INDUSTRY WIDE LABOR-MANAGEMENT SAFETY COMMITTEE

SAFETY BULLETIN #38

GUIDELINES FOR INCLEMENT OR SEVERE WEATHER

This bulletin identifies the safety considerations that should be addressed when working outdoors in areas where there is a potential for thunderstorms, flash flooding, extreme winds, large hail, tornados, and hurricanes.

NOTE: PLEASE SEE ADDENDUM "A" FOR LIGHTNING SAFETY

PRE-PLANNING

Pre-planning can reduce many of the potential dangers posed by inclement weather. The Location Manager, their department representative, or production should develop an "**action plan**" when preparing to use locations that may present an inclement or severe weather hazard.

- The **action plan** should designate a person who is responsible for monitoring potential inclement weather by commercial weather services, television and radio station newscasts, National Oceanic and Atmospheric Administration (NOAA) weather radio, smartphone applications, or other available means. Production should have a reliable means of receiving weather forecasts, watches, advisories, and warnings such as NOAA weather radio or app.

The **action plan** should include a method for communication with cast and crew members in the event of inclement or severe weather. Cast and crew members must follow all instructions given. The communication methods should reflect the conditions and circumstances at the scene. Other elements to include should be site-specific procedures which include methods and routes of evacuation, meeting areas, a means of establishing a head count for cast and crew members, and procedures for equipment shut-down, stowage, and/or removal when necessary.

If there is the possibility of inclement or severe weather, a "**safety meeting**" shall be held to review and communicate the elements of the **action plan.**

Safety meeting topics may include, but are not limited to:

- The weather forecast for the entire production day.
- Designated persons responsible for monitoring potential inclement weather.
- Communication Plan.
- Possible risks associated with the potential inclement weather.
- Location of designated shelters.
- Emergency procedures.
- When and how to strike equipment and sets, if required.
- Resumption of activities after the inclement weather threat is over.

1. Flash Flooding

Causes: Flash flooding is usually caused by slow-moving thunderstorms and can occur within a few minutes or hours of excessive rainfall. High-risk locations include areas designated by FEMA as a flood zone, low water crossings, dry riverbeds, recent burn areas in mountains, and urban areas with pavement and roofs that concentrate rainfall runoff.

Flash flooding may be worsened by topography, soil conditions, and groundcover. Flood zones are areas of low-lying ground usually adjacent to a river. You can check to see if the location is within a FEMA-designated flood zone on their website https://www.fema.gov/flood-maps. Also, productions should have a reliable means of receiving weather forecasts including watches advisories and warnings such as NOAA weather radio or app. Be especially cautious at night when it is harder to recognize flood dangers.

Please be aware that it does not have to rain at your location for a flood to occur.

Potential Hazards:

- Crew and equipment could become trapped or stranded as escape routes may be damaged and/or blocked.
- Equipment and personnel could be swept away or covered by water, mud, or debris.
- Drowning
- Electrocution
- Mudslides
- Flood waters may contain hazardous chemicals, biohazards such as animal/human waste, or wildlife, including reptiles.

Possible Actions:

- Activate the **action plan**.
- Secure equipment and all electrical power.
- Remove all cast and crew from elevated equipment, scaffolds, booms, and sets.
- Stay clear of potential slide areas next to hillsides or on the edges of cliff areas.
- Follow directions for evacuation procedures as outlined in the **action plan**.
- Gather at a pre-determined evacuation point and ensure everyone is accounted for.
- If you come upon a flowing stream where water is above ankles, STOP! Turn around and go another way.
- Do not drive through moving water or a flooded roadway.
- Do not attempt to return to the area until an "all clear" signal has been given by a regulatory authority or Production Management.

2. High Winds

Causes: High winds can be associated with extreme weather phenomena including thunderstorms, tornados, hurricanes, and high- and low-pressure systems. During the summer months in the Western States, storms often produce little rain but very strong wind gusts (some up to 100 mph) and dust storms.

SAFETY BULLETINS ARE RECOMMENDED GUIDELINES ONLY; CONSULT ALL APPLICABLE RULES AND REGULATIONS

SAFETY BULLETINS MAY BE VIEWED OR DOWNLOADED FROM THE WEBSITE WWW.CSATF.ORG

Potential Hazards:

- Flying debris
- Dust
- Possibility of persons being swept off their feet.
- Equipment can be blown over and carried for a distance.
- Set destruction.
- Eye injuries

Possible Actions:

- Activate the **action plan**.
- Remove all cast and crew from elevated areas, sets, scaffolding, and other high objects.
- Lower all aerial, lighting, diffusion, camera boom equipment, and tents not designed to withstand high winds.
- Tie down and secure all loose equipment.
- When instructed, seek refuge from the winds at your pre-determined safe area.
- Be aware and protect your eyes from potential injury.
- Do not attempt to return to the area until an "all clear" signal has been givenby a regulatory authority or Production Management.

NOTE: OSHA mandates that aerial lifts and other like equipment are not to be operated when winds exceed the manufacturer's instructions for safe operation. The industry standard is a maximum of 25 mph unless a lower wind speed is set by the manufacturer. The use of attachments or cribbing may lower these maximums as well.

Be aware that many of the same precautions (*e.g.,* eye protection and securing equipment), can also apply to man-made wind effects such as rotor wash from airplanes or helicopters and wind machines (e.g., ritter fans and special effects fans).

3. Large Hail

Causes: Hail is usually associated with thunderstorms and is caused by freezing rain that can become very large.

Potential Hazards: May cause injuries to the crew and damage to equipment.

