NIP GROUP

# Ice Storm Considerations

One type of winter storm that can be particularly damaging is the ice storm - a storm in which freezing rain occurs and glazes roads and other exposed outdoor surfaces.

Freezing rain occurs when rain forms in a relatively warm (above freezing) layer of air and falls through a shallow layer of air that is below freezing. The rain is “supercooled” (still liquid) as it falls through the cold layer near the surface of the earth. When the supercooled, but still liquid, raindrops strike the ground or an object below freezing, they freeze on contact. The resulting coating of ice is commonly known as glaze.

A heavy accumulation of ice can topple power and telephone lines, television towers, and trees. Highways become impossible to travel on, and even stepping outdoors on foot can be extremely dangerous.

The severity of an ice storm (that is, the amount of damage) depends on:

- The amount of rain and thus icing taking place
- The strength of the wind
- Whether the storm strikes an urban or rural area

Urban areas tend to suffer more economic and physical damage than rural areas because of the concentration of utilities and transportation systems (aircraft, trains, vehicles) — all of which may be affected to a great degree by the ice storm. Trees and power lines, in particular, can be heavily damaged. A half inch of ice on a tree branch or on power lines can add hundreds of pounds of weight. In the more severe ice storms, broadcast towers and similar structures hundreds of feet high can be crumpled by the weight of ice.

## Preparing for Ice Storms

A quarter inch of ice will glaze roads and seriously impact travel, result in some tree damage, and cause power outages. However, when ice accumulates to one half inch or more the major and crippling effects of ice storms occur. Strong winds during ice storms greatly compound the damaging effects by causing added stress to trees and power lines already laden with a heavy accumulation of ice.

Unlike snowstorms where in most cases the snow can be plowed in hours or a day, the damaging effects of ice storms can go on for days or even weeks. Travel may be literally

impossible due to ice covered roads and sidewalks, downed trees, and downed power lines. If your vehicle is outside and becomes encased in ice it may be difficult to get into. You may unable to leave your facility and be without power and/or heat for days or longer, and no one may be able to reach you until either roads have been salted and cleared or the ice melts. Be sure you prepare with this in mind.

When an ice storm and/or significant icing is forecast, make preparations early as you would for any winter storm. Since heavy ice accumulations and/or strong winds will likely result in power outages, possibly for extended periods of time, additional steps should be taken to prepare.

- Make sure flashlights and battery-powered radios are working and keep extra batteries on hand.
- Unplug sensitive appliances such as computers. If the power goes off, turn off all major electrical appliances. Prolonged low voltages (brown outs) can damage motors and compressors.
- Keep refrigerator and freezer doors closed. If you lose power, frozen food will generally keep for 48 hours. Discard perishable food that has been at 40 degrees for more than two hours. Odor or appearance is not an indicator that food is safe. When in doubt, throw it out.
- If it seems likely that your facility will be without heat for several days, drain your water pipes.
- If you use a generator, read all the instructions that accompany it and be aware of the hazards that come with misuse. Use a qualified electrician to connect a generator to the building wiring. Never run a gasoline-powered generator in the building-the fumes are deadly.