Manufactured Home Update

Oregon Department of Consumer & Business Services ■ Building Codes Division ■ August 1996

From the editor

The "new" manufactured home installation standard for Oregon has been in place for half a year now, so you'll find this issue full of details regarding some of the fine points of the standard, known affectionately as OMDS. The results of the Oregon State University installation survey of the first 100 homes is also included in this issue, and it shows where installers and others need to get caught up.

To that end, we at OSU and the Building Codes Division invite you to let us know how we can help you with the new standard. This assistance can be on-site. It could consist of looking over homes to see if anything has been missed. Or, if you're an installer, we can meet your crew during an installation to see what does and doesn't meet the standard. If you're an inspector, we can review inspections or go with you on your inspections — another pair of eyes can really help. And if you're a dealer we can provide similar services.

These are not "inspections" — the focus is on education. After all, OSU is in the education business. And in this case, the classroom is wherever you do your work.

Remember, if you have stories or ideas for *Manufactured Home Update*, contact:

Ted Haskell
OSU Extension Service
800 NE Oregon # 10
Portland, OR 97212
(503) 731-4104

Inside

Tips from the Installation Monitoring Program

Mark Campion, Building Codes Division

Building Permits and the Three-Step Inspection Process

The 1996 Oregon Manufactured Dwelling Standard and the Oregon Administrative Rule (918-500-0065) require three inspections: *stand*, *installation*, and *finish*. Many local jurisdictions have started using new on-site permits which reflect the new inspection requirements. The permits are designed with three sign-off areas for the inspector to sign and date when the inspections have been completed.

It's important to remember that the new standards don't allow for the placement of the home until the

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Oregon retailers shine with national awards

Les Toth of Factory Homes received the prestigious and coveted "Retailer of the Year — West" award at the National Manufactured Housing Congress, held in early April. This award was open to nominees from every state west of the Mississippi. Toth has dealerships in McMinnville, Corvallis, and Coos Bay, Oregon, and in Vancouver, Washington. Toth also is president of the Oregon Manufactured Housing Association (OMHA).

The eight finalists in that category included two other Oregon retailers: Conser Homes in Albany, and Mike Erb of Leisureland Homes in Albany and Salem. Both Matthew Conser and Mike Erb are on the OMHA Board of Directors.

A "Developer of the Year" award was also presented. Nominations were from the entire U.S. Of the eight finalists for this award, three were from Oregon: Royal Property Corp. in Eugene, Mountain View Park in Bend, and Columbus Green Estates in Albany. All are members of OMHA.

Thanks to the Oregon Manufactured Housing Association for contributing this article. ■

Manufactured homes as sales offices

On a recent visit to a manufactured home sales lot, the conversation with the lot manager came around to the use of a manufactured home as a "temporary" sales office. His impression was that the unit was not for sale, therefore they were planning to make changes to the floor plan to create more office space. The 1996 Oregon Manufacture Dwelling Standard (section 1202) is explicit about the use of manufactured dwellings as temporary sales offices. The standard has six requirements:

1. The model of the home must be available to the general public.
2. The unit must not have any design, construction, transportation, fire and life safety, plumbing, mechanical, or electrical alterations made to it by the manufacturer, dealer, or distributor to accommodate the office use.
3. There are no alterations that would take it out of compliance with the federal or state manufactured dwelling codes.
4. The unit is accessible to people with disabilities and conforms with the accessibility requirements of the Oregon Structural Specialty Code in addition to the required federal and state manufactured dwelling codes.
5. It is installed and connected to utilities according to the 1996 Oregon Manufactured Dwelling Standard.
6. It is continuously offered for sale to the public as a manufactured home during the office use.

If you have questions about these requirements, contact Brian Lamb, Oregon Building Codes Division, at (503) 378-3731. ■

Prevent water damage by sealing the exterior

One of the most important steps in installing a manufactured home is sealing the exterior against water (and air) leaks. When installing or resetting an exterior door, installing upper and lower horizontal trim, or installing exterior fixtures, it is crucial that installers not overlook sealing these areas against water leaks. When these areas are not sealed, water damage to the home can be extensive. Consumer assistance inspectors have seen sections of floors and walls that were damaged extensively because they were left unsealed or were sealed with an inappropriate type or grade of sealant.

