

OpsPilot

JSA Module — User Manual

Job Safety Analysis · AI Engineering Co-Pilot



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What this guide covers — what a JSA is (and how it differs from an SWI), how the OpsPilot JSA module works, what to have ready, and the field-ready document you receive.

1. What is a Job Safety Analysis?

A Job Safety Analysis (JSA) breaks a task into its steps, identifies the hazards at each step, and assigns controls — working down the hierarchy of controls rather than reaching straight for PPE. It is the hazard-analysis document that sits behind a job.

It is the companion to an SWI: the **SWI** tells the worker **HOW** to do the task; the **JSA** analyses what could hurt them at each step and how that risk is controlled. The SWI references the JSA.

2. What the OpsPilot JSA module does

Role	Responsibility
AI JSA Coach (OpsPilot)	Guides task breakdown, hazard identification across 14 energy and hazard categories, risk assessment, the hierarchy of controls, SIMOPS review, Life-Saving Rules and fatal-risk mapping, critical-control identification, human-performance and error-trap review, and emergency planning. It will not let the JSA sign off on shallow entries, PPE-first controls, or unaddressed high-energy hazards.
Task Expert (you)	Know how the job is actually done in the field — not just how the procedure describes it. That ground truth is what makes the JSA real and usable.

3. How it works — the 13-stage process

#	Stage
1	Job overview — task, location, people, scope
2	Documents, permits and requirements
3	Risk matrix selection — company matrix or standard 5×5
4	Task step breakdown — one action per step
5	Hazard identification — 14 energy and hazard categories

#	Stage
6	SIMOPS review — all concurrent activities
7	Life-Saving Rules / fatal-risk mapping
8	Critical control identification
9	Human performance and error traps
10–13	Emergency planning, residual-risk rating, approval, and document generation

4. What you will be asked — have this ready

- The task, location, the people involved and the scope.
- The documents and permits the job needs, and which risk matrix to use.
- How the job is genuinely performed, step by step — including the shortcuts people actually take.
- Any concurrent activities nearby (SIMOPS) that could interact with the task.

Tip — describe the real job, not the idealised one. The hazard you don't mention is the one that isn't controlled.

5. What you receive — the output

A complete, field-ready Job Safety Analysis (Word) with the task breakdown, hazard register, controls (down the hierarchy), SIMOPS review, critical controls, human-performance review and emergency plan, plus residual-risk rating and sign-off.

6. Worked example (illustrative)

Replacing a valve at height. Step “remove the old valve” carries a gravity hazard (dropped tools / dropped valve) and a stored-pressure hazard. PPE-first thinking says “wear a hard hat” — OpsPilot challenges that and pushes up the hierarchy: confirm isolation and depressurisation (engineering), establish an exclusion zone below (administrative), tether tools (engineering), and only then PPE. The dropped-object risk maps to a Life-Saving Rule, so a tool-tethering control is flagged critical. That is the difference between a JSA that controls the fatal risk and one that just lists PPE.

7. Getting the best result

- **One action per step.** Granular steps surface hazards that lumped-together steps hide.
- **Climb the hierarchy.** Eliminate or engineer the hazard out before defaulting to PPE.
- **Map the fatal risks.** High-energy hazards need a named critical control, not a general note.
- **Don't skip SIMOPS.** The hazard from the crew working above you isn't in your task — but it can still kill you.