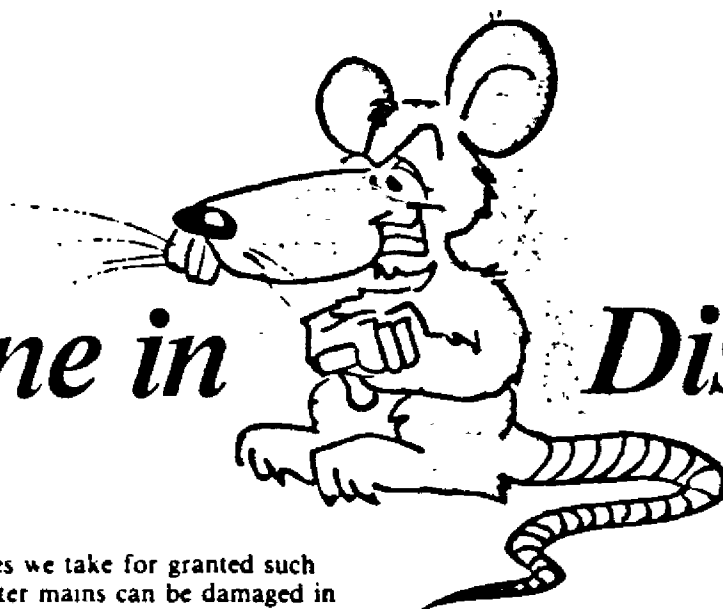


Hygiene in Disasters

by Larry Coyne

Illustration: Jocelyn Remond



Many of the services we take for granted such as sewers and water mains can be damaged in disasters. And one of the problems emergency planners have to address, especially in evacuating people to community emergency accommodation in the wake of a hurricane, tornado, flood or chemical accident, is the disposal of body wastes.

The same applies to families who take temporary refuge in damaged dwellings. Human body wastes contain a concentrated variety of deadly viruses, bacteria and poisonous chemicals. If human wastes enter the water supply, the resultant concentration and spread of bacteria could cause sickness and death. Human excrement also attracts cockroaches, rats and other vermin that can carry dysentery, typhoid and plague. There is no doubt that improper waste disposal in the aftermath of a disaster is a good way of causing an outbreak of disease.

To avoid disease it is imperative that waste matter and the pests it can attract be kept away from food and water supplies.

Makeshift Toilets

To preserve the health and morale of those in a confined space without a toilet or special chemicals for treating excrement and urine, human wastes should be removed before they produce much gas. A garbage can with a lid or bucket covered with plastic will not hold the pressurized gas caused by decaying feces. The following means of disposal are listed in increasing order of effectiveness:

- Use a 23-L paint can, a bucket, or large waterproof wastebasket to collect urine and excrement. It should be tightly covered when not in use; a piece of plastic tied near the top keeps out insects and reduces odours. When such waste containers are full or begin to smell while covered, put them as far away from the shelter as possible — still covered to keep out flies. For some people, especially the elderly, a toilet seat or padding could be placed on top of the pail. An improvised seat of plywood serves well.
- If it looks as though you are going to be confined to your temporary shelter for some time, dig a waste-disposal pit about one metre away, down-wind. The pit should be surrounded by a ring of mounded, packed earth about 15 cm high, to keep surface rain-water from running

- A better system is to have all occupants use the bucket only for urination, and defecate into a plastic bag. Urine contains few harmful organisms and can be safely dumped outside.

Two layers of the thin plastic used to cover freshly dry-cleaned clothes will serve to hold the bowel movements of several persons. Gather the plastic around the excrement to form a bag-like container. Tie the plastic closed near its upper edges with a string or narrow strip of cloth. Do not tie it so tightly as to be gas-tight. Each day's collection should be placed outside. As time passes, the gas will leak out the tied end of the plastic covering. Flies will be attracted in swarms, but they will not be able to get into the plastic to contaminate their feet or to lay eggs. And because rotting excrement is so attractive to flies, occupants will be bothered less by these dangerous pests.

Use a hose-vented, 23-L can or bucket lined with a heavy plastic bag; cover tightly with a plastic lid when not in use. In this type of toilet, the vent-hose protrudes through a hole near the top of the paint can, and is taped to seal it to the can. Such a hole can be easily cut with a chisel or a sharpened screw driver. The hose is long enough to extend outside the shelter. Its outer end should be secured about 15 cm above ground level, to prevent water from running into it during a heavy rain. Since the toilet-can is tightly covered, foul gases will escape through the hose to the outdoors.

With its opening tied shut, a large plastic trash bag containing as much as 15 bags of waste can be lifted out of the toilet-can and placed outside.

Nervousness, combined with the effects of unaccustomed food and water, can cause even healthy persons to vomit. Vomiting is certain to cause both morale and health problems. In crowded emergency accommodations, the sight and smell of vomit will make others throw up. Vomit should be handled like excrement. Plastic bags, well distributed throughout the living quarters, are the best means of catching vomit and keeping it off the floor. Once contained, it should be placed outside.

A portable toilet available at commercial camping equipment stores is another option.