



DISTILLATION COLUMN REPLACEMENT PROJECT

CHEMICAL PLANT – NORTH CAROLINA

TOTAL INSTALLED COST \$1,500,000

PENTA provided complete engineering and design to replace and upgrade an existing distillation column, which had leaking problems due to internal corrosion. PENTA initially performed a Phase I analysis and cost estimate, which included investigating the causes of the leakage and conducting testing to determine if better materials of construction were available for the replacement column. Once the new materials were evaluated via field-testing and approved, costs were estimated and project funding was approved.

New equipment consisted of a higher capacity distillation column, feed preheater, bottoms cooler, reboiler, overhead condenser, distillate tank/pump, condensate flash tank and feed-bottoms exchanger.

Our design included piping modifications, foundations, structural supports, electrical distribution, and relocation of existing overhead power lines underground. Additional services were equipment procurement, construction assistance, and development of operation procedures.



PENTA also assisted with pilot testing to ensure certain process modifications would result in better column performance. The column was started up in a timely fashion replacing the existing column that became inoperable during startup of the new column. PENTA is proud of its achievements in this area and retains the expertise to assist you with all your separation project requirements.