



Mary Kay O'Connor Process Safety Center
2005 International Symposium
Beyond Regulatory Compliance, Making Safety Second Nature
October 25-26, 2005

Gas Compression in the Andes

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Abstract

Hanover was contracted to provide compression services for pipeline gas transport at an altitude approximately 4000m (~13120 ft.). The remote and high altitude location imposed special requirements for both workers and machinery.

A program was initiated to ensure that workers could work safely under the low oxygen and winter conditions.

Machinery had to be sized to ensure sufficient and reliable horsepower for the conditions and back up remoteness of the location. Contingency plans were prepared to ensure that risks arising from both the altitude and normal construction and operations activities could be minimized.

Many of the construction workers were residents of a nearby town at approximately 7000 ft. These personnel had experience at altitude and, partly because of their normal residence at 7000 ft., adjusted very rapidly to the conditions.

Other personnel, however, especially those who reside at or near sea level and who have little or no experience in high altitude conditions, underwent physical examinations and training to assess their ability to work at altitude and to ensure that each knew to recognize symptoms of altitude sickness and to seek help if they experienced any. Specialist medical authorities were consulted and contracted to provide screening training and contingency services for all workers. HAZOP exercises included specifically designed scenarios to anticipate and to minimize these risks.