



Manufacturing Case Study

Preview of named case study to be released in Q2 2023

BACKGROUND

Window and Door Company manufactures high-performance aluminum architectural-grade windows and doors. The brand is well-known nationally and its products are sought after for residential and commercial applications.

Window and Door Company's safety and workers' compensation programs were in transition. The environmental manager, Client Name, who had previously not been very involved in safety, was promoted when the head of safety left the company. Additionally, the company changed carriers, bringing new expertise from Insurance Provider to bear. In her new role, Client Name, took ownership of the safety program and took the initiative to explore the CompScience offering presented by Insurance Provider.

Because the concept of AI safety analysis of a traditional manufacturer like Window and Door Company was a novel concept, the executive team was initially cautious, voicing concerns that the program could negatively impact premiums and might cause disruption. Once they reviewed the program, however, they quickly realized the advantages .

ENGAGEMENT

Client Name was empowered by the company to address specific workplace issues, and the company was committed to developing a "world-class safety organization."

To kick off the risk reduction program, Window and Door Company shared workplace video, which CompScience requires to leverage the full power of its Intelligent Safety Platform. To quantify risks in operations, CompScience applied over 50 AI "detectors" to analyze specific risks in the operations. Data science techniques were then applied and specific risk events were identified by work area, time of day, and type of potential injury.

SOLUTIONS

CompScience delivered a risk report that recommended solutions to these issues. Client Name used the risk reports and loss control recommendations to enhance communications regarding safety with the executive team and safety committee.

The executive team bought into the program, which provided true transparency into safety. The forklift detectors from CompScience impressed the facilities manager and gave her “another set of eyes, realistic eyes.”

By quantifying ergonomic and vehicle risks with numbers, the entire team was confident that they could measure the improvements once recommended workflow changes were implemented. CompScience acts as an impartial consultant, validating decisions made by the team.

Recommendations highlights:

Equipment

- A-Line tables to mitigate risky postures and repetitive waist/knee bends
- Horizontal ladders to help workers stay in neutral positions
- Dollies to transport large, heavy products to reduce overhead lifts

Process

- Exclusion zones to keep vehicle near misses at zero
- Driving forklifts in reverse with product to improve line of sight
- Charging layout of cart areas to lower push/pull exposures
- Weekly communication on safety protocols

As the implementation of risk reduction recommendations began, weekly updates with the employees and executive team focused on improving not only risk, but this also fostered internal communications that emphasized a cultural shift towards workplace wellbeing. This changed the conversation from burdensome safety guidelines to a workplace benefit of wellbeing.

RESULTS

In Client Name’s words, “CompScience can put things in perspective.” The client saw improvements across three leading indicators of injury and accidents in just four weeks. Window and Door Company uploaded a second set of workplace video files, and CompScience ran the data through the Intelligent Safety Platform. The second risk report clearly indicated that training and workflow improvements led to a dramatic overall reduction in risk exposures.

Results highlights:

- 95% reduction overhead lift high risk postures
- 59% reduction in waist bend high risk postures
- 59% reduction in squatting high risk posture
- 16% reduction in push/pull activity
- 100% reduction in dangerous driving

The result could also be measured in human terms as quality of life improvements. A skilled and valued member of the window manufacturing line had complained for years about pain and exhaustion. After the new line tables were introduced and he no longer needed to make so many waist bends, he reported that he could now play with his kids again.

CompScience continues to partner with Window and Door Company across their facilities to keep its safety standards high and continually improve in order. The focus on worker wellbeing also has had a powerful impact on turnover and related costs.