The Changing World of Magnesite

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3rd China Liaoning International Magnesia Materials Exposition
20-24 September, Shenyang, China
The changing world of magnesite
Mike O'Driscoll, IM, 3rd CLIMME, 20-24 September 2008, Shenyang

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The international conference for global, supply, processing, markets and R&D in magnesia minerals and products

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Outline

1. The big picture – the tide has turned
2. Influencing factors
3. Western magnesia capacity developments
4. Corporate activity
5. Market outlook
6. Summary & conclusions
1. Big picture – the tide has turned

- A sea change in magnesia supply sector
- Chinese supply no longer export driven
- Global consumers seeking alternative sources
- Market growth opportunities
- Surge in capacity expansion plans 2008-2010
- Diversification/return by western sources to FM/DBM
2. Influencing factors

Previously....

• Chinese magnesia supply dominated world markets mid-1980s to mid-2000s
• Lower cost Chinese DBM/FM lured consumers
• Certain western DBM producers diversified or exited altogether, e.g. Britmag, Sardamag, H-W, National Magnesia, Asahi, Baymag (FM), DSP (DBM)
• DBM/FM capacities/projects mothballed
2. Influencing factors

Previously....
2. Influencing factors

The China factor

- Since 2006 govt. policy – cooling the economy
- Export VAT rebate abolition
- Introduction of new export taxes
- Export license system – increased licence cost, reduced export quotas
2. Influencing factors

The China factor

**Early 2006: a leading trader commented:**

“I feel that once the Chinese government is introducing a new tax to curb the export of minerals, obviously they do not worry about the competitiveness of Chinese minerals in the international market any more.”
2. Influencing factors

The China factor

Early 2006: a leading trader commented:

“The overseas buyer will either be forced to pay a significantly higher price for Chinese minerals or buy from an alternative source.”
2. Influencing factors

The China factor

- **Sustainable development** – raw material conservation
- **Decline in quality & availability of high grade feedstock**
- **Crackdown on smuggling**
- **Olympic Games**
- **Economic boom of China** – rapidly growing domestic demand
2. Influencing factors

Other factors

- **Freight** – increasing costs, availability & congestion problems
- **Energy price rises**
- **Buoyant demand in certain markets**
2. Influencing factors

The result....

1. Price increases

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China 97 DBM price ($/tonne fob Europe 2000-08)

China 98 EFM price ($/tonne fob Europe 2000-08)

Source: Qmag
2. Influencing factors

The result....

2. Shortage of supply

3. Opportunity knocks for suppliers outside China
2. Influencing factors

The result....

A developing western producer & consumer stated:

“At the end of 2009 we should be independent regarding supply of [Chinese] DBM and FM.”

“A similar strategy should be the base for any serious producer of magnesia based refractory products.”
3. Western capacity developments

- Baymag, CCM, DBM, FM
- Mag de Rubian, CCM
- Magnezit, CCM, DBM, FM
- Premier, CCM
- MMMS, CCM
- Bommag, DBM, FM, Kumas, DBM, FM
- DSP, CCM
- RHI-Jinding, DBM
- Tata Ref., DBM
- Penoles, CCM, FM
- Qmag, CCM, DBM, FM
- Magnesita, DBM
3. Western capacity developments

Bringing on stream by 2010

384,000 CCM
MMMS, Manistee, USA

1.2m. DBM

120,750 FM
3. Western capacity developments

Kumas, Kutahya, Turkey

Nedmag, Veenam, the Netherlands
3. Western capacity developments

Baymag, Exshaw, Canada

Magnesita, Brumado, Brazil

Qmag, Rockhampton, Australia
4. Corporate activity

- **Private equity interest** - Magnesita, GPI/Gavea
  - Qmag, RCF

- **M&A**
  - UCM, Imerys
  - Minco, Penoles
  - Morton Salt, MMMS
  - Calmag, Bomex
  - Slovmag, Magnezit
  - Dalmia/Eswar
  - LWB, Magnesita
4. Corporate activity

Magnesita/LWB merger
4. Corporate activity

Magnesita/LWB merger

Combined customer base of Magnesita and LWB

- **Magnesita**
  - South America: 90%
  - North America: 2%
  - Europe: 5%
  - Africa: 1%

- **LWB**
  - South America: 30%
  - Europe: 49%
  - Asia: 13%
  - Africa: 4%

- **Magnesita & LWB**
  - South America: 51%
  - Europe: 25%
  - Asia: 7%
  - Africa: 2%

*Courtesy Magnesita*
4. Corporate activity

- **Speculation**
  - Magnohrom, *XXX?*
  - SMZ, *XXX?*
  - *XXX?*, **RHI**

- **Interest in China**
  - RHI-Jinding
  - Tata Refractories
5. Market outlook

Refractories – DBM, FM

- 7-8% pa growth to 2012
- Steel, cement
- RHI: “The steel sector can look to the future with confidence.”
- BRIC regions
5. Market outlook

- Refractories – DBM, FM
5. Market outlook

- Refractories – DBM, FM

![Diagram: Brazilian cement production (m. tpa)](source: SNIC, Magnesita (2008))

**Annual growth**

- Votorantim (SC, RN, TO): 1.0-2.5 mtpy each
- Holcim (PR): 1.0 mtpy
- SOEICOM (MG): 2.0 mtpy
- Brennand (MG): 1.0 mtpy
- João Santos (BA): 1.0 mtpy

*Expansion projects announced by Magnesita’s customers.*
5. Market outlook

Environmental - CCM

Specialities - CCM

Hydrometallurgy - CCM

Agrimarkets - CCM
6. Summary & conclusions

- China still a large producer, but increasingly serving domestic markets, exports to decline
- Supply shortage the tight for 1--2 years
- Western capacity expansions proceed to take and retake market share lost to China earlier
- More M&A consumers securing raw material sources
- Increased interest in new MgO sources/projects
- See western players expand MgO portfolios…
- … in order to meet market demand growth
6. Summary & conclusions

USA challenges Chinese export policy

US Trade officials claim that China is violating WTO rules with its export taxes, licences and quota restrictions

by Kwok W Wan, Assistant Editor

Industrial Minerals news page, October 2008
6. Summary & conclusions

Is the tide about to change again for magnesia?

Thank you for your kind attention