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CASE STUDY NPC, LLC MODERNIZES SCRAP COLLECTION **SYSTEM**

Claysburg, PA

INTRODUCTION

NPC, a commercial print, mail, and digital communications leader, faced growing challenges with its aging scrap collection system. Initially installed in the late 1990s and modified multiple times, the system's outdated controls had become unreliable, making Lockout/Tagout procedures difficult and risking production downtime.

NPC sought a streamlined, centralized control system that could be installed with minimal production interruptions to ensure long-term operational reliability, improved safety, and future scalability.

THE CHALLENGES

NPC's legacy scrap collection system relied on multiple independent control panels with minimal interlocking and no documented schematics. Over time, various modifications led to a piecemeal setup consisting of four PLC relay stations and numerous standalone control stations.

The system had deteriorated to a point where:

- **System shutdowns were risky:** Operators were hesitant to shut down the system for fear it would not restart.
- Lockout/Tagout procedures were not reliable: Safety compliance was compromised.
- **Control inefficiencies led to operational headaches:** Operators had limited control over performance and troubleshooting.
- **Scalability was a concern:** NPC required a system capable of supporting up to three additional scrap lines in the future.



NPC required a new control panel with modern automation, a single operator interface, and built-in expansion capacity to resolve these challenges. The installation also needed to be executed within a strict seven-day shutdown window to avoid significant production delays.

AES SOLUTIONS

To meet NPC's needs, AES engineered and delivered a state-of-the-art control panel solution with the following key features:



Centralized Control System

A single, dedicated PLC-driven panel replaced the multiple outdated control stations.



User-Friendly Operator Interface

A touchscreen control panel streamlined operations, improving accessibility and ease of use.



Enhanced Safety and Compliance

The new system fully supports Lockout/Tagout procedures, ensuring maintenance teams can safely service components.



Scalability for Future Growth

The new panel was designed with excess capacity, allowing for the seamless addition of three more scrap lines.



Minimized Downtime During Installation

AES worked closely with NPC's engineering and maintenance teams to coordinate the electrical contractor, ensuring a smooth installation process.

The project was executed in carefully planned phases to minimize downtime. Before the shutdown, the new panel was set, and the wiring was roughed in. Over five days, outdated wiring was removed, new wiring was installed to code, and the system was brought online. Finally, the panel was commissioned, and hands-on operator training was provided to ensure a smooth transition.

THE RESULTS

With AES's solutions, NPC now operates a modern, reliable scrap collection system that enhances safety and efficiency. The new control panel helps ensure consistent uptime, supports proper Lockout/Tagout compliance, and provides built-in capacity for future expansion. Brought online in just five days, this project was completed with minimal downtime and provides long-term operational reliability for the scrap collection system.



About AES

AES is a leading full-service provider of integrated conveyance systems specializing in scrap, trim, and dust that designs, builds, and maintains economical solutions for more efficient byproduct handling. As a single source for conveyance needs, AES engineers custom scrap systems and works as a partner in process improvement to help businesses achieve greater profitability, productivity, and sustainability in their manufacturing operations.



Single Source for Conveyance Needs



Custom-Engineered Scrap Systems



Partner in Process Improvement

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