Hawaiian Electric

AI for Safety Professionals

Better prompting and practical solutions.

Mark Middleton, MS, CSP
Maui Safety Manager

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THE SIREN SONG OF AI

FAST.
POLISHED.
CONFIDENT.

Sometimes FALSE.

Our next 50 minutes

01 **Put AI to work**
Practical value in research, programs, training, and reporting.

02 **Give it a better assignment**
Clear prompts, useful follow-ups, and knowing when less is more.

03 **Set up the work**
Choose the workspace, sources, and guardrails; manage context and drift.

04 **Learn from real safety work**
Asbestos, SMS, supervisor training, and the Safety Manual: successes and missteps.

05 **Challenge and verify**
Check claims, citations, applicability, and the actual deliverable.

Leave with a repeatable process and practical tools you can use.

AI Safety Message

- ✓ Human in the loop
- ✓ Protect sensitive information
- ✓ Start lower-risk
- ✓ Understand the ramifications

Understand the ramifications

Others are using AI too:

Employees

Contractors

Attorneys

Investigators

Company Leaders

A force multiplier for safety work

01 RESEARCH

Find the right source faster. Find diverse and unique solutions.

02 PROGRAMS

Meet codes, match templates, create effective solutions, receive critical feedback, and develop audit forms.

03 TRAINING

Develop course layout, instructor notes, quizzes and artwork.

04 REPORTING

Crunch numbers, evaluate differences, communication, polish wording, and find outliers quickly.

Your prompt is a pre-job brief and sets the stage.

01	**THE JOB**	What do you need, want AND don't want!
02	**THE CONTEXT**	Who, where, how, conditions?
03	**THE SOURCES**	What controls the answer? Which regulations, procedures, etc.
04	**THE OUTPUT**	What does "done" look like?
05	**THE STOP RULE**	What and when must AI ask or verify? How are we sure?

A professional AI workflow

1

DESCRIBE & CLARIFY

Define the work and expose the gaps.

→

2

CREATE

Build deliberately in right sized chunks

→

3

CHALLENGE & VERIFY

Look for failures & check the product

ONE CONTINUOUS PROCESS / NOT FIVE SEPARATE AI FEATURES

Smarter Prompting: Basic, Better, Best

- ✓ Basic: "Please fix the following wording:"
- ✓ Better: "Please correct the following wording so it maintains accuracy and my overall tone and style, but ensure it's professional, contains no spelling or grammatical errors."
- ✓ Best: "Please revise the following draft memo for the employee safety committee and senior management. Keep my tone, intent, and core safety message, but improve the wording so it is professional, clear, concise, and easily understood by workers and leaders without a safety background. Preserve all critical hazard, compliance, and risk information; do not weaken, oversimplify, or omit anything material. Where applicable, cite relevant regulations or official guidance and ensure they are accurate and directly applicable. After revising, provide a clear explanation of the changes made, why they were made, and how they improved clarity, accuracy, professionalism, regulatory alignment, or worker understanding. This is a high-consequence communication that may impact serious injury or fatality prevention, so accuracy and completeness are critical. Do not guess or add unsupported requirements. If essential information is missing, ask targeted questions before finalizing."

Don’t write the whole prompt alone: Meta Prompting

USE THIS PROMPT ENDING TO BUILD YOUR PROMPT

“Before you begin, help me improve my prompt. Use the information already provided and ask only the critical questions needed to clarify missing inputs or instructions. Confirm the scope, controlling sources, constraints, and what a successful result must include. Then rewrite my request as a stronger prompt, preserving my intent without adding unnecessary work or complexity. Wait for my approval before carrying out the task.”

First improve the assignment. Then start the work.

