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SCIENTIFIC & RESEARCH PROJECTS

Project No.: 09 **Year: 2014**

Project Field: Heat Exchanger Networks (HENs)

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Project Title:

De-bottlenecking of Condensate Stabilization Unit in a Gas Refinery

Abstract:

The increase in throughput or reduction in the operational costs is the common example of change in production criteria in retrofit projects. In this study, the condensate stabilization unit of a gas refinery, which is one of the most energy consuming units in natural gas refineries, is considered for analysis and retrofitting study. This unit comprises of a two-stage compressor and a side-reboiler associated with the stabilization column that uses HP steam as hot utility. It is shown that by applying the optimum pressure drops method for debottlenecking of this unit, after 20% increase in throughput, utility consumption can be maintained at existing level, if 1554 m² of additional heat transfer area is installed.