

Ice Storm

Ice storms occur when a layer of warm air is between two layers of cold air. Frozen precipitation melts while falling into the warm air layer and then proceeds to refreeze in the cold layer above the ground. If the precipitate is partially melted, it will land on the ground as sleet. However, if the warm layer completely melts the precipitate, becoming rain, the liquid droplets will continue to fall, and pass through a thin layer of cold air just above the surface. This thin layer of air then cools the rain to a temperature below freezing (0 °C). However, the drops themselves do not freeze, a phenomenon called super cooling. When the super cooled drops strike ground below 0 °C or anything else below 0 °C (power lines, tree branches, air craft), they instantly freeze, forming a thin film of ice, hence freezing rain

The freezing rain from an ice storm covers everything with heavy, smooth glaze ice. Ice-covered roads become slippery and hazardous as the ice causes vehicles to skid out of control, which can cause devastating car crashes as well as pile-ups. Pedestrians are severely affected as sidewalks become slippery causing people to slip and fall, and outside stairs can become an extreme injury hazard.

In addition to hazardous driving or walking conditions, branches or even whole trees may break from the weight of ice. Falling branches can block roads, tear down power and telephone lines, and cause other damage. Even without falling trees and tree branches, the weight of the ice itself can easily snap power lines and also break and bring down power/utility poles; even steel frame electricity pylons have been sent crashing to the ground by the weight of the ice. This can leave people without power for anywhere from several days to a month. NOTE: According to most meteorologists, just one quarter of an inch of ice accumulation can add about 500 pounds of weight per line span. Damage from ice storms is highly capable of shutting down entire metropolitan areas.

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August 3, 2011

Source

Federal Emergency Management Agency

Michigan State Police - Emergency Management & Homeland Security Division

National Weather Service Weather Forecast Office

More Information

<http://www.fema.gov/>

<http://www.ready.gov/>

http://www.michigan.gov/msp/0,1607,7-123-1593_3507---,00.html

<http://www.crh.noaa.gov/dtx/>

<http://spg.umich.edu/pdf/201.27.pdf>

Prevention / Mitigation / Preparedness – Ice Storm

Work with the University of Michigan Office of Emergency Preparedness (734) 647-1143 and request planning guidance as needed.

Monitor local weather on a battery operated radio, a NOAA weather alert radio, the Internet, or television.

Be aware of University SPG 201.27 and how that affects you as an employee.

Educate students, staff, and faculty on severe weather and what they need to do to keep themselves safe.

Response – Ice Storm

Use extreme caution during and after an ice storm, as walking and driving can be extremely hazardous. Slippery roads and sidewalks, downed trees, and electrical lines are just some of the hazards you may encounter.

If you do not need to drive, don't. See the University SGP 201.27 on Inclement Weather.

Continue to monitor National Weather Service weather information via a battery operated radio, a NOAA weather alert radio, the Internet, or television for emergency information even after the storm has passed.

Recovery – Ice Storm

If the building has sustained damage contact Plant Operations (734) 647-2059

Be careful of downed electrical lines and trees. Do not touch any downed wires or objects in contact with downed wires due to electrical hazard.

Contact the University Risk Management department (734) 764-2200 so claims management and other insurance matters can be handled.