

## Section 9: Mobile Home Priority List

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### The 12 Priority List Items | General Overview

Items one - eight shall be performed during every project whenever the outlined conditions are applicable to the mobile home and the Mobile Home Priority List (MHPL) is used to develop the scope of work. Items nine - twelve are sequenced in order of typical energy saving cost-effectiveness. These items are the primary energy saving measures required for all projects where the MHPL is used to develop the scope of work.

Note that some, but not all, mobile home policies are included directly within this MHPL document. More detailed mobile home policies and procedures are referenced throughout this document wherever applicable.

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#### Item 1: Non-Energy Saving Measures - Including Health & Safety Measures

- A. All protocols regarding safety devices as outlined on Section 4, Pages 6 & 7 of this policy manual shall be met for all mobile homes (MH).
- B. All plumbing vent stacks must extend to the outdoors. In roof-over situations, the vent stack cannot terminate in between the original and the new roof. The venting must be extended to the outdoors.
- C. An evaluation by a qualified heating technician shall be performed whenever there are any signs of past or ongoing spillage or flame rollout issues to ensure that no spillage or flame rollout issues exist at the completion of a MH project. By conclusion of every MH project there shall be no visible signs of operational deficiencies or imminently dangerous conditions relating to any combustion appliances, including the appliance's combustion air intake, flue pipes or SRJ assemblies/roof wedges.
- D. All combustion appliances shall pass all required combustion testing procedures and all appropriate spillage and draft tests performed at the worst-case scenario.
- E. If the installation of CAZ pressure relief is performed by installing an open conduit between the CAZ and the outdoors, then the conduit shall be unobstructed and extend to the exterior of the building shell. The conduit cannot terminate in the crawlspace or in an attic/roof cavity. The conduit can only be routed through the floor and crawlspace area if it extends to the outside of the crawlspace skirting (*or comparable surface*). All conduit sections located within the crawlspace must be thoroughly airsealed to prevent crawlspace air from getting up into the mobile home.
- F. Combustion air from the outdoors must be provided to all propane, natural gas or oil-fired combustion appliances. Note that combustion air intake pipes/conduits are different than the type of piping/conduit described above that provide general CAZ pressure relief. The conduit delivering combustion air from the outdoors must connect directly to the burner or into the burner compartment of the combustion appliance. When the conduit delivering combustion air directly to the burner or into the burner compartment passes through the floor/mobile home belly it is allowable for the termination to be located within the crawlspace. It is also allowable to extend the combustion air conduit to the exterior of the mobile home skirting (*or comparable*), but only if the termination of the conduit is located above typical snow accumulation level and has a mesh screen installed to deter rodents. When the conduit delivering combustion air to the burner passes through a mobile home ceiling, it shall extend to the exterior of the building shell. It cannot terminate in a mobile home attic/roof system.
- G. Whenever there is a closeable door located in front of the furnace/furnace closet, the air handler must be engaged for an additional "MH furnace pressure imbalance test". Modifications shall be performed until a passing test result is achieved. Refer to Section 8: Page 3 of this TEC manual for detailed requirements.



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### Item 2: Mechanical Ventilation

- A. **Local Ventilation:** All local ventilation requirements as outlined in Sections 7 & 8 of the TEC Manual shall be met during each MHPL eligible project.
- B. **Dwelling-Unit Ventilation:** All dwelling-unit ventilation requirements as outlined in Section 7 & 8 of the TEC Manual shall be met during each MHPL eligible project.
- C. All protocols regarding exhaust fan venting materials & installation specifications shall be met as outlined in Section 7 of the TEC Manual.
- D. All protocols regarding clothes dryers venting materials & installation specifications shall be met as outlined in Section 7 of the TEC Manual.

### Item 3: Baseload

- A. All Efficiency Vermont (EVT) protocols regarding evaluation for, and identification of, base load energy usage reduction and water conservation opportunities shall be adhered to. The installation, completion and verification of all improvement measures shall align with EVT protocols.
- B. All protocols regarding General Energy Waste Reduction Measures as outlined in Section 5 of the TEC manual shall be adhered to.

### Item 4: Ground-Source Moisture Barrier Installation

Either the installation of a moisture barrier over the ground or written documentation in the file why the measure was not installed is required during each MH project. The most common acceptable reason not to install a moisture barrier on the ground underneath a mobile home is when there are regular standing water conditions where ground water is likely to flow over and to pool on top of the material after installation. The installation of a moisture barrier over the ground is not required when there is a slab underneath the mobile home but the installation over the slab is still allowable.

### Item 5: Exterior Door Replacement: [Funding Source Restrictions Apply](#)

Mobile home doors are eligible for replacement only when reasonable attempts to repair the existing door will not enable the door to be safely closed and locked. Replacement of mobile home doors are considered non-energy saving measures and are classified as incidental repair measures.

If an exterior door is replaced on a DOE funded WAP project, then that measure shall be paid for with Non-DOE funds.

### Item 6: Window Replacement: [Funding Source Restrictions Apply](#)

Mobile home windows are eligible for replacement only when reasonable attempts to repair an existing window (*or to install an interior storm*) will not enable the window to be safely closed and locked.

Replacement of mobile windows are considered non-energy saving measures and are classified as incidental repair measures.

If a window is replaced on a DOE funded WAP project, then that measure shall be paid for with Non-DOE funds.



