SHIELDSPHERE

AI Job Hazard Analysis

a task, broken into steps, hazards and controls

How to turn a short task clip or a written description into a formal JHA - ordered steps, the hazards at each one, and the controls worked through the hierarchy of controls.

USER GUIDE – FOR EVERYDAY USERS | VERSION 1.0 | SCREENS CAPTURED JULY 2026

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ShieldSphere's AI Job Hazard Analysis breaks a task into the steps a worker actually performs, names the hazard at each step, and prescribes the control that removes it. Give it a short video of the job or a written description, and it returns ordered steps, risk-rated hazards, controls labelled by the hierarchy of controls, and the required PPE - drafted in minutes rather than an afternoon.

1 What Job Hazard Analysis does

A Job Hazard Analysis breaks a task into the steps a worker actually performs, names the hazard at each step, and prescribes the control that removes it - the document safety professionals build by hand in an afternoon, drafted here in minutes.

You give it a task two ways - a short video clip of the job being done, or a written description - and it returns:

1. **Ordered steps** - the task as a sequence, in the order it happens.
2. **Hazards at each step** - each with a risk level and a plain-language explanation.
3. **Controls** - the fix for each hazard, labelled by where it sits in the **hierarchy of controls**.
4. **Required PPE** - pulled together from the controls, including gear needed only for specific steps.

THE HIERARCHY OF CONTROLS

Not all fixes are equal. The strongest is to **eliminate** the hazard, then **substitute** something safer, then **engineering** controls (guards, interlocks), then **administrative** controls (procedures, training), and only last, **PPE**. The JHA tags every control with its level so you can see whether you are truly fixing the hazard or just asking people to wear gloves around it.

START FROM A HAZARD SCAN

If a task came out of the **AI Hazard Scanner**, use *Create JHA from this scan* there - it lands here with the description already filled in from the scan's findings. See the AI Hazard Scanner User Guide.

