Rehabilitation of Mobile Homes Arizona **Department of Housing** Office of Manufactured Housing

Rehabilitation ("Rehab")

The purpose of rehabilitation of mobile homes is to provide minimum safety standards for these homes manufactured before the implementation of the HUD Manufactured Home Construction and Safety Standards in 1976. A mobile home is defined, in part, as manufactured before June 15, 1976.

Arizona law requires that a mobile home be rehabilitated when moved into this state or when moved from one mobile home park in this state to another mobile home park in this state. *Reference Arizona Revised Statutes §41-4048 (C).*

REHAB REQUIREMENTS

A rehabilitation permit shall be obtained from the Office of Manufactured Housing prior to any modification or relocation of the mobile home. *Reference Arizona Administrative Code ("AAC") R4-34-606.*

The permit fee is required and that fee includes a compliance insignia, and two inspections. Additional inspections may incur additional charges. The current fee schedule is available at: <u>https://housing.az.gov/programs/office-of-manufactured-housing</u> under "News and Events".

REHAB REQUIREMENTS

The following requirements shall be met for a mobile home to be issued a certificate of compliance:

- Egress windows
- Furnace & Water heater compartment
- Gas system test
- Electrical system wiring
- Electrical system testing
- Smoke detector installation
- Smoke detector testing

EGRESS REQUIREMENTS

 Each room designated for sleeping purposes shall have at least one outside egress window or approved exit device, unless it has an exterior door.

The window or exit shall have a minimum clear dimension (opening) of 22 inches and a minimum clear opening of 5 square feet. The bottom of the exit shall not be more than 36 inches above the interior floor of the unit.

Gas Mechanical Compartment

The walls, ceiling, and doors of each gas fired furnace and water heater compartment shall be lined with 5/16 inch gypsum board, unless the door opens to the exterior of the unit in which case the door may be all metal construction. All exterior compartments shall seal to the interior of the unit.

Gas System Test

High pressure test

- Before appliances are connected, piping systems shall stand a pressure of at least six inches mercury or three (3) psi gauge for a period of not less than 10 minutes without showing any drop in pressure.
- Pressure shall be measured with a mercury manometer or slope gauge calibrated so as to be read in increments of not greater than one-tenth pound, or an equivalent device.
- The source of normal operating pressure shall be isolated before the pressure tests are made.
- Before a test is begun, the temperature of the ambient air and of the piping shall be approximately the same, and constant air temperature be maintained throughout the test.



3 psi High Pressure Gas Test



1/10th lb gauge minimum 3 psi for 10 minutes

GAS SYSTEM TEST

Low pressure test

- After appliances are connected, the piping system shall be pressurized to not less than 10 inches or more than 14 inches water column
- Or use an ounce gauge and pressurize at 6 8 oz.
- Once the test is complete then the appliance connections should be tested for leakage with an approved bubble solution designed for leak testing



Low pressure test gauge between 6 to 8 oz



Bubble solution for leak testing



Checking for leaks on flex line

ELECTRICAL SYSTEM REQUIREMENTS

If the unit wiring is of aluminum conductors, all receptacles and switches rated 20 amperes or less directly connected to the aluminum conductors shall be marked CO/ALR.

All receptacles servicing kitchen countertops, bathrooms, or within 6' of bar sinks as well as exterior receptacles other than heat tape locations shall be of the ground fault circuit interrupter (GFCI) type.

Conductors of dissimilar metals must be connected in accordance with NEC Section 110.14.

CO/ALR LISTING





GFCI OUTLET



PROPER CO/ALR SPLICE





ELECTRICAL SYSTEM TESTING

Electrical systems shall be tested for continuity to assure that metallic parts are properly bonded, tested for operation to demonstrate that all equipment is connected and in working order, and given a polarity check to determine that connections are proper. The electrical system shall be properly protected for the required amperage load.