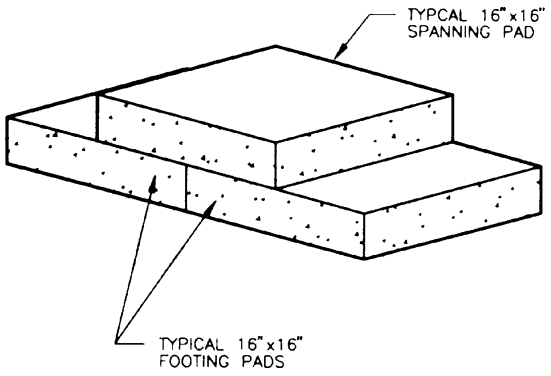
In one case, an exterior door installed at the factory was reinstalled by a service crew. They attempted to seal the door, but left the top of the door at the brick mould unsealed. Rain water then traveled into the wall cavity, down to the floor, damaging wall panels and floor decking. The floor covering had to be replaced.

In another case, the installer missed sections of the trim during the sealing process. As a result, water migrated into the floor cavity and damaged some of the decking and carpeting.

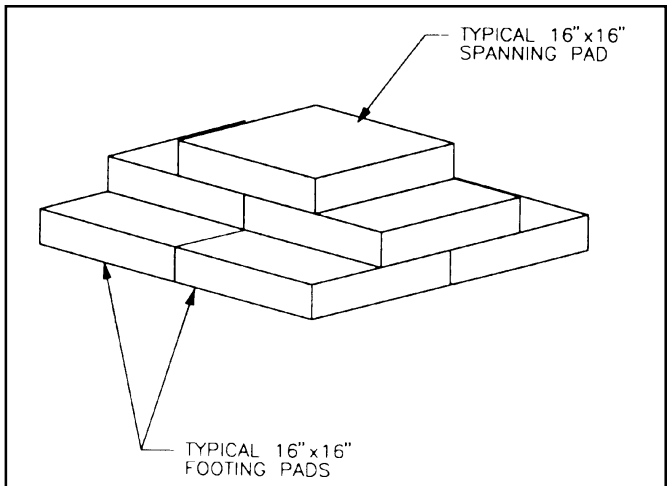
These are just two examples of how improper sealing can lead to damage from water penetration. Even though high quality sealants are more expensive, use them. Make sure the application is continuous and adheres to both pieces you're sealing. Even if the customer is buying the best construction methods, they're not worth much if water gets in. ■

Whoops! A caption mix-up

In our last issue (March 1996), we accidentally switched captions on our illustrations of proper footing sizing using 16 x 16 pads. The correct version is below. This is the first mistake we have ever made, and we won't let it happen agin.



512 sq. in. footing layout
Where a center line wall does not extend full height to the bottom of the ridge beam, the ridge beam above that wall shall be treated as another single span and may be subject to the requirements of the standard.



1024 sq. in. footing layout
Where a single column support post supports a ridge beam in the middle of a combined span, the footing size under that column support post should be equivalent to the sum of the footings required for the two single spans making up the combined span.

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stand has been approved by the local jurisdiction on completion of the first inspection. The stand inspection covers setbacks, grading, drainage, poured-in-place footings, and concrete slabs. These inspection requirements apply whether or not the home is placed in a park. A properly designed, signed-off, and posted permit lets the installer know whether the stand is approved. This is especially important for installers setting a home in an unfamiliar jurisdiction.

Perimeter Piers for Foundation Ready Homes

Inspectors and installers often overlook the perimeter piers required on the end walls of foundation-ready homes. Typically, the manufacturer sets the frames back to accommodate poured concrete stemwalls or masonry block skirting. Due to this construction modification, the endwalls require support.

With a typical poured stemwall, with attached pressure treated mud sill, the home rests on the full perimeter foundation. However, when the skirting installer uses masonry block skirting with a bearing plate, shims are required 16 inches on center on both end walls and side walls. Remember, marriage line end wall piers are still required.

One subtle point to remember is that with 6"-thick masonry blocks, shims are required 16 inches on center. However, if 8"-thick blocks are used for skirting, shims are only required 8 feet on center. Limited licensed skirting installers are allowed to install the shims. However, if the contract for the installation does not address specifically who is responsible for shimming, then the responsibility and liability falls back onto the home installer. ■

Make sure your copy of the Standard is up-to-date

Some installers may be using the wrong table to place support piers for manufactured homes. If you're using the version of the 1996 Oregon Manufactured Dwelling Standard that was passed out in the installer training programs, make sure you're using the updated Table 304 that was included as an addendum. The correct version is reproduced below. Compare it to the table you're using and replace the old table if it is different.

