

COMPETITION TRIBUNAL OF SOUTH AFRICA

Case No.: 40/LM/May06

In the matter between:

LINDE AKTIENGESELLSCHAFT

Acquiring Firm

and

THE BOC GROUP PLC

Target Firm

Panel : N Manoim (Presiding Member), L Reyburn (Tribunal Member), and M Mokuena (Tribunal Member)

Heard on : 02 August 2006

Order issued on : 02 August 2006

Reasons issued on : 20 December 2006

REASONS FOR THE ORDER

Approval

[1] The Competition Tribunal issued a Merger Clearance Certificate on 02 August 2006 approving without conditions the proposed merger between Linde Aktiengesellschaft (“Linde AG”) and the BOC Group plc (“BOC”).¹

The parties and the merger transaction

[2] Linde AG is a publicly listed company incorporated under German law whose shares are traded on the German stock Exchanges (i.e., Berlin, Dusseldorf, Frankfurt (Main), Hamburg, Munich and Stuttgart) as well as on the

¹ The proposed transaction was a global transaction which had been notified not only in South Africa, but also to a number of competition jurisdictions abroad. Other jurisdictions included the European Union (EU), the US, South Korea, Japan, Taiwan, Mexico, Brazil, China and Columbia. At the time of the merger filing with the Commission, the merging parties advised that they were considering submitting – on a voluntary basis – filings in jurisdictions other than those mentioned above. At the time of the merger hearing by this Tribunal, the EU had already cleared the proposed transaction conditionally. *See page 54 of the merger record.*

SWX in Zurich. No single shareholder controls Linde AG.² Linde AG is a global entity which operates through established subsidiaries in each country in which it undertakes its commercial activities.³ Linde AG solely controls two subsidiaries in South Africa, which are: Linde Material Handling (Pty) Ltd (“LMH”) and Linde Process Plants (Pty) Ltd (“LPP”).⁴

[3] BOC is a company incorporated under English law (that is, under the company laws of England and the Wales). BOC is listed on the London Stock Exchange and has no controlling shareholders. BOC controls a number of firms worldwide. According to the merging parties, none of BOC’s global subsidiaries have any relevance to the proposed transaction. However, BOC controls the following two firms in South Africa – both of which are relevant for purposes of our analysis – African Oxygen Ltd (“Afrox”) and BOC Edwards South Africa (Pty) Ltd.

[4] In terms of the proposed transaction, Linde AG will acquire the entire issued share capital of BOC.⁵ Once approved, the proposed transaction would confer upon BOC the capacity to exercise sole control over the operations of BOC. BOC will accordingly become a wholly owned subsidiary of Linde AG and will form part of Linde AG’s ‘Gas and Engineering’ division. The merging parties intend to implement the proposed deal / offer by way of a court (High Court of England and Wales) approved scheme of arrangement under section 425 of the United Kingdom Companies Act, 1985.

Rationale for the transaction

[5] The merging parties submitted that the proposed transaction provided them with the opportunity to create a leading worldwide focused industrial gases business. Linde AG believes that the proposed acquisition will further enhance its proven capability to execute a profitable growth strategy. Linde AG further submitted that Linde AG will – through this transaction – combine the best competencies and abilities of both organisations in a single integrated whole and will be able to offer their customers a significantly enlarged product range as well as comprehensive services. According to Linde AG, all these will be achievable worldwide.⁶ Commenting on the offer, Tony Isaac (CEO of BOC) said that “the offer represents an excellent opportunity for BOC shareholders to realise significant value in cash from their investment...and that the combination

² Linde’s largest shareholders holding 10% and more of its equity are Allianz AG (12.3%), Deutsche Bank AG (10%) and Commerzbank AG (10%). According to Linde AG, there are no other shareholders holding in excess of 5% of the equity in Linde AG.

³ For a complete list of worldwide firms controlled by Linde AG, see pages 96-104 of the merger record (That is Annexure “A” to the merger record).

⁴ These subsidiaries are based in Johannesburg. The first subsidiary is located in Linbro Park and the second, in Bryanston.

⁵ For greater detail in respect of the mechanisms of the proposed transaction, please see the document entitled “*Recommended Cash Offer for the BOC Group plc by Linde AG* (dated 6 March 2006) – pages 169-214 of the merger record.

