unit and the installation of possible Incidental Repair measures should be considered. To ensure immediate and future health of clients it may be necessary to make minor repairs to plumbing or sanitary leaks, gutter and downspout, and install downspouts splash blocks or extensions when basements or crawlspaces have evidence of moisture infiltration. It may also be necessary to install flashings to direct water away from the building and/or foundation where there is evidence of moisture damage due to long term water exposure. A sump pump with associated plumbing and electrical may be installed in basements or crawl spaces to prevent bulk moisture buildup. In cases where sump pumps are installed for moisture management, they should also be vented to allow radon gas that accumulates in the sump pit to evacuate through the vent. Additionally, it may be necessary to make minor drainage or landscape modifications to divert roof or natural water runoff from infiltrating into the foundation provided motorized earth moving equipment is NOT used to make these repairs. All dwelling units with dirt floors in the basement or crawlspace should have a moisture/vapor barrier installed whenever feasible. Moisture/vapor barriers need to be air sealed as well as possible. If mold and moisture issues are severe and cannot be addressed, a deferral is required.

See Radon (Section 7.18) from more information.

Mold testing and general mold cleanup are <u>NOT</u> an allowable Health and Safety cost or Incidental Repair measure. In addition, surface preparation where an energy conservation measure (ECM) is being installed must be charged as part of the ECM, not to the Health and Safety budget. For instance, if it is necessary to clean mold off window trim in order to apply caulk this should be part of total cost for that measure.

Energy Auditor shall complete the Moisture and Mold Checklist and while looking for the following indicators to identify potential moisture problems when assessing a client's dwelling unit:

- Damp atmosphere or a musty smell in the dwelling, basement, or crawlspace;
- Mold growth on walls and ceilings, especially in bathrooms and kitchens;
- Mold growth on attic roof sheathing;
- Signs of condensation on walls or window;
- Water damage or mold on the underside of roof decking;
- Evidence of crawlspace moisture;
- Water stains on foundation walls; and
- Client complaints of allergy-like symptoms.

A diagnostic tool such as a moisture meter is recommended pre-weatherization and at the final inspection when mold has been identified as a problem. Controlling moisture is crucial to controlling mold.

How do you define "minor" or allowable moisture-related measures, and at what point is work considered beyond the scope of weatherization?

Allowable moisture-related repairs are to be considered as Incidental Repair measures and may be installed as a way to remedy existing mold and moisture issues in the dwelling unit. There is no specific dollar limit for any individual Incidental Repair measure as long as the entire packet of measures meet or exceed the Savings Investment Ratio (SIR) requirement of the energy audit. All estimated repair costs, including labor and materials, must be included in the SIR calculation. For each weatherized building, the cost of the total packet of energy conservation measures, added to the cost of all Incidental Repair measures for the building, must have a calculated SIR of 1.0 or greater to be eligible.

Client Education

If mold and moisture is an issue, the Energy Auditor shall have the client sign the Moisture and Mold Checklist and provide the client with a copy of the Checklist and the Environmental Protection Agency (EPA) pamphlet, A Brief Guide to Mold, Moisture, and Your Home. This pamphlet must be provided prior to weatherization commencing or upon notification of a deferral. Client should acknowledge receipt of the Checklist and the pamphlet.

If necessary, the Energy Auditor, contractor and/or other program staff should educate the client on the importance of cleaning and maintaining drainage systems. Furthermore, it may also be necessary to provide information on proper landscape design and how this impacts site drainage and moisture control.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence.

Training

Energy Auditors shall be trained on how to identify mold and moisture issues. Training from EPA or other equivalent programs is recommended. There may also be training opportunities provided by the State and local health departments.

Energy Auditors shall be trained on how to recognize drainage issues.

7.17 – Pests					
	Concurrence, Alternative, or Deferral				
Concurrence with Guidance ☑ Alternative Guidance □ Results in Deferral □					
	Funding				
DOE ☑	LIHEAP 🗆	State □	Utility 🗖	Other \square	

What guidance do you provide Sub-grantees for dealing with pests and pest intrusion prevention in homes slated for weatherization?