Table 304

Pier and footing size and spacing schedule

Location of pier	Pier spacing	Footing size
Main frame pier supports	5 feet, 4 inches (1.62 meters) on center	256 sq. inches (1,652 sq. cm.) or one 16 inch x 16 inch pad (41 cm. x 41 cm.)
Main frame pier supports	6 feet, 8 inches (2.03 meters) on center	On any approved continuous footing or concrete slab.
Perimeter pier supports	8 feet (2.44 meters) on center, and at each window or opening over 4 feet wide (1.22 meters)	256 sq. inches (1,652 sq. cm.) or one 16 inch x 16 inch pad (41 cm. x 41 cm.)
Center line wall pier supports	4 feet (1.22 meters) on center	256 sq. inches (1,652 sq. cm.) or one 16 inch x 16 inch pad (41 cm. x 41 cm.)
Center line column supports for ridge beam spans up to 14 feet (3.5 meters)	At each end of ridge beam span	512 sq. inches (3,303 sq. cm.) or two 16 inch x 16 inch pads (41 cm. x 82 cm.)
Center line column supports for ridge beam spans up to 20 feet (6.1 meters)	At each end of ridge beam span	768 sq. inches (4,956 sq. cm.) or two 16 inch x 16 inch pads (41 cm. x 123 cm.)
Center line column supports for ridge beam spans up to 26 feet (7.93 meters)	At each end of ridge beam span	1,024 sq. inches (6,607 sq. cm.) or two 16 inch x 16 inch pads (82 cm. x 82 cm.)
Center line column supports for ridge beam spans up to 38 feet (11.59 meters)	At each end of ridge beam span	1,536 sq. inches (9,912 sq. cm.) or two 16 inch x 16 inch pads (82 cm. x 123 cm.)

Notes:

(1) This table is designed to support a manufactured dwelling with a roof live load of 30 PSF (146.4 kgs per sq. m) and a dead load of 10 PSF (48.8 kgs per sq. m).

(2) This table shall be used in conjunction with Section 304 of this standard using the materials described in Section 303 of this standard.

(3) This table is not applicable for the installation of approved earthquake-resistant bracing systems or listed or approved engineered full foundation systems.

(4) See manufacturer's installation instructions for centerline column support location if not marked on the manufactured dwelling center line or otherwise apparent to the installer.

(5) Where a single column support post supports a ridge beam in the middle of a combined span (two adjacent spans) and there is no adjacent center line wall, the footing size under that column support post shall be equivalent to the sum of the footings required for each span. (i.e. If one single span requires two 16 inch x 16 inch pads and the adjacent span requires four 16 inch x 16 inch pads, the column support post in the middle of the two adjacent spans would require six 16 inch x 16 inch pads.)

(6) Manufactured dwellings constructed for snow loads in excess of 30 PSF (146.4 per sq. m) may, at the owner's option, be installed to the manufacturer's installation instructions.

(7) The local authority having jurisdiction may not require manufactured dwellings to be built or installed to heavier snow load requirements than those prescribed in 24 CFR 3280.305(c)(3) and this standard.

How are we doing with the new Installation Standard?

The 1996 Oregon Manufactured Dwelling Standard has been in place for nearly half a year, and we have just over 100 survey inspections in our database (covering inspections through April). So we've got a pretty good idea of what the main problems are — at least those that occur before skirting. The survey inspections are conducted by Oregon State University Extension Service to identify problems with manufactured home installations. The information gathered during the survey will be used to help train installers to improve installation quality throughout Oregon. Following are the most common problems that the survey identified during early 1996.

Top 11 Problem Areas

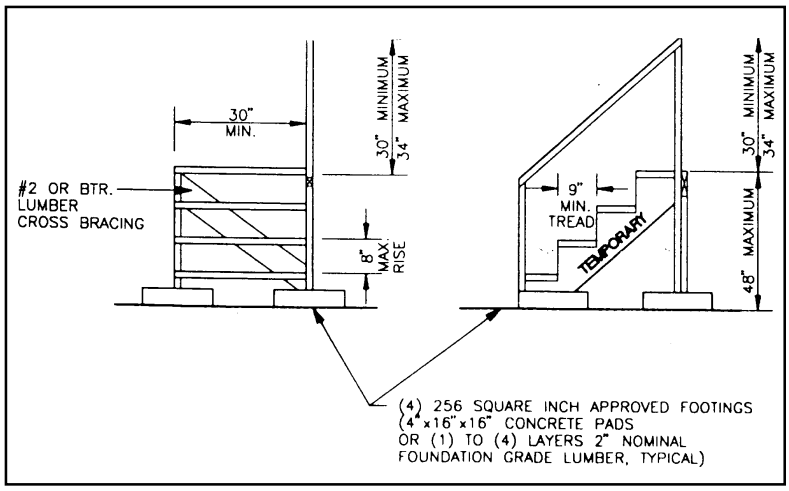
That's one more than Letterman! And we'll start with number 1.

