

Line of Fire: Swing Radius & Suspended Loads

Todd Jerome Jenkins | v1.0 | October 6, 2026 | Construction crane and hoisting operations

Why this matters

A crane can trap someone behind its rotating upper structure or place a load above a person. The danger moves with the equipment and the load. A painted line from yesterday may no longer protect today's route.

Objective: Identify the danger areas, verify separation and communication, and know the stop signal.

Key hazards or failure points

Blind areas behind the crane; people crossing the load route; changing swing or landing areas; lost signals; and nearby crews entering without coordination.

Practical controls

- Review the lift route, swing area and landing location with the people directing the operation. Plan movement to minimize people's exposure. Keep people out from under suspended loads.
- Put the required boundaries and access arrangements in place. Follow the applicable lift plan and crane requirements for any necessary work near a load. A hard hat does not make the fall zone safe.
- Confirm the operator, signal person and affected crews understand the communication method. Everyone must know how to call a stop. Do not enter an operator's blind area without the required coordination.

Verify It in the Field

- From outside danger areas, walk the planned route and inspect each entrance, crossing and landing point. Compare actual boundaries with the plan; identify gaps and competing traffic.
- Have the designated people confirm the agreed signals or radio channel before movement. Use the approved safe communication check; do not swing a crane toward someone as a test.
- Ask the operator and signal person what happens if communication is lost. Confirm a safe stopping process and how they will establish that people are clear before resuming.

Stop and reassess

Stop for a person entering danger, an obscured view, lost communication, a changed route or a displaced boundary. Use the agreed stop process; stay clear while the operator makes the operation safe. Resolve the change, verify separation and communication, obtain required authorization and rebrief before movement resumes.

Ask the crew

- Where could the crane or load reach someone during the next movement?
- Which entrance or crossing is most likely to defeat our separation?
- How will we stop the movement, and who confirms it is safe to resume?

The boundary must match the movement—not just the drawing.

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 1926.1424, 1926.1425 and 1926.1419. Expanded explanation and references accompany the web version.