CANSOLV® SO_2 SCRUBBING SYSTEM: REVIEW OF COMMERCIAL APPLICATIONS FOR SMELTER SO_2 EMISSIONS CONTROL

Ms. Valérie Léveillé
Cansolv Technologies, Inc.

Thys Claessens
Chemical Initiatives

ABSTRACT

As new legislation drives metallurgical plants to lower SO_2 emissions, plant managers face the challenge of keeping their costs under control. The Cansolv® SO_2 Scrubbing System has been broadly adopted in the non-ferrous industry as a cost effective solution for smelter operators to meet the new SO_2 emissions targets.

The Cansolv® SO_2 Scrubbing System is an amine-based regenerable process that selectively absorbs SO_2 from a variety of gases, including dilute smelter gases, such as furnace and converter gases. The system produces a pure, water-saturated SO_2 byproduct stream, which can then be directed to the front end of a sulfuric acid plant for conversion to sulfuric acid. When deployed in a smelter complex, the Cansolv® SO_2 Scrubbing System may also be used to process acid plant tail gas, allowing single absorption sulfuric acid plants to achieve emissions an order of magnitude lower than that of a double absorption acid plant with a lower capital investment. Depending on inlet gas temperature SO_2 emissions in the treated gas can be controlled to as low as 55 mg/Nm^3.

This paper will describe some of the applications where customers have or are planning to use the Cansolv® SO_2 Scrubbing System, as well as which features and cost advantages for the treatment of smelter gases were important in the technology choice.