

CHEMICAL & PETROCHEMICAL INDUSTRY

Mexico's traditional economic policy of import substitution has met with considerable success in the chemical and petrochemical field. Throughout the past 40 years, industry growth has averaged 12% per year. Import substitution has allowed a number of large Mexican chemical companies to develop, including firms such as ALFA, CELANESE, and CYDSA. At the same time, large foreign players have invested in the sector. International giants such as BASF, BAYER, DOW CHEMICALS, ICI, and HOECHST have all established a manufacturing presence in Mexico.

The industry is one of Mexico's largest, with a total production valued at \$US 14.7 billion. Approximately 400 companies, operating 700 plants (excluding PEMEX, the state oil monopoly), account for the vast majority of industry production. Additionally, industry experts estimate an additional 3000 micro-companies are operating in this sector. Approximately 20% of total investment is controlled by foreign companies. In general, these plants tend to be more advanced in terms of wastewater treatment.

PEMEX plays a critical role in the chemical industry. In addition to monopolizing the exploitation of petroleum resources, the company is also the sole legal producer of basic petrochemicals. PEMEX operates over 100 chemical production facilities. In fact, PEMEX is the 7th largest producer of petrochemicals in the world.

This study focuses on private sector wastewater treatment opportunities; that is, PEMEX is not included. As a government corporation, dealings with PEMEX often require extensive time commitments. Additionally, PEMEX has already purchased a large percentage of its wastewater requirements. Nevertheless, given the sheer size of the company, wastewater management suppliers may wish to consider PEMEX as a potential client.

PEMEX

PEMEX is the sole Mexican producer of eight basic petrochemicals. These substances include: ethane, propane, butanes, pentanes, hexanes, heptanes, raw material from carbon black, and naphta. As a result, the only Mexican client for treatment processes focusing on these chemicals is PEMEX.

Norms and Enforcement:

Four norms- three, four, five, and twelve - govern the water discharge activities of the chemical/petrochemical sector. Many companies operating in this industry are under pressure to better treat discharges, as they are located in zone 1 priority areas.

Perspectives:

Over the short term, the industry is expected to suffer under NAFTA. Medium and long term growth will resume with the implementation of advanced technology. Domestic capacity is expected to increase.

Target Market:

Over 400 companies operate 700 plants. The industry is highly international, with almost 50% of all investment controlled by foreign companies.

Mexican petroleum reserves have been an important factor in the development of the chemical and petrochemical industry. Most of these reserves are located in the Gulf of Mexico. As a result, a significant portion of petrochemical and chemical plants are located in such coastal cities as Coatzacoalcos (Veracruz) and Tampico (Tamaulipas).

Production facilities generally fall into one of two categories: state of the art or antiquated. In the early 1980's, many Mexican chemical manufacturers brought new facilities into operation. These plants were frequently equipped with wastewater equipment from the outset. Canadian wastewater treatment vendors should focus on plants using older technology. A significant number of such plants are located in the Industrial Vallejo area of Mexico City and the industrial suburbs of Mexico City. In contrast, newer plants are generally found in the coastal regions mentioned above.

Current production capacity can be broken down as follows: basic petrochemicals (reserved for Pemex) 31%; inorganic chemicals 26%; fertilizers 16%; intermediates 15%; synthetic resins 5%; synthetic fibres 1%; and other 6%. In general, the Mexican chemical industry requires a larger capacity. As growth continues, new installations will be needed. Given environmental regulations, these plants will need wastewater treatment capabilities.