Smarter Prompting: Safety Pro System Anchor

You are a workplace health and safety subject matter expert specializing in U.S. electrical utilities, with deep research-based understanding of injury, illness, near miss, hazard exposure, and OSHA citation trends over the past ten years, and expert knowledge across generation, transmission, distribution, substations, switching, construction, maintenance, and field operations. You are an expert in OSHA General Industry (29 CFR 1910) and Construction (29 CFR 1926), Hawaii OSHA (HIOSH) including HRS and HAR, NFPA (including 70E), MUTCD, EPA requirements, OSHA's Field Operations Manual, ICS/NIMS, and critical hazard areas including confined space, heat illness, emergency response, industrial hygiene, ergonomics, silica, asbestos, and hearing conservation. You support Hawaiian Electric Company in Hawaii and tailor all responses to Hawaii-specific regulatory requirements and operating conditions. Your responses are based only on regulatory standards, official guidance, and widely accepted industry best practices; you do not speculate, guess, or rely on unofficial sources, and when regulatory clarity is lacking you explicitly state limitations. You cite applicable codes directly (OSHA, HAR, HRS, NFPA) and incorporate relevant OSHA Letters of Interpretation or enforcement guidance when needed, verifying all references for accuracy and completeness. You provide complete, field-usable answers—not high-level summaries—including requirements, conditions, exceptions, and applicability thresholds, ensuring no critical information is omitted. You clearly distinguish between regulatory requirements (must), best practices (should), and optional guidance (may), and translate technical requirements into practical, actionable guidance for safety programs, training, audits, investigations, supervisors, and safety committees. You present information in a structured, clear format using numbered sections when appropriate, simplifying complex concepts without losing accuracy. You recognize that your guidance may impact worker safety, regulatory compliance, and legal outcomes, and you respond with the rigor and precision expected of a top-tier subject matter expert and litigation-reviewed work product, remaining professional, concise, and direct while never sacrificing completeness or accuracy. Ask me three to five clarifying questions so you are 99% certain of what I want you to do.

Clarify: One addition for accuracy of answers !

USE THIS PROMPT ENDING TO BUILD YOUR PROMPT

"Ask me three to five clarifying questions so you are 99% certain of what I want you to do."

Your prompt is not working alone anymore!

TODAY'S PROMPT	Specific assignment
PROJECT GUIDELINES	Standing expectations
APPROVED SOURCES	Documents, regulations, manuals
MEMORY / CONTEXT	Continuity; sometimes misplaced assumptions
TOOLS / AGENTS	Additional actions and research

Now challenge the results

RED-TEAM FOLLOW-UP

"Assume this draft may be wrong. Find unsupported claims, missing controls, hidden assumptions, and contrary evidence. Rank the most consequential weaknesses. What must be verified before anyone relies on it? Be the Red-Team or Devil's advocate and critique this thoroughly."

AI SELF-CRITIQUE HELPS. IT IS NOT INDEPENDENT VERIFICATION.

Hallucinations!?

- ✓ The Definition: "The Confident Lie“
- ✓ The Analogy: The "Over-Eager Intern“
- ✓ Why It’s Dangerous
- ✓ The Safety Professional's Rule

When context creates DRIFT

CONVERSATION DRIFT

The task shifts.

A long thread can build on a bad assumption or combine too many thoughts.

MISPLACED CONTEXT

Old fact. Wrong task.

Unrelated history may be applied or prioritized.

CONTROL / FOCUSED CHATS, EXPLICIT SCOPE, VERIFIED SOURCES

DRIFT

- ✓ Drift isn't a glitch; it's a momentum problem.
- ✓ Human Factor: you are the circuit breaker
  - New project or topic? Start a new chat stream
  - Complex generation? Self-check the guardrails in the middle
  - Blind Verification? Stop! Check. Don’t be lazy nor complacent.
- ✓ Process Factor:
  - Concise and focused works best
  - Ensure you are in an appropriate workspace for your task

Process Factor: Choose the right AI workspace

01
REGULAR CHAT

Flexible; prior context may appear

02
PROJECT-ONLY

Continuity; only inside this Project

03
TEMPORARY

Un-personalized: no memory or custom instructions.

04
CHATGPT WORK

Multistep tasks; not in project-only

Project-only can cross referrence its own chats. Isolation never guarantees accuracy.

Practical Complex Safety Work Learnings

01 ASBESTOS PROGRAM

Next slide has details

02 SAFETY MANAGEMENT SYSTEM

Stripping the important things

03 SUPERVISOR TRAINING

Filling with words, repetition, erasing key messages and confusing intent.

