

Marathon Oil Corporation

# Asphalt Load Rack Upgrade

SSOE completed multiple projects for the Marathon Load Rack Program. This program was charged with improving safety and optimization of truck loading across their facilities by eliminating potential fall hazards. The Detroit Load Rack was one of the larger projects completed due to the extent of piping and electrical changes implemented.

The scope included design of new platforms, gangways, stairs, safety cages, load arms, and piping. The safety-enhanced version of Marathon's load rack included improved controls and safety interlocks, as well as improved lighting. The operator interface was redesigned to assure that safety interlocks and protocol for loading are satisfied prior to the start of loading. To ensure safety and ergonomics, many of the hand-operated valves were replaced with actuated valves. SSOE also integrated the control of the hydraulic gangway as part of the load rack controls. Hydraulically actuated gangways were installed to prevent injuries related to strain and poor ergonomics. In some areas, SSOE added stairs or extended platforms to create an optimal distance between the operator and the fill point.

SSOE's experience with asphalt piping and electrical systems extends far beyond addressing safety issues, allowing the added benefit of increasing efficiency at this facility. Redesigned piping at loading stations improved product distribution. Reconfigured controls ensured that only affected lane(s) would shut down in the event of a problem, resulting in less downtime. The features integrated were part of a standard used throughout Marathon's facilities so that workers can now safely operate equipment at any location.

## value promise

In addition to safety improvements, SSOE's upgrades also improved product distribution and reduced downtime.

**size** Eight lane load rack

**location** Detroit, Michigan

## highlights

Part of widespread program utilizing standard equipment, safety, and operational standards implemented across multiple facilities to address potential fall hazards and improve safety

Upgraded load rack, gangway equipment, and safety features for multiple loading stations to match program standards

Multiple engineering disciplines to deliver fully integrated project

Long-term relationship a key factor in understanding client needs