CASE STUDY

Streamlining Safety and Efficiency:

AZO's Solution for a Candy Bar Manufacturer

Introduction (Problem)

In the world of candy production, precision and safety are paramount, especially when dealing with bulk ingredients like sugar. Our story today centers around a candy bar manufacturer facing a unique challenge. While we won't reveal their identity, we'll delve into how AZO stepped in to address their needs.

The Company and Its Industry

Our story unfolds within the confectionery industry, where a prominent candy bar manufacturer operates. They specialize in crafting delectable treats loved by consumers far and wide. However, their journey led them to confront a complex issue concerning bulk sugar, a vital ingredient in their production process.

The Challenge: Bringing Systems Up to Safety Standards

The challenge that came knocking on the candy bar manufacturer's door was in the realm of safety and compliance. They initiated a corporate-led project to ensure that all their equipment, not only at this plant but also across other facilities, met the stringent safety standards set by the National Fire Protection Association (NFPA). Of particular concern was the combustible nature of sugar dust, which falls under the purview of NFPA guidelines.

The company had a legacy system, roughly 20 to 25 years old, that lacked any explosion protection equipment. Given the inherent risks associated with combustible dust, it was imperative to address this issue promptly.

The Process Evaluation

AZO embarked on a comprehensive process evaluation, beginning with extensive discussions with the customer. The focus was on understanding the existing equipment, the potential explosion protection risks, and the customer's initial request to retrofit the system to accommodate these risks.

Material Assessment Studies and Lab Work

Recognizing the complexity of the issue, AZO opted to perform material assessment studies and lab work. This was necessary due to the unique challenges posed by the combustible nature of sugar dust and the potential risks associated with its handling.

Engineering Considerations and Innovative Solutions

As AZO delved deeper into the project, they made a pivotal discovery. The existing sugar vacuum receiver, which was part of the legacy system, was considerably larger than necessary. In fact, the discrepancy between the equipment's size and the actual requirements was significant.

This realization led AZO to propose an elegant solution: replace the existing system with a brand new setup that was appropriately sized for the customer's needs. By doing so, they could reduce the size of the equipment, use less explosion protection equipment, and, in some cases, eliminate specific pieces of equipment altogether. This solution was a long term strategy to address an immediate need.

The Transformative Outcome

The implementation of AZO's solution brought about numerous benefits. The candy bar manufacturer now had a state-of-the-art system that was perfectly sized for their production needs. This resulted in better system performance, reduced energy consumption, and a more efficient conveying path.

Additionally, the physical space required for the new system was substantially smaller, which offered the potential for better space utilization within the plant. Most importantly, the reduced size of the equipment significantly lowered the risk associated with catastrophic explosion hazards.

In conclusion, this partnership between AZO and the candy bar manufacturing industry underscores the importance of safety, efficiency, and innovation in modern production processes. While the candy bar manufacturer's name remains undisclosed, their journey with AZO showcases the transformative impact that expert engineering and thoughtful problem-solving can have on ensuring both safety and operational excellence in the confectionery industry.