1. Location of Footings and Piers. Of the homes surveyed 62 percent had problems here. Most were problems with centerline piers, with the most common error being over-spaced piers, or no piers, under centerline walls. The 1996 standard calls for piers four feet on center under all centerline walls. There were also a few cases of improperly located column support piers. For more details on centerline supports, see the March issue of *Manufactured Home Update*. Also see the correct Table 304, "Pier and Footing Size and Spacing Schedule," included with this issue.

   There were a smaller number of over-spaced perimeter piers. Also there were a number cases where piers were not shimmed tight at the perimeter, so they were not bearing loads.

2. Crawl Space Ventilation. Sixty percent of homes that had skirting in place at the time of the survey inspections had an inadequate vent area. While this is a large percentage of problems, it is lower than previous years, when more than 80 percent of homes had underventilated crawl spaces. Remember, the required vent area is one square foot (144 square inches) for every 150 square feet of crawl space.

3. Temporary Steps. Fifty-six percent of temporary steps were out of compliance with the standard. The most common problem was inadequate support (typically concrete blocks, often turned on their side). Temporary steps require 16 x 16 concrete pads or equivalent footing under all four posts. Another frequent problem was having the top step greater than 8.5 inches below the door threshold.



Temporary Steps — Figure 309.1

4. Roofing Application. Survey inspectors looked for unsealed shipping fastener holes, shipping fasteners that had not been removed, and exposed roofing nails or staples. They found one or more of these problems in 39 percent of the homes where they could inspect the roofing. Occasionally the problems were from the factory, but mostly, they were installation related.

5. Electrical Crossover Connections. The most common problem with electrical crossovers is exposed wiring. Sometimes this is caused by failure to replace or install a cover under the crossover connection box, or sometimes by running wiring outside the connection box entirely. Thirty-four percent of survey homes had problems with electrical crossovers.

6. Crossover Duct. Twenty-nine percent of homes had problems with crossover ducts. By far the most common problem was not sealing the outer duct liner to the belly wrap. Sometimes the tape used to seal the liner had come loose. It's important to keep the liner sealed to help prevent rodent penetration of the floor cavity. See the January 1996 issue of *Manufactured Home Update* for information on staplers designed to join fabrics without a solid backing.

New Installation Standard *continued on Page 6*

New Installation Standard *continued from Page 5*

There were several cases where the outer liner was not mechanically secured to the factory fitting. This is typically accomplished with a compression strap and helps keep the tape from pulling off the belly fabric.

7. Belly Fabric Repair. Nearly a quarter of the homes had openings in the belly fabric that hadn't been repaired. One in 20 houses had openings that were considered major. Problems ranged from road damage, to openings made for plumbing repairs, to minor openings that were overlooked during repairs. Even the smaller holes are worth repairing to reduce likelihood of rodent access.
8. Water Supply Freeze Protection. Twenty-three percent of the surveyed houses did not fully protect water supply pipes from freezing. The usual problems are in the details — joints and fittings are overlooked. During a cold snap, these small areas will freeze as fast as if the whole pipe was uninsulated.
9. Footing Materials. In 21 percent of surveyed homes, footing materials were improper. Most cases were undersized footings at centerline span supports. Read Table 304, "Pier and Footing Size and Spacing Schedule," in the 1996 Oregon Manufactured Dwelling Standard carefully to make sure spans have the proper footing size on both sides. Also see the March issue of *Manufactured Home Update* for an article about centerline footing sizes. There's also a copy of Table 304 included with this issue.

   Another problem that showed up on a few occasions is use of a too-wide single-layer wood footing. When using pressure treated 2-by wood footings, the width must not be more than 2 inches greater than the width of the concrete block pier (1 inch on each side). This usually requires a 2 x 10 x 28 inch pad for a 256 square inch pad. Use of a wider pad is likely to cause the wood to split along its length.
10. Crawl Space Moisture Barrier. Nineteen percent of homes surveyed had significant gaps in the black plastic ground cover. The usual problem is not weighting the material down where pieces overlap. During set-up, the sheets get pulled apart, often by several feet. We often see this along centerlines in double wide units.