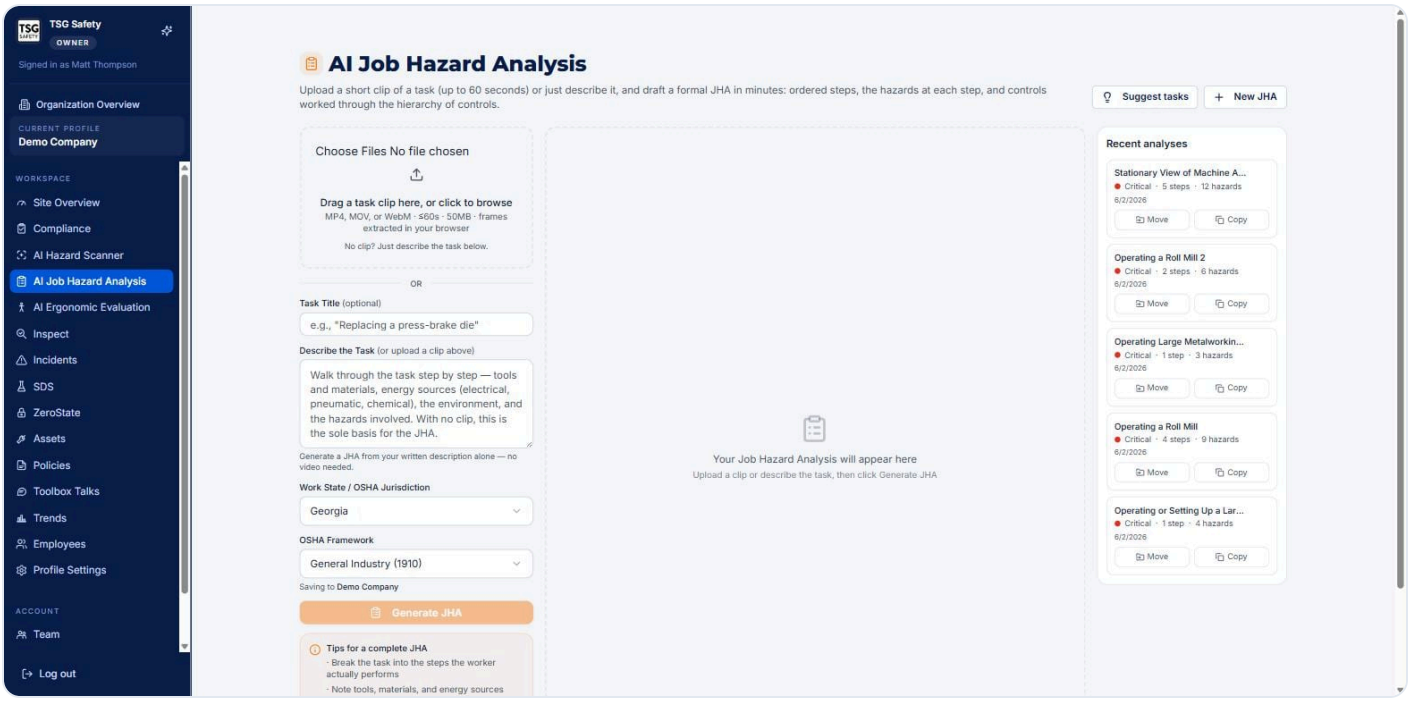
2 Words you'll see

TERM	WHAT IT MEANS
Task	The job being analysed - "Operating a roll mill", "Replacing a press-brake die".
Step	One stage of the task, in the order the worker performs it.
Hazard	A way the step could hurt someone, with a risk level (Critical / High / Medium / Low).
Control	The measure that removes or reduces the hazard, tagged by its level in the hierarchy.
Hierarchy of controls	Elimination → Substitution → Engineering → Administrative → PPE, strongest first.
Required PPE	The personal protective equipment the controls call for, gathered into one checklist.
Draft / Final	A JHA you are still editing, versus one you have reviewed and marked final.
Employee handout	A worker-facing version of the JHA, optionally with the controls included.

3 Generate a JHA

Two routes in - a clip or a description - and the same formal analysis out.

`AI Job Hazard Analysis → New JHA`



The JHA screen. Upload or describe on the left, the analysis appears in the middle, and your **Recent analyses** sit on the right, each labelled with its risk, step count and hazard count.

1 Give it the task

Either **drag a task clip** onto the upload box - MP4, MOV or WebM, up to sixty seconds and 50 MB, with frames pulled in your browser - or skip the clip and **describe the task** in the text box. A written description on its own is enough to generate a full JHA; a clip just adds the detail a camera catches that words miss.

2 Set the jurisdiction

Choose the **Work State** and **OSHA Framework** - General Industry (1910), Construction (1926), and so on - so the controls are written against the rules that apply. The JHA saves to the site named under the framework.