Pest removal is allowed only where infestation will prevent weatherization and/or impact the long-term stability and durability of the energy conservation measures to be installed. Pest remediation should be charged as an Incidental Repair measure. Screening of windows and points of access, and incorporating pest exclusion into air sealing practices to prevent intrusion is allowed.

Infestation of pests may be cause for deferral where it cannot be reasonably removed and poses health and safety concerns for worker.

Define Pest Infestation Thresholds, Beyond Which Weatherization Is Deferred

Manageable pest infestation remedies are to be considered as Incidental Repair measures and may <u>only</u> be addressed when necessary to effectively weatherize the dwelling unit; otherwise these measures are not allowed. There is no specific dollar limit for any individual Incidental Repair measure as long as the entire packet of measures meet or exceed the Savings Investment Ratio (SIR) requirement of the energy audit. All estimated repair costs, including labor and materials, must be included in the SIR calculation. For each weatherized building, the cost of the total packet of energy conservation measures, added to the cost of all Incidental Repair measures for the building, must have a calculated SIR of 1.0 or greater to be eligible.

Testing Protocols

Visual assessment should be performed to determine the presence and degree of infestation and any risk to workers.

Client Education

The Energy Auditor should inform client in writing of observed condition and associated risks.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence. Client should be requested to contact an exterminator and provide written documentation that the matter has been addressed.

Training

Energy Auditors should be trained to assess presence and degree of infestation and associated risks.

7.18 – Radon					
	Concurrence, Alternative, or Deferral				
Concurrence w	Concurrence with Guidance ☑ Alternative Guidance □ Results in Deferral □				
	Funding				
DOE ☑	LIHEAP 🗖	State □	Utility 🗖	Other \square	

What guidance do you provide Sub-grantees around radon?

Energy Auditors shall provide clients with the Environmental Protection Agency (EPA) Citizen's Guide to Radon during the initial evaluation. The client file must contain a signed informed consent form prior to receiving weatherization services. (Please see Client Education below.)

In dwelling units where radon may be present, the scope of work should include precautionary measures base on the EPA Healthy Indoor Environment Protocols for Home Energy Upgrades, to reduce the possibility of making radon issues worse. This document is available from Nevada Housing Division or at the following web address: https://www.epa.gov/sites/production/files/2014-12/documents/epa_retrofit_protocols.pdf

Whenever site conditions permit, cover exposed dirt floors within the pressure/thermal boundary with 6 mill (or greater) polyethylene sheeting, lapped at least 12" and sealed with appropriate sealant at all seams, wall and

penetrations. Other precautions may include, but are not limited to, sealing any observed floor and/or foundation penetrations, including open sump pits, isolating the basement from the conditioned space, and ensuring crawlspace venting is installed.

Allowable radon precautionary measures are to be considered as Incidental Repair measures and may be installed to reduce radon gas from entering the living space of a dwelling unit. There is no specific dollar limit for any individual Incidental Repair measure as long as the entire packet of measures meet or exceed the Savings Investment Ratio (SIR) requirement of the energy audit. All estimated repair costs, including labor and materials, must be included in the SIR calculation. For each weatherized building, the cost of the total packet of energy conservation measures, added to the cost of all Incidental Repair measures for the building, must have a calculated SIR of 1.0 or greater to be eligible.

Radon mitigation is **NOT** an allowable Health and Safety cost.

Testing Protocols

Testing is an allowable Health and Safety cost and may occur in single units (excluding mobile homes) in areas having high levels of radon (>4pCi//L). All testing must be performed in accordance with EPA protocol for testing to be considered valid. If EPA testing conditions cannot be met, testing should not occur.

Client Education

Sub-grantees must provide all clients EPA's A Citizen's Guide to Radon, which is available from the Nevada Housing Division or the following web address: https://www.epa.gov/sites/production/files/2016-12/documents/2016 a citizens guide to radon.pdf

Documentation of informed consent. The inform consent form must include:

- Information from the results of the IAO Study that there is a small risk of increasing radon levels when building tightness is improved;
- A list of precautionary measures the Weatherization Assistance Program will install based on the EPA Healthy Indoor Protocols;
- Some of the benefits of Weatherization including energy savings, energy cost savings, improved home comfort, and increased safety; and
- Conformation that EPA's A Citizen's Guide to Radon was received and radon related risks discussed with the client.

