

Respiratory Hazards: Know What You're Breathing

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Why this matters

Air can look clear and still be hazardous. A mask that worked for yesterday's dust may not protect against today's vapor or another exposure. Identify the hazard and verify the control before starting.

Objective: Confirm the task's respiratory controls and recognize when protection is unknown.

Key hazards or failure points

Unidentified dust, fumes, gases or vapors; ineffective capture or ventilation; the wrong respirator or cartridge; poor fit; and an unknown or oxygen-deficient atmosphere.

Practical controls

- Have the employer evaluate the actual material, process and exposure. Use feasible engineering controls, such as effective capture or an approved lower-exposure method. Appearance and smell cannot establish safe air.
- Where respirators are required, follow the respiratory protection program and task-specific selection. Confirm medical evaluation, training and applicable fit testing before use. Do not choose protection by color or convenience.
- For a tight-fitting respirator, use the approved model and size, keep the seal clear of interfering facial hair, and check compatibility with other PPE. Follow the specified cartridge change schedule where required.

Verify It in the Field

- Match the task and material to the exposure assessment and control plan. Have the designated person verify ventilation or capture using its specified performance check—not merely whether a fan is running.
- Confirm the selected respirator, filter or cartridge matches the program's task requirements. Inspect it under the manufacturer's instructions. For a tight-fitting respirator, complete the required user seal check every time it is donned; this does not replace fit testing.
- Ask the worker to identify where to go and whom to notify if protection fails. An air-purifying respirator does not supply oxygen. Unknown atmospheres require specialist assessment and the appropriate entry procedures.

Stop and reassess

Leave the exposure area safely for failed ventilation, leakage, increased breathing resistance, irritation, breakthrough or a changed process. Report the problem and follow the program before reentry. Do not enter an unknown atmosphere or attempt an unplanned rescue. Correct and verify the protection, obtain required authorization and rebrief before work resumes.

Ask the crew

- What assessment identifies today's airborne hazard and required controls?
- What evidence shows capture or respiratory protection is suitable and working?
- What change or symptom means we leave, and where is the safe location?

Identify the air hazard before relying on a respirator.

Next step: Record today's changes and checks on the free JSA Planning and Field-Verification Sheet. Supervisor check and attendance are separate.

[Free JSA planning sheet](#)

References: OSHA 1910.134; construction provision 1926.103. Expanded explanation and references accompany the web version.