

***Case No COMP/M.4562 -  
S&B / HALLIBURTON /  
CEBO JV***

Only the English text is available and authentic.

**REGULATION (EC) No 139/2004  
MERGER PROCEDURE**

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Article 6(1)(b) NON-OPPOSITION  
Date: 18/04/2007

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## COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 18.04.2007

SG-Greffe(2007) D/202302/3

In the published version of this decision, some information has been omitted pursuant to Article 17(2) of Council Regulation (EC) No 139/2004 concerning non-disclosure of business secrets and other confidential information. The omissions are shown thus [...]. Where possible the information omitted has been replaced by ranges of figures or a general description.

PUBLIC VERSION

MERGER PROCEDURE  
ARTICLE 6(1)(b) DECISION

### To the notifying parties

Dear Sir/Madam,

**Subject : Case No COMP/M.4562 – S&B / Halliburton / Cebo JV  
Notification of 9/03/2007 pursuant to Article 4 of Council Regulation  
No 139/2004<sup>1</sup>**

1. On 9 March 2007, the Commission received notification of a proposed concentration pursuant to Article 4 of Council Regulation (EC) No 139/2004 (the “Merger Regulation”) by which the undertaking S&B Industrial Minerals S.A. (“S&B”, Greece) acquires within the meaning of Article 3(1)(b) of the Council Regulation joint control of the whole of the undertaking CEBO International B.V. (“Cebo”, Netherlands) by way of purchase of shares. After the transaction, Cebo will be jointly controlled by S&B and Halliburton Affiliates LLC (“Halliburton”, USA).

### I. THE PARTIES AND THE OPERATION

2. S&B is a Greek company that mines certain minerals, in particular bentonite, perlite and bauxite. S&B sells raw bentonite to iron and steel producers and to industrial processors of bentonite derivatives, i.e. further processed bentonite, in particular sieved or milled, in some varieties mixed with chemicals or other minerals.
3. Halliburton is a US based company which provides engineering and construction, as well as energy services to the oil and gas industry. Halliburton does market small quantities of bentonite for industrial applications in Europe.

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<sup>1</sup> OJ L 24, 29.1.2004 p. 1.

4. Cebo is a Dutch company that is active in purchasing, milling, storing, and delivering different minerals, including bentonite, for several industrial purposes. Cebo's main market is that for the provision of processed industrial minerals and other materials used in the production of oil and water-based drilling muds with barite as a key ingredient. It furthermore delivers minerals to other industrial sectors, in particular underground engineering and environmental engineering.
5. By the proposed transaction, S&B acquires from Cementbouw Bindmiddelen & Logistiek B.V. ("Cementbouw") 50% of the shares in Cebo. The remaining 50% of the shares in Cebo are held by Halliburton. After the transaction, S&B and Halliburton will jointly control Cebo. The proposed transaction therefore represents a concentration within the meaning of Article 3(1)(b) of the Merger Regulation.

## **II. COMMUNITY DIMENSION**

6. The parties have a combined worldwide turnover of more than EUR 5 billion (EUR 419 million for S&B, EUR 16.89 billion for Halliburton, and EUR 40 million for Cebo). The aggregate Community-wide turnover of each of at least two of the undertakings concerned is more than EUR 250 million (EUR 311 million for S&B, EUR [...] for Halliburton). Only one of the undertakings concerned (Halliburton) has more than two-thirds of its aggregate Community-wide turnover within one and the same Member State. The concentration therefore has a Community dimension.

## **III. RELEVANT MARKETS**

### **Relevant Product markets**

#### **1. Relevant product markets**

7. The markets affected by the transaction are those related with the production of products containing bentonite<sup>2</sup>. The parties have identified four markets concerned by the transaction: firstly the upstream market for "raw bentonite for rheology", and secondly three downstream markets using raw bentonite for rheology as input, which are (i) components for (vertical) drilling muds, used in the exploration and development of gas and oil fields, (ii) minerals/chemicals for (horizontal) underground engineering and (iii) materials for environmental engineering. In addition, raw bentonite (other than raw bentonite for rheology) is also used in a variety of other applications such as foundry, paper industry, animal feed, pharmaceuticals or cat litter. Since the transaction does not lead to horizontal overlaps as regards bentonite used in components for (vertical) drilling muds, and this market is not vertically affected (market shares are below 25%) , the assessment will be focused on the remaining markets.
8. The parties submit that bentonite belongs to the montmorillonite family of smectite clay minerals which is generated from the alteration of volcanic ash. According to the parties, there are two basic types of bentonite: (i) sodium bentonite, which is the swelling type (able to significantly absorb water), and (ii) calcium bentonite, which is non-swelling (with a more limited capacity to absorb water). Calcium bentonite accounts for approximately 10% of the world's demand. Since European bentonite is nearly exclusively calcium bentonite, it is usually changed chemically to a bentonite with the qualities of sodium bentonite. According to the parties, this modification,

