



Brieser
CONSTRUCTION

Section 48
Safety Health
and
Environmental
Manual

2024

Inclement Weather

BRIESER CONSTRUCTION GENERAL CONTRACTORS		Develop:	3/27/2020
		Revised	10/2023
CORPORATE SAFETY, HEALTH & ENVIRONMENTAL MANUAL		Revision:	02
		Reviewed	10/2023 KRR
STANDARD OPERATING PROCEDURE:	Inclement Weather		
CROSS REFERENCE:	OSHA.GOV, Severe Weather National Oceanic and Atmospheric Administration		

PURPOSE

This procedure is designed to provide guidance to personnel in response to severe weather events including high winds, lightning, and tornados. NOAA and the National Weather Service are recognized as the preferred source for weather related information and local guidance.

Where Brieser Construction Employees are performing work at a host facility, those employees will follow the host facilities guidance and Emergency Action Plan except in cases where those employees feel that they are in danger or are unprotected.

This procedure does not include personal hot/cold weather guidelines. (see Brieser SH&E manual Section 42 for Cold Emergencies)

DEFINITIONS

Severe Weather – Any dangerous meteorological phenomena with the potential to cause damage, serious social disruption, or loss of human life.

Tornado – A violently rotating column of air, usually pendant to a cumulonimbus, with circulation reaching the ground. It nearly always starts as a funnel cloud and may be accompanied by a loud roaring noise. On a local scale, it is the most destructive of all atmospheric phenomena (NOAA)

Tornado Watch – is issued by the National Weather Service when conditions are favorable for the development of tornadoes in and close to the watch area. They are usually issued for a duration of 4 to 8 hours and normally are issued well in advance of the actual occurrence of severe weather. During the watch, people should review tornado safety rules and be prepared to move a place of safety if threatening weather approaches. (NOAA)

Tornado Warning – is issued when a tornado is indicated by radar or sighted by spotters; therefore, people in the affected area should seek safe shelter immediately. They can be issued without a Tornado Watch being already in effect. They are usually issued for a duration of around 30 minutes. (NOAA)

Tornado Refuge Area – A designated area inside a structure where personnel are directed to assemble in the event of a tornado. These areas have the highest probability of protecting personnel.

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RESPONSIBILITIES

Safety Director:

These People are responsible for:

- Maintaining the training records of all employees included in the training sessions.
- Reviewing and updating this program, as necessary.
- Issuing and administering this program.
- Making sure a tornado drill is performed at the office at least yearly.
- Providing initial and annual training of employees to include tornado drills.
- Monitoring NOAA or National Weather Service at-least daily to provide weather related updates to employees working remotely.

The Job Superintendent/Foreman

These people are responsible for:

- Knowing and understanding this procedure.
- Immediately responding to any weather event listed in this procedure.
- Assessing the risks and providing training to employees.
- Identifying safe shelters and refuge areas for their work site.
- Establishing a means of communication with all employees, sub-contractors, vendors, and visitors at their work site.
- Any office employees who can work remotely from their homes should the office need to close due to weather, may need to do this. A communication should be sent from the office manager prior to the forecasted weather incident.
- Monitoring NOAA or National Weather Service when weather conditions change and at-least daily.
- Directing employees, sub-contractors, visitors, and vendors during a severe weather event.
- Maintaining an accurate daily head count by name.
- Taking head count after a Severe Weather event and reporting the head count to the Company President.
- Contacting Local Emergency Response if needed (911).

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Employees:

These people are responsible for:

- Knowing and understanding this procedure.
- Staying alert to changing weather conditions.
- Following the direction of their Job Superintendent/Foreman.
- Reporting to their Job Superintendent/Foreman immediately after a Severe Weather event.
- Assisting as directed after a Severe Weather event.

High Winds

Wind speed shall be determined based on the best available information, NOAA, National Weather Service or Specific Site Guidance.