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### Item 7: Enhanced Client Education/Efficiency Coaching

- A. During the weatherization process each client's energy consumption history must be reviewed. The electricity consumption must be evaluated, disaggregated and discussed with the client.
- B. At minimum, the importance and potential impact of the following must be covered with each client.
  - Maintaining a clean furnace air filter
  - Monitoring indoor moisture sources and humidity levels
  - Importance of understanding and using exhaust fans
  - Setting back thermostats when possible
  - Carbon monoxide and back drafting issues

### Item 8: Heating Appliances

- A. All programmatic requirements regarding the determination of primary v. secondary heating appliances, the cleaning, tuning, evaluation and servicing of primary and secondary heating systems as outlined in Section 8 & Appendix A of the TEC Manual shall be adhered to.
- B. Whenever a mobile home furnace is being installed during a weatherization project AND the heating system utilizes propane or natural gas, the WAP installed appliance shall be both:
  1. A Category IV Appliance | *designed for production of condensate and positive draft pressure*  
- and -
  2. A Sealed Combustion Appliance

Written permission from OEO must be attained prior to the installation of any other category or type of MH furnace/central heating system when the fuel source is propane or natural gas.

### Item 9: Duct System Enhancements

All programmatic requirements regarding duct system enhancements as outlined in Section 8 of the TEC Manual shall be adhered to on every MHPL eligible project.

### Item 10: Prioritized Airsealing

All programmatic requirements regarding prioritized airsealing protocols, as they are outlined in Section 8 of the TEC Manual, shall be adhered to on every MHPL eligible project.

**Note that none of the policies outlined in Section 6 of the TEC Manual are applicable to mobile homes and those policies shall not be followed during mobile home projects.**



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### Item 11: Mobile Home Belly/Floor System

- A. All programmatic requirements regarding weatherization improvements to a mobile home belly/floor system shall be implemented on every MHPL eligible project in accordance with Section 8 of the TEC Manual.
- B. **Belly Sealing** | [Expectations are for all belly types and designs](#)  
By conclusion of a MHPL project, all holes, tears, voids in the mobile home belly material shall be completely sealed in a durable manner. Use of tape is not allowable for belly sealing purposes.
- C. **Perimeter of Belly/Floor System** | [Expectations are for all belly types and designs](#)  
The entire perimeter of the belly/floor system, including the wings/outriggers, shall be insulated to the maximum R-Value possible using either blown-in fiberglass or cellulose insulation.
- D. **Center of Belly/Floor System** | [Expectations are varied by design type](#)  
The center sections of the belly/floor system shall be weatherized in accordance with the policies outlined within Section 8 of the TEC Manual for the most comparable belly/floor system type and design to the one found on each individual project.

### Item 12: Mobile Home Ceilings/Roof Systems

- A. All programmatic requirements regarding weatherization improvements to a mobile home ceiling/roof system shall be implemented on every MHPL eligible project in accordance with Section 8 of the TEC Manual.
- B. **Typical Mobile Home Roof Designs**  
Any portion of a mobile home attic/roof system where the cavity depth between the ceiling and roof is deeper than 14 inches shall not be insulated with more than 14 total inches of insulation even if more insulation would fit. The 14 total inches of insulation includes the preexisting insulation and the insulation installed by the WAP. It references the final “settled-depth” of the insulation.
  - ✚ **By conclusion of each mobile home project every attic/roof system section shall be insulated to a minimum, average “effective” value of R-40 (without exceeding the 14 inches of insulation limit in any portion of the mobile home attic/roof).**
  - ✚ **Whenever a minimum, average “effective” value of R-40 is not possible due to space limitations between the ceiling and the roof:**
    - ✓ **Each ceiling/roof system section shall be insulated with blown-in insulation to the maximum R-value possible (without exceeding the 14 inches of insulation limit in any portion of the mobile home attic/roof).**
- C. **Mobile Home with Roof-Over**  
Whenever there is a roof-over that allows for physical access into the attic space between the two roof lines, then the original roof cavity shall always be sealed and insulated prior to adding any additional insulation over the top of the original roof.  
  
If there is already batt-insulation over the original roof, a perimeter-pull shall be done on all sides. Additional blown-in insulation must be added to achieve a minimum “effective” R-40 value throughout the roof/attic area everywhere that the roof clearance allows for an “effective” R-40 to be attained.



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### **Buildings Non-Eligible for Use of the Mobile Home Priority List**

**If any of the following conditions are applicable to a mobile home project, the building is not eligible for use of the MHPL & a full house mobile home audit that generates an energy savings report is required.**

1. The total cost of all incidental repair measures exceeds 13% of the total onsite job cost or exceeds a \$750 maximum amount. If 13 % of the total onsite job cost would equal an amount greater than \$750 then \$750 shall be the maximum allowable cost of all incidental repair classified measures unless a full house audit is performed. Onsite job costs are the materials plus onsite labor costs as reflected in the HES program.
2. The pressure/insulation boundary is already located at the crawlspace perimeter instead of being located at the mobile home belly or the pressure/insulation boundary will be relocated to the crawlspace perimeter during the project.
3. The mobile home has been sited on a permanent foundation that provides an enclosed basement/crawlspace area.
4. A heating appliance will be replaced for non-health and safety reasons.
5. Any addition(s) to the original mobile exceed 25% of the original mobile home floor area.

**Note that it is always allowable to perform a full house audit to develop the scope of work for any mobile home project instead of utilizing the mobile home priority list to develop the scope of work.**

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