



KINDER MORGAN UAN HANDLING DESIGN

CLIENT - Kinder Morgan
LOCATION - Fairless Hills, PA
COMPLETED - 2012

DESCRIPTION

Matrix PDM Engineering provided multidiscipline design for UAN handling including updates and repairs required for existing tankage to provide approximately 125,000 bbl of storage for UAN 32% solution. Required throughput is 15MM gallons per year.

Truck and rail product piping was electrically heat traced and insulated. All new outbound piping, valves, and pumps are electric heat traced and insulated to maintain 75 degrees F., as well as ½" SS tubing for emergency backup use.

Truck loadout included installation of (2) new truck loading spots with new 3 in. mass flow meters, control valves, strainers, top loading arm, and ticket printers at each truck loading spot. Rail loading included (3) new rail car loading spots with stick gauge only with 3 in. top loading arms

PRINCIPAL FEATURES

- Reactivated existing OOS old #6 oil tank #1 (140 ft. x 56 ft. 6 in.) with high cone roof and 156,000 bbl shell capacity for use as ambient temperature stored UAN 32 solution
- Added new tank gauging, 8-inch roof P/V vents, and side thermometers
- Brought tanks and systems up to API 653 standards
- Installed three new 25 HP pumps for rail car and truck loading as well as tank recirculation
- Provided all new outbound 6 in. and 4 in. carbon steel piping, valves, and pump manifolds
- Inbound only unloading design from vessels through a new CS 10 in. dia. piggable dock line
- Electrical design requirements included necessary pumps, lighting, heat tracing, controls and automation
- Designed stone access walkways to tank areas and product pumps and stairways over dike walls
- Designed new paved access road for truck rack with fencing and non-automated gates
- Provided spill containment areas under rail car and truck loading spots with curbs and drains

FOR MORE INFORMATION:

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