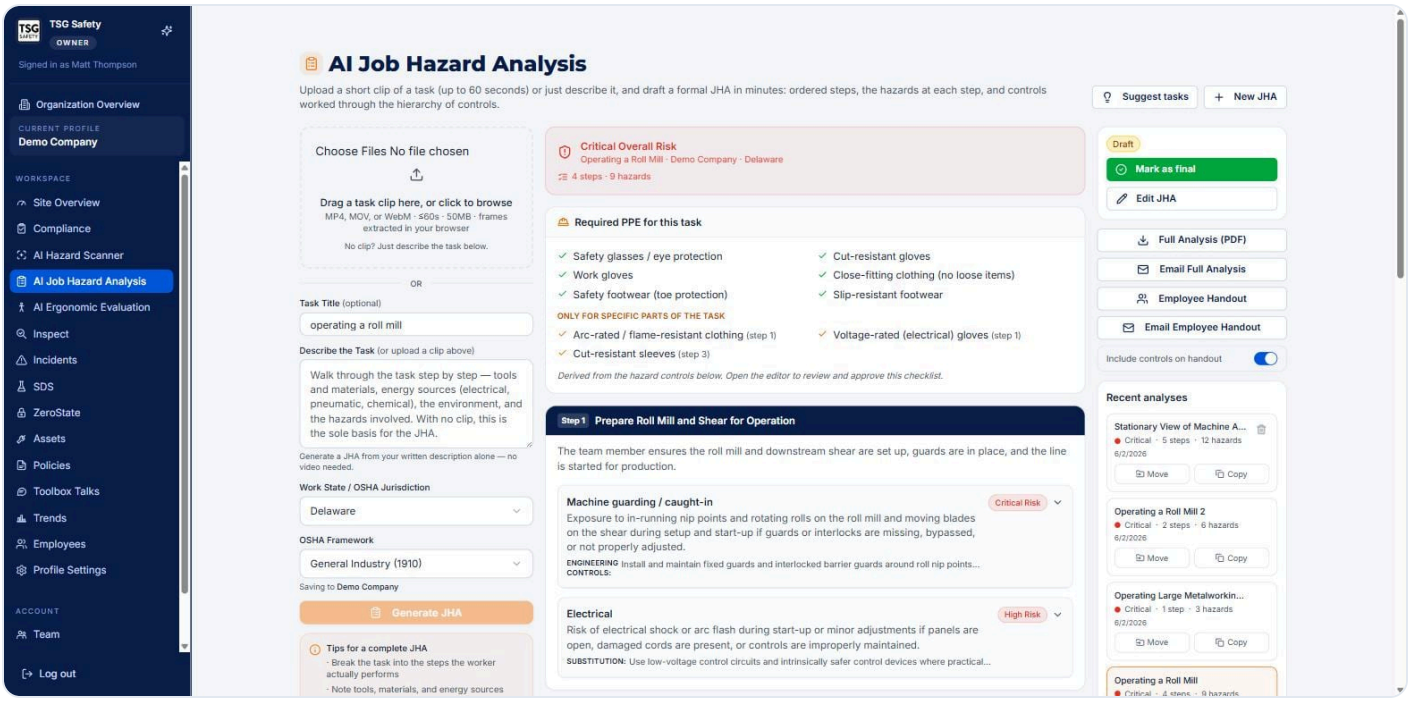
> **TIPS FOR A COMPLETE JHA**
>
> Break the task into the steps the worker actually performs. Note tools, materials and energy sources - electrical, pneumatic, chemical. Mention anything off-camera the clip will not show. For a clip, hold it steady and keep it under sixty seconds while the task is performed.

3 Click Generate JHA

In a few seconds the analysis appears in the center and saves as a **Draft** in Recent analyses. From here you review it - the AI drafts, you decide what is right for your floor.

