

THE MINERAL INDUSTRY OF

SINGAPORE

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Singapore is a city state with virtually no natural resources. The country has adopted economic policies that encourage open trade and investment. Singapore's free-market economic policies, including a competitive business environment and a transparent and corruption-free regulatory system, have created a climate conducive to economic growth. The Government encourages Singaporean firms to invest abroad to increase the country's external income. The dramatic economic slowdown in Southeast Asia had a significant effect on Singapore's financial sector because more than 17% of all Singaporean bank loans were associated with the investments in that region. A series of layoffs had been reported in the financial sector. The Singapore dollar had dropped more than 15% against the United States dollar since July 1997.

The Economic Development Board (EDB), the Singapore Trade Development Board, and the National Science and Technology Board work together to plan, promote, market, and sell Singapore as a major company to foreigners. The Government works closely with the industry to make sure that its strategic planning and infrastructure development provide greater efficiency for the industry to develop. Many of Singapore's public policies were tailored to attract foreign investments and to ensure an environment conducive to their efficient business operations and profitability. The Government encouraged the development of more "green" high-tech industries in the island. Manufacturing and financial services sectors which are the heart of the Singaporean economy, accounted for more than 50% of Singapore's gross domestic product in the 1990's. Tourism is another major income generator for the economy. Electronics and chemical output account for about 45% and 18%, respectively, of the total output of the manufacturing sector. Manpower shortage is one of the key concerns of local and multinational companies officials. In 1997, the EDB introduced a new initiative to upgrade the skills of manufacturing workers. The Government considered that manpower and its capability development were critical role for sustained long-term economic growth. In June 1997, the Chemical Industry Manpower Advisory Committee, including representatives from industry, educational institutions, and the EDB was formed to address personnel issues on human resource and training in line with the growth of the local chemical industry.

Singapore is one of Asia's leading oil refinery centers and a major oil and futures trading market for the region. The London Metals Exchange set up its metal warehouse in Singapore. More than 80% of its 1.2-million barrel-per-day refined oil output is exported to Asia and the Pacific countries. The financial crisis in the region forced Singaporean refiners to cut their output by about 10% in the last quarter of 1997. During the same period,

Singapore's second biggest refiner, Mobil Oil Singapore, a subsidiary of Mobil Corp., overhauled its 300,000-barrel-per-day complex that required the refinery to reduce its output level by more than 15%. Domestic oil analysts expected that the reduction of refinery output was short term and would return to full production capacity in 1998.

The Singaporean Government continues its plan to develop the island as a petrochemical hub in Southeast Asia. In the early 1990's, the EDB initiated a \$4.2 billion land-reclamation program to create Jurong Island as a base for petrochemical development (U.S. Embassy, Singapore, 1997). In 1997, Exxon Chemical decided to build a \$2 billion petrochemical complex on Jurong Island and was expected to receive final approval from the Government in early 1998. The complex will be integrated with Esso's refinery on Pulau Ayer Chawan (part of Jurong Island) and will come on-stream in 2000. The Government will approve the final plan in early 1998. Exxon is considering building downstream units in Singapore to integrate its naphtha cracker plant.

More than a year ago, Mobil Corp. intended to build a \$1 billion naphtha cracker plant in Singapore. With the financial crisis in the region, Mobil postponed its final decision until the first half of 1998. The EDB does not usually take more than 30% of the equity shares in local capital investment projects, but, under exceptional circumstances, it may take an initial stake up to 50% (Chemical Week, 1998).

Mitsui Petrochemical Industries decided to build a high-density polyethylene plant at the Mobil site. The 300,000-metric-ton-per-year plant was scheduled to begin operation by 2001 when the Mobil naphtha cracker plant is expected to come on-stream. Ethylene will come from the Mobil's ethylene unit.

Texaco of the United States and Messer, a unit of Germany's Hoechst Group, formed a joint venture, Singapore Syngas, to build a synthesis gas plant in Singapore by 2000. The company planned to use the Texaco's gasification technology to convert 600 metric tons per day (t/d) of low-grade refinery feedstock from the Singapore Refinery Co. into 900 t/d carbon dioxide. The carbon dioxide will feed to the nearby Celanese acetic acid plant that is under construction, and hydrogen gas will be supplied back to the refinery (Chemical and Engineering News, 1998).

References Cited

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