Climate Adaptation on Site: Floods, Wildfire Smoke, Extreme Weather Meeting Kit



WHAT’S AT STAKE

Extreme weather is showing up more often and hitting harder than it used to. Job sites that were perfectly safe under normal conditions can become dangerous in minutes when a sudden storm rolls in, floodwaters rise, or wildfire smoke blankets the area. Workers need to know how to recognize these risks before they escalate. The weather doesn’t wait for a supervisor to make a call, and you may need to act on your own. Knowing what to watch for and what to do can save your life.

WHAT’S THE DANGER

Climate-driven hazards are unpredictable and fast-moving. They can cause serious injuries, impair your body, or put you in the middle of a situation with no safe exit.

Flash Flooding

- Water can rise faster than most people expect, especially in low-lying or enclosed areas.
- Moving floodwater as shallow as six inches can knock a person off their feet.
- Flooding can make electrical hazards invisible by covering live equipment or cables.

Wildfire Smoke

Smoke from wildfires contains fine particles and toxic gases that damage your lungs, even when the fire is miles away. Poor air quality can sneak up on you. You may not feel it in the moment, but the damage builds up over a shift. Workers with asthma, heart conditions, or other respiratory issues are at greatest risk, but anyone can be affected after a full day of exposure.

Structural Risk After Weather Events

After a major weather event, structures that looked intact may be unstable. Saturated soil can cause slab movement or excavation wall collapse. Flood-damaged framing or foundations may not show visible signs of compromise. Never assume a site is safe to re-enter after severe weather without a proper inspection.

Extreme Heat

- Heat stroke can develop in under an hour during intense work in high temperatures.
- Humidity makes heat feel much worse and slows your body’s ability to cool down.
- Medications, hydration level, and fitness all affect how quickly heat affects you.

HOW TO PROTECT YOURSELF

Protecting yourself from climate hazards starts before the weather even changes. Planning ahead, knowing the signs, and being willing to stop work when needed are all part of working safely in a changing climate.

Check the Forecast Before Each Shift

Weather can change quickly, but you can still get ahead of it. Check the forecast before your shift and again during the day if conditions look unstable. Know where the nearest shelter is and what your site’s emergency weather plan looks like. If there’s no plan posted anywhere, ask your supervisor now, before things get complicated.

Flood Awareness on Site

- Know the elevation of your work area and whether it’s in a flood-prone zone.
- Never enter or work in a trench or excavation if heavy rain is likely or already falling.
- Identify your exit routes from low-lying areas before you start your shift.
- If water starts rising unexpectedly, move to higher ground immediately and do not wait for direction.

Protect Against Wildfire Smoke

- Check the Air Quality Index (AQI) for your area before and during your shift.
- Wear an N95 respirator when AQI is above 150. A standard dust mask will not protect your lungs.
- Take more frequent breaks in shade or shelter when smoke is present.
- Know the symptoms: coughing, shortness of breath, chest tightness, headache, dizziness.

Beat the Heat

- Drink water regularly even if you don’t feel thirsty. Aim for about a cup every 15 to 20 minutes.
- Take breaks in shade or cool areas, especially during the hottest part of the day.

- Watch your coworkers. Confusion, stopping sweating, or red skin are heat stroke warning signs.
- Ease into hot-weather work at the start of a heat wave. Your body needs time to adjust.

Lightning Protocol

If you hear thunder, you are within lightning range. Stop work immediately, get away from tall structures, metal equipment, and open ground, and get inside a substantial building or a hard-topped vehicle. Don’t shelter under trees or in open-sided sheds. Wait 30 minutes after the last thunder before returning to work outside.

When the Weather Turns: Move Fast

- Stop work and secure loose materials before moving to shelter.
- Account for everyone on your crew before going in.
- Contact your supervisor and report current conditions on site.
- Do not return to the site until you receive an all-clear from someone with authority to give it.

After the Storm: Inspect First

Don’t assume the site is safe just because the rain stopped. Walk the area with a supervisor before resuming work. anything looks wrong, stop and get it checked by a qualified person before anyone goes back in.

FINAL WORD

Climate conditions are not going to settle down, and job sites need workers who know how to respond. You don’t have to be a weather expert, but you do need to trust your eyes and your gut.