

## FLOOD RECOVERY: BUILDING SYSTEMS AND EQUIPMENT ISSUES

Residential heating and cooling systems, refrigerators, water heaters and other appliances in contact with flood water can pose an extreme risk to the homeowner. Keep these guidelines in mind:

**CAUTION: Gas and electricity are dangerous and if not properly handled and controlled, can result in explosion, electrical shock and even death.**

- From a safety standpoint, it is essential to restore heating and cooling systems and appliances to safe operating condition through repair and replacement before restoring power.
- In addition to safety, there are health concerns associated with equipment and appliances affected by floods. Always assume that flood water brings contaminants. If equipment in the home has been in contact with flood water, the equipment could be contaminated by harmful bacteria and organics from the flood water.
- It is essential to eliminate these substances from appliances, particularly those used for food storage and preparation, and any equipment in contact with potable water. While thorough cleaning of all surfaces with a disinfectant is necessary, you need to do more to return equipment to safe operation. The general procedure involves cleaning, disinfecting, drying and having a qualified professional inspect equipment.
- Repairing your home and replacing its various systems is an opportunity for you to save significant amounts of energy and money in the long-term. If your heating system, water heater, air conditioner and other major appliances have been damaged, you can upgrade to more energy-efficient models.
- Some energy-efficient appliances cost no more than their inefficient counterparts. While an energy-efficient furnace or air conditioner may cost you more initially, it will be cheaper to operate and will pay for itself in energy savings in just a few years. For example, if your gas furnace is only about 60-percent efficient, as many older models are, upgrading to a 90-percent efficient model can lower your annual heating bill by about one-third. A new energy-efficient refrigerator will consume about half the electricity of a model built 15 years ago. Depending on your local electric rates, a new model could save you up to \$100 per year.
- Additionally, your utility may offer rebates for the purchase of high-efficiency furnaces, water heaters, air conditioners or refrigerators. Utilities, along with government and private agencies in your area, are ready to help you make informed energy-saving decisions as you rehabilitate your flood-damaged home. The federal government sets energy consumption limits on furnaces, clothes washers, water heaters, dishwashers, refrigerators and freezers, room air conditioners, central air conditioners and heat pumps, and fluorescent lamp ballasts. As a result, today's appliances are more energy-efficient than their predecessors. However, many appliances are more efficient than the minimum standards. Use the Energy Guide labels to compare efficiencies of appliances. These labels display the appliance's annual energy cost, based on estimated annual hours of use and on a national average energy price. Because energy prices vary from region to region, the labels also include a cost table that allows consumers to estimate operating costs based on local rates.

*Adapted from a US Department of Energy Publication, "Rebuilding Your Flooded Home: Guidelines for Incorporating Energy Efficiency."*

For more information, visit [www.depweb.state.pa.us](http://www.depweb.state.pa.us), keyword: DEP Flood Recovery.