

## **NEW WALES SULFUR MELTING FACILITY**

CLIENT - The Mosaic Company
LOCATION - Mulberry, FL
COMPLETED - 2016

## **DESCRIPTION**

Matrix PDM Engineering developed an engineer-led EPC strategy to shorten the schedule, reduce risk, and reduce on-site construction.

The new sulfur melter plant heats prilled sulfur to liquid form and mixes it with existing molten sulfur supply. This method provides more reliable, low-cost supply.

Electrical and control system scope included design to classifications, gas sensors, 15Kv rated cable, two oil-filled secondary substation low voltage transformers, two electrical buildings, switchgear, MCCs, variable frequency drives, and uninterruptible power supply. The control system utilized one stand-alone Factory Talk View SE and one distributed client connected to the existing two FTViewSE server stacks. Automated, semi-automated, or manual

control functions were designed for plant equipment with automated or semi-automated functions for process streams.

## PRINCIPAL FEATURES

- 6,000-ton concrete storage silo
- Automated dual-lane truck unloading system
- 500 tph conveying systems
- 165 tph reclaim and melter feed system
- 1 MMTPY sulfur melter
- 6% moisture
- Less than 20 ppm solids after filtration
- 17,000 acfm exit flow rate
- SO2 outlet, wet uncorrected 5 ppmv
- H2S outlet, wet uncorrected 5 ppmv
- Rockwell automation PAX control system
- Redundant I/O communications
- Rockwell factory talk SE HMI platform with redundant networks



