

Concrete Pump Hopper and Agitator Cleanout JHA

Worked instructional example

Work and worksite

A trained crew will clean permitted pump hopper and agitator areas after a building pour from external protected positions. Before permitted guard or tool access, authorized personnel lock, tag and verify all hazardous energy through the actual pump procedure. Guards are restored before controlled return to service. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- The operator obtains the identified pump's applicable cleaning, isolation and guard-restoration instructions. The delivery line is separately made safe; this example gives no pipeline or accumulator-release sequence.
- Permitted external positions, tools and containment are planned. No hopper or water-box entry or bodily reach into mechanisms is allowed; a grate, interlock or emergency stop is not energy isolation.
- The cleanout link 238110-17 is partial: routine external hopper and agitator cleaning only. Delivery-line water or compressed-air cleanout, blocked-line work, hydraulic repair, entry and removal of hard cured deposits require separate analyses.

Questions before work

- Which exact pump instructions define permitted external cleaning access, tools and the energy-isolation boundaries?
- Who locks, tags and verifies every hazardous energy source before permitted guard or tool access?
- Who verifies guard restoration and personnel clearance before the controlled return to service?

Task Hazard Control

1 Define the permitted cleaning boundary

Hazard: A delivery-line cleanout plan or an assumed empty hopper can be mistaken for authority to access moving concrete valves or an agitator.

Control: Pump operator and cleaning lead identify the exact pump and current routine cleaning instructions. Establish permitted external access and tools, required isolation and washwater capture. Confirm the delivery system's separate safe status and assign authorized isolation and restoration roles. Keep hardened deposits, uncertain line conditions and repairs outside this routine operation.

Verification: Lead verifies model instructions, permitted access and assigned roles.

Reasoning: Defined access prevents cleanup becoming unplanned invasive servicing.

2 Prepare protected external positions

Hazard: Wet concrete contact, an unstable work position or a person beside the pump can cause burns, falls or exposure when cleaning begins.

Control: Crew establishes stable external access, hose routing and a restricted area around the hopper and washwater collection. Provide task-selected eye, skin and footwear protection and accessible washing arrangements. Remove pressure to work from a wheel, frame member or unsupported platform; keep neighboring crews clear and prevent collected washwater entering walking routes or drains.

Verification: Lead checks protected access, containment and the restricted area.

Reasoning: Workers need protection throughout the permitted external cleaning reach.

3 Isolate and verify hazardous energy

Hazard: Unexpected starting, residual hydraulic force or component movement can crush a worker or drive a cleaning tool back toward the operator.

Control: Authorized personnel follow the actual pump-specific procedure to identify, isolate, lock and tag every hazardous energy source and control residual energy and possible movement. Perform the prescribed verification before releasing permitted guard removal or tool access. Do not use the hopper interlock, emergency stop, an idle engine or a single gauge as a substitute for the required verified condition.

Verification: Authorized person reports actual isolation and verification findings before access.

Reasoning: Quiet machinery does not prove that hazardous energy is controlled.

Complete the work and hand over

4 Clean only the permitted external areas

Hazard: Overreaching, unsuitable tools or forced removal of set concrete can put a person into the mechanism, damage components or spray caustic residue.

Control: Crew follows the model's routine cleaning method using its permitted tools and external positions while isolation remains controlled. Capture rinse and residues through the planned receiver. Keep body parts outside the hopper and mechanism; stop if the reach, deposits or obstruction exceed the routine method. Obtain a separate servicing plan rather than leaning in, cycling the agitator or hammering hardened material.

Verification: Lead observes that tools and reach remain within permitted boundaries.

Reasoning: Stubborn deposits do not justify changing access or isolation.

5 Restore guards before releasing the cleaning area

Hazard: A missing grate, retained tool or defeated interlock can leave dangerous access available when the pump is restarted.

Control: After permitted cleaning, account for tools and residues and restore every affected guard and safety device according to the model instructions. Report damage for authorized correction and maintain the out-of-service condition until required findings are resolved. Keep isolation under the authorized person's control; the cleaning crew's completion statement alone does not release a restart.

Verification: Operator verifies guard restoration and unresolved defects before restoration.

Reasoning: Restored guarding protects the next equipment operating stage.

6 Complete the controlled return and handover

Hazard: Premature energy restoration or unclear ownership can expose someone still cleaning or send an unresolved defect to the next operator.

Control: Authorized personnel use the employer's controlled restoration procedure after confirming all affected people are clear, tools removed and required guards restored. Operator performs only the prescribed protected readiness checks. Record cleaning completion, isolation and restoration findings and any held equipment; communicate residual cleanup and maintenance restrictions to the receiving lead without inventing a successful inspection.

Verification: Lead verifies clearance, responsible restoration and recorded equipment disposition.

Reasoning: Cleaning completion alone does not authorize the next use.

Pause and reassess

- The exact permitted cleaning access or pump-specific isolation and verification method cannot be established.
- Residual energy, unexpected movement, damaged guarding or an unresolved isolation condition is found.
- Deposits, reach or defects require entry, bodily access, hard-concrete removal, blockage clearing or repair beyond the routine method.

Improve the controls

Needs improvement: The hopper grate stops the machine; lift it and rinse.

More useful: Authorized personnel isolate, lock, tag and verify all hazardous energy before the permitted guard or tool access hold point.

Needs improvement: Cleaning is done; start the pump.

More useful: Operator verifies guard restoration and defects, then the authorized restoration process confirms personnel clearance and equipment disposition.

Decisions that change the analysis

Can the agitator be jogged to expose a dirty area while a cleaning tool is still present?

No. Maintain the verified isolation and remove the affected work from routine cleaning if the permitted method cannot reach it safely. Obtain the manufacturer's applicable servicing direction and a separate authorized plan. This example never permits cycling a component around a person or tool to finish cleaning and supplies no residual-pressure release recipe.

What must the crew record for actual use?

Record pump and instruction identity, permitted access, tools, delivery-system status and authorized roles. Document actual energy sources, lock/tag verification, guard restoration, personnel clearance, defects and equipment disposition. Identify separately held servicing and receiving operator; this plan supplies no completed inspection record.

Training needs

- Model-specific instruction for permitted external hopper cleaning, guard handling, washwater capture and recognition of work outside routine cleaning.
- Authorized-person instruction on the employer's pump-specific energy-isolation, verification and controlled restoration procedure, including residual hydraulic and mechanical hazards.

Confirm applicable qualifications and actual training evidence for the people assigned. Related toolbox talks support discussion; they do not establish competence.

References and adaptation

OSHA 1926.702 Concrete construction equipment and lockout/tagout
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.702>

Schwing Boom Pump Safety: hopper and protective-device planning
<https://schwing.com/technology/boom-pump-safety.html>

OSHA 1926.300 General tool and equipment guarding requirements
<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.300>

References reviewed October 9, 2026. Use actual equipment and product instructions, project design and site requirements. This original draft supplies no fabricated inspection, signature or approval.