Possible Actions:

- If a watch or warning has been issued, the action plan should be activated, and the crew should follow all instructions.
- Secure and protect all equipment.
- Get down from elevated areas, aerial lifts, booms, scaffolds, and other high areas.
- When instructed, seek shelter at your pre-determined safe area.
- Do not attempt to return to the area until an "all clear" signal has been given by a regulatory authority or Production Management.

4. Blizzard or Severe Snowstorms

Causes: A storm accompanied by strong winds creates blizzard conditions with blinding wind-driven snow, severe drifting, and dangerous wind chill.

Potential Hazards:

- Blinding conditions.
- Creation of snow drifts.
- Dangerous wind chill factor *(refer to Safety Bulletin #34 Working in Extreme Cold Temperature Conditions)*.
- Subsequent avalanche danger; being caught and/or buried.
  - Usually triggered by the victim or members of the victim's party.
  - Generally, occur with clear skies, little or no snowfall, and light or calm winds.
  - Contains a weak layer of snow beneath the surface referred to as surface hoar, facets, or depth hoar.
  - On 30–40-degree slopes, often at a convex part of the slope.

Possible Actions:

- If a watch or warning has been issued, the action plan should be activated, and the crew should follow all instructions.
- Secure and protect all equipment.
- Get down from elevated areas, aerial lifts, booms, scaffolds, and other high areas.
- Stay clear from potential avalanche areas.
- When instructed, seek shelter at your pre-determined safe area.
- Do not attempt to return to the area until an "all clear" signal has been given by a regulatory authority or Production Management.

5. Tornados

Causes: A tornado is a violent windstorm characterized by a twisting, funnel-shaped wind. Tornados tend to occur in the afternoon and evening hours.

Potential Hazards:

- Tornados are unpredictable and may form without warning.
- Winds can exceed 200 to 300 mph.
- Tornados may appear nearly transparent until dust and debris are picked up or a cloud forms within the funnel.
- Severe damage can occur to structures.
- The precise location of a touch-down point cannot be determined.

Possible Actions:

- If a watch or warning has been issued, the **action plan** should be activated.
- The crew should be regularly updated regarding any changes to potential weather conditions.
- Production should have a reliable means of receiving weather forecasts, tornado watches, and warnings such as NOAA weather radio or app.
- Production should review weather forecasts to determine if there is a significant risk of

SAFETY BULLETINS ARE RECOMMENDED GUIDELINES ONLY; CONSULT ALL APPLICABLE RULES AND REGULATIONS

SAFETY BULLETINS MAY BE VIEWED OR DOWNLOADED FROM THE WEBSITE WWW.CSATF.ORG

tornado development.
- When there is a significant risk of tornado development, outdoor activity is not recommended.
- Identify suitable tornado shelters in advance.
- If a tornado shelter is not available on-site, plan for adequate transportation resources to provide prompt transportation of personnel to the shelter before the arrival of tornado conditions.
- Lower all aerial lifts, camera booms, and other equipment. Remove to a safe area as time permits.
- Evacuate the area immediately if instructed by a regulatory authority or production.
- Only secure equipment if there is time and it can be done safely.
- Do not attempt to return to the area until an "all clear" signal has been given by a regulatory authority or production.

<u>If you are unable to evacuate during a tornado, go to a wind-safe area. If you do not have one, follow these guidelines:</u>

- Stay indoors during the tornado and away from windows and glass doors.
- Close all interior doors – secure and brace external doors.
- Keep any window coverings closed.
- Take refuge in a small interior room or hallway on the lowest level.
- Lay on the floor under a table or another sturdy object.
- If the winds die down, it could be due to being in the "eye of the storm", and winds could pick up again.

6. <u>Hurricanes</u>

Causes: A slow developing tropical weather phenomenon that forms over water. Its greatest impacts are felt near or on shorelines of land. You will not be surprised by a hurricane, as they are usually tracked by a weather service for many days. They are also known as cyclones or typhoons.

Potential Hazards:

- Crew and equipment could become trapped or stranded as escape routes may be damaged and/or blocked.
- Severe winds and rainfall, which may cause extreme flooding.
- Storm surges.
- High waves possibility of persons being swept off their feet.
- Drowning.
- Localized tornados.
- Extreme damage to structures, roads, utilities, vehicles, and boats.
- Severe injury due to flying debris.

Possible Actions:

- In most cases, you will have several days warning to activate your **action plan.**
- Monitor tropical weather forecasts and predicted storm tracks.

- Develop an evacuation plan in advance that identifies inland evacuation destinations, routes, and accommodations.
- If a hurricane track includes the area, review the forecast storm track, projected intensity, and potential impact with a competent authority such as a weather service or emergency management agency. That discussion should inform cancellation/evacuation decisions.
- Do not stay by the shoreline.
- Pack and secure all equipment and remove it to a safe area.
- Lower all aerial lifts, camera booms, and other equipment. Remove to a safe area as time permits.
- If ordered to evacuate, leave the area early—do not hesitate.
- Do not attempt to return to the area until an "all clear" signal has been given by a regulatory authority or Production Management.

<u>If you are unable to evacuate during a hurricane, go to a wind-safe area. If you do not have one, follow these guidelines:</u>

- Stay indoors during the hurricane and away from windows and glass doors.
- Close all interior doors – secure and brace external doors.
- Keep any window coverings closed.
- Take refuge in a small interior room or hallway on the lowest level.
- Lay on the floor under a table or another sturdy object.
- If the winds die down, it could be due to being in the “eye of the storm”, and winds could pick up again.

SAFETY BULLETINS ARE RECOMMENDED GUIDELINES ONLY; CONSULT ALL APPLICABLE RULES AND REGULATIONS

SAFETY BULLETINS MAY BE VIEWED OR DOWNLOADED FROM THE WEBSITE WWW.CSATF.ORG