

عنوان مقاله:

Energy Optimization of the Gachsaran Refinery's Natural Gas Sweetening Unit Using Vapor Recompression Column

محل انتشار:

سومین کنفرانس بین المللی فناوری های جدید در صنایع نفت، گاز و پتروشیمی (سال: 1400)

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خلاصه مقاله:

Tens of thousands of barrels are sent to the Bandar-e-Emam petrochemical plant every day, and the Gachsaran oil and gas refinery always aims to partially supply the feed for this petrochemical complex by sweetening sour natural gas liquid containing some H₂S and CO₂. Reducing the high energy consumption of sweetening requires energy optimization. Vapor Recompression Column was used for optimizing sweetening energy in the Gachsaran gas unit, and the distillation column's top vapor was compressed to transfer its thermal energy to the bottom. The results show that Vapor Recompression Column consumed about ۷۵% less energy than the conventional process mostly due to warm and cold utility savings.

کلمات کلیدی:

Sour gas sweetening, Natural gas, Vapor Recompression Column, Energy optimization

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