

ETHYLENE BOIL OFF GAS COMPRESSOR IN PETROCHEMICAL PLANT AVALIABILITY AND RELIABILITY ENHANCEMENT

BY

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Abstract:

In a petrochemical industry, an olefin plant uses large reciprocating compressors to handles ethylene boil off gas. The compressors take vapors and compress them back to the storage tanks, thus maintaining the vapor pressures within operating limits.

These compressors operate at different load levels depending upon the vapor generation within the storage tank and having sub zero suction temperature of negative 80 degrees centigrade. So the need to have compressive and through selection and design process is of utmost important. These compressors had been a challenge for us to operate and maintain. Since the startup and till now, different measures had been taken for its improvement starting from hydraulic end to power end.

This paper discuss from Petrokemya perspective the problems come across during the startup, commissioning and while maintaining reliability and availability of our 3-stage horizontal ethylene boil off gas reciprocating compressors. The objective of this papers is to share experience and efforts, which were applied to enhance the reliability by continuous improvement in collaboration with the OEM, so as to achieve the level which is comparable with our other reciprocating compressors operating on similar service at other olefin plants within Petrokemya.