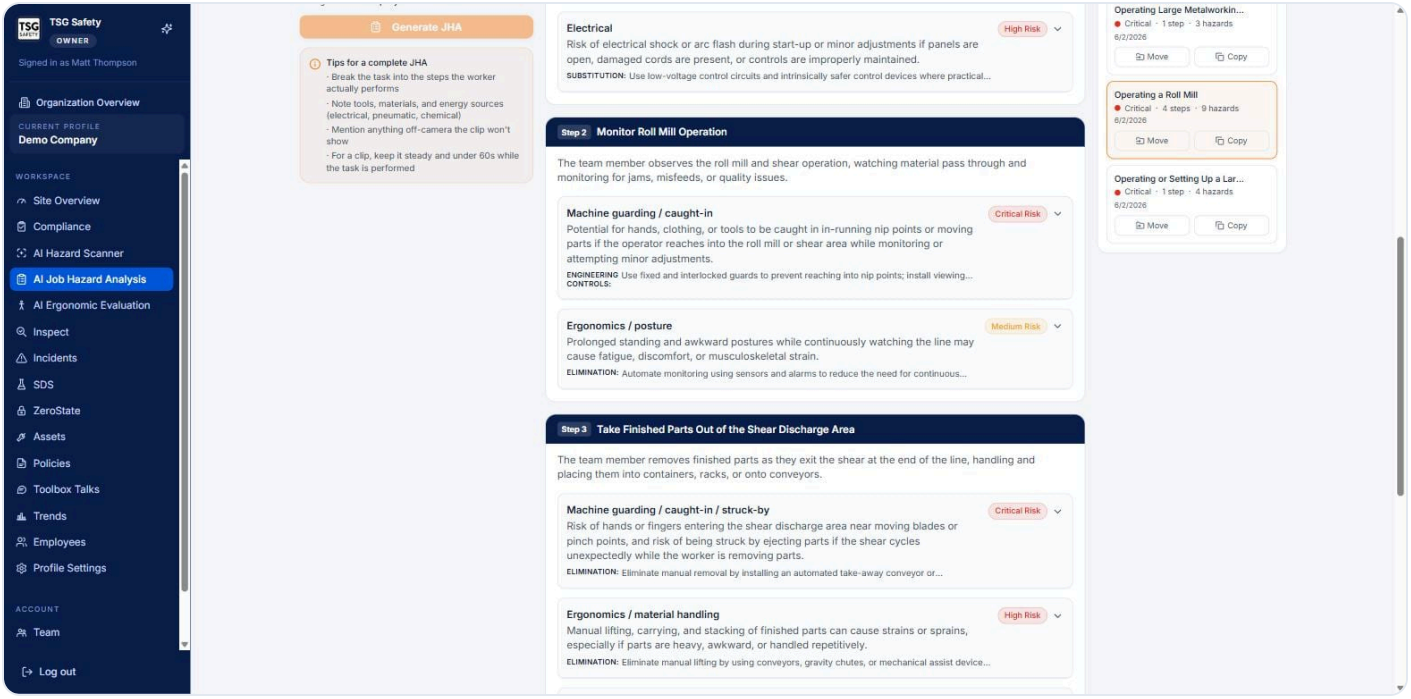
4 Read the analysis

Top to bottom: how bad, what to wear, and then the task itself - step by step, hazard by hazard, control by control.



> **The analysis, top.** A **Critical Overall Risk** banner with the step and hazard count, then the **Required PPE** block - note the items flagged for specific steps only.

Each step is a titled band, followed by its hazards. Every hazard carries a **risk badge**, a description of how it could hurt someone, and one or more **controls** - each tagged with its level in the hierarchy, so you can read at a glance whether the fix eliminates the hazard or merely manages it.



> **Steps, hazards, controls.** The tags - `ELIMINATION`, `SUBSTITUTION`, `ENGINEERING CONTROLS` - are the whole point: they push the fix up the hierarchy, away from "wear PPE and be careful".

