



## EMERGENCY MANAGEMENT AND CONTINUITY

INDIANA UNIVERSITY  
Public Safety and Institutional Assurance



## INDIANA UNIVERSITY

OFFICE OF ENVIRONMENTAL, HEALTH,  
AND SAFETY MANAGEMENT  
Bloomington



## ENVIRONMENTAL HEALTH AND SAFETY

INDIANA UNIVERSITY-PURDUE UNIVERSITY  
INDIANAPOLIS  
Division of Finance and Administration

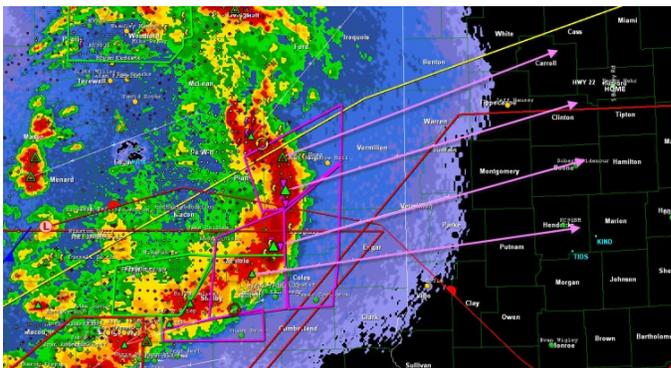
# TORNADO PREPAREDNESS FOR LABORATORIES

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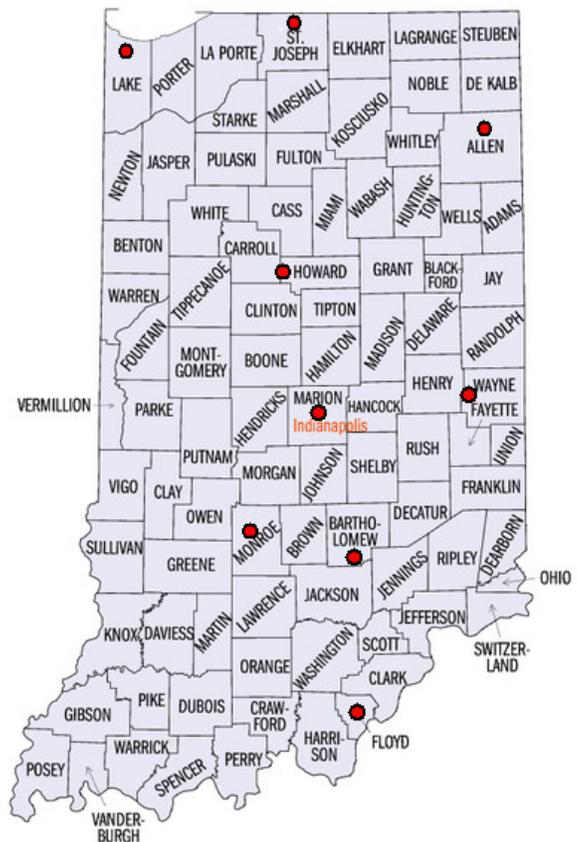
As spring weather approaches so does the potential for severe weather. Indiana is located in a region known as Tornado Alley.

Weather alerts are issued by county. Know the county where you are located and familiarize yourself with the names and locations of surrounding counties.

Be aware of weather conditions that can deteriorate to severe conditions or tornados, such as a strong storm front headed in your direction.



Radar image showing the “bow echo” of the tornado outbreak in central Indiana on April 19, 2011.



## Indiana University Campuses and Counties

IU Bloomington  
IUPUI Columbus  
IU East in Richmond  
IU Kokomo  
IU Northwest in Gary  
IPFW in Fort Wayne  
IUPUI in Indianapolis  
IU South Bend  
IU Southeast in New Albany

Monroe County  
Bartholomew County  
Wayne County  
Howard County  
Lake County  
Allen County  
Marion County  
St. Joseph  
Floyd County

## Campus Administration

Campus administrators should ensure that the following plans are in place and up-to-date.

