Two women with multiple chemical sensitivity (MCS) were unable to find affordable housing that didn’t make them sick, so they turned a cargo trailer into their home.

*Keywords:* multiple chemical sensitivity, MCS, housing, trailer, caravan, camper, cargo trailer, composting toilet

Sue and her mother Beth (not their real names) both became sick with MCS and mold sensitivities in their Wisconsin home. They bought a used cargo trailer and moved their belongings to a house they rented in South Dakota, hoping for less mold in a drier climate.

The house in South Dakota did not work either, so they made their trailer livable instead. They spent the winter of 2012-2013 living in their trailer in South Dakota, which was bitterly cold. The next summer they moved around the upper Midwest and by October they headed for the Southwest. They spent their second winter in the warm lowlands of southern Arizona, while the following summer they camped in a friend’s yard in the cool mountains of northern Arizona. The winter of 2014-15 they again spent in the Arizona low desert.
The cargo trailer
The trailer is a King Cobra that is 17 ft (5.5 m) long, 7 ft (2.2 m) wide and has a twin axle. The interior height is 8 ft (2.5 m) and there is a 3-ft (1 m) deep V-nose at the front, to make it more aerodynamic. This gives them about 105 sq. ft. (11 m²) of living space.

The trailer was bought used. The original owner had it custom built to haul his ultralight airplane and for him to sleep in when travelling to a flying area. He had it built with two small side windows, a side door and a simple kitchen in the V-nose. He did not have any running water, no toilet and no holding tanks.

Converting the trailer
The cargo trailer was five years old when Sue and Beth bought it, and they owned it for a year before they moved into it. The floor, walls and ceiling were all covered with manufactured wood panels, which had offgassed some over the years, but not enough. A new trailer would probably have been too toxic to use, as it is impossible to seal the walls perfectly.

The still-toxic walls, ceiling and floor panels were covered with Reflectix sheets, which seal in the fumes and also provides a little insulation. Duct tape was used to keep the Reflectix sheets together and seal them around the doors and windows. They still use duct tape because they have not found anything less odorous that is strong enough, and the duct tape does eventually offgas.
The two roof vents were upgraded to large, sturdy models that can stay open during rains. They installed Velcro strips around the vent holes in the ceiling, so they can cover the holes with Reflectix when the outside air is polluted. There is also Velcro around the two windows, so they can be sealed better, and the sun kept out.

Skirts are installed around the bottom of the trailer to insulate the floor — this is helpful both summer and winter. The skirts are made of foam insulation boards (“blue boards”) with a protective layer of Reflectix on the outside. The skirts rest on the ground and are snugly attached to the sides of the trailer with Velcro strips. Pegs prevent the wind from moving the skirts. The skirts are stored inside the trailer when travelling.

**Plumbing**

The only plumbing in the trailer is a tiny sink in the kitchen, that drains into a bucket. There is no running water and no holding tanks, which are very costly to install.

Water is carried to the trailer in plastic jugs, from which it is used to wash dishes, cleaning, etc. The used water is simply dumped on the ground or in any disposal provided by a campground.
They bathe in a plastic tub, which has tall sides to catch the splashes. The water is heated on their electric hot plate.

The washer is in the back of the trailer, so the back door can be opened when the hoses need to be connected.

They have a washing machine that is placed up against the back door, so when they need to wash clothes they open the back door and connect the washer to a garden hose. The used water is simply dumped on the ground through another hose.

They do not have hot water available, so they use a three-way adapter to hook the garden hose to both the cold and hot water inlets. Some models of washing machines refuse to work without hot water, so these cannot be used in such a setup.

The washing machine also has a dryer built in, but they rarely use it and instead hang their clothes on a line between the trailer and the roof rack on their van.
Sue and Beth have since sold their washer/dryer and replaced it with two non-electric washers. They consist of five-gallon (19 liter) plastic buckets with a plunger to agitate the laundry. This works very well, uses no electricity and takes up a lot less space.

They get drinking water from reverse-osmosis water machines in town. At home they then run the drinking water through a Berkey gravity-fed charcoal filter.

**Composting toilet**

They use a portable composting toilet called Nature’s Head. It uses no electricity as they did not install the optional vent and ventilator. The toilet has a system to gather the liquid and solid human waste in separate compartments.

Since the toilet does not flush, they have to keep it very clean to avoid odors. After each use (liquids) they spray the holes with a mild solution of peroxide and detergent. Once a day they do a light cleaning. Every other day they empty the container with liquid human waste. Once a month they remove the solid waste and do a thorough scrubdown before adding fresh peat moss (filled up to the agitator), which is good for another month.
Every composting toilet needs some material to help the process along. Unfortunately, most of the standard materials are too odorous for people with MCS. They’ve found that coir bricks and just one particular brand of peat moss (Canadian Sunshine brand) are tolerable.

The composting toilet is portable enough that they sometimes take it with them on day trips in their van, so they do not have to visit any toxic public restrooms. They just block the van’s windows with Reflectix when they need privacy.

**Electric appliances**

The trailer has no batteries and no generator. They have a long, sturdy 30 amp electrical cable, which brings them power from the outside — whether it is a house or a campground pedestal. They are presently able to camp only where power is available.

Inside the trailer they have an electrical hot plate and a regular refrigerator in the kitchen section, as well as a computer, television, electric space heaters, a dehumidifier, etc. The washing machine also needs electricity.

A single electric space heater is enough to keep the small interior space warm during the mild Arizona winter. The trailer is poorly insulated, so even two heaters were still not toasty during the very cold winter they spent in South Dakota, but that is all their 30 amp electric service could handle.

They do not have an air conditioner. They tried it twice, where the AC unit created such an underpressure inside that the Reflectix sheets were pulled off the walls and ceiling.

They sometimes hang a wet curtain across the open door to provide simple evaporative cooling. This works only in a dry climate.

The inside of the trailer can get so humid they have to use a dehumidifier to prevent condensation and mold.

**Other features**

Sue and Beth sleep on futons on the floor. The trailer is organized with a walkway down the middle, with stuff along the walls. When they left Wisconsin, the trailer was filled with their belongings. Today they have thrown out more than half, as they realized they didn’t need so much stuff.

They do not have a cell phone, but use their computer for telephone calls via the internet. The computer connects wirelessly to the Internet through an antenna
mounted on the outside of the trailer. The metal trailer blocks the signals from cell towers, so the antenna has to be outside.

They do not use any wireless connections inside the trailer, but have cables for the keyboard, mouse, router, and outside WiFi antenna. This is especially important inside an all-metal trailer, where wireless radiation would otherwise bounce around and create elevated radiation.

**Experiences**

The trailer is legally still considered a cargo trailer, not an RV. This is important as insurance policies for cargo trailers do not cover the contents, like RV policies do.

Many people think the trailer is a horse trailer and sometimes try to look through the windows to see the horse. On the other hand, since it’s a “stealth RV,” Sue and Beth have been able to stay overnight in places they otherwise could not.

They have found that equipment intended for boating (“marine”) is usually less toxic and of better quality than the same type of equipment intended for RVs.

**Finding places to camp**

During their two years living in the trailer, Sue and Beth have camped in various people’s yards, as well as campgrounds and RV parks. Campgrounds and RV parks are challenging with smoke from campfires, barbecues and other problems, but the need to be within 75 ft (25 m) of an electrical hookup sometimes means they have to stay in such places. They are considering changing their setup so they can live off the grid and camp in the national forests and other remote places, where there is no air pollution.

**For more information**

This website has other articles about temporary and portable housing for people with environmental illness. They can be accessed from www.eiwellspring.org/temporaryhousing.html.