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<sup>2</sup> Within raw bentonite, the parties distinguish "raw bentonite for rheology", which is raw bentonite meeting certain physical and chemical properties which makes it appropriate for certain applications for which other types of raw bentonite cannot be used.

which is called activation, is achieved by adding soda ash to calcium bentonite. The market investigation has confirmed the parties' view that sodium bentonite and activated calcium bentonite are not separate markets.

9. According to the parties, there are several typical characteristics of bentonite that make it interesting for commercial use. It can absorb liquids, and thereby will swell considerably. Moreover, it can be quite heat resistant. When mixed with water, it switches its status from liquid to gel-like depending on the direction of force applied when stirring it ("thixotropy"). Which of these characteristics is prominent in a given form of bentonite may vary considerably, also in accordance with the additional elements in it.

Raw bentonite for rheology

10. The present transaction mainly concerns products in which bentonite for rheology is used, i.e. products for certain applications in which bentonite's particular characteristics with respect to viscosity, reaction with water, and thixotropy are important. According to the parties, products based on bentonite for rheology are used mainly in the following applications: (i) (vertical) drilling muds, (ii) (horizontal) underground engineering, (iii) environmental engineering. The parties submit however that all raw bentonite for rheology constitutes a single relevant product market since the same raw bentonite is used as an input for the bentonite-based products used in the three applications stated above and in fact the undertakings delivering raw bentonite for these applications have no means of knowing for which application the specific raw bentonite is further processed.
11. The market investigation has not been conclusive in this respect. Although some respondents to the market investigation have indicated that already the distinction between bentonite for rheology and bentonite for other applications would be very subtle and the market could even be wider, there are indications that not all raw bentonite for rheology can be indistinctly used for the three applications mentioned, since each application may require raw bentonite with certain specific properties.
12. In any event, for the purposes of this decision, it is not necessary to decide whether bentonite for rheology is a single relevant product market or whether it needs to be further divided into separate submarkets according to the final application since, regardless of this, the final assessment does not change.

Minerals/chemicals for (horizontal) underground engineering

13. The parties have identified (horizontal) underground engineering (as segment of the larger market of civil engineering) as a separate relevant product market, which includes mainly tunneling, pipe installation, and the construction of special foundations. Along with services, certain minerals and/or chemicals are needed to protect and aid the engineering processes.
14. According to the parties, the substances used for underground engineering are intended to (i) transport the slurry from the (horizontal) drilling hole, (ii) cool and lubricate the drilling bore and the pipes when pushed into the ground, and (iii) seal the drilling hole.
15. The parties submit that for (horizontal) underground engineering, substitutes for bentonite at comparable costs include sand, gravel, cement, concrete, aggregates, fly

ash and chemicals. They have considered all these products and bentonite as close substitutes so that all of them belong to one relevant product market.

16. However, a large number of respondents to the market investigation indicated that, although bentonite could in some instances be replaced by other materials (such as polymers and in some cases certain types of clays), the other products considered by the parties (such as sand, cement, gravel, aggregates, concrete or fly ash) are complementary products used in combination with bentonite rather than substitutes of bentonite. In addition, where substitution (for example by polymers) is possible, costs would increase significantly.
17. For the purposes of this decision, however, the question whether bentonite, as regards inputs for underground engineering, is a distinct product market or whether it belongs to a wider product market including sand, cement, gravel, aggregates, concrete or fly ash can be left open since the final assessment does not change.

#### Materials for environmental engineering

18. The parties submit that environmental engineering, as another segment of the market for civil engineering, pertains mainly to the sealing and waterproofing of landfills, buildings and houses, and the clearing of waste water. The main aim of such activities is the protection of ground water (and, to a lesser extent, the protection of constructions against ground water).
19. According to the parties, a number of materials compete directly with bentonite based products for environmental engineering, including sand, gravel, other clays, cement, concrete, aggregates, geotextiles and polymers. Furthermore, the quantity of bentonite used in environmental engineering can also be reduced by using a double-layer geotextile sheet (such as in a sandwich with bentonite in the middle). The parties have therefore submitted that all these products and bentonite products belong to one relevant product market.
20. The market investigation provided ambiguous results as to whether the relevant product market comprises all materials suggested by the parties or whether a separate market for bentonite components for environmental engineering should be considered. While some market respondents considered bentonite products to be irreplaceable, other respondents indicated that bentonite products could for example be substituted by clays or geotextiles without significant additional costs. However, a majority of respondents have indicated that other products such as sand, gravel, cement, concrete or aggregates are used in combination with bentonite and not as a substitute for it, as it is the case for (horizontal) underground engineering.
21. For the purposes of this decision, the question whether bentonite products constitute a distinct product market or whether they belong to a wider product market including sand, gravel, other clays, cement, concrete, aggregates, geotextiles and polymers can however be left open since the final assessment does not change.