New Installation Standard *continued on Page 11*

How to get your copy of the 1996 Manufactured Dwelling Standard

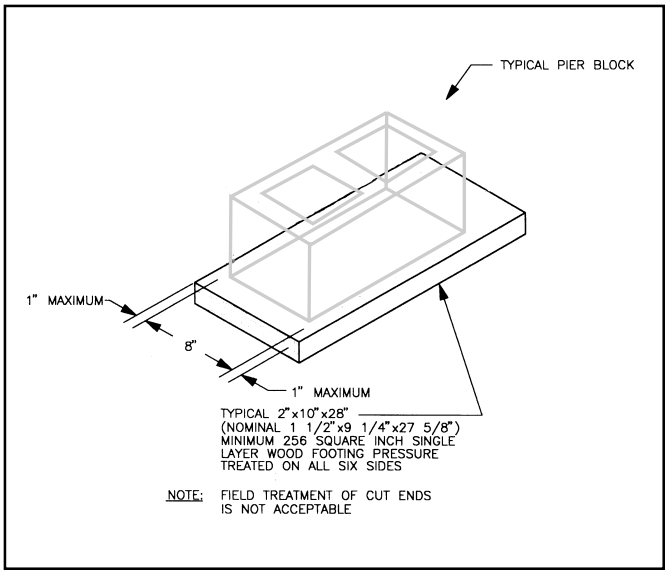
If you don't yet have your copy of the 1996 Oregon Manufactured Dwelling Standard, it is available from:

OSU Extension Energy Office
(541) 737-3004,
Oregon State University, Batcheller Hall 344,
Corvallis, Oregon 97331-2405

Building Tech Bookstore
(503) 297-7177 or 1 (800) ASK-BOOK,
7177 SW Stephen Lane,
Portland, Oregon 97225-1509

Copies are also available at the five OSU Extension Energy Program offices located in the following counties. Call in advance to make sure of office location, hours, and availability:

Multnomah — Portland (503) 731-4104
Lane — Eugene (541) 687-4243
Jackson — Central Point (541) 776-7371
Deschutes — Redmond (541) 548-6088
Union — La Grande (541) 962-1010



Single Layer Wood Footing — Figure 303.4

Ship-loose plumbing

There seems to be continued discussion and misunderstanding concerning who can install ship-loose drain plumbing and under what circumstances it can be installed. Sections 501 and 502 of the 1996 Oregon Manufactured Dwelling Standard (OMDS) address this problem. There are three different situations:

1. When the parts are shipped loose and the print is on site, a licensed manufactured dwelling installer may assemble the parts. The assembly must match the print and the print must be available when the local jurisdiction inspects.
2. When the parts are shipped loose, but there's no print on site (or the print doesn't match the house or system), a licensed journeyman plumber or the homeowner must do the work.
3. When the parts are shipped loose and there's a print on site, but a change is necessary to complete the system, a licensed journeyman plumber or the home owner must do the work. Or the manufacturer can provide a DAPIA (design approval agency) approved amendment.

The print supplied with the home is intended to show how the manufacturer designed the plumbing system to run to the drain outlet. When installed by a licensed installer, this piping section is to be installed per the print and Subpart G of the HUD standards.

The installer also is licensed to complete the building drain piping from the manufacturer's designed drain outlet to the connection at the sewer line. This is to be done as described in Section 501 and 504 of the OMDS. When there is no print, as detailed in number two above, a licensed journeyman plumber or the homeowner must make the connection.

At times the print is misplaced, or not sent, or the wrong print is supplied. The manufacturer, dealer, and installer should make every effort to send the proper print with the home. If a print is not available, the dealer or installer can contact the manufacturer and have the appropriate print sent. If this occurs, the installer can make the connections as long as they match the print. Again, if there must be modifications to the system other than what the print shows, a licensed journeyman plumber or the homeowner must make the connection unless a DAPIA approved amendment is provided by the manufacturer. The installers should become familiar with how manufacturers send the print and make certain that the print is left on site for the use of the building inspector. ■

Awnings and carports — a clarification

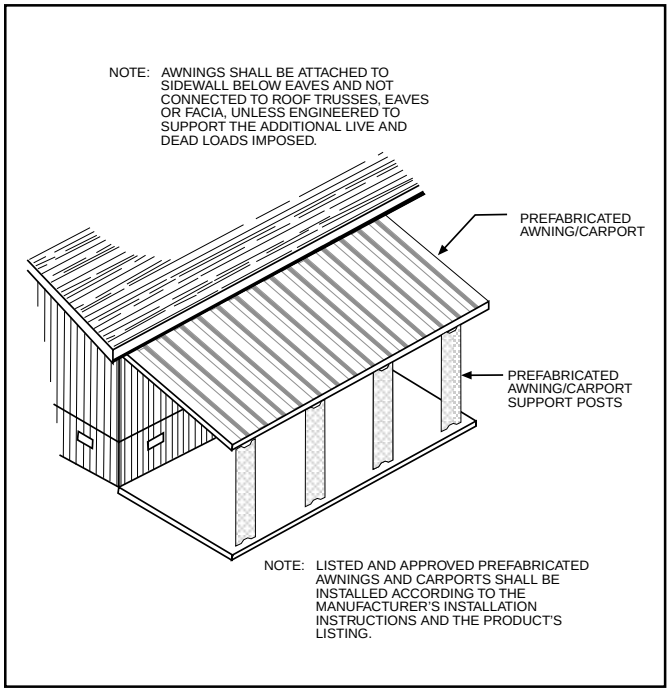


Figure 805.1 — Typical Awning/Carport Installation

The Building Codes Division has received a number of calls regarding Section 805 of the 1996 Oregon Manufactured Dwelling Standard, which contains requirements for awnings and carports. Figure 805.1 includes a note that states: "Awnings shall be attached to sidewall below eaves... ." This could be interpreted to mean that awnings are required to be attached to the sidewall. This is not the case.

