



Dust storm

A strong, turbulent wind that carries clouds of fine dust, soil and sand over a large area.

Checklist for managing site activities and assets during adverse weather.

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

Key issues: Dust storm

- Dust storms present health, safety and operational risks in construction from reduced visibility, causing accidents, dust inhalation and operational delays.
- A dust storm reduces visibility for everyone on site and particularly increases the risk of construction vehicle accidents on site and on surrounding roads.
- Reduced visibility for crane, construction vehicle and machine drivers increases risks for both drivers and those in their path.
- Prolonged exposure to the dust in the atmosphere can cause irritation and severe, long-term respiratory conditions.
- Regularly breathing construction dust can cause diseases like lung cancer, asthma, chronic obstructive pulmonary disease (COPD) and silicosis.
- Dust settling on surfaces can make them slippery, increasing the risk of slips, trips and falls.
- Air quality can impact concentration, increasing accidents.
- Uncontrolled construction dust can cause health or ecological impacts or loss of amenity in neighbouring communities.
- Demolition dust from certain buildings can release heavy metals, asbestos fibres, fungal spore or other pollutants.
- Prolonged exposure to dust may result in electrical failure and hazards to electrical equipment.
- Accumulated dust can clog machinery cooling vents and damage sensitive equipment.
- Reduced visibility makes some construction tasks, such as lifting operations and groundworks, challenging or impossible.

General checklist: Dust storm

- ☐ Assess dust pathways and the sensitivity of nearby receptors on a site-by-site basis, for instance neighbouring residents who are sensitive to dust.
- ☐ Consider funnelling effects in urban areas.
- ☐ Provide high visibility signage and lighting to perimeter of sites to alert the public to construction works.



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Worker checklist: Dust storm

- ☐ Monitor airborne particulate matter (PM10, PM2.5 and NOx) onsite and adjust work schedules or implement additional safety measures when levels are high.
- ☐ Have an emergency response plan for dust-related incidents, such as irritation and respiratory conditions.
- ☐ 'Toolbox talk' presentation to the workforce on construction dust and respiratory conditions.
- ☐ Provide indoor spaces where workers can shelter from dust.
- ☐ Provide adequate ventilation in enclosed workspaces to maintain air quality.
- ☐ Ensure PPE is appropriate/available and includes high-visibility clothing and eye and respiratory protection. Masks and respirators should be adequate for the amount of dust and type of work, should fit the user and be worn correctly.
- ☐ Ensure PPE is fully understood by site/construction manager. Mask and respirator types include FFPI-3 or N95 disposable masks, half and full-face respirators, powered air-purifying respirators (PAPRs) and supplied air respirators. Anyone using tight-fitting masks will need to be clean shaven.
- ☐ Record atmospheric conditions onsite and assess the effectiveness of dust control measures for future reference.

Site checklist: Dust storm

- ☐ Regularly inspect and maintain dust sensitive equipment and tools. Cover vents during dust storm and uncover afterwards.
 - ☐ Cover abrasion sensitive finishes.
 - ☐ Ensure heavy vehicles have lights and reflective markings.
- Dust control:**
- ☐ Have a dust management scheme 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.
 - ☐ Locate skips, exposed soil, stockpiles and stored building materials in sheltered areas and cover them where possible (eg with jute matting). (Seed soil stockpiles over six months.)
 - ☐ 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 and manual sweeping regimes are in place.
 - ☐ Enclose areas where crushing, shot blasting etc is taking place.
 - ☐ Clean to remove dust and debris using jet washing, industrial vacuum cleaners and sweepers as appropriate.