

Concrete Pouring JHA

Completed instructional example | Edition v1.0 | October 6, 2026

Learning and planning resource. Adapt with the people doing the work, verify actual controls and follow required authorization. This document supplies no completed field inspections, signatures or work approval.

Work and worksite

This fictional example follows a crew placing a reinforced slab on grade outdoors at a new building. Ready-mix trucks feed a stationary concrete pump from a controlled delivery lane. Workers guide the discharge hose, distribute the concrete, and consolidate it. Forms and reinforcement have separate installation analyses. Excavations, suspended slabs, post-tensioning, overhead bucket placement, and powered finishing are outside this example. The completed rows explain a planning method; the contractor still establishes the actual pump arrangement, placement limits, equipment procedures, and authority to start.

- Confirm ground bearing conditions and nearby buried services before choosing pump, outrigger, truck, and washout locations. A flat-looking surface is not evidence of adequate support.
- Identify overhead electrical hazards, adjacent work, public access, the crew's escape routes, and where delivery vehicles can wait without obstructing emergency access.
- Use the actual mix safety data sheet, pump instructions, formwork plans, and placement sequence. Identify who can stop deliveries and who communicates with the pump operator.
- Provide clean washing water, suitable cement-resistant clothing and gloves, splash protection, and a workable response to contaminated boots or clothing before concrete arrives.

Actual project records needed: Location, crew and responsible people; equipment models and instructions; permits/releases; emergency arrangements; actual checks and approvals.

Task | Hazard | Control | Verification

Confirm the pour area and supporting arrangements

Hazard: Unexpected form movement, an unprotected opening, or protruding reinforcement can cause crushing, falls, or impalement during placement.

Control: The supervisor compares the actual work area with the placement and formwork plans, confirms required release checks, and resolves missing braces, unsafe access, and impalement protection before calling trucks forward. Where erected shoring is involved, include inspections immediately before, during, and after placement under 1926.703(b)(3).

Verification: Identify the specific pour area, approved sequence, protected access, and unresolved defects; leave the start decision with the responsible project personnel.

Reasoning: A delivery schedule cannot establish structural readiness. Workers need a defined route and a stable system before wet concrete adds load.

Receive and position each delivery truck

Hazard: A reversing mixer can strike a pedestrian or trap a person between the mixer, pump, and fixed objects.

Control: Separate pedestrians from the delivery lane and holding area. Assign a trained observer for the planned reversing movement, agree signals, and stop if communication or visibility is lost. Keep everyone out of the space between approaching equipment. The driver controls the mixer and chute using the manufacturer's procedure.

Verification: Walk the route with the driver and observer; confirm the stopping point and a position where the observer cannot be trapped.

Reasoning: High-visibility clothing helps recognition, but physical separation and controlled movement address the vehicle's path.

Prepare the pump, line, and discharge area

Hazard: Inadequate support, damaged connections, or air and pressure in the delivery system can cause equipment movement or hose whip.

Control: Have the trained pump crew verify setup, pipe supports, connections, guards, and hose configuration against the equipment instructions. Establish the exclusion area for priming and restart. Keep unnecessary personnel clear; the designated signaler coordinates flow. A blockage triggers the operator's shutdown and pressure-release procedure, not opening a charged connection.

Verification: Ask the hose crew to show where they stand during priming and what signal immediately stops the pump.

Reasoning: The discharge system contains stored energy. Normal placement positions may be unsafe during priming or a blockage.

Place and distribute wet concrete

Hazard: The hose can pull workers off balance; wet concrete trapped against skin can cause chemical burns and eye injury.

Control: Use the planned crew and hose-handling method, keep the route clear, and maintain communication as the pour advances. Avoid direct skin contact using suitable waterproof boots, cement-resistant gloves and clothing, and splash eye protection. Stop to remove contaminated clothing and wash exposed skin promptly; follow the SDS and first-aid procedure rather than waiting for pain.

Verification: Confirm clean water is reachable and that concrete cannot readily enter gloves or boots during the planned movements.

Reasoning: Cement burns may develop without immediate discomfort; finishing the truck before washing is not a protective control.

Consolidate concrete and monitor the placement

Hazard: Damaged electrical tools in a wet area, trailing leads, and an advancing pour can expose workers to shock, trips, or unstable formwork.

Control: Use suitable inspected equipment and the site's required electrical protection; route leads away from water and traffic. Follow the planned consolidation method and placement rate. Assign monitoring of forms and supports from a protected position. Stop placement for movement, distress, lost access, or equipment defects and obtain the responsible person's assessment.

Verification: Verify who watches the forms and who can stop the pump without waiting for the next truck to finish.

Reasoning: Monitoring needs an owner and a response. Writing 'watch forms' without a stop action leaves the hazard unresolved.

Shut down, wash out, and hand over the slab

Hazard: Residual pressure, moving mixer parts, cement slurry, and abandoned hoses can injure workers after placement ends.

Control: The equipment operator controls shutdown and cleaning under the manufacturer's procedure. Isolate hazardous energy before maintenance or repair. Use the designated contained washout area, keep bystanders away, and remove slurry and trip hazards without spreading cement contamination. Protect the curing area and hand over remaining restrictions to the finishing crew.

Verification: Confirm the line is safe before disconnection and that the next crew understands access and loading restrictions.

Reasoning: The job ends when stored energy, contamination, and interface hazards are controlled, not when the last concrete leaves the truck.

Pause and reassess

- Pause for a relocated pump, different hose or mix, altered ground support, loss of communication, or an unexpected delivery route.
- Reassess for form movement, new openings, electrical exposure, rising heat stress, lightning, or washing supplies becoming unavailable.
- Add separate analyses if the work changes to elevated concrete, deep footings, bucket placement, or powered finishing.

Correct the condition, revise the analysis, communicate the change and obtain required authorization before restarting.

Improve the control

Needs improvement: Concrete trucks: wear a vest.

More useful: Barricade the delivery lane, assign the reversing observer, and stop truck movement when the observer is not visible.

Needs improvement: Wet concrete: wear gloves.

More useful: Select cement-resistant gloves and boots, prevent concrete entering them, provide nearby washing water, and stop to remove contamination promptly.

Decisions that change the analysis

The pump hose stops discharging. Should the crew loosen a coupling?

No. Stop and use the pump operator's blockage procedure, including controlling stored pressure and exclusion of exposed workers. This walkthrough does not teach blockage clearance.

The form begins moving while another truck is waiting. What takes priority?

Stop placement, clear exposed personnel, and have the responsible project personnel evaluate the formwork. Truck waiting time does not justify continuing.

References and adaptation

OSHA 1926.703 — Cast-in-place concrete and shoring

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.703>

OSHA 1926.702 — Concrete equipment and hazardous energy

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.702>

OSHA — Preventing Skin Problems from Working with Portland Cement

<https://www.osha.gov/sites/default/files/publications/OSHA-3351-portland-cement.pdf>

OSHA 1926.601 — Construction motor vehicles

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.601>

This original walkthrough was informed by review of uploaded examples, then rewritten for the stated fictional scenario using current primary references. It does not reproduce a source document or its approval record.

Walkthrough and draft builder: <https://www.toddjeromejenkins.com/jha-jsa-examples/concrete-pouring-jha>