⁶ See Prof Dr-Ing Wolfgang Reitzle’s (CEO of Linde AG) comments on the offer – page 170 of the merger record. See also page 68 of the merger record.

of BOC and Linde will create an even more powerful international gases group, with significant operations on all five continents, that will benefit both its customers and staff in the years to come”.⁷

The relevant market

[6] As already alluded to above, both the merging firms are global entities which operate through their respective subsidiaries worldwide, including South Africa. We will for purposes of this transaction outline these parties’ activities in the global market as well as in South Africa.

[7] Internationally, both Linde AG and BOC offer a broad range of gases worldwide to customers in a wide variety of different industries. The gases cover standard industrial gases, such as hydrogen, oxygen, nitrogen and argon; medical gases, such as oxygen for medical use and nitrous oxides; specialty gases, such as various refrigerants and calibration mixtures, and helium. Linde is moreover active in the industrial gases plant construction business and the manufacturing of forklift trucks and warehouse equipment (the so-called “material handling”).⁸ BOC has, furthermore, some activities in the logistics sector. BOC’s activities are related to and/or conducted through: Process Gas Solutions;⁹ Industrial and Special Products;¹⁰ BOC Edwards;¹¹ and Gist.¹²

[8] According to the merging parties, the parties’ activities - on a worldwide basis - are complementary in terms of geography. They further submitted that while both parties are major players in the global gases business, BOC has a strong focus on growth markets such as Asia, where Linde has little or no presence.¹³

⁷ See footnote 6 *supra*.

⁸ The Linde Group manufactures and sells the so-called ‘material handling’ products through its three (3) brands, that is, Linde; STILL and OM Pimespo. Linde AG has two main business segments, namely: “Gas and Engineering” and “Material Handling”.

⁹ This encompasses large on-site supply schemes especially in the metals, chemicals and petroleum sectors. Also included are small on-site and liquid supplies for customers in sectors such as food, glass, minerals and for environmental applications.

¹⁰ This covers a range of products including compressed gases, special and medical gases and Liquefied Petroleum Gas (“LPG”) as well as smaller sales of bulk liquefied gases. Sales are mainly to customers in the fabrication, medical and scientific sectors as well as to distributors.

¹¹ According to the merging parties, BOC Edwards is synonymous with the semi-conductor industry, supplying it with a broad range of materials, process-enabling equipment and services. The vacuum technology business supplies vacuum pumps and pressure blowers for a variety of industrial and scientific applications. Specialist businesses include pharmaceutical systems and thin film coating disposition systems.

¹² Gist, formerly BOC Distribution Services, specialises in the transformation of supply chains for customers around the world. Gist offers a range of supply chain solutions from design, set up, implementation and operational management through to supply chain consulting services. Gist provides solutions for customers in the UK, continental Europe, Asia Pacific and North America.

¹³ The merging parties submitted that whilst North America and Europe are still the largest and second largest gas markets respectively, growth at a global level is largely driven by an increasing demand in new markets in other parts of the world, such as Asia.

[9] It therefore follows from the above that the merging parties' activities overlap quite significantly internationally. As can be seen from below, such overlap seems minimal with regards to the South African market – the overlap being in relation to the production and supply of 'specialty gases'.

[10] Linde's activities in South Africa are mainly focused on material handling; and engineering / plant construction. As already indicated above, Linde AG offers the former product through its wholly owned subsidiary, Linde Material Handling (Pty) Ltd ("LMH"), whilst the latter product is offered through Linde Process Plants (Pty) Ltd ("LPP"), another Linde AG subsidiary. According to the merging parties, Linde has no activity in South Africa that relates to industrial / medical gases. It has only minor activities with regard to specialty gases. We discuss below what each of these products entail.

[11] LMH operates as a sale and service organisation with a network of branches and dealers throughout the Southern African region. LMH sells the complete range of Linde material handling equipment which includes pallet jacks and motorized pallet trucks, pallet stackers, reach trucks, electric counter balance trucks, electric tow tractors, diesel and liquefied petroleum gas counter balance trucks, container handlers and side-loaders. In addition to these products, LMG also offers an after-sales service to its customers.¹⁴ LPP provides business consultancy services to Linde AG in the field of engineering.¹⁵

[12] In addition, Linde also designs and constructs turn-key plants.¹⁶ We now turn to consider Linde AG's activities with respect to gases.