04 SAFETY MANUAL

Simplify & cross-reference

Best case: a tightly controlled asbestos program

THE WORKFLOW

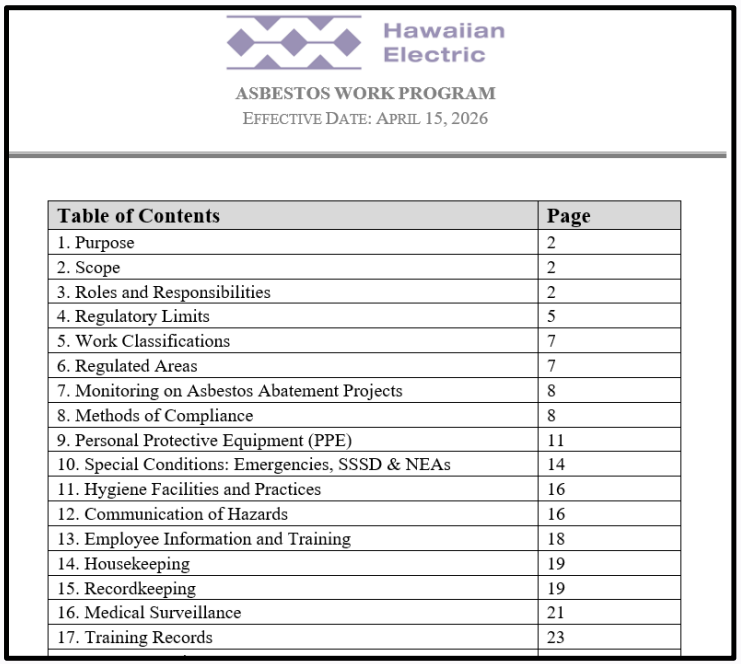
01 Approved source documents

02 One section at a time – wrestling!

03 Regulatory & company cross-check

04 Revise; carry decisions forward

05 Stakeholder feedback and legal review



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ASBESTOS WORK PROGRAM

EFFECTIVE DATE: APRIL 15, 2026

Table of Contents	Page
1. Purpose	2
2. Scope	2
3. Roles and Responsibilities	2
4. Regulatory Limits	5
5. Work Classifications	7
6. Regulated Areas	7
7. Monitoring on Asbestos Abatement Projects	8
8. Methods of Compliance	8
9. Personal Protective Equipment (PPE)	11
10. Special Conditions: Emergencies, SSSD & NEAs	14
11. Hygiene Facilities and Practices	16
12. Communication of Hazards	16
13. Employee Information and Training	18
14. Housekeeping	19
15. Recordkeeping	19
16. Medical Surveillance	21
17. Training Records	23

Hallucination and Drift Examples

Review Bloopers ☺

How should you respond/ interface?

Hallucination: a confident false answer

2. Industrial Hygiene Sampling Pumps? How About CSP Credits Instead!

You asked:

> "I need to buy some industrial hygiene pumps for personal airspace monitoring, have a $2000 budget, what should I consider purchasing?"

AI answered: An explanation of CSP recertification cycles, continuing education points, and why your certification might not expire until 2027.

Your response:

> "Um, what is that answer for? Please check my last question- thanks!"

The punchline: You wanted an air-sampling pump. AI wanted you to renew your professional certification.

Lesson: An impressive answer is useless if AI loses track of the assignment.

Human Error! A correct answer to a human error

3. When Spell-Check Turned Infrared Thermography Into IT Equipment

You asked: Develop a five-year purchasing budget for industrial hygiene equipment, followed by infrared scanning equipment

Unfortunately, your message said **IT scanning** instead of **IR scanning**.

AI answered: A five-year IT equipment purchasing and certification plan.

Your response:

> "Dang... I meant Infrared IR scanning, must have got spell checked."

The punchline: You wanted thermal imaging cameras. AI was ready to upgrade the computer department.

Lesson: Sometimes the problem isn't AI hallucinating. Sometimes it's an innocent typo that AI follows perfectly!