Training and Certification Requirements

Energy Auditors must have knowledge of radon, what it is and how it occurs, including what factors may make radon worse, and precautionary measures that may be helpful. However, no specific certifications are required.

Contractors must be trained in proper vapor barrier installation.

A zonal map can be obtained from the Nevada Housing Division or the following web address: https://www.epa.gov/radon/epa-map-radon-zones

Documentation Requirements

None at this time.

7.19 – Safety Devices: Smoke and Carbon Monoxide Alarms, Fire Extinguishers						
Concurrence, Alternative, or Deferral						
Concurrence wi	th Guidance ☑	Alternative Gui	dance 🗆	Results in Deferral		
Funding						
DOE 🗹	LIHEAP 🗆	State □	Utility 🗆	Other		

What is your policy for installation or replacement of the following:

Smoke Detectors:

Smoke detectors may be installed where detectors are not present or are inoperable. The cost for smoke detectors shall be charged to the Health and Safety budget.

Carbon Monoxide Alarms:

Carbon monoxide alarms may be required to be installed where alarms are not present or are inoperable. The cost for carbon monoxide alarms shall be charged to the Health and Safety budget.

When a dwelling unit has any combustion appliances or an attached garage at least one carbon monoxide alarm must be present in the unit. If an entire multifamily building is to receive weatherization services, a carbon monoxide alarm should be present or installed in each unit of the complex as necessary, unless the complex doesn't have any combustion appliances.

Fire Extinguishers:

Fire extinguishers may be provided when solid fuel burning equipment is present. The cost for fire extinguishers shall be charged to the Health and Safety budget.

Sub-grantees shall determine the location and number of smoke detectors, carbon monoxide alarms and fire extinguishers for each project. Local code requirements should be considered in making this determination. Manufacture's installation recommendations may also be used to select the appropriate mounting location when a new detector or alarm is installed.

Testing Protocols

Energy Auditors shall check existing devices and verify the operation of any installed detectors, alarms and fire extinguishers.

Client Education

Energy Auditors shall provide clients with verbal and written information on use of devices installed.

Training

Sub-grantee shall train their Energy Auditors where to install detectors and alarms in accordance with local code compliance and manufacture's recommendations.

7.20 – Occ	upant Health and S	Safety Concerns ar	nd Conditions	
	Concurrence, Alte	ernative, or Deferral		
Concurrence with Guidance 🗹	Alternative	Guidance 🛘	Results in Deferral	
	Fui	nding		
DOE ☑ LIHEAP	□ State □	Utility 🗖	Other \square	
What guidance do you provide	Sub-grantees for solicit	ing the occupants' hea	Ith and safety concerns related to)
	components	of their homes?		
Sub-grantees shall discuss with	occupants any health an	d safety concerns relate	ed to the components in their	
dwelling units prior to conducting	ng the energy audit. Sub	-grantees may want to	request that applicants list any	
health and safety concerns as p	art of the application pro	cess allowing the Ener	gy Auditor to use that as a starting	,
point for the discussion when the	ne Energy Auditors first g	o to the project location	n.	
What guidance do you provide	Sub-grantees for deter	mining whether occup	ants suffer from health conditions	5
that may be negatively affected by the act of weatherizing their home?				
Sub-grantees shall complete the Health Assessment Evaluation Form to determine whether any occupants may				
suffer from health conditions th	at could potentially be n	egatively affected by the	ne installation of energy	
conservation measures or weatherization activities. The Health Assessment Evaluation Form is to be completed				

during the course of the initial interview with the client. Sub-grantees are to question the client whether they or any household members have asthma, allergies, lead poisoning or respiratory problems. The Sub-grantees are to provide a copy of the Health Assessment Evaluation Form to the Energy Auditor conducting the initial energy audit.

What guidance do you provide Sub-grantees for dealing with potential health concerns when they are identified?