[13] The merging parties submitted that the local activities of Linde AG, with respect to gases, is limited to sales of specialty gases, which in turn is limited to four (4) gases, viz., **ethylene** (classified in the sub-category of chemical gases); Xenon (a noble gas, which falls within the sub-category of lighting gases); **calibration gases**; and propylene oxide (classified as a chemical gas). The merging parties advised us that Linde AG's sales of specialty gases to customers are concluded directly between the local customer and Linde Gas in Germany.

[14] BOC is involved in the production and distribution of industrial gases and related equipment, distribution services and vacuum technology. It produces and markets the main atmospheric gases¹⁷ (nitrogen, oxygen and argon),

¹⁴ LMH's after-service sales service includes customer specific modifications of standard equipment, full maintenance contracts, on-site technicians, annual load checks, short and long term rentals and service and maintenance during shutdowns and over weekends.

¹⁵ The merging parties submitted that this was the only activity of LPP until late 2005.

¹⁶ The merging parties advised us that since late 2005, LPP has become involved in the execution of an on-shore contract with respect to the procurement and construction of a turn-key plant for Sasol Olefins and Surfactants.

¹⁷ Atmospheric gases are extracted from the air mainly by using cryogenic air separation technology. Non-atmospheric gases can be obtained from synthetic processes or natural sources.

hydrogen, carbon dioxide, helium, acetylene, carbon monoxide, syngas (a mixture of hydrogen and carbon monoxide), liquid petroleum gas and specialty gases.

[15] BOC's operations in South Africa are conducted through the Afrox group of companies¹⁸ and through BOC Edwards South Africa.¹⁹ These companies are involved in a diverse range of business activities ranging from the manufacturing and marketing of gases, welding products and a wide range of specialised high-technology industrial products.

Product Overlap

[16] Below is a summary in a table form, which reflects the merging parties' activities relevant to South Africa.

PRODUCT	LINDE AG	BOC
Standard Industrial / Medical Gases	Has no local activities in this market segment	Is active in this market segment
Helium	Has no local activities in this market segment	Is active in this market segment
Engineering / Process Plant Construction	Is active in this market segment	Has no local or international activities in this market segment ²⁰
Specialty Gases	Is active locally in this market segment	Also active locally in this market segment
Material Handling	Is active locally in this market segment	Has no local or international activities

[17] What one sees from the above table is that the businesses of Linde AG and BOC (within South Africa) mainly overlap in the production and supply of

¹⁸ Afrox's business comprises: large supply schemes, bulk and tonnage business; industrial products; LPG – mega bulk, industrial and household gas, and autogas; medical gases; special gases including scientific gases, refrigerant gases and services, propellants and other packaged chemicals and helium; hospitality gases; safety business including safety products and services; manufacturing and export of gas equipment, welding and safety products; as well as African operations. See *Afrox's Annual Report and Financial Statements for 2005*, page 7.

¹⁹ The BOC Edwards business segmentation predominantly involves the manufacture, distribution and marketing of gases, slurry exhaust management products, instrumentation and control systems, vacuum pumps, coating systems, temperature and control systems, heat exchangers and leak-detection systems, and the rendering of ancillary services to the semiconductor industry and the vacuum products used in other industries. Through BOC Edwards Pharmaceutical Systems, BOC Edwards also caters for the pharmaceutical industry. The BOC Pharmaceutical products are tailored for the specific requirements of each of BOC Edwards' pharmaceutical customers and mainly relates to injectable products, freeze-drying systems and sterilising and packaging solutions.

²⁰ The merging parties advised us that BOC sold its business in this segment to a joint venture (Linde BOC Process Plants LCC) in which both parties are shareholders. Linde has sole control over the joint venture, which conduct its activities from its head office in the United States.