Electrical System Test

Operational test

- Make sure all light switches are in the off position
- Use a receptacle tester at each receptacle to ensure the polarity is correct and that the receptacle is grounded
- Check both outlets in each receptacle to ensure the tab has not been removed
- On GFCI receptacles, push the test button on the tester to ensure the interrupter trips the switch.
- Test switched receptacles with the switch in the on and off position

Receptacle tester GFCI type outlets



GFCI RECEPTACLE TEST



RECEPTACLE TEST



ELECTRICAL SYSTEM TEST

240v receptacles

• Use a voltage tester to verify that the "hot" side of each 240v outlet measures a nominal 120v of the correct polarity

240 volt outlet test





ELECTRICAL SYSTEM TEST

Testing light fixtures

- Test for polarity and grounding
- You can use a voltage tester or you can use the receptacle tester along with a adaptor
- When using the adaptor you must also have a ground wire attached to the receptacle tester

Lighting fixture tester





Light Fixture Test with Adaptor and ground wire

SMOKE DETECTION REQUIREMENTS

A smoke detector shall be installed in each sleeping room and outside each separate sleeping area in the immediate vicinity of the sleeping rooms.

Each smoke detector shall be installed in accordance with its listing. The top of the detector shall be located between 4 inches to 12 inches below the ceiling;



Smoke Alarm Test

- Push the "PUSH TO TEST" button on the smoke detector to ensure the detectors alarm sounds
- Repeat on all detectors in home

Frequency Asked Questions

Q. If I am moving my home from a park to private land, do I still need to have the rehab done?

A. State law only requires the rehab when a home is being brought into the state from another state or being moved from one park to another park. The State does not require that a rehab be done if you are moving from a park to private property, however, many local jurisdictions do. Check with your local jurisdiction (city, county) first.

Q. I have an electrice furnace. Does the compartment still need to be lined with gypsum board?

A. No. Only gas fired appliance compartments are required to be lined with gypsum board (sheetrock, drywall). This includes any door to the compartment unless the door is to the exterior of the home. The door to the exterior may be made of metal. When appliances are fueled by gas, all seams and openings to the interior of the home must be sealed. This is to prevent the ingress of combustion gasses into the living area of the home and provides some measure of fire protection. Sealing can be accomplished with drywall joint compound or caulking. All exposed wood must be covered with gypsum board.

Q. We are using one of the bedrooms as a den. Does this room still require an egress window?

A. Yes. Sleeping rooms (bedrooms) are as originally designated by the home's manufacturer. A sleeping room not currently being used as such may be used as such in the future.

Q. I'm not understanding the size requirement for the egress window, can you clarify?

A. Many older homes were built with small windows in the bedrooms. The purpose of the egress device (a window or door) is to allow an easy escape route from the home in event of an emergency, such as a fire. The egress opening must be large enough for a person to fit through. The sill of the window can be no more than 36 inches above the floor and the opening part of the window must be at least 22 inches wide and be a minimum of five square feet in area. Any security bars that may be present must have a quick release mechanism that allows someone to climb out of the window.

Q. What is a GFCI receptacle and where do I need to put them?

A. A GFCI (ground fault circuit interrupter) is a device that is designed to protect people from accidental electrocution in event of a ground fault. An example would be if someone were blow dying their hair while sitting in a bathtub full of water and they dropped the hair dryer in the water. The GFCI receptacle would open the circuit before the person could be electrocuted. All exterior receptacles and those servicing kitchen countertops, bathrooms or within 6' of bar sinks must be GFCI.

Q. What will I need to do when my home is inspected? How do I prepare?

A. The inspector will verify that the items listed in the Requirements section have been completed satisfactorily. The inspector is required to witness a successful gas test. The inspector will also check the electrical system - this will require that the electricity be on or that a generator of sufficient capacity be available.

- A common cause for a failed inspection is incomplete, unsuccessful or unavailable gas or electrical tests. Please pre-test the home to identify and resolve any problems before calling for an inspection.
- Another common area of failure is inadequate gypsum installation, or sealing in gas appliance compartments. Be sure the work is complete in these areas.
- Keep in mind that the permit fee includes two inspection visits, any additional visits may incur additional charges.

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