

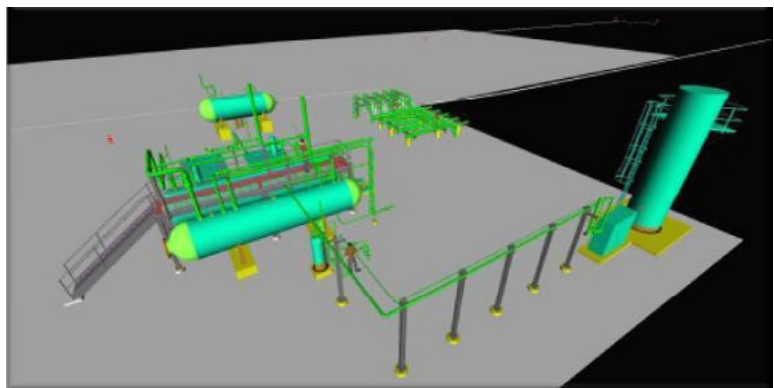


## RAIL CAR LOADING FACILITY AND VAPOR RECOVERY UNIT

CSD provided conceptual and detailed engineering, as well as construction supervision services, for a rail car loading facility at a wet gas processing site in Southwestern Pennsylvania. This project won recognition from the Engineers Society of Western Pennsylvania as the Industrial Project of the Year in 2013.

The system was designed with in-line spare pumps, inventory control runs and emergency shut-down valves. It is also equipped with pig launching and receiving capabilities. The system handles 4 products: iso-Butane, n-Butane, Propane and Natural Gasoline. The purity liquids are transferred from bulk storage tanks at the processing facility via transfer pumps and underground piping to the rail loading station approximately 1.5 miles from the processing facility. At the rail loading station the 4 purity products can be loaded into rail cars at any of 12 spots (with future expansion capabilities of 24 loading spots.) From the loading rack spots, a vapor recovery system was designed to capture any vapors created during the loading process, and provides the ability to off-load off spec or returned "heels" from the railcars. This system captures the vented product and transfers it back to the processing facility as a liquid to be re-processed.

The Vapor Recovery Unit (VRU) --Flare Stack System is used to collect all vapors and liquids captured off of the cars while being loaded. This particular model was designed using CADWorx® Plant Professional 2013. In addition to the system process and detailed design, CSD provided the electrical/instrumentation installation design and DCS/TMS system configuration.



For further information about this award winning project and many other Midstream related projects, please visit our website at [CSDEngineers.com](http://CSDEngineers.com)