



Suhas Bhairav

AI Facility Safety Incident Report Review Guide

**Harness AI to extract root hazards from injury
reports and rapid fixes**

A practical, phased guide to using AI to surface root
hazard patterns and drive OSHA-aligned safety fixes.

Suhas Bhairav

suhasbhairav.com

Scope and Goals

The objective is to use AI to surface root hazard patterns from warehouse injury narratives. Define automated actions, required human review, and the data/tools needed.

Key move Pilot in a controlled set of facilities first.

PRACTICAL CHECKLIST

- 01** Automate: extract injury text, standardize fields, and assign initial hazard tags.
- 02** Human-review: validate clusters, confirm root causes, and approve corrective ideas.
- 03** Data: injury narratives, dates, locations, job roles, body parts, and actions taken.
- 04** Tools: secure NLP platform, data lake access, and audit-friendly prompts.
- 05** Governance: assign a workflow owner, risk assessment, and change control.
- 06** Adoption: start with a 4-week pilot and weekly milestones.

Suhas Bhairav AI Resource

A practical, phased guide to using AI to surface root hazard patterns and drive OSHA-aligned safety fixes.

Automation Plan

Outline automation scope and human-review touchpoints for injury-description analysis. Specify data sources, required tools, and governance to ensure safe deployment.

Key move Avoid exposing sensitive content; use de-identified outputs.

PRACTICAL CHECKLIST

- 01** Automate: extract narratives, normalize fields, and tag initial hazard categories.
- 02** Human-review: confirm root causes, adjust taxonomies, and approve fixes.
- 03** Data: collect narratives, dates, site, shifts, equipment, and corrective actions.
- 04** Tools: secure NLP workspace, de-identification, versioning, and audit trails.
- 05** Security: ensure data access controls, encryption, and regular backups.
- 06** Measurement: track precision, recall of hazard tagging, and time-to-fix.
- 07** Adoption steps: run a weekly experiment with a controlled dataset.

Suhas Bhairav AI Resource

A practical, phased guide to using AI to surface root hazard patterns and drive OSHA-aligned safety fixes.

Adoption Plan

Provide a staged, 4–6 week adoption plan with guardrails and approvals. Define workflow ownership, success metrics, and decision rights for all steps.

Key move Document approvals, owners, and expected date of rollout.

PRACTICAL CHECKLIST

- 01** Week 1: ingest historical reports; establish de-identified baseline and privacy controls.
- 02** Week 2: run extraction and tagging on sample data; validate with safety team.
- 03** Week 3: calibrate prompts, align taxonomy with OSHA guidance.
- 04** Week 4: pilot fixes in one facility; monitor outcomes.
- 05** Week 5: expand to additional sites; adjust governance as needed.
- 06** Week 6: formalize ownership, reporting cadence, and approvals.
- 07** Guardrails and risks: privacy, bias, data drift; escalation paths.

Suhas Bhairav AI Resource

A practical, phased guide to using AI to surface root hazard patterns and drive OSHA-aligned safety fixes.

ABOUT THE CREATOR

Suhas Bhairav

I build AI systems that combine distributed architecture, retrieval, knowledge graphs, security, and practical workflow design. My focus is AI that can be used repeatedly by real teams: understandable, reliable, and grounded in the work people already do.

EXPERTISE

- Principal systems architecture and applied AI engineering
- Production-grade AI systems, agentic workflows, RAG, and knowledge graphs
- Full-stack workflow applications across AWS, Google Cloud, Azure, on-premise, and hybrid environments
- Practical AI implementation patterns for automotive, manufacturing, finance, logistics, cybersecurity, sales, and customer operations
- Security, governance, observability, approvals, and failure-mode thinking for operational AI systems

WEBSITE

suhasbhairav.com

EMAIL

suhasbhairav@gmail.com