5 Finalize and share

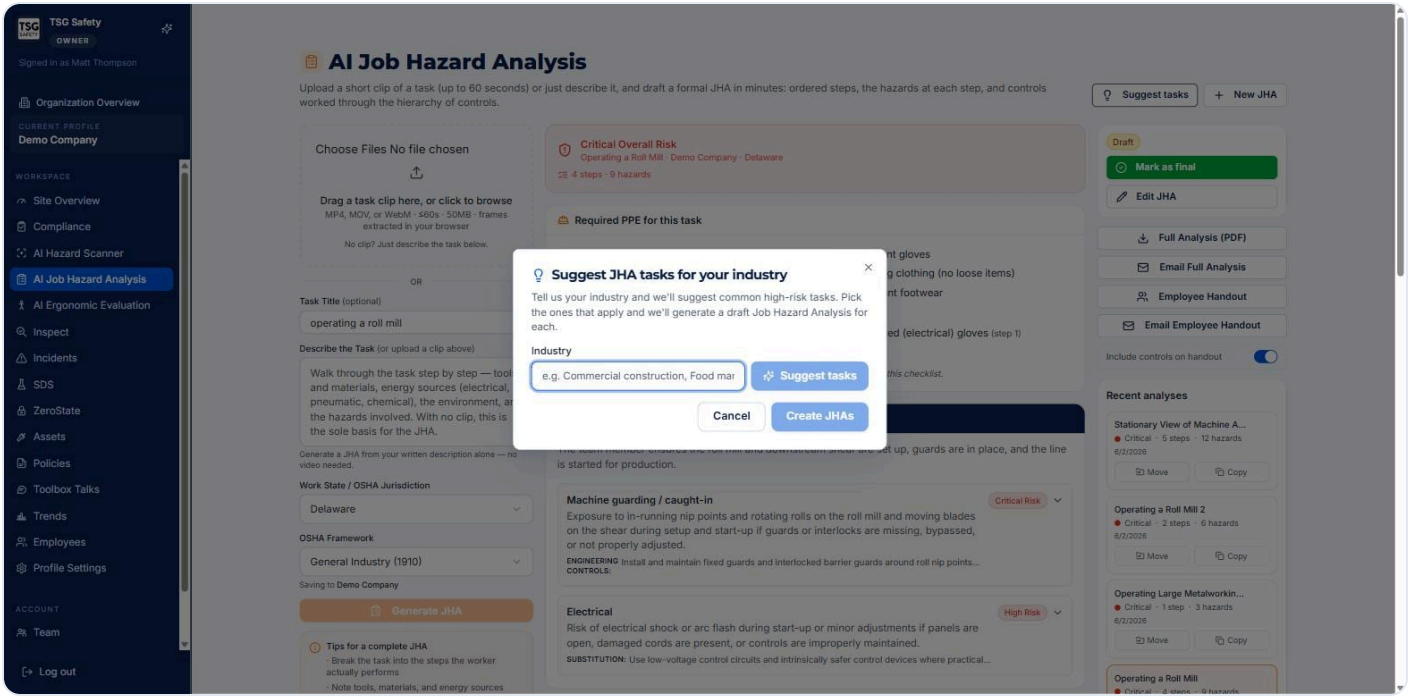
The panel on the right of any analysis is where a draft becomes a working document:

CONTROL	WHAT IT DOES
Edit JHA	Adjust steps, hazards and controls before you commit - the AI's draft is a starting point, not the last word.
Mark as final	Locks the analysis as your reviewed, approved version. The badge flips from *Draft* to final.
Full Analysis (PDF)	The complete JHA - steps, hazards, controls and PPE - as a document for the file or the client.
Email Full Analysis	Sends that full version straight from the app.
Employee Handout	A worker-facing version for the crew doing the job. The **Include controls on handout** toggle decides whether they see the controls too.
Email Employee Handout	Sends the handout to the people who need it.

> **REVIEW BEFORE YOU MARK FINAL**
>
> A JHA is a document people will work to. Read every step against how the job is really done on your floor, edit anything the AI over- or under-called, and only then mark it final.

6 Suggested tasks for your industry

Not sure which tasks to analyse first? Click **Suggest tasks** at the top right, tell it your industry, and it proposes the common high-risk jobs for that kind of work. Pick the ones that apply and it drafts a JHA for each in one go.



Suggest JHA tasks. A fast way to stand up a library of analyses for a new site, rather than starting from a blank page every time.

7 Troubleshooting

SYMPTOM	CAUSE AND FIX
Generate JHA does nothing	There is no clip and no description. Add one - a written description alone is enough.
My clip will not upload	It is over sixty seconds or 50 MB, or an unsupported format. Use MP4, MOV or WebM, shorter and steadier.
The steps do not match how we do the job	Use **Edit JHA** to reorder, add or remove steps before marking it final. The draft is a starting point.
The controls are all PPE	That usually means the description was thin. Add detail about the equipment and energy sources so the AI can propose engineering and elimination controls.
Workers should not see the controls	Turn off **Include controls on handout** before sending the employee handout.
I want it saved to a different site	Check the site named under the OSHA Framework, or use **Move** on the analysis in Recent analyses.