The text of Section 805 states that "When a permanent or rigid awning or carport is attached..." certain criteria must be met. This means that it is not required that the awning be attached to the home as indicated in Figure 805.2, but when it is attached, it must be done as indicated in the standard.

Keep in mind that illustrations in the Manufactured Dwelling Standard show typical details as a means of illustrating the intent of the standard and show ways to meet the standard. However, the illustrations are not the standard itself. The text outside the illustrations is the official standard, so be sure to read it. ■

Listing requirements for fuel-burning equipment in manufactured homes

If you read Building Codes Division's newsletter *Code Link*, then you know that the BCD often prints answers to questions that come in on the phone or by letter when others can benefit from the information. The following questions came from a municipality that needed information on the listing requirements for fuel burning equipment installed in manufactured structures. The answers are based on the 1996 Oregon Manufactured Dwelling Standard (OMDS), Oregon Revised Stature (ORS) Chapter 446, the federal Manufactured Home Construction and Safety Standards 24 CFR 3280 (HUD standards), and the Oregon One and Two Family Dwelling Code.

"What code or standard do fuel burning appliances have to meet when installed in manufactured dwellings?"

ORS 446.155(5)(a) requires alterations (including installation or replacement of fuel-burning equipment) performed before or at the time of sale to the first buyer to comply with the HUD standards. HUD Standard 24 CFR 3280.707(a) requires all heat-producing appliances, roof jacks, and chimneys necessary for their installation to be listed or certified for use in manufactured homes. The listing standards are identified in 24 CFR 3280.703. Equipment not listed in 24 CFR 3280.703, such as pellet-fired appliances, is not allowed to be installed in manufactured dwellings by the manufacturer or dealer before or during the initial sale to the first buyer.

ORS 446.155(5)(b) requires alterations performed after the initial sale to a consumer be in conformance with the appropriate specialty codes except as identified in the rule. Except for wood-burning fireplaces, wood-burning stoves, and pellet-fired appliances, heat-producing appliances are not required to be listed for manufactured home use. But they are required to meet the Oregon One and Two Family Dwelling Specialty Code with some exceptions as described in the next answer.

"Are there circumstances that would allow fuel-burning equipment that is not listed for use in a manufactured dwelling to be installed in a manufactured dwelling?"

Yes. If an appliance is installed any time after the first consumer has taken possession of the manufactured dwelling and the appliance is not a wood-burning stove, wood-burning fireplace, or pellet-fired appliance, it is not required to be listed for manufactured home use, but is required to meet the minimum requirements of the Oregon One and Two Family Dwelling Specialty Code.

However, section 1101(e) of the OMDS requires heat-producing appliances not specifically mentioned in Chapter 11 of the standard to be listed for manufactured home use. This includes gas room heaters, fireplace inserts, and decorative appliances, to mention a few.

"What code or standard do fuel-burning appliances have to meet when installed in a park trailer?"

Park trailers are constructed to the ANSI A119.5 Park Trailer Standard which requires all heat-producing appliances to be listed for either recreational vehicle or manufactured home use. Since park trailers are "recreational vehicles," ORS 446.155(5)(b) does not apply, which means the same safety standards apply to park trailers before and after the initial sale to the buyer. In addition, since the recreational vehicle program is a state program and cannot be delegated, all alterations are required by statute to be inspected by the Oregon Building Codes Division.