Prior to forecasted high wind events, Employees must:

- Secure loose and/or lightweight material (I.e., tarps, insulation, jacketing, etc.) as well as partially constructed structures (E.g., partial built building, tanks, etc.)
- Secure cranes/lifts per manufacturer’s recommendations.

When wind speed reaches **20 mph:**

- Use of Personnel Platforms (man baskets) shall meet the wind restrictions outlined in the manufacturer’s recommendations.
- Use of cranes shall meet the wind restrictions outlined in the manufacture’s recommendations (“If crane manufacturer's recommendation for wind speed de-rating is unavailable, the limit will be set no greater than 20 mph.”).
- Additional eye protection (I.e., sealed eyewear or goggles) should be worn when the following conditions exist:

When wind speed reaches **30 mph:**

- Potential for injury caused by flying dust and debris generated during high wind conditions (E.g., dry weather months). Supervisors should consider upgrading to sealed eyewear or goggles.

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When winds sustain **40 mph and/or gusts of 58 mph or higher**, Job Superintendent/Foreman should:

- Limit outdoor "Working at Heights" activities including roofs and scaffolding that are exposed to wind conditions to:
 - Emergency response efforts
 - Critical activities to ensure safe operations.

When winds > **70 mph** are occurring, Job Superintendent/Foreman should:

- Suspend all outdoor activity and relocate to a building that has a “*Tornado Refuge Area*” if available.
- Pre-plan evacuation routes and refuge area / alternate if anticipating winds over 70 mph and/or Tornado Watch has been issued.

Thunderstorms and Lightning / Snowstorms (Blizzards)

When severe weather (I.e., Thunderstorms and Lightning / Snowstorms (Blizzards) are usually forecasted for the area, Job Superintendent/Foreman should:

- Evaluate outside activities of their personnel for potential safety concerns relative to lightning. If personnel are performing work not permitted during a Lightning Alert, advise personnel discontinue activities.
 - Examples of work NOT permitted during a Lightning Alert:
 - Work on top of structures, tanks/vessels, elevated pipe racks, trucks, etc.
 - Work involving a crane.
 - Work in “open areas” (Supervisor’s discretion)
 - Vacuum truck operations involving static/low flash materials. (Use SDS as a resource to help identify)
 - If someone has been struck by lightning, call 911 and notify Lexi Southall Company President and Safety Director immediately.

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Employees:

- If outside during a Lightning Strike, be aware of the immediate hazard(s) and conduct a Two-Minute Drill to determine if outside activities can or should continue.
- If someone has been struck by lightning, notify Job Superintendent/Foreman immediately.
 - If you are qualified, administer First Aid and/or CPR immediately.
- After a storm has passed and no lightning has been detected within ten miles for 30 minutes:
 - Perform checks of their areas to determine if any unsafe conditions exist or if any damage has occurred.
 - Report any damage or unsafe condition to the Job Superintendent/Foreman for appropriate follow up.
 - If no damage or unsafe condition is found, normal work activities may resume (Note: For permitted work, ensure permit is valid per permitting guidelines.

Tornado Watch

Prepare NOW:

- Know your area’s tornado risk. In the U.S., the Midwest and the Southeast have a greater risk for tornadoes.
- Know the signs of a tornado, including a rotating, funnel-shaped cloud; an approaching cloud of debris; or a loud roar—like a freight train.
- Sign up for your community’s warning system. The Emergency Alert System (EAS) and National Oceanic and Atmospheric Administration (NOAA) Weather Radio also provide emergency alerts. If your community has sirens, then become familiar with the warning tone.
- Pay attention to weather reports. Meteorologists can predict when conditions might be right for a tornado.
- Identify and practice going to a safe shelter in the event of high winds, such as a safe room built using FEMA criteria or a storm shelter built to ICC 500 standards. The next best protection is a small, interior, windowless room on the lowest level of a sturdy building.

