



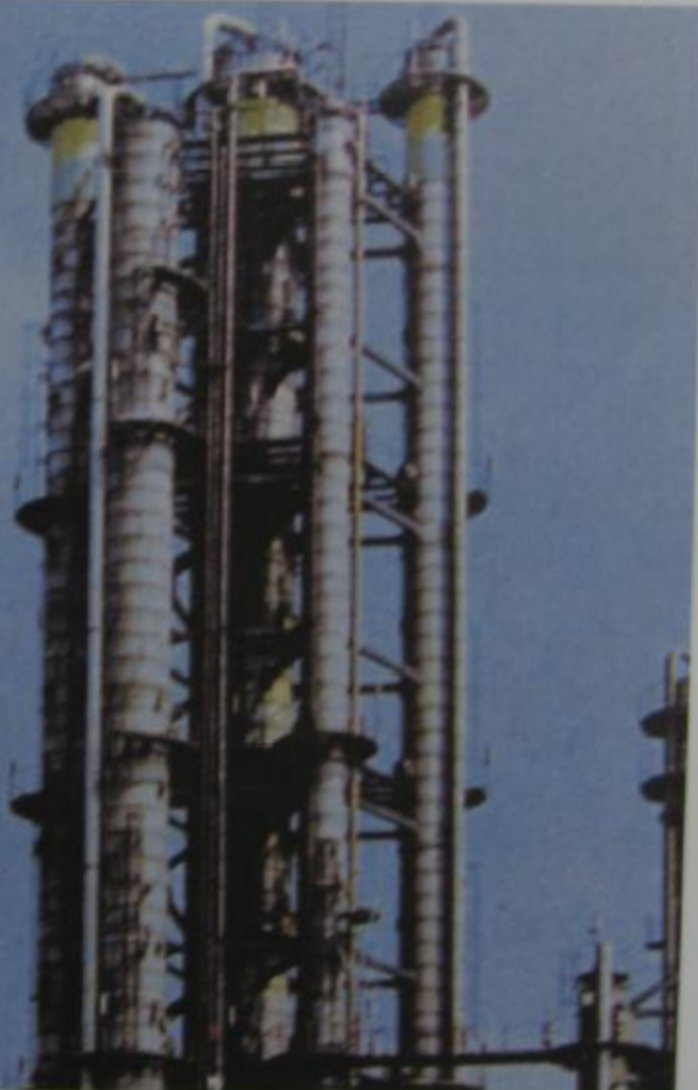
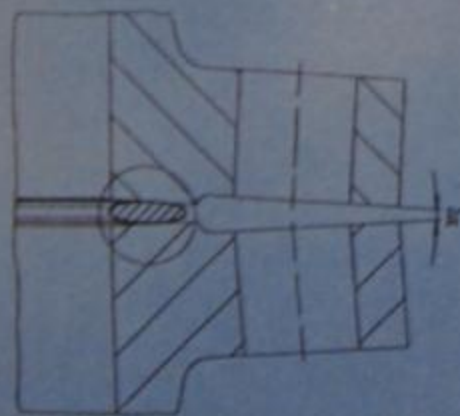
European  
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## Invitation and Programme

# 2nd European Fugitive Emissions Conference

– Controlling leaks from valves, pumps and flanges –

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# Attaining Oil Refinery Compliance with San Francisco Bay Area Emissions Standards

Process pump emissions compliance in a California Refinery

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## 1. Abstract

California refiners face the most stringent emissions regulations in the world. In order to remain competitive in a global economy, these refiners are forced to operate to significantly higher standards of reliability while emissions regulations become more restrictive. The significant capital investment costs of emissions reduction can be partially offset by increasing reliability and taking advantage of the other minor economic benefits of improved sealing system efficiency. A company must create a compliance plan developed around individual site factors. New technology alone will not bring pumps into compliance, unreliable equipment must be clearly understood and addressed in order for new technology to succeed.

## 2. Background

Since the 1970's, significant regulatory activity has occurred in California to control Volatile Organic Compound (VOC) emissions from pumps and other fluid handling equipment. In the early 1970's the California Air Resources Board (CARB) mandated emissions standards for refineries. These emissions standards have typically been much more stringent than the national Environmental Protection Agency (EPA) standards. California is known for having the most stringent regulations in the world.

The regulations are designed to "limit emissions of organic compounds, including methane from leaking equipment at petroleum refineries, chemical plants, bulk plants and terminals including, but not limited to: valves, connectors, pumps, compressors, pressure relief devices, diaphragms, hatches, sightglasses, fittings, sample ports, meters, pipes, and