'specialty gases'.²¹ The merging parties contended that within this 'specialty gases' market segment, the overlaps are limited to the sale of ethylene²² and calibration gases. They further contended that whilst both parties are involved in the 'specialty gases' market segment locally, Linde AG has *de minimis* local activities in this market segment. Linde AG has no local South African sales office. According to the merging parties, Linde AG's minor sales to South African customers are concluded directly between local customers and Linde Gas Germany. It appears that these gases are procured from overseas and are shipped to South Africa by sea and/or air freight.

[18] Following its enquiries, the Commission found and submitted that each of ethylene and calibration gases are not substitutable and therefore constitutes a distinct and separate market due to their unique chemical and physical composition, their utility and application.²³

Geographic market

[19] The parties submit that the relevant geographic market for the production and distribution of calibration gases and ethylene gas is global. In support of their view, the merging parties indicated that "on a world-wide basis, the parties' activities are complementary in terms of geography and that while both parties are major players in the global gases business, BOC has a strong focus on growth markets such as Asia, where Linde has limited or no presence." They further submit that transportation costs are low by comparison and do not add significantly to the total purchase price. It also appears that specialty gases can profitably be shipped over long distances and their distribution normally does not require a decentralised distribution network.²⁴ In light of the above, the Commission concluded that the markets for the manufacture and distribution of ethylene and calibration gases are global.

²¹ The merging parties submit that while a large number of different gases, and gas mixtures are generally referred to as "specialty gases", there is no clear definition of 'specialty gases'. They further submitted that the 'specialty gases' category comprises all gases that are not "industrial gases". See also the EC decision, of 6 June 2006, which involves *Linde AG and BOC* – Case No COMP/M4141 Linde/BOC at paras. 16-19.

²² According to the Commission, ethylene gas is an odourless, flammable and colourless gas with a melting point of 169°C and a boiling point of 105°C. And that it is also slightly soluble in most organic solvents and possesses a unique boiling point, and as opposed to other non-hydrocarbon gases is flammable. The Commission says that ethylene is a plant hormone which is released by plants that are approaching maturity, and can also be used as a ripening agent of plants. Ethylene is also used as a manufacturing input product within the petrochemical industry in the production of hydrocarbon fuels. See page 16 of the *Commission Recommendation*.

²³ To this end, the Commission contacted competitors as well as the customers of the merging parties who all confirmed that calibration gases and ethylene could not be substituted by any other gas given their unique characteristics and that they are required to strictly conform to a particular customer's specifications. We also note that the industry generally shares the view that each gas constitutes a separate product market, and that customers generally do not consider substitution to be a realistic option with regard to gases. See also pages 827, 863, 849 and 870 of the merger record.

²⁴ See page 79 of the merger record.

Competition analysis

[20] As pointed out above, there appears to be a horizontal overlap between the merging parties' respective gases businesses. However, such an overlap appears to be limited to the sale of ethylene and calibration gases. The merging parties advised us that Linde AG has had *de minimis* sales of these products into South Africa. They further provided us with the estimated market shares below in relation to the aforesaid affected products.

[21] With regards to the sale of calibration gases in South Africa, the merging parties market shares estimates are as follows: Air Liquide (28%); Air Products (28%); BOC (48%); and Others (including Linde AG) <1%.²⁵ Since the Commission defined the geographic market with respect to calibration gases as global in nature, the Commission contended that the combined market shares of the merged entity would be significantly diluted as follows: Air Liquide (30%); Air Products (24%); PraxAir (10%); BOC (7%); Linde (6%); and Others (23%).²⁶

[22] One sees from the above market share estimates that the merging parties would become the world's number three (3) player with post-merger market shares of approximately 13%. Air Liquide and Air Products – both being the merging parties' competitors – will have 30% and 24% of the market shares respectively. We now turn to consider the market for the manufacture and supply of ethylene gas.

