

ASBESTOS

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Asbestos producers continued to struggle on against the tide of regulatory and public pressure in 2000, although many must now feel like King Canute as the waves lapped around his ankles.

But first the good news. Production from the major western source, Quebec, in Canada, continued the improvement seen in 1999, rising by around 3% year-on-year to 320,000 t. That might not seem too impressive when compared with the greater than 0.5 Mt/y figures seen in the first half of the 1990s, but at least the trend is now heading in the right direction.

The improvement is a reflection of recovering demand in Southeast and East Asia, particularly in Thailand and South Korea where the return to economic growth has been strongest. The Japanese market, however, remains disappointingly weak, with imports in the region of 130,000 t – well down on the 170,000-190,000 t/y seen prior to the Asian crisis.

The two long-established Canadian producers, JM Asbestos Inc. and LAB Chrysotile Inc., were joined as exporters to Asia by Cassiar Magnesium Inc. in 2000. Cassiar is reprocessing old chrysotile stockpiles and tailings at the Cassiar operation in northern British Columbia. The 17 Mt of tailings and 6 Mt of stockpiled material contain an estimated 950,000 t of recoverable fibre.

A dry mill with the capacity of 18,000 t/y was commissioned at the start of 2000, and has been expanded incrementally to 30,000 t/y. Cassiar plans to build production to 50,000 t/y over the next two to three years through the installation of a wet-process circuit. The asbestos production is providing cash flow to the company while it progresses its plans to

establish a 150-200 Mlb/y magnesium metal plant at the site by 2003.

Whether these plans come to fruition, however, may now be in doubt following a change in ownership at Cassiar in June 2001. Control of the company was acquired by two affiliates of a US-based investment trust - Greyling Investments Inc. and Greyling Resources. As a result, the chairman, chief executive and president of the company were removed, and a new board of directors was installed.

Outside Canada, Brazilian production of chrysotile by SA Mineração de Amianto (SAMA) was maintained at around 180,000 t/y, although the continued recession in Argentina affected the level of construction activity. SAMA is the major supplier of chrysotile to South American markets.

In Africa, the political instability in Zimbabwe and accompanying slide into economic crisis damaged all sectors of industry. The Zimbabwean asbestos producer African Associated Mines (AAM) is hugely important to the economy, employing up to 6,000 people at Zvishavane (about 20% of total employment in the country's mining industry) and earning US\$40-50 million from exports each year. However, the company has not been immune from the disruption affecting the rest of the country and, unlike producers in Canada, AAM does not appear to be regaining markets lost during the Asian crisis. Output crashed to 88,000 t in 1999, down from 165,000-170,000 t/y in the mid-1990s, and is likely to have fallen further in 2000.

There are also numerous reports of environmental problems at the Zvishavane (Shavanie) operations, with control of dust from mine dumps a particular concern during extended periods of dry weather.

The South African producer, Msauli Asbes Beperk, continues to produce in the order of 20,000 t/y chrysotile fibre, down from over 50,000 t/y in the mid 1990s. The company relies heavily on demand from the domestic market that has been moving away from the use of asbestos products. Despite the overwhelming need for affordable, durable construction materials to alleviate the chronic housing shortage in parts of the country, the stigma attached to asbestos has started to undermine demand for asbestos cement products.

Roofing shingles, guttering, water tanks, pipes and silos have all traditionally been manufactured from asbestos cement that poses no threat to health if installed and used correctly. Despite this, high profile legal cases against former asbestos mining companies in the Southern African region (eg Cape plc – see later) and the lingering environmental impact of old asbestos mine dumps, have influenced demand for modern asbestos cement products. The whole topic of asbestos cement use has now become a political issue.

The situation in South Africa is also of concern to HVL Asbestos in Swaziland as South Africa is one of its most important export markets. HVL's production has now dropped to under 20,000 t/y chrysotile.

Western Europe's last surviving asbestos producer, Hellenic Mineral Mining Co., now only produces around 30,000 t/y fibre, half of what it produced three years ago. Anti-asbestos sentiment in Europe and weak Asian markets have hit the company hard.

