TO: Rural Development State Directors

ATTN: Rural Housing Program Directors
Rural Development Area and Local Offices
State Architects, Engineers, Construction Analysts
and Inspectors

FROM: Tammye Treviño  (Signed by Tammye Treviño)
Administrator
Rural Housing Service

SUBJECT: The affect of the Energy Independence and Security
Act of 2007 on RHS Projects

PURPOSE/INTENDED OUTCOME:

The purpose of this Administrative Notice (AN) is to inform the Rural Development staff
that Rural Housing Service now complies with the Energy Independence and Security
Act of 2007 (Act) to govern the energy requirements for all Rural Housing Service
Housing Loan and Grant programs related to new construction projects. The Act carries
standards for the efficiency of equipment and appliances installed in residential homes
and buildings.

This Act does not affect the requirements for construction of manufactured homes. For
new manufactured homes, Rural Development continues to follow the requirements of
the Department of Housing and Urban Development’s Federal Manufactured Home
Construction and Safety Standards (FMHCSS), commonly called the "HUD Code".

This AN supplements and clarifies the requirements in RD Instruction 1924-A, Exhibit D
and is considered the minimum standards for construction of residential buildings newly
built with Rural Development finances.

EXPIRATION DATE: October 31, 2012
FILING INSTRUCTIONS: Preceding RD Instruction 1924-A
COMPARISON WITH PREVIOUS AN:

This AN updates AN No.4519 (1924-A) dated June 24, 2010, which expired on June 30, 2011. The AN is effective until the expiration date or until the Department of Energy establishes new standards for energy efficiency on manufactured housing as required by Section 413 of the Act, whichever is earlier. In the latter case, additional guidance will be provided.

BACKGROUND:

The Act establishes the 2006 International Energy Conservation Code (IECC-06) as the new standard for energy conservation requirements on new residential construction. Rural Housing Service has adopted the requirements where applicable. Single Family Housing programs fall under this Act pursuant to the Cranston-Gonzalez National Affordable Housing Act, 42 U.S.C., section 12709, (a) (1) (B) which is modified by the Act.

The construction standards for manufactured homes, set forth by the FMHCSS, have not changed. New manufactured homes built to the FMHCSS are provided with a Comfort Heating and Cooling Certificate. This Certificate (which may be combined with the Data Plate) is affixed in a permanent manner near the main electrical panel or other readily accessible and visible location inside the unit. The Certificate specifies the FMHCSS Uo Value Zone that the manufactured home complies with (see the circled area on Attachment A). This will be either a Uo Value Zone 1, 2, or 3. Attachment A is an example of a Data Plate containing the Comfort Heating and Cooling Certificate. The U/O Value Zone Map on the Certificate does not apply to Rural Development. Rural Development will continue to use Attachment B.

IMPLEMENTATION RESPONSIBILITIES:

For new construction of projects funded by Rural Housing Service, other than manufactured homes, the thermal standards are determined by the IECC-2006.

For manufactured homes, Attachment B to this AN lists the FMHCSS Uo value zones that correspond to the Rural Development climatic zones for each State by county. These are the FMHCSS Uo Value Zones acceptable to Rural Development for each State or county within a State. Rural Development field offices will ensure that existing and potential manufactured housing dealer-contractors receive Attachment B.

During the initial meeting with the applicant, Rural Development staff will indicate which FMHCSS Uo Value Zone is acceptable to Rural Development for the county in which the home will be installed. When the manufactured home is delivered to the site, Rural Development will verify that the unit is acceptable by inspecting the Comfort Heating and Cooling Certificate.
Please direct all questions pertaining to this AN to William Downs, Architect, at (202) 720-1499, email: william.downs@wdc.usda.gov of the Rural Housing Service Program Support Staff.

Attachments: A & B
Manufactured Address

Date of Manufacture: [blank]
HUD Label No.: [blank]
Manufacturer's Serial Number and Model Unit Designation: [blank]

Design Approval by (O.A.P.I.A.): [blank]

This manufactured home is designed to comply with the federal manufactured home construction and safety standards in force at the time of manufacture. (For additional information, consult owner's manual.)

The factory installed equipment includes:
- Equipment: [blank]
- Manufacturer: [blank]
- Model Designation: [blank]
- For heating: [blank]
- For air cooling: [blank]
- For cooking: [blank]
- Refrigerator: [blank]
- Water Heater: [blank]
- Washer: [blank]
- Clothes Dryer: [blank]
- Dishwasher: [blank]
- Garbage Disposal: [blank]
- Fireplace: [blank]

COMFORT HEATING
This manufactured home has been thermally modeled to conform with the requirements of the federal manufactured home construction and safety standards for all locations within U/O value zone [blank].

