



**COMPANY  
HEALTH & SAFETY  
PROGRAM**

|                        |   |                |
|------------------------|---|----------------|
| Issue: A               | <b>Title: Severe/Hazardous Weather Policy</b> | Section No: 40 |
| Date: 4/20/2009        |   |                |
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## **1.0 PURPOSE**

The purpose of this section is to provide guidelines and procedures for employees in the event that working conditions, and subsequently the health and/or safety of employees, may be affected by severe weather.

## **2.0 SCOPE**

This section contains information and precautionary measures related to the occurrence of severe weather at the workplace.

## **3.0 INDEX TO SECTION**

- 1.0 Purpose
- 2.0 Scope
- 3.0 Index to Section
- 4.0 Training
- 5.0 Thunderstorms
- 6.0 Winter Storms
- 7.0 Weather Monitoring

## **4.0 TRAINING**

Job-site procedures regarding severe weather will vary from job to job. Ways that training shall be accomplished include:

1. Owner/host employer project orientation;
2. PPP site-specific safety orientation;
3. Weekly Site Employee Safety Meetings, where meeting outline topics seasonally address severe weather precautions; and
4. Special meetings called to address procedures when severe weather has been predicted by the National Weather Service and a Watch or Warning has been issued.

Training shall include:

1. What the alarm and all clear signals are;
2. The assigning of responsibilities (if applicable);
3. What shelter or gathering area to go to;
4. What route to take; and
5. Any other procedure(s) that may apply.



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## **5.0 THUNDERSTORMS**

Why talk about thunderstorms? Thunderstorms produce:

- Tornadoes;
- Lightning;
- Strong winds;
- Flash flooding; and
- Hail.

These weather events cause fatalities, injuries and billions of dollars of crop and property damage every year.

### Tornadoes

Tornadoes cause an average of 70 fatalities and 1,500 injuries each year. They can produce wind speeds in excess of 250 mph, and be as much as a mile wide and stay on the ground over 50 miles.

When working at facilities that have designated tornado shelters, they would obviously be the first choice when seeking protection from a tornado, but PPP job-sites do not always have those type of facilities available. Some general tornado safety rules include:

1. In a home or building, move to a pre-designated shelter, such as a basement.
2. If an underground shelter is not available, move to a small interior room or hallway on the lowest floor and get under a sturdy piece of furniture. Put as many walls as possible between you and the outside.
3. Stay away from windows.
4. Get out of vehicles (cars and trucks).
5. Do not try and outrun a tornado in a vehicle; instead, leave it immediately for safer shelter.
6. If caught outside or in a vehicle, lie flat in a nearby ditch or depression and cover your head with your hands.
7. Flying debris from tornadoes causes most fatalities and injuries. Do everything possible to protect yourself from flying debris.
8. Mobile homes/mobile offices (trailers) even if tied down, offer little protection from tornadoes. You should leave a trailer and go to the lowest floor of a sturdy nearby building or a storm shelter, if possible.



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### Lightning

Lightning causes an average of 80 fatalities and 300 injuries each year, and occurs in all thunderstorms. Lightning strikes the Earth 20 million times each year.

Some general lightning safety rules include:

1. Postpone outdoor activities if thunderstorms are imminent. This is the best way to avoid being caught in a dangerous situation
2. Move to a sturdy building or vehicle. Do not take shelter in small sheds, under isolated trees or in convertible automobiles. Stay away from tall objects such as towers, fences, telephone poles and power lines.
3. If lightning is occurring and a sturdy shelter is not available, get inside a hard top vehicle and keep the windows closed. Avoid touching any metal.
4. Utility lines and metal pipes can conduct electricity. Unplug appliances not necessary for obtaining weather information. Avoid using telephones or electrical appliances. Use phones only in an emergency.
5. Do not take a bath or shower during a thunderstorm.

If caught outdoors and no shelter is nearby:

1. Find a low spot away from trees, fences and poles that is not subject to flooding.
2. If you are in woods, take shelter under the shorter trees.
3. If you feel your skin tingle or your hair stand on end, squat low to the ground on the balls of your feet. Place your hands over your ears and your head between your knees. Make yourself the smallest target possible and minimize your contact with the ground. Do not lie down.
4. If you are boating or swimming, get to land and find shelter immediately.

The distance to lightning can be calculated as follows:

1. Count the number of seconds between a flash of lightning and the next clap of thunder.
2. Divide this number by 5 to determine the distance to the lightning in miles.