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When tornado watch is issued for the area:

Job Superintendent/Foreman:

- Notify respective employees/ sub-contractors/ vendors of the “Tornado Watch” and provide appropriate instructions. Ensure Employees will have method of receiving alarms/announcements.
- Review tornado safety rules and be prepared to move employees to a place of safety if threatening weather approaches.
- Locate closest and alternate “Approved Tornado Refuge Area”!
- Stay alert for the abrupt onset of violent wind, rain, hail, or a funnel-shaped cloud.
- If tornado type conditions exist or funnel-shaped cloud(s) are witnessed, do not wait for alarm. Seek appropriate shelter immediately.

Employees:

- Review tornado safety rules and be prepared to move to a place of safety if threatening weather approaches.
- Locate closest and alternate “Approved Tornado Refuge Area”!
- Stay alert for the abrupt onset of violent wind, rain, hail, or a funnel-shaped cloud.
- If tornado type conditions exist or funnel-shaped cloud(s) are witnessed, do not wait for alarm. Seek appropriate shelter immediately.

NOTES:

- A Tornado Watch is issued by the National Weather Service when conditions are favorable for the development of tornadoes in/and close to the watch area.
- Tornado Watch is usually issued for a duration of 4 to 8 hours, and they normally are issued well in advance of the actual occurrence of severe weather.

Tornado Warning

IF YOU ARE UNDER A TORNADO WARNING, FIND SAFE SHELTER RIGHT AWAY

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When a “Tornado Warning” has been issued that affects any area that Brieser Construction employees are working:

Job Superintendent/Foreman:

- Once phone message alert is received by Safety Manager or Weather Service of a “Tornado Warning,” notify all affected employees with a “Tornado Warning” announcement.
- Gather the daily employee roster.
- When the threat of a tornado no longer exists in the area notify all affected employees with an “All Clear” announcement.
- Take head count of all assigned Employees, Sub-Contractors, Visitors, and Vendors.
- Account for all assigned personnel and notify the Company President and Safety Director
- Report "Missing" personnel to Company President, Safety Director, and Local emergency response crews, dial 911.
- Assess for storm damage in your work area or areas of responsibilities.
- Communicate to respective employee/sub-contractors/vendors/visitors that/if normal work may resume.

Employees:

- Assemble in a designated “Tornado Refuge Area” as instructed by their Job Superintendent/Foreman.
- If you can safely get to a sturdy building, then do so immediately.
- Go to a safe room, basement, or storm cellar.
- If you are in a building with no basement, then get to a small interior room on the lowest level.
- Stay away from windows, doors, and outside walls.
- Do not get under an overpass or bridge. You are safer in a low, flat location.
- Watch out for flying debris that can cause injury or death.
- Use your arms to protect your head and neck.
- If unable to get inside, seek shelter in a low-lying ditch.
- Report to Job Superintendent/Foreman either face to face (preferred) or verbally via telephone or radio for accountability purposes.

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Be Safe AFTER The Storm

- Keep listening to EAS, NOAA Weather Radio, and local authorities for updated information.
- If you are trapped, cover your mouth with a cloth or mask to avoid breathing dust. Try to send a text, bang on a pipe or wall, or use a whistle instead of shouting.
- Stay clear of fallen power lines or broken utility lines.
- Do not enter damaged buildings until you are told that they are safe.
- Save your phone calls for emergencies. Phone systems are often down or busy after a disaster. Use text messaging or social media to communicate with family and friends.
- Be careful during clean-up. Wear thick-soled shoes, long pants, and work gloves.

Acceptable Indoor Shelters and Areas to Avoid During **Thunderstorms and Lightning ONLY**

(I.e., these areas may not be considered Tornado Refuge areas, however, all Tornado Refuge areas provide protection from thunderstorms and lightning. **Tornado Refuge Area** is a designated area inside a structure where personnel are directed to assemble in the event of a tornado. These areas have the highest probability of protecting personnel)

Acceptable Indoor Shelters include:

- Dwellings, trailers, or other buildings which are protected against lightning.
- Metal frame buildings
- Automobiles and trucks
- Enclosed metal barges or boats

NOTE: Personnel should be inside the shelters, not standing beside them or touching any metal.