(See map at bottom)
Heating equipment manufacturer and model (see list at left).
The above heating equipment has the capacity to maintain an average 70°F temperature in the home at outdoor temperatures of [blank].
To minimize furnace operating economy and to conserve energy, it is recommended that this heating system be turned on at temperatures of 70°F and off at temperatures of 65°F.

The above information has been calculated assuming a maximum wind velocity of 15 mph at standard atmospheric pressure.

COMFORT COOLING

☐ Air conditioner provided at factory (Alternate I)

Air conditioner manufacturer and model [see list at left].

Certified capacity in B.T.U./hour in accordance with the appropriate air conditioning and refrigeration institute standards.
The central air conditioning system provided in this home has been sized assuming an orientation of the front (north) and of the home facing south. On the basis of the system is designed to maintain an indoor temperature of 75°F when outdoor temperature is [blank].

The temperature to which this home can cooled will change depending upon the amount of exposure the windows of this home to the sun’s radiant heat. Therefore, the home’s heat gain will vary dependent upon its exposure to the sun and any permanent shading provided. Information concerning the calculation of cooling loads at various orientations, wind exposure and shading are provided in Chapter 25 of the 1988 edition of the ASHRAE Handbook of Fundamentals.

Information necessary to calculate cooling loads at various locations and orientations is provided in the special comfort cooling information provided with this model.

☐ Air conditioner set provided at factory (Alternate II)

The air distribution system of this home is suitable for the installation of central air conditioning.

The supply air distribution system installed in this home is sized for a manufactured home central air conditioning system of up to [blank] B.T.U./hr. rated capacity which are certified in accordance with the appropriate air conditioning and refrigeration institute standards. The system is designed to meet all current building codes and standards, the air circulation of such air conditioners is rated at 3.5 cubic feet per minute for the cooling air delivered to the manufactured home.

Information necessary to calculate cooling loads at various locations and orientations is provided in the special comfort cooling information provided with this manufactured home.

☐ Air conditioning not recommended (Alternate III)

The air distribution system of this home has not been designed in anticipation of its use with a central air conditioning system.

To determine the required capacity of equipment to cool a home efficiently and economically, a cooling load (heat gain) calculation is required. The cooling load is dependent on the orientation, location and structure of the home. Central air conditioners operate most efficiently and provide the greatest comfort when their capacity closely approximates the calculated cooling load. It is recommended that this home be equipped with a central air conditioning system.

INFORMATION PROVIDED BY THE MANUFACTURER NECESSARY TO CALCULATE SENSIBLE HEAT GAIN

Wall (without windows and doors): [blank]
Ceilings and roofs of light color: [blank]
Ceilings and roofs of dark color: [blank]
Floors: [blank]
Air ducts in floor: [blank]
Air ducts in ceiling: [blank]
Air ducts installed outside the home: [blank]
The following are the duct areas in this home:
Air ducts in floor: [blank]
Air ducts in ceiling: [blank]
Air ducts outside the home: [blank]
BACKGROUND: The minimum thermal requirement for new manufactured homes acceptable to Rural Development is the U.S. Department of Housing and Urban Development Federal Manufactured Home Construction and Safety Standard (FMHCSS) Uo Value Zone(s) indicated on the Comfort Heating and Cooling Certificate for the following States:

NOTE: For a FMHCSS Uo Value Zone 1 or higher, higher means a FMHCSS Uo Value Zone 2 or 3. For a FMHCSS Uo Value Zone 2 or higher, higher means a FMHCSS Uo Value Zone 3.

ALABAMA

FMHCSS Uo Value Zone 1 or higher is acceptable for all counties in the State.

ALASKA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

ARIZONA

FMHCSS Uo Value Zone 2 or higher is acceptable for the following counties:

- Cochise
- Gila
- Graham
- Greenlee
- La Paz
- Maricopa
- Mohave
- Pima
- Pinal
- Santa Cruz
- Yuma

FMHCSS Uo Value Zone 3 is acceptable for all other counties.

ARKANSAS

FMHCSS Uo Value Zone 2 or higher is acceptable for all counties in the State.
CALIFORNIA

FMHCSS Uo Value Zone 2 is acceptable for the following counties:

- Alpine
- Lassen
- Modoc
- Mono
- Nevada
- Plumas
- Sierra
- Siskiyou

FMHCSS Uo Value Zone 2 or higher is acceptable for all other counties.

