

Safety and productivity improvement through directed work

The situation

- Global chemical manufacturer with multiple plants.
- Safety and regulatory risks if additives were mixed in the incorrect sequence or quantities.
- Paper based SOPs, some more than 100 pages, were required to follow each order through the process with the intention of guiding operator work.

The challenge

- Paper based SOPs were cumbersome for operators to use and often ignored.
- Version control of SOPs across multiple sites was problematic.
- Safety incidents, scrap and errors were trending upward as experienced employees retired.
- A highly manual process made regulated tracking and tracing of each step in the chemical manufacturing process difficult and inconsistent.
- Operators were required to login to multiple different systems to obtain needed information and record transactions, which distracted from their work and impacted production output.

The approach

- SymphonyAI Industrial Platform was used to create and implement a digitized SOP solution in eight weeks, followed by rollout to six sister plants.
- Non-IT engineers configured intelligent workflows to enforce role-based and step-by-step instructions.
- The solution included automated material verification that confirmed critical steps were completed in the correct order and ensured equipment lock-out during changeovers and cleanout.
- The system alerted operators in real-time when actions were needed or deviations occurred via a tablet and other devices.

The value

- Reduced safety incidents and improved compliance through automated and guided work.
- Increased yield and line capacity.
- Improved operator effectiveness by consolidating the number of system interfaces and eliminating paper.
- Shortened the learning curve and ramp-up time for new hires.

Safety and compliance • Workforce productivity • Quality and yield • Work orchestration