The Energy Auditor is to determine if an existing health problem would be worsened by installing any of the energy conservation measures or conducting any of the weatherization test procedures. If the work could result in making an existing condition worse, the measure or activity will be disallowed. The Energy Auditor is to discuss any measure or activity being disallowed with the client and state the measure/activity being disallowed on the Form.

Client Education

Using the Health Assessment Evaluation Form, the Energy Auditor shall provide the client with a copy of the signed Form before any weatherization services may be performed. The Energy Auditor shall explained to the client the impact of installing energy conservation measures or weatherization activities described in the Form that could have negatively affect the occupant's health.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence.

Documentation Form(s) have been developed and comply with guidance? Yes ☑ No ☐ Sub-grantees shall use the Health Assessment Evaluation Form provide by the Nevada Housing Division.

	7.21 – V	entilation and I	ndoor Air Qual	lity	
	Co	ncurrence, Alternat	ive, or Deferral		
Concurrence with	Guidance 🗹	Alternative Guida	ance 🗆	Results in Deferral	
		Funding	Ş		
DOE ☑	LIHEAP 🗆	State □	Utility 🗆	Other \square	
Identify th	ne Most Recent Version	of ASHRAE 62.2 Im	plemented (option	al: identify Addenda used)	
Sub-grantees shal	ll install ventilation as re	equired by ASHRAE 6	52.2 – 2016. If the /	ASHRAE normative Appendix A	is
employed and an	existing fan is being rep	placed or upgraded t	o meet whole-hous	se ventilation requirements, tal	ke
action to prevent	zonal pressure differen	ces greater than thre	ee pascals across th	ne closed door, if one exists.	
Testing and Final Verification Protocols					
Energy Auditors shall conduct an ASHRAE 62.2 evaluation to determine required ventilation by measuring fan					
flow of existing fans and of installed equipment for the purpose of verifying performance.					
Client Education					
Energy Auditors shall provide clients with information on function, use, and maintenance (including location of					

Energy Auditors shall provide clients with information on function, use, and maintenance (including location of service switch and cleaning instructions) of ventilation system and components. Any manual from installed equipment shall also be provided to the client.

The Sub-grantee shall request that the client sign the Nevada Housing Division Home Ventilation Agreement for the installation of mechanical ventilation in all dwelling units that do not already meet the ASHRAE 62.2 standard for residential ventilation. If the client is unwilling to have the necessary mechanical ventilation installed, the project shall be deferred.

When a deferral is necessary, the Sub-grantee shall provide information in writing describing conditions that must be met in order for weatherization work to commence.

Upon final inspection, the Energy Auditor shall explain that ASHRAE 62.2 standard does not account for high polluting sources or guarantee indoor air quality at any set level.

Training

Energy Auditors shall receive ASHRAE 62.2 training, including proper sizing, evaluation of existing and new systems. When a new version of ASHRAE 62.2 is adopted by the Nevada Housing Division, training shall be provided to Energy Auditors and contractors to successfully implement the new standard.

	7.22 – Windov	v and Door Rep	lacement, Wi	ndow Guards		
	(Concurrence, Alterna	ative, or Deferral			
Concurrence	with Guidance 🗹	Alternative Gui	dance \square	Results in Deferral		
		Fundi	_			
DOE 🗹	LIHEAP 🗆	State □	Utility 🗆	Other 🗆		
				or replacement and window guards?		
Replacement	, repair or installation of w	vindows and doors n	nay be eligible in s	some cases:		
cann	-	nd Safety measure b		iltration into a building structure d as an Incidental Repair measure or		
as He	 Repair of trim and/or flashings around windows or doors to prevent water infiltration cannot be repaired as Health and Safety but may be allowed as an Incidental Repair measure or efficiency measure if it is cost justified. 					
stain repai	 Replacement of skylights that leak water and have visible evidence of moisture damage (beyond water staining) and deterioration of the window assembly or building material around the window cannot be repaired as Health and Safety but are allowed as an Incidental Repair measure or efficiency measure if it is cost justified. 					
• Wind	low guards are not an allo	wable Health and Sa	fety cost nor an e	ligible Incidental Repair measure.		
Window and door repairs or replacements that are to be considered as Incidental Repair measures may be installed <u>only</u> when necessary to effectively weatherize the dwelling unit; otherwise these measures are not allowed. There is no specific dollar limit for any individual Incidental Repair measure as long as the entire packet of measures meet or exceed the Savings Investment Ratio (SIR) requirement of the energy audit. All estimated repair costs, including labor and materials, must be included in the SIR calculation. For each weatherized building, the cost of the total packet of energy conservation measures, added to the cost of all Incidental Repair measures for the building, must have a calculated SIR of 1.0 or greater to be eligible.						
Testing Protocols						
A visual inspection is required to determine what may need to be done.						
	Client Education					
Energy Audit	ors shall provide clients wi			herever issues are identified.		
		Traini	-			
Energy Auditors shall be made aware of guidance on this matter.						