In the CIS, Joint Stock Co. Dzhetygarinskiy Asbestos Mining and Processing Combine (DAGOK Kustanayasbest) in Zhitikara, Kazakhstan raised US\$6 million through a bond issue in early 2001. The company plans to invest a total of around US\$15 million between 2001 and 2005 in modernising and upgrading its mining and processing equipment. DAGOK operates a mine based

on the Dzhetygara chrysotile deposit that has estimated reserves of 648 Mt grading 4.8-5.7% chrysotile. In 2000, the company produced 178,400 t of fibre, up 28% on 1999, most of which was exported to Russia, Uzbekistan, Kyrgyzstan, Iran and China.

In Russia, the main producers and exporters of chrysotile fibre are JSC Uralasbest (Sverdlovsk oblast) and JSC Orenburgasbest (Orenburg oblast). Uralasbest leads output in Russia, producing around 460,000 t in 2000, up 11% on 1999 despite frequent power shortages. The company is in the process of evaluating construction of a magnesium metal plant to utilise serpentinite-rich waste from its asbestos operations. These average 20-22% magnesium and the company intends to develop a 50,000 t/y magnesium metal plant. Pilot plant tests have successfully produced magnesium metal slabs and full-scale production is envisaged by 2005.

Russian chrysotile producers exported a total of 330,000 t in 2000, an increase of 28.5% on 1999. China is consistently the largest market for Russian asbestos (taking 22% of Russian exports in 2000) as well as producing some 330,000-350,000 t/y from numerous mines of its own in Hebei, Liaoning, Qinghai, Sichuan and Xinjiang provinces.

The main volume applications for asbestos are, as they have been for many years, in construction products, particularly asbestos cement articles. Pipe and sheet asbestos cement products are strong, relatively low cost, corrosion resistant, and are easily manufactured with fairly simple equipment - hence their continued popularity in developing countries in Latin America, the Middle East and Asia. Chrysotile also retains niche uses in certain friction products, fire resistant applications, and as a reinforcing agent.

Asbestos has long been the subject of press coverage but 2000 and early 2001 were marked by a notable increase in

announcements related to alleged past negligence in production and product misuse. In North America, in particular, the number and scale of legal claims against former asbestos producers and former manufacturers of asbestos products accelerated.

In the US, several leading construction product companies have entered Chapter 11 bankruptcy protection in response to mounting asbestos litigation claims. Global names such as Armstrong World Industries, Owens Corning, and W.R. Grace joined five other companies in filing for bankruptcy or Chapter 11 in 1999/2000 and, in mid 2001, USG Corp. was forced to follow them.

USG says that its asbestos personal injury costs have risen from US\$100 million in 1999 to US\$162 million in 2000, and have been estimated at US\$275 million for 2001. The company maintains that it would prefer a legislative solution to the problem and is scathing about the US tort system of litigation. This, it says, allows plaintiff's lawyers to file an increasing number of lawsuits of questionable legitimacy to take advantage of the fact that companies often find it cheaper to settle out of court rather than go through the legal process.

As the number of companies entering Chapter 11 rises, the pressure mounts on those remaining. The US tort system has come in for enormous and largely justified criticism, even from neutral commentators. It is estimated, for example, that less than one-third of the money recovered through litigation ends up with the plaintiffs, and one

of the Supreme Court's judges has suggested that up to half of the claims being filed are from people with little, or no, physical impairment (or likelihood of future injury).

Moreover, juries have been awarding extraordinary sums for possible future impairment to health to plaintiffs who have only the most dubious claims to have ever come into contact with asbestos-containing products. The Supreme Court stated that "the elephantine mass of asbestos litigation demands a legislative solution" but this looks very unlikely in the near future.

All this detracts from the cases of those in genuine need of financial assistance for very real health problems related to asbestos exposure. Amongst these could be counted the 6,500+ South African claimants against the UK's Cape plc who were given leave to pursue their legal action against the company in the UK courts by the House of Lords.

While none of the present legal action involves current chrysotile producers, it reinforces the negative public and regulatory perception of the mineral. Member countries of the European Union have agreed to phase out virtually all use of asbestos-containing products by 2005 – finally killing off a market that has been in decline for many years but which still accounted for around 30,000 t of consumption in 2000. More importantly than this, perhaps, is the influence this decision will have on prospective members of the EU and other countries that follow the EU's lead – between them, Turkey, Poland, the Czech Republic, Romania and Hungary consume a further 30,000-35,000 t/y of chrysotile fibre.