[23] With regards to the market for the manufacture and supply of ethylene in, into or from South Africa, the merging parties submitted that BOC did not derive any turnover thereof for the 2005 financial year. However, BOC pointed out that it is currently selling ethylene into South Africa and shall continue to do so post-merger. BOC considers Air Liquide as its primary competitor pertaining to ethylene sales in South Africa. Linde AG also sells ethylene in South Africa. BOC estimates Linde AG's market shares to be less than 1%, but was unable to provide us with the market share estimates for Air Liquide. The Commission asserted that Linde AG's market shares might be diluted further since its view is that the geographic market for ethylene gas is global. Further to this, the merging parties submitted their estimates of the market shares for the global market of ethylene gas as follows: Ballchem (45%); Chemogas (comprising

²⁵ The merging parties submitted that Linde AG is unable to provide any reliable market share estimates concerning specialty gases in South Africa since this information is allegedly not available in the public domain and also because Linde has no local South African sales office. However, they argue that the turnover derived by Linde AG in South Africa in respect of sale of specialty gases (which overlaps with those sold by BOC) is insignificant. BOC also submitted that given the unavailability of public information with regards to the sales of specialty gases in or into South Africa, BOC could not provide reliable market shares figures. Nonetheless the merging parties submit that their estimates of market shares are predicated on BOC's (and, where applicable, the Afrox group of companies) knowledge of the specialty gases sector in South Africa. See page 87 of the merger record.

²⁶ See page 938 of the merger record.

Linde AG's sales) (15%); Gerlingholz (15%); Avantec (10%); BOC <1%; and Others (15%).²⁷

[24] During its investigation, the Commission contacted and received views of the merging parties' customers with respect to the proposed merger. None of the customers raised any concerns with respect to the proposed merger.²⁸ We now turn to consider the likely impact or otherwise of the proposed merger to the ethylene market.

[25] With regards to the ethylene gas market, the Commission's investigation revealed that the merging parties' market share is less than 1%. In addition, the merging parties contended that there are other suppliers in this market, such as Air Products and Air Liquide. The Commission's investigation also revealed that it is possible to switch from one supplier to another.

[26] The merging parties contended that there are no regulatory barriers to entry into the gases business that prevent or restrict cross-border sales of specialty gases. According to the merging parties, a new entrant does not need significant investment to venture into these markets. They submitted that there have been a number of entrants recently in the specialty gases market internationally, but not in South Africa. These customers of specialty gases include multi-national companies many of whom have a multi-sourcing policy in place.²⁹ This, in our view, suggests that these customers may readily and easily switch between various suppliers of specialty gases.

Public Interest

[27] The merging parties submitted that Linde has no physical presence locally in relation to gases. However, we note that Linde has two local subsidiaries that deal with material handling and process plants. The merging parties submitted that the proposed transaction would not have an impact on the business or employment levels of either of Linde's local subsidiaries.³⁰ They also submitted that they anticipate no job losses on any of BOC employees in

²⁷ BOC estimates its global market share at approximately 1% given that BOC does not sell ethylene into the USA and has minor sales into Asia. See page 938 of the merger record.

²⁸ For example, one customer [confidential] indicated that it has a five (5) year contract with Afrox which runs until May 2011 and whose price adjustments are linked to indices and contractually agreed to by both parties. Such customer expects the merged firm to honour this agreement. It also indicated that it does not consider 'switching a supplier' to be a viable option. Another customer of the merging parties indicated that "*whilst it is possible to switch between the suppliers of calibration gases, it is unlikely that it will do so*". It further indicated that although there are other two local suppliers (in the form of Air Products and Air Liquide) of calibration gases, however, it does have the ability to negotiate competitive prices with Afrox for the supply of the calibration gases (which view the Commission supported), and that it also regards the calibration gases contract as a low annual value. See pages 840 and 850 of the merger record.

²⁹ See pages 58-60 as well as pages 82-83 of the merger record.

³⁰ According to the merging parties, LPP - which is one of the two local subsidiaries of Linde - has two employees. See page 40 of the merger record.

South Africa or the employees of any of BOC's subsidiaries (including Afrox) in South Africa.³¹

Conclusion

[28] In light of the reasons set out above, we are satisfied that the proposed transaction is unlikely to result in a substantial prevention or lessening of competition in the relevant markets. We accordingly approve the proposed transaction unconditionally.

N Manoim
Presiding Member

L Reyburn and M Mokuena concurring.

Tribunal Researcher: T Masithulela

For Linde AG : K de Kock (*Webber Wentzel Bowens*)

For BOC Plc : M. Garden (*Edward Nathan Corporate Law Advisors*)

For the Commission: T Kekana (Mergers & Acquisitions)

³¹ See page 42 (as well as page 69) of the merger record.