

Hot Weather Concrete Acceptance and Evaporation Control JHA

Worked instructional example

Work and worksite

A building concrete crew will coordinate hot-weather delivery acceptance and early surface evaporation protection for one outdoor slab placement. Assigned testing personnel use the actual specification; protection responsibility passes to separate finishing and curing leads. This operation does not teach a complete pour. This fictional learning example describes planned controls; it records no actual inspection or work authorization.

- The actual mix specification, delivery plan and acceptance authority are identified. Assigned personnel use the required temperature-testing and disposition method; no universal rejection temperature or unapproved mix additions are permitted.
- Temperature, humidity, wind and solar exposure inform the actual environmental plan. Worker heat precautions, delivery capacity, emergency communication and early protection resources are coordinated before dispatch.
- The link to hot-weather concrete work 238110-26 is partial: readiness, delivery acceptance and early evaporation control only. Full placement, powered or hand finishing, final curing, specialized cooling equipment and diagnosis or repair of hardened defects require separate analyses.

Questions before work

- Who applies the project's concrete acceptance criteria, and how is a disputed delivery held and resolved?
- Which changing conditions trigger an adjustment or pause, and what early surface protection is actually available?
- Who maintains worker heat precautions and transfers surface-protection responsibility to the finishing and curing leads?

Task Hazard Control

1 Agree the environmental readiness and acceptance plan

Hazard: Uncoordinated deliveries or missing acceptance criteria can commit the crew to rapidly changing concrete conditions without adequate protection or placement capacity.

Control: Placement lead reviews the forecast, current site exposure, mix requirements and delivery sequence with the supplier, testing personnel and finishing lead. Assign acceptance and escalation roles, agree the project's environmental triggers and identify when work must be held. Confirm that the actual plan can be supported before calling loads.

Verification: Lead verifies current criteria, assigned roles and supplier communication.

Reasoning: Predispatch agreement gives disputed deliveries an accountable decision path.

2 Make the protection resources ready

Hazard: Missing shade, wind protection, accessible water or protected work positions can leave plastic concrete and workers exposed when the delivery arrives.

Control: Crew stages the selected windbreaks, shading, fogging or approved evaporation-control materials according to the actual method and site layout. Protect walking routes, electrical equipment and adjacent work from introduced moisture or obstructions. Lead separately confirms heat-plan resources, rest arrangements and emergency communication without treating concrete cooling as worker protection.

Verification: Lead checks safe deployment of protection and worker heat resources.

Reasoning: Protection must be available and safe when exposure begins.

3 Evaluate each delivery through the assigned acceptance route

Hazard: A hot or otherwise nonconforming load, unsafe sampling position or unauthorized addition can create exposure and conceal concrete that does not meet the project specification.

Control: Assigned testing personnel obtain the required delivery information and perform the specified measurements from the planned safe position, coordinated with the truck operator. Record results and send questionable loads to the designated acceptance authority. Keep an unresolved delivery held; only authorized personnel may direct documented changes under the applicable mix and project requirements.

Verification: Acceptance authority verifies required results before releasing the identified load.

Reasoning: Actual specification evidence governs acceptance of each delivery.

Complete the work and hand over

4 Protect the early plastic surface

Hazard: Rapid surface moisture loss or misplaced spray can contribute to cracking, obscure footing or interfere with finishing and neighboring tasks.

Control: Assigned crew applies the chosen early evaporation protection at the stage and locations established by the actual placement and finishing method. Maintain observation of the exposed surface and boundaries. Keep fogging or product application controlled; do not add water to the surface as an improvised finishing aid or assume an evaporation retarder substitutes for the specified final curing.

Verification: Finishing lead verifies coverage, timing and safe access against the method.

Reasoning: Early evaporation control must remain compatible with later curing.

5 Respond when conditions outpace the plan

Hazard: Increasing wind, changing delivery pace or heat symptoms can undermine a previously workable plan while production pressure discourages a pause.

Control: Lead reassesses the agreed indicators and crew capacity as conditions change. Adjust only within the authorized method; hold new deliveries or pause affected work when protection or acceptance cannot be maintained. Use the employer's heat-response arrangements for reported symptoms and obtain responsible technical direction for concrete outside the accepted plan.

Verification: Lead records the changed condition, decision and resumption requirements.

Reasoning: An early pause limits further commitment to unprotected work.

6 Transfer protection and actual findings

Hazard: An undocumented handover can leave newly finished concrete unprotected or cause the next crew to mistake early evaporation controls for completed curing.

Control: Record delivery dispositions, relevant environmental observations, protection actions and unresolved areas. Placement and finishing leads transfer responsibility for the next stage to the identified curing lead, with the actual specified method and start requirements. Restore routes safely and communicate any held loads, quality concerns or worker-heat actions that still affect the work.

Verification: Receiving lead confirms each remaining protection action and open issue.

Reasoning: Clear ownership prevents a protection gap between operations.

Pause and reassess

- The actual acceptance criteria, assigned testing personnel or authorized disposition route are unavailable or inconsistent.
- Wind, exposure, delivery pace or surface behavior exceeds the plan's available protection or placement capacity.
- Heat precautions, safe sampling access, emergency communication or protection resources are lost.

Improve the controls

Needs improvement: It is summer; just add more water.

More useful: Testing personnel document the delivery results and the designated authority decides disposition or any permitted adjustment under the actual specification.

Needs improvement: Spraying the surface means curing is done.

More useful: Finishing lead verifies the chosen early evaporation protection and hands over the separate final curing responsibility and requirements.

Decisions that change the analysis

Can an accepted delivery be placed if the early protection plan is unavailable?

Acceptance of that load does not establish readiness of the work area. The placement lead must also confirm that exposure, crew capacity and required protection can be managed under the actual plan. Hold further commitment and obtain the appropriate decision if those conditions cannot be maintained; do not replace the missing method with uncontrolled surface water.

What must the crew record for actual use?

Record area, mix and specification revisions, acceptance roles, required delivery results and dispositions, relevant environmental observations, protection method and trigger decisions. Identify heat responsibilities, receiving finishing and curing leads, held loads and unresolved concerns; enter actual findings rather than copying favorable results.

Training needs

- Instruction on the actual temperature-testing and delivery-disposition procedure, including sampling responsibility, instrument readiness and limits on authorized mix adjustments.
- Task instruction on the chosen evaporation controls and heat plan, including recognizing loss of protection, maintaining safe access and reporting heat symptoms promptly.

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

References and adaptation

NRMCA CIP 12 Hot Weather Concreting

<https://www.nrmca.org/wp-content/uploads/2021/01/12pr.pdf>

OSHA Heat exposure planning resources

<https://www.osha.gov/heat-exposure>

OSHA 1926.701 General concrete construction requirements

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.701>

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.