

S3.5.4 MOLECULAR SIEVE ADSORBENT APPLICATION BASICS

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The presentation is an overview of molecular sieve adsorbent manufacturing, basic design concepts and how to evaluate unit operation and trouble shooting in a thermal swing adsorption (TSA) process to achieve water concentrations of less than 0.1 ppmv in a natural gas cryogenic service.

A case study of a typical 3 bed adsorption unit feed is evaluated to obtain the most optimum adsorption and regeneration cycles. Trouble shooting and operating recommendations are presented to extend the life and performance of the adsorbent in the unit.