AESSEAL®
ENVIRONMENTAL TECHNOLOGY

Gas seal gives 12 years trouble free operation

Eastman Chemicals' Kingsport Tennessee production plant were experiencing problems with leakage of the mechanical seals on their Xylene pumps.

The plant was routinely monitored for leakage and had strict limits on the amount of Xylene detected in the environment around the pump. Having tried a variety of single seals on the pump with 9 leakage incidents at a cost of more than $14,000 Eastman decided to find an alternative solution and turned to AESSEAL® for assistance.

AESSEAL® examined the seals that were leaking and found that the Kalrez O-ring on the rotary face was heat damaged due to excessive heat generated from insufficient lubrication of the seal faces. This was caused by a pump running in a low NPSH conditions when the Decanter tank varied in level. With increased temperature of the seal faces and minimal head, the process fluid was vaporising at the seal faces, creating a dry running situation.

AESSEAL® recommended installing a non-contacting gas seal (UDGS ANSI+) along with an API Plan 74 gas panel fed from a nearby Nitrogen supply. The new solution was installed in April 2010 and has been in service now for over 12 years, running leak free. The MTBF has improved significantly and the original investment was repaid in less than 1 year.

'MTBF increase from 2 months to over 12 years'

Industry:	Chemical
Product:	UDGS and API Plan 74
Application:	Xylene Pump
MTBF Increase:	7,100% (and counting)
Savings:	>$169,200
ROI:	Less than 1 year
Reference N.O:	CS0051

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