

You should also have hammocks or bed sheets and cord to make hammocks, sleeping bags or equivalent warm bedding and clothing, short-term food rations which can be eaten without cooking, medical supplies, a source of light, spare parts for your ventilation equipment, an assortment of tools, the materials for expedient ventilation equipment, an assortment of informational books, battery-powered radios, and any other equipment and supplies which you may need. These things should be in your shelter now.

You may want to leave the ventilation equipment running at low speed or install a fan to keep the shelter aired out and dry. This will help to keep the shelter and its supplies in good condition. If the air entrance is lower than the exit as it is in our shelter, convective ventilation will do this job for you. An alternative is to purchase a small dehumidifier and keep it running in the shelter. In any case, make sure the environment in your shelter remains dry. This is easy in a steel shelter, because it is completely water-tight.

Should you be doing all of this?

There are thousands of nuclear weapons aimed at the United States which are deliverable within a few minutes to a few hours. The United States has built no technological means to prevent their delivery. The weapons are in the hands of a country that has killed an estimated 69 million of its own civilians in peacetime during the past 70 years. The current leadership of that country just finished killing over one million civilians in Afghanistan.

The Christian responsibilities of parents toward their families under such circumstances are overwhelmingly clear. For non-Christians, surely even common sense dictates that they prepare a place of safety for their families.

LUWA BLAST VALVE INSTALLATION

There is a simple but serious error that can be made in the installation of the shelter exit air blast valve supplied with the LUWA 180 ventilation system. This error was made on our mobile shelter display. It is likely that some of you have made it.

The exit blast valve serves two purposes. First, it protects against blast pressure in the shelter. This is somewhat redundant in our standardized shelter design, because the blast valve assembly just below the door also serves this purpose.

The LUWA valve, however, also assures that a positive air pressure is maintained in the shelter. It will not open at all unless the shelter pressure is slightly higher than the outside pressure. (The exact excess pressure depends upon the air flow rate. It can be calculated from the graph which LUWA supplies.) A positive shelter air pressure is essential to the chemical and biological protection system, because it assures that any leaks in the shelter will be outward, away from the occupants.

This blast valve is *rectangular*. There is a similar valve in the front part of the inlet air prefilter assembly which also has a rectangular cross-section. The inlet valve must be installed *horizontally*, so that the inlet air pipe will point downward toward the rest of the unit. This implies that the exit valve should also be horizontal. **This is wrong.** The exit valve must be installed *vertically* for the overpressure feature to work. It is controlled by a gravity-balancing spring. If you install it horizontally, the overpressure feature will not work.