



# PLANT SYSTEMS ENGINEERING

## RAILCAR UNLOADING SYSTEM: PLASTIC FILM PLANT

**Project Requirements:** A Pennsylvania producer of PE film for bag production wanted to upgrade its rail unload operation by installing twin 40,000 PPH rail unload systems.

The system required minimal operator interface and include fall protection for the workers when they opened the top hatches of the rail cars.

### Scope of Work:

- Work with equipment vendors to select equipment. Produce all system engineering and construction drawings.
- Engineer all foundations and structural steel.
- Equipment for the twin 40K PPH systems included:
  - ✓ Two 6" vacuum systems for unloading the rail cars.
  - ✓ Two 6" pressure systems to load the existing silos
  - ✓ Manifolds and diverters
  - ✓ Vacuum and Pressure pumps installed in a pump house.
  - ✓ Integrated PLC controls
  - ✓ Fall protection systems at the rail siding



*Vacuum Receivers and pump house along rail siding*



*Airlock under vacuum receiver connecting to pressure conveying system*



*6" tubing manifold and fall protection system between the rail sidings*

### THE PLANT SYSTEMS GROUP, INC.

507 N. York St., Suite 2A  
Mechanicsburg, PA 17055

717-795-9122 Ext. 11    717-795-9525 Fax    [www.plantsys.com](http://www.plantsys.com)