Drone Inspections: When Observers Become Participants in Hazards Meeting Kit

WHAT’S AT STAKE

Drones have become a common tool for site inspections, surveying, and monitoring. They’re efficient, they reduce the need for rope access and scaffold time, and they generate useful data. But for workers on the ground beneath an active drone flight path, a piece of technology meant to improve safety can introduce a new set of hazards. Workers who weren’t part of the drone operation can find themselves in its risk zone without knowing it. Understanding those risks and knowing what to do about them is now part of working on a modern job site.

WHAT’S THE DANGER

The hazards from drone operations aren’t always obvious from ground level. Most incidents happen because ground workers weren’t informed or weren’t watching.

Drone Malfunction and Fly-Away

Even well-maintained drones can fail. A GPS glitch, battery failure, or software error can cause a drone to veer off course or crash without warning. A commercial drone weighs several kilograms and moves at speed. An impact from one is not a minor event.

Falling Objects and Debris

- Cameras, sensors, or attached equipment can detach from a drone mid-flight.
- Rotor blade failures can scatter debris across a wide area below.
- Ice or loose material on a drone can fall during flight.

Distraction and Situational Awareness

A drone overhead draws attention. Workers watching the sky are not watching where they're stepping or what is moving around them at ground level. That distraction has contributed to ground-level incidents on active sites.

Battery Fire Risk

Lithium polymer batteries can fail, overheat, or ignite if damaged. A crashed drone may have a compromised battery. Never approach one without alerting the operator. Battery fires escalate quickly.

Restricted Zone Violations

- Exclusion zones are sometimes poorly marked or not communicated to every worker.
- Workers may enter an active zone without knowing it is restricted.
- Re-entering before the drone is grounded is a common source of close calls.

HOW TO PROTECT YOURSELF

You don't need to be the drone operator to protect yourself during a drone operation. Knowing the basic rules and where you stand keeps you out of the risk zone before anything goes wrong.

Know When Drone Operations Are Scheduled

Before your shift, check whether any drone flights are planned for the day. Most sites post this information at toolbox talks or morning briefings. If you don't know whether a drone is flying and you're working in open areas or near inspection zones, ask your supervisor before you start. A 30-second check is worth it.

Stay Out from Under Active Flight Paths

- Never stand directly under or near a drone in operation unless you are part of the certified flight crew.

- Give drone operations a wide berth, even if the flight looks routine and stable.
- If you’re working in an area and a drone approaches unexpectedly, move toward shelter or under a covered structure.

Respect the Exclusion Zones

If a ground exclusion zone is marked, treat it like any other barricaded hazard. Don’t enter it to retrieve equipment, take a shortcut, or get a closer look. Wait for the all-clear from the drone operator or site supervisor before re-entering. The few minutes you save are not worth the exposure to an overhead hazard you can’t predict.

Report a Crash Immediately

If you see a drone go down or crash on site, do not approach it. Alert the drone operator or supervisor right away and keep others clear until the operator has confirmed the battery is safe. A crashed drone may have a damaged battery that could ignite.

If a Drone Hits Someone: Act Fast

- Call for emergency response immediately and do not wait to assess the severity yourself.
- Keep the area clear so responders can get in quickly.
- Note where the drone went down so the operator can retrieve or secure it.
- Do not move the drone unless there is an immediate fire risk, and only then with PPE.

FINAL WORD

Drones are a useful tool, but they operate in the same space as workers on the ground. Stay aware of when they’re flying, where they’re going, and what your role is when something goes wrong.