COLORADO

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

DELAWARE / MARYLAND

FMHCSS Uo Value Zone 3 is acceptable for all counties in both States.

FLORIDA / VIRGIN ISLANDS

FMHCSS Uo Value Zone 1 or higher is acceptable for the following Florida counties and the Virgin Islands:

- Brevard
- Broward
- Charlotte
- Citrus
- Collier
- Dade
- DeSoto
- Glades
- Hardee
- Hendry
- Hernando
- Highlands
- Indian River
- Lake
- Lee
- Levy
- Manatee
- Marion
- Martin
- Monroe
- Okeechobee
- Orange
- Osceola
- Palm
- Beach
- Pasco
- Pinellas
- Polk
- Sarasota
- Seminole
- St Lucia
- Sumter
- Vousia

FMHCSS Uo Value Zone 1 or higher is acceptable for all other counties.

GEORGIA

FMHCSS Uo Value Zone 1 or higher is acceptable for all counties in the State.

HAWAII

FMHCSS Uo Value Zone 1 or higher is acceptable for all counties in the State.
IDAHO

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

ILLINOIS

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

INDIANA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

IOWA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

KANSAS

FMHCSS Uo Value Zone 2 or higher is acceptable for the following counties:

Barber  Cowley  Harper  Neosho
Chautauqua  Crawford  Labette  Sumner
Cherokee  Elk  Montgomery  Wilson
Comanche

FMHCSS Uo Value Zone 2 is acceptable for all other counties.

KENTUCKY

FMHCSS Uo Value Zone 2 or higher is acceptable for all counties in the State.

LOUISIANA

FMHCSS Uo Value Zone 1 or higher is acceptable for all counties in the State.

MAINE

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

MASSACHUSETTS / RHODE ISLAND / CONNECTICUT

FMHCSS Uo Value Zone 3 is acceptable for all counties in the three States.
MICHIGAN

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

MINNESOTA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

MISSISSIPPI

FMHCSS Uo Value Zone 1 or higher is acceptable for all counties in the State.

MISSOURI

FMHCSS Uo Value Zone 2 or higher is acceptable for the following counties:

Barry Jasper Newton Scott
Butler McDonald Oregon Stoddard
Cape Mississippi Ozark Stone
Girardeau New Madrid Pemiscot Taney
Dunklin Ripley
Howell

FMHCSS Uo Value Zone 2 is acceptable for all other counties.

MONTANA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

NEBRASKA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

NEVADA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

NEW JERSEY

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.
NEW MEXICO

FMHCSS Uo Value Zone 2 or higher is acceptable for the following counties:

- Bernalillo
- Chaves
- Curry
- De Baca
- Dona Ana
- Eddy
- Grant
- Guadalupe
- Hidalgo
- Lea
- Lincoln
- Luna
- Otero
- Quay
- Roosevelt
- Sierra
- Socorro

FMHCSS Uo Value Zone 2 is acceptable for all other counties.

NEW YORK

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

NORTH CAROLINA

FMHCSS Uo Value Zone 2 or higher is acceptable for all counties in the State.

NORTH DAKOTA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

OHIO

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

OKLAHOMA

FMHCSS Uo Value Zone 2 is acceptable for the following counties:

- Beaver
- Cimarron
- Texas

FMHCSS Uo Value Zone 2 or higher is acceptable for all other counties.

OREGON

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

PENNSYLVANIA

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.
PUERTO RICO
FMHCSS Uo Value Zone 1 or higher is acceptable for all of Puerto Rico.

SOUTH CAROLINA
FMHCSS Uo Value Zone 1 or higher is acceptable for all counties in the State.

SOUTH DAKOTA
FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

TENNESSEE
FMHCSS Uo Value Zone 2 or higher is acceptable for all counties in the State.

TEXAS
FMHCSS Uo Value Zone 1 or higher is acceptable for the following counties:
Cameron  Kenedy  Starr  Zapata
Hidalgo  Kleberg  Willacy
FMHCSS Uo Value Zone 1 or higher is acceptable for all other counties.

UTAH
FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

VERMONT / NEW HAMPSHIRE
FMHCSS Uo Value Zone 3 is acceptable for all counties in both States.

VIRGINIA
FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

WASHINGTON
FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

WEST VIRGINIA
FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.
WISCONSIN

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.

WYOMING

FMHCSS Uo Value Zone 3 is acceptable for all counties in the State.