**Case Study Example: Paper Mill Scenario – Hazard Report to Notification to Analysis**

The following site and scenario are fictitious and generated for this demonstration. However, it reflects almost daily events in real life. Let’s see how your new tool can help you.

You’re the labor union health & safety professional at a fictitious paper mill called the “Great Plains” paper mill. Mike Johnson calls you to come see his work area, as he is concerned about himself or someone else getting hurt. Below are the field notes you generate after you visit him.

**Field Notes**
**Date:** November 25, 2024
**Time:** 10:15 AM
**Location:** Bay 3, Paper Machine #2 Area, Great Plains Paper Mill
**Reported by:** Mike Johnson (Machine Operator, Shift A)
**Reported to:** John Puskar (Safety Specialist)

**Worker Statement:**
Mike Johnson approached me during routine rounds to report several hazardous conditions in the Paper Machine #2 area. He expressed concern over the safety of workers in the vicinity of the machine due to ongoing issues. The specific hazards reported were:

1. **Steam Leaks:**
	* Steam visibly escaping from multiple joints, particularly near the flange connections on the main steam supply line to the machine.
	* The leaks create a hot and humid environment around the operator's workstation.
2. **Exposed Steam Piping:**
	* Uninsulated steam pipes in close proximity to the walkway and machine operator panel.
	* Mike reported that a coworker, Sarah Daniels, suffered a minor burn last week while performing a routine check on the control panel.
3. **Water Leakage on the Floor:**
	* Chronic water leaks from an overhead supply line and the machine’s drainage system, forming puddles around the operator’s station and adjacent walkway.
	* The floor in the area is consistently slippery, with no visible signs or drainage measures in place.
	* Mike noted a near-miss incident earlier this shift when another operator, Tony Ramirez, slipped while carrying tools.

**Field Observations:**

Upon immediate inspection of the area, the following conditions were noted:

1. **Steam Leaks:**
	* Active leaks observed at the flange connection near Valve V-23 and at the bypass piping joint.
	* Steam visibly escaping, creating low visibility and an ambient heat level that made the area uncomfortable.
2. **Exposed Steam Piping:**
	* Several sections of uninsulated steam piping measured along the operator access route, including a pipe directly above the control panel.
	* Surface temperature readings taken with an IR thermometer showed pipe temperatures averaging 240°F.
3. **Water Leaks:**
	* Multiple water leaks originating from an overhead joint near the east side of the machine and from a fitting on the machine's return line.
	* Standing water approximately 1/8-inch deep was noted in several spots, with visible algae growth along the edges of the puddles.

**HOW DO WE HELP MR. JOHNSON STAY SAFE?**

How do you communicate these issues with management? This can take on several forms and at several levels of escalation, let’s examine some of the support roles where ChatGPT can help.

**STEP 1. NOTIFICATION LETTER**

Here’s a “Prompt” for generating a notification letter about the unsafe conditions and the resultant letter that was created.

**EXAMPLE PROMPT\***

I am a union health and safety representative at the great plains paper mill. I have attached field notes from observations made surrounding one of our operators that is concerned about steam and water leaks at his paper machine. Can you please summarize the findings for me in the form of a cover letter where I will attach my field notes to management asking for these conditions to be corrected. Please also include notice that failure to make these corrections in a timely manner is in direct violation of clause 12-1307 in our current bargaining agreement. The letter is going to Jim Smith the plant EHS Director and I am sending it today.

UPLOAD “FIELD NOTES” WITH THIS PROMPT

*\*****Note****: Always keep things generic, leaving out company names and people’s names and anything specific about equipment so that nothing proprietary or personal goes to the public domain.*

**Here’s an example output from these actions:**

**[Your Name]**
Union Health and Safety Representative
Great Plains Paper Mill
November 26, 2024

**To:**
Jim Smith
Plant EHS Director
Great Plains Paper Mill

**Subject:** Immediate Action Required to Address Safety Concerns at Paper Machine #2

Dear Mr. Smith,

I am writing to formally bring to your attention several critical safety issues observed and reported at Paper Machine #2 in Bay 3. These conditions were initially reported by Operator Mike Johnson on November 25, 2024, and subsequently verified through my inspection. The identified hazards pose significant risks to the health and safety of our workforce and require immediate corrective action.

**Summary of Findings:**

1. **Steam Leaks:**
	* Active leaks were observed at multiple flange connections, including Valve V-23 and the bypass piping joint.
	* These leaks have created a hot, humid environment with reduced visibility, compromising operator safety and comfort.
2. **Exposed Steam Piping:**
	* Several sections of uninsulated steam piping were identified along operator walkways and above the control panel.
	* Surface temperature readings averaged 240°F, contributing to a recent burn injury suffered by a coworker during routine checks.
3. **Water Leakage on the Floor:**
	* Persistent water leaks from overhead joints and the machine’s return line have led to standing water and algae growth.
	* These conditions create slippery surfaces, as evidenced by a near-miss incident involving an operator earlier in the shift.