The table on Page 9 lists the various types of heat-producing appliances and the code requirements concerning their listings. ■

Appliance	Code requirements before or during initial sale	Code requirements after initial sale
Gas Furnace	Manufactured Home Listed(2)	1 & 2 Family Code(2)
Oil Furnace	Manufactured Home Listed(2)	1 & 2 Family Code(2)
Gas Water Heater	Manufactured Home Listed(2)	1 & 2 Family Code(2)
Oil Water Heater	Manufactured Home Listed(2)	1 & 2 Family Code(2)
Gas Range	Manufactured Home Listed	1 & 2 Family Code
Gas Dryer	Manufactured Home Listed	1 & 2 Family Code
Wood Burning Stove	Manufactured Home Listed(1)	Manufactured Home Listed(1)
Wood Burning Fireplace	Manufactured Home Listed(1)	Manufactured Home Listed(1)
Pellet Fired Appliance	Not permitted by HUD Standard	Manufactured Home Listed(1)
Gas Room Heaters	Manufactured Home Listed(1)	Manufactured Home Listed(1)
Decorative Gas Appliance	Manufactured Home Listed(1)	Manufactured Home Listed(1)
Fireplace Inserts	Not permitted by HUD Standard	Manufactured Home Listed(1)
Gas Burning Fireplaces	Manufactured Home Listed(1)	Manufactured Home Listed(1)
Gas Burning Stoves	Manufactured Home Listed(1)	Manufactured Home Listed(1)
Other Fuel Burning Equip.	Manufactured Home Listed(1)	Manufactured Home Listed(1)

(1) In addition to the Oregon One and Two Family Dwelling Specialty Code, except for ranges and dryers, all fuel-burning appliances that are accessible from the interior of a manufactured dwelling are required to be listed, sealed-combustion appliances.

(2) Those fuel-burning appliances installed outside or in an outside compartment sealed from the interior atmosphere of the manufactured home and which have no doors or access to the interior of the manufactured dwelling are not required to be sealed combustion appliances.

Help wanted!

No, this isn't an employment opportunity. The customer assistance program of the Building Codes Division is seeking help from building officials, installers, dealers, and manufacturers. The Customer Assistance Program receives calls almost daily regarding inexperienced installers and building inspectors. We can provide on-site education if you would help identify who needs it.

The Customer Assistance Program and the Oregon State University Installation Monitoring Program are standing by, ready to respond to requests for assistance in the installation process. If you know of installers or inspectors who appear to need a little extra training, or if you could use some help with the fine points yourself, let us know. Our goal is to make everyone as knowledgeable as possible, and we want to make sure everyone has equal access to training resources. The Building Codes Division would much rather provide training to achieve code compliance than write correction notices.

An OSU inspector or Building Codes inspector will travel to your area and work in the field with anyone needing training. There is no charge for this service — the manufactured housing industry provides funds for the program in order to improve the quality of manufactured home installation. If you could benefit from this type of training, or know of someone who would, call Albert Endres at (503) 378-5975 or Mark Campion at (503) 378-8053. Any referrals will be kept confidential. ■

Responding to letters from the Building Codes Division

In carrying out its responsibilities for consumer assistance and on-site inspections, the Building Codes Division (BCD) sends letters to dealers, manufacturers, and occasionally installers. These letters require a response within a specific time frame. Unfortunately, there are misunderstandings about when responses are required.

When BCD receives a consumer assistance request, letters of notification along with a copy of the request (filled out by the homeowner) are mailed to both the dealer and the manufacturer. The letter states that the recipients are required to investigate the report and respond in writing within the time period specified in the letter. Sometimes the manufacturer or dealer does not respond to the letter because the work has already been scheduled for repair or they feel the items listed on the report don't apply to them. If after investigating, the manufacturer, dealer, or installer feel the items listed don't apply to them (or they aren't responsible for the repairs), they should send a letter to BCD stating their findings.

After repair work is completed, some dealers or manufacturers feel their work is done. However, they still need to take the final step of informing the BCD in writing that they have completed their involvement in the case.

This same series of steps must be taken when a consumer assistance inspector performs an on-site inspection. Letters of notification and a copy of the inspection form are mailed to the dealer, manufacturer, and when neccessary, the installer. These parties are required to investigate and respond in writing to BCD within the time frame detailed in the letter of notification.

The responsibility for responding to BCD notifications is contained in Section 610 of the National Manufactured Housing Construction Act of 1974 and Oregon Administrative Rule (OAR 918-500-0420). This applies to manufacturers, dealers (or agents thereof), and installers.

In any industry, communication plays a vital role. Keeping all parties informed with up-to-date information can help prevent situations where someone — especially the consumer — doesn't know what's happening. ■

New inspection requirements for manufactured home installation

Along with the new Oregon installation standards come new requirements for inspections of manufactured homes installed in Oregon. Based on recommendations from the Manufactured Dwelling Installation Task Force and results from Oregon State University field studies, the Building Codes Division has adopted new rules on the minimum inspection requirements for the state and jurisdictions having the manufactured dwelling installation program. OAR 918-500-0065 requires the authority having jurisdiction to administer the manufactured dwelling installation program to make a minimum of three inspections: a site inspection, an installation inspection, and a finish inspection.

