Mercury Control in the Industrial Processes

ZDRAVKO SPIRIC, STANKA ZRNCEVIC & MARIN HRASTE

Abstract: In addition to the possible health and ecological hazards, the presence of mercury in technological and energetic systems can lead to corrosion-related problems which endanger the very sophisticated and expensive processing equipment, as well as problems related to the deactivation of catalysts in petrochemical and other industrial processes. Mercury's potentially harmful effect on humans and on the environment is making its removal an imperative and therefore, it is essential to find adequate procedures for mercury removal from such systems.

Considering the health, environmental, technological and economic problem of the presence of mercury in the natural gas, a comprehensive approach to mercury control, which includes efficient mercury removal unit and the precise measurement of mercury in the process have been designed.

A sophisticated monitoring technique and mercury control strategy in a system under exploration resulted in an important progress regarding the process control, along with efficiency and operational safety improvement, creating at the same time favourable conditions for its further optimization (improvement and enhancement).

Key words: Monitoring, mercury control, industrial processes