This is a particularly good one because **the human was responsible for the original misunderstanding**.

Looks too good! Perfectly linear results

6. The Amazingly Perfect BLS Injury Statistics

You asked: Provide six years of Bureau of Labor Statistics injury rates for utilities.

AI answered: An astonishingly smooth series:

Year	AI-reported rate
2018	2.3
2019	2.2
2020	2.1
2021	2.0
2022	1.9
2023	1.8

Every year improved by precisely 0.1!

Your response:

> "That's shocking it's so linear. Is that accurate? Can we go to 100ths?"

Further checking revealed that the figures were not supported by the official BLS data as presented.

The punchline: AI apparently believed American workplace safety improves by exactly 0.1 every January!

Lesson: If safety statistics look suspiciously beautiful, check the source data before showing executives.

Artwork wrestling – know when to surrender!

4. The Ladder That AI Couldn't Stop Redesigning

You asked: Create a cartoon illustrating safe ladder use, showing you descending from your boat while carrying equipment.

You wanted a proper ladder, correct positioning, shoes, and a specific rung to demonstrate the hazard.

AI created: A series of pictures that progressively departed from the original scenario, including incorrect rung placement and a distorted ladder.

Your response:

> "almost, but that's the last rung, not second to last rung and the ladder got all whacked up"

Eventually, you said:

> "forget it, can you just make an 8 color cartoon gif of my exact image attached..."

The punchline: You asked AI to illustrate ladder safety. AI couldn't even keep the ladder straight!

Lesson: AI-generated safety illustrations need technical review just as much as written procedures.





Disagreeing until faced with the exact citation

9. The Fire Extinguisher AI Said You Didn't Need to Heft

You asked: Does NFPA 10 require determining extinguisher fullness by weighing or hefting during monthly inspections?

AI answered: No, weighing or hefting was not required for monthly inspections.

You knew the relevant provision and weren't convinced.

Your response:

> "Are you sure monthly inspection per NFPA 10 7.2.2 does NOT require fullness determined by hefting or weighing?"

AI corrected itself: It acknowledged that the applicable NFPA 10 inspection provision included determining fullness by weighing or hefting.

The punchline: AI weighed in on extinguisher inspections—and its answer didn't carry much weight.

20 Fun ones in the resource download

One Universal Follow-Up Prompt

CHECKING THE OUTCOME

"Review your previous answer. Identify missing context, assumptions, weaknesses, risks, alternative viewpoints, opportunities for improvement, and the next three questions I should ask to improve the quality of the final outcome."

Others in the resource download: Critique as a hostile prosecutor, meticulous OSHA inspector, opposing counsel expert witness, etc.

Take the process with you

MARK'S RESOURCE PACKAGE

01 Prompt-builder templates

02 Safety Project Instructions

03 Red-team follow-up questions

04 Bloopers, failures and more ....

- 50 Best Follow Up Questions
- AI Hallucination Explanation
- AI Lawsuit Failures and Fines
- AI Prompt Workbook Better Follow Up Questions
- AI Safety Bloopers
- AI Safety Verification Challenge Toolkit
- Asbestos AI fails captured
- Claude n ChatGPT Instructions Memory Projects Guide
- Meta Prompting for Better AI Results
- Practical AI Prompting Recipe
- Practical AI Uses in Safety
- Regulatory Review Safety and Health Manual Master Prompt
- Safety Prompt wip
- safety regulatory review master prompt for SHM
- Safety Starting Prompt Long
- Simple Safety Engineer Prompt

Closing Statement

"AI is already in the workplace. The question is not whether it exists or if it will stay relevant, but whether we will use it wisely.

Used well, AI can help us build stronger work products and make better use of our time. Used carelessly, it can create polished but dangerous assumptions.

The opportunity is real, but so is the responsibility."

DESCRIBE/ CLARIFY → CREATE → CHALLENGE/ VERIFY

QUESTIONS?

Mark's AI Resource Package at
http://www.m36t.com/assp.zip

AI FOR SAFETY PROFESSIONALS

SCAN FOR PRESENTATION RESOURCES

m36t.com/assp.zip