



Heat wave

An extended period of hot weather relative to the expected conditions of the area at that time of year.

Checklist for managing site activities and assets during adverse weather.

Get ahead in readiness for adverse weather. Improve safety and limit damage.

Key issues: Heat wave

- Workers must take precautions to stay safe (shade, hydration breaks and appropriate clothing).
- Exposure to high temperatures and humidity can lead to dehydration, fatigue, UV damage, heat-related illnesses and heat stress (when the body can no longer regulate its internal temperature). Physically demanding work and restrictive PPE increase risk. Illnesses may include sunburn, heat rash, heat cramps, heat exhaustion and heat stroke.
- Employees working at height are particularly exposed to high temperatures, humidity and no shade. Falls are significant or can be fatal.
- Employees with pre-existing health issues, such as heart conditions or diabetes, are at higher risk and need extra care.
- If hot weather is a single day out of season, workers may be more impacted due to lack of acclimatisation.
- Increased risk of fire and equipment overheating. Combustible materials require careful storage and fire prevention measures.
- Hot conditions make some construction tasks, such as scaffolding and work at height, challenging or impossible.
- Some heat-sensitive materials (such as cement-based products, asphalt, torch-applied roofing membranes, adhesives, paints and some plastics) require special handling or works to be rescheduled.
- Curing of cement-based products (concrete, mortar, render, plaster) is impacted by heat and high humidity and can lead to reduced long-term strength and poor finish.

Key issues: Heat wave continued

- High temperatures lead to thermal expansion and contraction of materials that can cause damage such as cracks in brick or blockwork.
- Metal expansion and thermal movement loosening connections can affect the stability and integrity of the scaffolding structure.
- Prolonged exposure to high temperatures can cause equipment and machinery to overheat, leading to breakdowns or reduced efficiency.
- Hydraulic systems may be affected by extreme heat, as the hydraulic fluid can become less effective, leading to potential failures.

General checklist: Heat wave

- ☐ Hot work systems and procedures to manage hazards and ensure safe and effective operations.
- ☐ Adjust work schedules where necessary, control dust, provide shade and hydration, provide PPE for hot conditions, encourage wearing of sunscreen and hats.
- ☐ 'Toolbox talk' presentation to the workforce on hot weather. Train workers on heat-related illness symptoms and responses.
- ☐ Emphasise hot work controls. Prohibit smoking in and around site.
- ☐ Conduct an end-of-day equipment fire watch.



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Worker checklist: Heat wave

- ☐ Discuss safety and schedule with workers. Consider working reduced hours avoiding the hottest part of the day. Be prepared to stop work if unsafe or if work would be unproductive or of poor quality.
- ☐ Reschedule work or implement additional safety measures/ adapt risk and method statements (RAMS) considering hot weather.
- ☐ Have an emergency response plan (ERP) for heat-related incidents.
- ☐ Make sure workers can recognise the symptoms of heat stress (such as feeling weak or tired, dizziness, headache, nausea and heavy sweating).
- ☐ Introduce more-frequent rest breaks and provide shading to rest areas.
- ☐ Introduce shading in areas where people are working.
- ☐ Provide free access to ample cool drinking water near the workface. Consider instigating regular hydration breaks. Encourage workers to use insulated water bottles.
- ☐ Provide adequate ventilation in enclosed workspaces.
- ☐ Encourage wearing of lightweight light-coloured clothing, long sleeves, SPF50+ sunscreen and hats.
- ☐ Schedule work at height during cooler times and provide proper PPE (eg gloves for scaffolders to avoid burns).
- ☐ Ensure PPE is appropriate (adapted to hot weather where possible).
- ☐ Encourage workers to remove PPE when resting to help with heat loss.
- ☐ Inspect and maintain equipment for worker comfort (eg fans, misting and cooling systems).
- ☐ Keep records of temperature and humidity levels on site and assess the effectiveness of heat safety measures for future reference.



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Site checklist: Heat wave

- ☐ Monitor weather conditions closely and make necessary adjustments to the construction schedule to mitigate hot weather risks to workers, materials and equipment.
- ☐ Evaluate the impact of any water restrictions on construction.
- ☐ Monitor surface temperatures of heat-sensitive materials using infrared thermometers (surfaces can be hotter than the air).
- ☐ Avoid using cement-based products or adjust works for temperature and humidity (eg covering freshly poured concrete with wet burlap or using chemical curing compounds to maintain moisture).
- ☐ Material damage. High temperatures lead to thermal expansion and contraction of materials which can cause damage such as cracks in brick or blockwork.
- ☐ Schedule scaffolding works during cooler times. Conduct regular inspections and maintenance to identify signs of thermal movement or material degradation.
- ☐ Check equipment coolant levels and ensure sufficient ventilation.

Dust control:

- ☐ Have a dust management scheme for dry conditions in place and implement additional measures.
- ☐ Provide sufficient water and dampen down dust clouds. Pre-dampening alone is insufficient.
- ☐ Ensure water suppression or on-tool extraction is in place to remove dust at source.
- ☐ Cover skips, exposed soil, stockpiles and stored building materials where possible (eg with jute matting).
- ☐ Use windbreaks around work areas and stockpiles and sheeting/debris netting around scaffolding to reduce dust clouds travelling.
- ☐ Apply environmentally friendly chemical binders to exposed soil and stockpiles.
- ☐ Enforce on-site speed limits and wash vehicles and wheels.
- ☐ Ensure road sweeping and manual sweeping regimes are in place.
- ☐ Enclose areas where crushing, shot blasting or similar is taking place.