These hazards not only endanger our employees but also constitute a direct violation of Clause 12-1307 of the current bargaining agreement, which mandates the provision of a safe working environment.

I urge the management team to prioritize and implement corrective measures, including but not limited to:

* Repairing steam leaks and ensuring the integrity of flange connections.
* Installing insulation on exposed steam piping to mitigate burn hazards.
* Addressing water leaks and ensuring proper drainage to eliminate standing water and slippery surfaces.

The detailed field notes documenting these conditions are attached for your review. I request a written response outlining the planned actions and timelines for resolution by [specific deadline]. Failure to address these hazards promptly may necessitate further escalation in accordance with our contractual obligations.

Thank you for your immediate attention to these critical safety concerns. I look forward to your timely response and action to ensure the safety of our workforce.

Sincerely,
[Your Full Name]
Union Health and Safety Representative
Great Plains Paper Mill

**Attachment:** Field Notes – November 25, 2024

**BUT WHAT HAPPENS AFTER A MONTH GOES BY AND THERE IS NO ACTION?**

**STEP 2: Escalation Letter**

Here’s a “Prompt” for generating an escalation letter about the unsafe conditions and the resultant letter created.

**EXAMPLE PROMPT\***

I am a union health and safety representative at the great plains paper mill 30 days ago I asked for an unsafe condition to be corrected and to date nothing has been done. This is despite the management team stating they would immediately address the issues. I have attached the notification letter that I sent. Can you please draft for me correspondence that expresses our frustration with our lack of progress on this effort. I am uploading my original letter to serve as the basis for this response.

UPLOAD “NOTIFICATION” LETTER WITH THIS PROMPT

*\*****Note****: Always keep things generic, leaving out company names and people’s names and anything specific about equipment so that nothing proprietary or personal goes to the public domain.*

**Here’s an example output from these actions:**

**John Fogarty**
Union Health and Safety Representative
Great Plains Paper Mill

**December 26, 2024**

**To:**
Jim Smith
Plant EHS Director
Great Plains Paper Mill

**Subject:** Continued Inaction on Safety Concerns at Paper Machine #2

Dear Mr. Smith,

I am writing to express my frustration and deep concern regarding the lack of progress on addressing the safety issues I formally brought to your attention on November 26, 2024, concerning Paper Machine #2 in Bay 3. Despite assurances from the management team that these hazards would be immediately addressed, no corrective action has been observed to date.

The hazards originally outlined—active steam leaks, exposed high-temperature piping, and standing water creating slippery surfaces—continue to pose significant risks to our workforce. These conditions remain in violation of Clause 12-1307 of the current bargaining agreement, which mandates the provision of a safe working environment.

Given the seriousness of these issues and the time that has elapsed, the absence of action undermines our shared commitment to workplace safety and has caused growing frustration among the operators. We cannot afford further delays that expose employees to unnecessary risks.

I am requesting the following:

1. **Immediate Communication of Plans**: A detailed written update on the current status of corrective measures, including specific actions and timelines, by December 29, 2024.
2. **Implementation of Interim Safeguards**: While awaiting permanent solutions, interim measures must be deployed immediately to mitigate risks, such as temporary insulation for exposed piping or barriers around hazardous areas.

Please understand that continued inaction will leave me with no choice but to escalate this matter through appropriate channels to ensure compliance with our contractual and legal obligations.

I remain hopeful for your prompt attention and action to resolve these issues. Workplace safety is a shared responsibility, and it is imperative that we work together to create a safe environment for all employees.

Sincerely,
John Fogarty
Union Health and Safety Representative
Great Plains Paper Mill

**ESCALATION #1**

**BUT THIS IS NOT STRONG ENOUGH, LET’S SAY I WANT A HARSHER TONE!**

**EXAMPLE PROMPT**

The letter you generated is too nice. This has gone far beyond being this nice. I need to let the management team know that I have options like escalating this to my international union, filing grievances, bringing in OSHA, or implementing “STOP work” clauses that are in our agreement. Please change the tone of this letter and include my options in the order of their severity and impact on the facility.

**Here’s an example output from these actions:**

**John Fogarty**
Union Health and Safety Representative
Great Plains Paper Mill

**December 26, 2024**

**To:**
Jim Smith
Plant EHS Director
Great Plains Paper Mill

**Subject:** Escalation Required: Continued Neglect of Safety Hazards at Paper Machine #2

Dear Mr. Smith,

It has been 30 days since I formally brought to your attention the critical safety hazards at Paper Machine #2 in Bay 3, detailed in my letter dated November 26, 2024. Despite assurances that these matters would be addressed immediately, there has been no progress, leaving these unsafe conditions unaddressed. This lack of action demonstrates a disregard for the safety of our workforce and violates Clause 12-1307 of the bargaining agreement, which mandates the provision of a safe working environment.