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PPP adopts the ***30/30 Lightning Safety Rule***, as published by the National Weather Service. ***Go indoors if, after seeing lightning, you cannot count to 30 before hearing thunder. Stay indoors for 30 minutes after hearing the last clap of thunder.***

On job-sites where PPP employees are working outdoors and could potentially be affected by lightning strikes, PPP supervisors shall adhere to the ***30/30 Lightning Safety Rule*** and direct employees accordingly.

PPP's lightning procedure may be superseded by an owner's or host employer's stricter procedure.

### Strong Winds

Strong winds can exceed 100 mph, cause damage equal to a tornado and be extremely dangerous on a construction site.

Common sense dictates what you can safely do on a job-site considering the velocity of the wind. Windy conditions need to be considered in pre-task safety planning and work operations altered accordingly.

Some general safety rules for high wind conditions include:

1. No crane or aerial work platform operations are to be performed if wind velocity reaches 30 mph or more. Some situations may warrant operations to cease when wind velocity is less than 30 mph.
2. Construction materials that wind may cause to fly or fall must be secured.
3. Equipment such as cranes and AWP's need to be stored with their booms down.
4. Arc flash screens and wind screens need to be secured or possibly taken down and secured.
5. Workers should not handle materials that could act like a sail such as plywood panels or flat plate.



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### Flash Flooding

Flash flooding is the #1 cause of deaths associated with thunderstorms, more than 140 fatalities each year.

Flash flooding is something that is not common in areas where PPP normally has performed work, but it is a potential thunderstorm hazard.

Some general flash flood safety rules include:

1. Avoid walking, swimming or driving in flood waters.
2. Stay away from high water, storm drains, ditches, ravines or culverts. If it is moving swiftly, even water 6 inches deep can knock you off your feet.
3. If you come upon flood waters, stop, turn around and go another way. Climb to higher ground.

### Hail

Hail causes more than \$1 billion in crop and property damage each year.

When hail is forecast or occurs supervisors shall reiterate the potential hazards to employees.

1. Employees shall not work in hail. They must go to appropriate shelter.
2. Walking on hail can be like walking on ball bearings or marbles, very hazardous. Avoid it.
3. Driving on hail should be avoided.
4. Supervisors shall implement whatever procedures are safely possible to protect company and customer property from damage.

## **6.0 WINTER STORMS**

Each year, dozens of Americans die due to exposure to cold. Add to that number, vehicle accidents and fatalities, fires due to dangerous use of heaters and other winter weather fatalities and you have a significant threat.

Threats, such as hypothermia and frostbite, can lead to loss of fingers and toes or cause permanent kidney, pancreas and liver injury and even death. Workers must prepare and dress appropriately and modify work practices to avoid these extreme dangers.



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A major winter storm can last for several days and be accompanied by high winds, freezing rain or sleet, heavy snowfall and cold temperatures. Winter storm hazards must be taken into consideration by PPP managers and supervisors when planning work and performing Job Safety Analyses and Pre-Task Safety Plans. Employees must be provided sufficient warm-up breaks and fluids. Cold temperatures can dehydrate a person as much as sweating.

## **7.0 WEATHER MONITORING**

In many cases when severe weather has been forecast and it could have an impact on work operations, conditions such as tornado watch, temperature and wind velocity are monitored by the owner, host employer or management contractor. When conditions reach certain limits, all contractors on the site are notified as to what actions to take.

When this type of procedure is not in place, both the PPP project supervisor and the PPP safety director shall be responsible to make sure applicable weather monitoring is being provided.

When a PPP project supervisor anticipates the possibility of severe weather that could affect safe work operations, he/she shall notify the PPP safety director. The safety director shall implement and coordinate the appropriate monitoring and warning procedures.

When the PPP safety director anticipates the possibility of severe weather that could affect safe work operations on a PPP job-site, he/she shall check with the responsible PPP project supervisor to assure that weather monitoring procedures are in place. If they are not, the safety director shall implement and coordinate appropriate procedures.

### **REVISION HISTORY**

| <b>Revision number</b> | <b>Description of change</b>                | <b>Written by</b> | <b>Checked by</b> | <b>Effective date</b> |
|------------------------|---|-------------------|-------------------|-----------------------|
|                        | Program reviewed and Revision History added |                   | GMN               | 10/20/2014            |