

Concrete Saw Cutting JHA — Completed Learning Example

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Instructional example. Adapt and verify for the actual site before use. This document records planned controls, not completed field inspections or authorization to work.

Work and worksite conditions

A two-person crew will make marked cuts in an existing outdoor slab on grade in a closed contractor yard. The example uses a gasoline-powered walk-behind saw with an integrated water supply. A foreperson coordinates the work and the employer's silica competent person checks the exposure-control arrangements. This is a fictional planning scenario, not a record of an actual approved job.

- Ground-level, open-air work on a level slab; no public traffic or work at an unprotected edge.
- The cut location and maximum depth must be released against current drawings, utility information, and any required scanning or isolation. Unknown embedded services or post-tensioning mean the cut does not proceed.
- The planned cutting area can be separated from pedestrians and vehicle movements. The crew has a clear exit route and communication with the yard coordinator.
- Water, slurry collection, first-aid arrangements, a suitable fire extinguisher, and the saw manufacturer's operating instructions are available before setup.
- The scope ends with the cut protected and the area handed over. Breaking out, lifting slabs, excavation, indoor cutting, and handheld saws need a different or expanded analysis.

Planned roles: foreperson / cut-release coordinator; trained saw operator; second worker for boundary and hose support; employer-designated silica competent person. Actual names, emergency contact/location, release records, equipment model, training, inspection results, and approvals must be recorded for the real job.

Task | Hazard | Control

1. Confirm the cut location, depth, and surrounding work.

Hazard: The blade could contact concealed electrical services, pipework, reinforcement, or tensioned components, causing shock, release of energy, or structural damage.

Control: Foreperson obtains the required cut release and verifies the marked limits against the site's investigation and isolation records. Operator follows the released line and depth. Unresolved services or structural uncertainty stop the work.

Check: Foreperson and operator compare the marked area with the current release before the saw is positioned.

2. Set the work boundary and arrange access.

Hazard: A pedestrian or vehicle could enter the cutting area; a worker could trip over water hoses or slip on slurry.

Control: Foreperson agrees the boundary with the yard coordinator, separates traffic, keeps an exit open, and routes hoses outside walking paths. The second worker monitors the boundary from a safe position. Stop if access separation fails.

Check: Walk the access and exit route; confirm the boundary remains effective during nearby deliveries.

3. Inspect and set up the saw.

Hazard: A damaged or incompatible blade, missing guard, unstable machine, or unexpected start could injure the operator or nearby people.

Control: Trained operator follows the model-specific inspection and setup instructions. Verify blade suitability and speed rating, guarding, controls, water connections, and machine condition. Remove defective equipment from service; isolate energy before adjustments.

Check: Operator records the inspection and resolves defects before use; no reaching toward moving parts.

4. Establish and maintain the silica control.

Hazard: Cutting concrete can release respirable crystalline silica into the breathing zone of the operator and nearby workers.

Control: For this outdoor walk-behind saw example, use the integrated system to feed water continuously to the blade and operate and maintain it as instructed. The silica competent person checks implementation. Stop cutting if water delivery fails; resolve the fault before restarting.

Check: Operator confirms delivery at the blade before cutting and watches for loss of flow or unexpected dust; the competent person makes the required inspections.

5. Make the released cuts.

Hazard: Blade contact or ejected fragments can cause severe injury. Noise can damage hearing; prolonged pushing or awkward posture can cause strain. Engine exhaust may enter nearby occupied areas.

Control: Operator uses the designated operating position and follows the saw instructions, keeping people clear of the blade path. Foreperson selects eye/face, hearing, foot, and other protection for assessed exposure; arrange workable pacing and assistance. Keep exhaust away from doors and air intakes; stop for binding, abnormal vibration, encroachment, or loss of control.

Check: Crew confirms the agreed stop signal, communication method despite noise, and protection before starting; changes prompt a pause and review.

6. Stop, adjust, move, or refuel the equipment.

Hazard: Stored motion, accidental starting, a hot engine, or spilled fuel can cause contact injury, burns, or fire.

Control: Operator stops the saw and waits for motion to cease. Use the manufacturer's isolation procedure for servicing or blade changes. Refuel only in the designated location after shutdown and cooling as instructed, with ignition sources controlled and spills addressed.

Check: Verify the machine is in the required safe state before approaching the blade or fuel system; do not improvise repairs.

7. Collect slurry, protect the cut, and hand over.

Hazard: Wet residue can cause slips; dried residue can become airborne dust. An unprotected cut or unfinished opening can endanger the next crew.

Control: Collect slurry while wet using a suitable method and container; protect drains and follow site disposal arrangements. Use wet cleaning or suitable HEPA vacuuming for remaining residue. Leave cut edges and any opening protected, remove hoses, and tell the receiving crew what remains.

Check: Foreperson inspects the area and confirms the handover. No dry sweeping or compressed-air cleanup is included in this method.

Pause and reassess when conditions change

- Water flow stops or dust behavior changes.
- A different saw, blade, cut depth, or method is proposed.
- An unidentified service, unexpected reinforcement, void, or structural condition is found.
- Traffic enters the boundary, footing becomes unsafe, or the job moves indoors.
- A worker cannot maintain control, communication fails, or a required protective measure is unavailable.

Restart follows correction, reassessment, and the site's required authorization. A completed analysis, signature, or risk score alone does not authorize the work.

Silica decision for this example

Under OSHA Table 1, an outdoor walk-behind saw operated with the fully implemented specified wet method does not require respiratory protection for that Table 1 task. Indoor/enclosed work and handheld saws have different requirements. If the specified method is not fully implemented, the employer must

use the applicable alternative exposure-control pathway. Required respirator use must follow the respiratory-protection program. Do not substitute a generic “dust mask” instruction.

References and adaptation

OSHA: Respirable crystalline silica, 29 CFR 1926.1153 (including Table 1)
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.1153>

OSHA: Control of Silica Dust in Construction — Walk-Behind Saws
https://www.osha.gov/sites/default/files/publications/OSHA_FS-3633.pdf

OSHA: Occupational noise exposure, 29 CFR 1926.52
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.52>

OSHA: Hand and power tools, general requirements, 29 CFR 1926.300
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.300>

Use the actual saw manual and site requirements. This original example was informed by review of an older uploaded saw-cutting JHA; it does not reproduce that source or its approval record.