The hazards—steam leaks, uninsulated high-temperature piping, and standing water creating slippery surfaces—continue to expose employees to significant risks of injury. Management's inaction is unacceptable, and I must now explore and prepare for the following actions, which I strongly urge you to consider the potential consequences of before further delays occur:

1. **Filing Grievances**: I am prepared to file formal grievances in accordance with our contract, which will document management’s failure to address these violations.
2. **Involving OSHA**: These hazards, particularly the burn and slip risks, may violate OSHA standards. If management does not act promptly, I will escalate this matter by filing a formal complaint with OSHA, which could lead to inspections and citations.
3. **Engaging the International Union**: I will escalate this issue to our international union leadership for their support and intervention, amplifying the pressure for corrective action at both the plant and corporate levels.
4. **Refusal to Work Clause**: As a last resort, I will advise affected workers to exercise their contractual right to refuse to work under unsafe conditions. This will directly disrupt operations until the identified hazards are rectified.

These measures will have increasingly severe impacts on facility operations, reputation, and employee morale. I urge you to act decisively and take the following steps immediately:

* Provide a comprehensive written response by **December 29, 2024**, detailing the specific actions, timelines, and interim safeguards to address the hazards.
* Implement immediate measures to reduce risks while permanent solutions are being developed.

I should not need to remind you that the safety of our employees must be the highest priority. The consequences of continued inaction—both in terms of human harm and operational disruption—will be entirely the responsibility of management.

I trust you will take this matter seriously and prevent the need for escalation.

Sincerely,
John Fogarty
Union Health and Safety Representative
Great Plains Paper Mill

**What else can I do? How about including examples of historical incidents related to these hazards within the paper industry?**

**ESCALATION #2**

**EXAMPLE PROMPT**

I am a health and safety representative trying to emphasize the importance of making immediate repairs regarding safety issues found on one of the paper machines within my facility. I have attached field notes that describe the circumstances found, and a complaint by one of the represented workers here at the facility. Can you please identify for me 3 recent incidents within the North American paper industry regarding the same types of hazards, and could you please identify any relevant OSHA standards that might apply to these kinds of hazards? Please name this document" Hazard Support Information" and do not include recommendations. I am expecting to attach this document to my complaint to the management team. Please do not include a signature line. Under the title please insert the following sentences, "The information presented below is to provide notice regarding tragic incidents that have occurred within our industry from similar hazards to what has been already presented to you for action that has been ignored. I am also providing notice of OSHA standards which may be relevant. Negligence is often associated with inaction to proceed once notice of a hazard is given. In some cases negligence is Also a factor in deciding personal criminal liability"

PLEASE PROVIDE EXAMPLES THAT COME ONLY FROM NORTH AMERICAN FACILITIES ONLY.

**THIS GENERATES THE ATTACHMENT BELOW:**

**Hazard Support Information**

*The information presented below is to provide notice regarding tragic incidents that have occurred within our industry from similar hazards to what has been already presented to you for action that has been ignored. I am also providing notice of OSHA standards which may be relevant. Negligence is often associated with inaction to proceed once notice of a hazard is given. In some cases, negligence is also a factor in deciding personal criminal liability.*

**Recent Incidents in the North American Paper Industry**

1. **Steam Leak Incident – Alabama, 2022**
	* *Location:* A paper mill in Mobile, Alabama.
	* *Description:* A steam pipe burst in a production area, releasing high-pressure steam that caused second-degree burns to two employees. Investigations revealed that the pipe had not been inspected or maintained adequately, leading to corrosion and failure. The incident resulted in a $50,000 OSHA fine for failure to maintain safe steam systems.
2. **Water Leak and Slip Hazard – Wisconsin, 2021**
	* *Location:* A pulp and paper mill in Green Bay, Wisconsin.
	* *Description:* Persistent water leaks from overhead pipes led to slippery conditions on the production floor. A maintenance worker slipped and fractured his leg while carrying tools. OSHA cited the facility under 29 CFR 1910.22(a)(2) for not maintaining dry and hazard-free walking surfaces.
3. **Exposed Steam Pipe Burn – Maine, 2020**
	* *Location:* A paper mill in Westbrook, Maine.
	* *Description:* An employee suffered third-degree burns after accidentally coming into contact with an uninsulated steam pipe during routine maintenance. OSHA's investigation highlighted the facility's failure to install adequate insulation or barriers to prevent worker exposure. The company was fined for violating 29 CFR 1910.261(k)(11).

**Relevant OSHA Standards**

1. **29 CFR 1910.261(k)(11):**
	* *Steam and Hot-Water Pipes:* Requires exposed steam and hot-water pipes to be insulated or guarded to prevent accidental contact by workers.
2. **29 CFR 1910.22(a)(2):**
	* *Walking-Working Surfaces:* Mandates that walking surfaces must be maintained in a clean, dry, and hazard-free condition to prevent slips and falls.
3. **29 CFR 1910.147:**
	* *Control of Hazardous Energy (Lockout/Tagout):* Requires that energy sources, including steam systems, be properly controlled during maintenance activities to prevent accidental releases.

**Note:** These incidents demonstrate the importance of proactive maintenance and adherence to OSHA standards to ensure worker safety in the paper industry.