- The campus Emergency Action Plan
- The campus Business Continuity Plan

## Laboratory Preparation

To prepare your lab and protect your research assets please consider the following procedures:

- Know where tornado shelter area is located in your building. Consult the emergency sign in the hallway.
- Have a weather alert radio for your lab and some fresh batteries. Use it during inclement weather.
- Ensure that all contact information on your laboratory sign is correct. Check emergency phone numbers. Update emergency notification information on lab doors. Add temporary contact information if staying in a different location.
- Ensure you have the current Emergency Procedure Handbook posted in the laboratory.
- Plug refrigerators, freezers, and other equipment into emergency power whenever possible. Red outlets are typically connected to emergency generator power. Avoid opening freezers and refrigerators to maximize cooling ability.
- Ensure that critical cell lines are frozen and placed into different locations and conditions such as ultra-low freezers and liquid nitrogen vessels to ensure survival.
- Store critical cell lines at various locations throughout the building if possible.
- Keep cryogenic Dewars and reservoirs full for any critical sample storage.
- BSL-3 laboratory Directors must have Standard Operating Procedures in place to follow in case of a loss of electricity or ventilation. Work in these facilities must be discontinued during a weather emergency.
- Prepare for the housing, care and security of laboratory animals during a weather emergency.
- Remove equipment, chemicals, wastes, and supplies from the floor in areas that may flood.
- All chemicals should be tightly sealed, segregated, and stored properly.
- All fume hoods should be closed when not in use.
- Breakable items or items that may become airborne in heavy winds should be moved away from outside windows.
- Ensure all gas cylinders are secure. Cylinders not currently in use should be capped and secured.
- Always back-up computer files, make more than one copy and store in several different locations.
- Protect any laboratory documents such as lab notes, computer discs and research documentation from water damage.
- Laboratories with outside windows should ensure water reactive chemicals, radioactive materials and biological hazards are stored in a closed cabinet in an area away from the windows that offers protection from rain and wind should a window break.



Track strong weather fronts that may impact your area well in advance. This radar image shows the front on March 1, 2012 in advance of the March 2 tornadoes.

## Tornado Watch - Laboratory Operations during an Approaching Storm

During a tornado watch, inclement weather conditions exist that can deteriorate to dangerous conditions or tornado warnings.

- Turn on your weather alert radio.
- Complete existing experiments to a termination point. Do not start any new experiments. Shut down equipment if hazardous conditions may result from loss of utilities (e.g. loss of coolant, vacuum, steam for autoclaves).

- Be prepared to terminate experiments immediately if conditions deteriorate and a tornado warning is issued.
- Complete any animal research activities in progress and be prepared to terminate activities immediately if conditions deteriorate.
- Confirm that all laboratory animals are moved to appropriate housing.
- Close any open containers, secure and protect valuable research samples, radioactive isotopes, biohazardous agents, recombinant materials and hazardous chemicals to prevent breakage and release.
- Secure chemical, radioactive, and biological waste.
- Secure any other regulated materials.
- Close all open fume hood sashes.
- Unplug computers, printers, and all other electrical equipment (except refrigerators and freezers).
- Breakable items or items that may become airborne in heavy winds should be moved away from outside windows.
- Cover and secure or seal vulnerable equipment with plastic.
- Protect valuable files, research notebooks, and data to a safe secure location.
- Gather personal valuables and take them with you.
- Ensure you have your University issued ID with you.
- If a tornado warning is issued you should immediately suspend all laboratory procedures and seek shelter immediately.



Tornado Alley

## Tornado Warning!



Tornado near Pekin, Indiana on Friday, March 2, 2012.

If your County is placed under a tornado warning, this means a tornado has been sighted in the area and the warning sirens will be activated. You will need to take the following precautions immediately:

- Seek shelter immediately.
- Go to the designated tornado shelter
- Basements, interior hallways and rooms on the lower floors are the best locations to seek shelter.
- Stay away from windows and exterior doors.
- If no shelter is available, lie down in a low-lying area.
- Protect yourself from flying debris.

**Note:** State-wide tornado warning siren tests are usually conducted each month on a Friday at 11:00 AM or 12:00 PM noon (depending on location) unless inclement weather exists and the tests are then cancelled.