	7.23 – Worker Safety (OSHA, etc.)				
	Concurrence, Alternative, or Deferral				
Co	currence with Guidance ☑ Alternative Guidance □ Results in Deferral □				
	Funding				
DO	E ☑ LIHEAP □ State □ Utility □ Other □				
Cl	How do you verify safe work practices? What is your policy for in-progress monitoring? -grantees are responsible to ensure all weatherization contractors follow the Nevada Occupational Safety as	- d			
He:	Ith Administration (OSHA) standards where required and take precautions to ensure the health and safety of mselves and other workers. Information is available at the United States Department of Labor website: OSSING 1987				
	Sub-grantees and contractors must maintain compliance with the current OSHA Hazard Communication and are including on-site organized Safety Data Sheets (SDS).				
Ha	ard Communication Standard				
che	rder to ensure chemical safety in the workplace, information about the identities and hazards of the micals must be available and understandable to workers. OSHA's Hazard Communication Standard (HCS) uires the development and dissemination of such information:				
•	 Chemical manufacturers and importers are required to evaluate the hazards of the chemicals they produce or import, and prepare labels and safety data sheets to convey the hazard information to their downstream customers; 				
•	All employers with hazardous chemicals in their workplaces must have labels and safety data sheets for the exposed workers, and train them to handle the chemicals appropriately.	ir			
Ma	or changes to the Hazard Communication Standard				
•	Hazard classification : Provides specific criteria for classification of health and physical hazards, as well as classification of mixtures.				
•	• Labels : Chemical manufacturers and importers will be required to provide a label that includes a harmonized signal word, pictogram, and hazard statement for each hazard class and category. Precautionary statements must also be provided.				
•	Safety Data Sheets: Will now have a specified 16-section format.				
• Information and training: Employers are required to train workers by December 1, 2013 on the new labels elements and safety data sheets format to facilitate recognition and understanding.					
	ore information on the Hazard Communication Standard is available at the following website: os://www.osha.gov/dsg/hazcom/index.html				
	Weatherization Compliance Inspector will be conducting random in-progress monitoring of active	the			

workers on the job site.

Training and Certification Requirements

Energy Auditors and contractors must have the minimum 10 hour OHSA training and ongoing training as may be required in the Hazard Communication Program. Sub-grantees shall maintain applicable certification of their Energy Auditors and contractors making this information available during NHD monitoring process.

Sub-grantees shall also ensure Energy Auditors and contractors are trained in the use and importance of personal protection equipment.

7.24 – <Add in Topic> Reserved

	Concurrence, Alternative, or Deferral					
Concurrence with Guidance	Alternative Guidanc	e 🗆	Results in Deferral			
	Funding					
DOE LIHEAP	State □	Utility 🗆	Other 🗆			
	Dawa diatian Buat					
	Remediation Prof	COCOIS				
	Testing Protoc	ols				
	Client Education	on				
	Training					
	7.25 – <add in="" td="" topic<=""><td>> Reserve</td><td>d</td></add>	> Reserve	d			
	Concurrence, Alternative	e, or Deferral				
Concurrence with Guidance	Alternative Guidanc	e 🗆	Results in Deferral			
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