Areas to Avoid include:

- Small, unprotected buildings, sheds, or smoking shelters
- Temporary shelters near construction or repair work (tents)
- Open fields and/or parking lots
- Areas on top of buildings and/or storage tank roofs
- Open pools of water
- Near wire fences, overhead wires, above ground pipelines and railroad tracks
- Under isolated trees
- On hilltops

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Inclement Weather Learning Exercise

Score: %

Employees Name:	<input style="width: 95%;" type="text"/>	Date:	<input style="width: 95%;" type="text"/>
Company:	<input style="width: 95%;" type="text"/>	Instructor:	<input style="width: 95%;" type="text"/>
Trade:	<input style="width: 95%;" type="text"/>	Job Title:	<input style="width: 95%;" type="text"/>

Answer each of the following questions “True” or “False” by circling the appropriate letter.

- T F 1. A tornado watch is when conditions are favorable for the development of tornadoes in and close to the watch area. They are usually issued for a duration of 4 to 8 hours and normally are issued well in advance of the actual occurrence of severe weather.
- T F 2. During the tornado watch, people should review tornado safety rules and be prepared to move a place of safety if threatening weather approaches.
- T F 3. Tornado warning is issued when a tornado is indicated by radar or sighted by spotters; therefore, people in the affected area should seek safe shelter immediately.
- T F 4. When winds reach speeds of 15 MPH Potential for injury caused by flying dust and debris generated during high wind conditions (E.g., dry weather months). Supervisors should consider upgrading to sealed eyewear or goggles.
- T F 5. During high wind conditions Supervisors should make sure all personnel are aware of the evacuation and or muster points in case of emergencies.
- T F 6. If tornado type conditions exist or funnel-shaped cloud(s) are witnessed, you must wait for alarm. Never seek appropriate shelter until the alarm is signaled.
- T F 7. Prior to the weather incident you should secure loose and/or lightweight material (I.e., tarps, insulation, jacketing, etc.) as well as partially constructed structures (E.g., partial built building, tanks, etc.) Secure cranes/lifts per manufacturer’s recommendations.
- T F 8. If any injuries, deaths, or missing personnel occur due to the weather incident you must notify the Company payroll department immediately.

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Inclement Weather Learning Exercise

Answer Sheet

- True** 1. A tornado watch is when conditions are favorable for the development of tornadoes in and close to the watch area. They are usually issued for a duration of 4 to 8 hours and normally are issued well in advance of the actual occurrence of severe weather.
- True** 2. During the tornado watch, people should review tornado safety rules and be prepared to move a place of safety if threatening weather approaches.
- True** 3. Tornado warning is issued when a tornado is indicated by radar or sighted by spotters; therefore, people in the affected area should seek safe shelter immediately.
- False** 4. When winds reach speeds of 15 MPH Potential for injury caused by flying dust and debris generated during high wind conditions (E.g., dry weather months). Supervisors should consider upgrading to sealed eyewear or goggles
- True** 5. During high wind conditions Supervisors should make sure all personnel are aware of the evacuation and or muster points in case of emergencies
- False** 6. If tornado type conditions exist or funnel-shaped cloud(s) are witnessed, you must wait for alarm. Never seek appropriate shelter until the alarm is signaled.
- True** 7. Prior to the weather incident you should secure loose and/or lightweight material (I.e., tarps, insulation, jacketing, etc.) as well as partially constructed structures (E.g., partial built building, tanks, etc.) Secure cranes/lifts per manufacturer's recommendations.
- False** 8. If any injuries, deaths, or missing personnel occur due to the weather incident you must notify the Company payroll department immediately.