The site inspection is performed and approved before the installation of the manufactured dwelling. This inspection is to assure the site is suitable before the home is delivered and installed. It includes checking setbacks, vegetation removal, grading, drainage, vapor barrier, poured-in-place footings, and ground anchors.

The installation inspection is performed after the manufactured dwelling is installed and includes the inspection of the foundation support, structural connections, attachments to tie downs, utility connections, cross-over connections, flue and duct installations, weather seals, and more.

The finish inspection is performed within 30 days of occupancy and includes inspection of the skirting, underfloor access and ventilation, removal of temporary steps, final grading, and drainage and accessory structures.

These lists are not all inclusive. For more complete information on specific inspection requirements, see OAR 918-500-0065. ■

Alternate construction inspections — dealer responsibilities

In the last *Manufactured Home Update*, there was an article about Alternate Construction (AC) houses. You may remember that the AC program permits manufacturers to produce a home that does not comply with the HUD standards or regulations, as long as the manufacturer follows the guidelines in HUD ref. 3282.14. If HUD approves a manufacturer's AC submittal, the submittal is then sent to the manufacturer's IPIA and DAPIA. The DAPIA is then authorized to approve the AC plans, and the IPIA can then inspect as per those plans.

The manufacturer can then ship an incomplete home, as long as they follow the HUD approval letter guidelines and notify the purchaser of the home. Oregon Building Codes Division performs an inspection of all AC homes at the time of installation in Oregon and is held accountable for inspecting or arranging inspections for those homes transported outside of Oregon.

The Oregon dealer is responsible for notifying the Building Codes Division when the installation is scheduled to be done. All in-state inspections and reinspections incur a fee of $95 per inspection. The dealer is responsible for arranging and paying the fee for each inspection. To avoid reinspections, it is important to coordinate the progress of the installation with the time of the inspection. Contact Tony Clifton, Oregon Building Codes Division, at (503) 378-2620 to arrange inspections. ■

New Installation Standard *continued from Page 5*

11. Dryer Vent. Eighteen percent of the time, the dryer vent either was not installed or had an "S" curve that could trap moisture. It may be that many installers do not realize that they are responsible for installing enough dryer vent so that the skirting installer just needs to bring it through the skirting. The vent pipe needs to be there before the skirting installer gets to the site.

Hometrac helps problem solving

During the past few months, the Oregon Customer Assistance Program (SAA) has been entering information into its new Hometrac computer database. The Hometrac system allows SAA to categorize reported problems by type, using ID numbers. Hometrac can then report the number of problems in each category and the percentage of homes with problems in each category. When the percentage of problems in any category exceed an expected level, SAA can be alerted.

This enables the SAA to focus on areas that may require in-depth investigations. Manufacturers also can use this information to indicate areas where they need to concentrate efforts. This system should benefit all parties by identifying problem areas and enabling preventive measures.

Information can be entered from any source, including dealer records, manufacturers' records, field investigations, and letters from consumers requesting assistance. The only homes entered in the database are ones with reported problems, and it includes problems of all types, not just noncompliance with codes. The problems are not necessarily verified by SAA, since the information is used to provide indications of potential problems, as well as track individual cases. Data can be tracked by manufacturer, dealer, installer and homeowner.

We feel this new program will benefit everyone. For more information, contact Albert Endres at (503) 378-5975 or Tom Nicolai at (503) 378-2620. ■

Manufacturers' Acquisition Program to Super Good Cents

The mandatory Manufacturers' Acquisition Program (MAP) for electrically heated manufactured homes sited in Oregon is now gone. In July 1995 it was replaced in part by the Northwest Energy-Efficient Manufactured Home Program, commonly known as the Super Good Cents Program. Some homes are once again being built to the federal HUD codes. Since the inception of the Super Good Cents Program, things have been going well. The industry has been able to provide energy efficient homes more suited for Northwest weather conditions than homes that are built to the nationwide HUD thermal standards.

With the MAP program, the manufacturers and the dealers did a fantastic job in marketing the product to the public. So much so that in most cases the buyers assumed that the home they were buying was indeed built to a more efficient energy standard. Now that two types of products are available, we hope that dealerships make certain that home buyers know the difference between the Super Good Cents and HUD homes. We have run across a few cases where the buyer thought the home was Super Good Cents when it was not.

Another twist on this issue is that some homes produced in Idaho are built under the Combustion Fueled Energy Efficient Manufactured Home Program certificate. And a natural gas heated home could be built to an energy standard called Natural Choice. Natural Choice homes are currently built to energy efficiency standards similar to Super Good Cents. It's important that the buyer is aware of these differences so there will be no confusion about whether the home has extra energy features. ■

DEPARTMENT OF CONSUMER & BUSINESS SERVICES

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