#### Bentonite used for other applications

22. As stated above, bentonite-based products can be used in many other applications, the main ones being foundry, pelletising (steel production), oils/food markets, pharmaceuticals, agriculture (animal feed), cat litter or the paper industry. The parties consider that each application should be considered as a separate relevant

product market since, for each application, different other materials would be substitutes for bentonite.

23. For the purposes of this decision, however, it is not necessary to decide whether bentonite products used for each application constitutes a separate product market since the transaction does not give rise to competition concerns regardless of how these markets are defined.

## **2. Relevant geographic market**

### Raw bentonite for rheology

24. The parties submit that the market for raw bentonite for rheology is at least EEA-wide. According to the parties, even though land transport of bentonite can be costly, market conditions are very similar all over the EEA. This has been largely confirmed by the market investigation where the large majority of respondents considered the market for raw bentonite for rheology to be even global.

### Minerals/chemicals for (horizontal) underground engineering

25. The parties submit that service companies for these types of specialized construction activities are active often globally, but at least all over the EEA. In particular, large tunneling projects are relatively scarce, and the specialist companies cannot confine their work to limited areas as this might entail long stand still periods. According to the parties, these companies furthermore source their products at least on an EEA-wide basis. Therefore, the parties submit that the markets for minerals/chemicals for underground engineering are at least EEA-wide, with strong indications for a global dimension. This has been largely confirmed by the market investigation where the large majority of respondents considered the market for minerals/chemicals for underground engineering to be European-wide or global.

### Materials for environmental engineering

26. The parties submit that environmental engineering activities are characterized by high value added, because of the application of technology and proprietary know-how, and that the materials used in the process, including bentonite products, can therefore be transported far from their manufacturing location. According to the parties, logistics is only a minor cost element in the supply chain from manufacture (mining, sifting, sieving, testing ...) to final on-site application as part of an environmental engineering project. The parties therefore consider that the market for materials to be used in such sealing and protective measures is at least EEA-wide. This has been largely confirmed by the market investigation in which the large majority of respondents considered the market for materials for environmental engineering to be European-wide or global.

### Bentonite used for other applications

27. The parties submit that with respect to the applications in which they are active (i.e. foundry, cat litter, paper industry, animal feed and palletizing), and although in some instances sales at world-wide level can take place for some of them, the market is the EEA, mainly due to logistic reasons.
28. For the purposes of this decision, the question whether bentonite used for other applications is world-wide, EEA-wide or even national, can be left open since the final assessment does not change regardless of how these markets are defined.

#### IV. COMPETITIVE ASSESSMENT

##### Raw bentonite for rheology

29. Both Halliburton and S&B are active on the market for raw bentonite for rheology which represents an upstream market to Cebo's activities.
30. On the EEA market for raw bentonite for rheology, Halliburton and S&B had a combined market share in 2005 of [10-20]% (Halliburton [5-10]%, S&B [5-10]%). Their main competitors were Amcol ([5-10]%), Ashapura ([0-5]%), Südchemie ([5-10]%), and Bensan ([5-10]%). If separate upstream markets for the different rheology applications were to be assumed, the combined market shares would also be in the same range, between [10-20]% and [10-20]%).
31. During the investigation some of S&B's competitors have reported concerns regarding the possibility of Cebo sourcing all its bentonite needs from S&B after the merger. It has been suggested that the "monopolistic" position of S&B in the supply of bentonite would give rise to competitors' foreclosure and increase of prices.
32. However, the Commission considers this to be highly unlikely considering that Cebo's position as a purchaser of raw bentonite for rheology is limited to around [10-20]% of EEA demand. If all sales of raw bentonite are considered, Cebo's purchases would account for even a lower share of around [0-5]%. Moreover, Cebo's market shares in the downstream markets are also very limited (see below), and the position of S&B, either alone or in combination with Haliburton, in the EEA is far from being monopolistic (as stated above, the combined market share is around [10-20]% for raw bentonite for rheology and around [10-20]% if all raw bentonite is considered). Finally, it has not been explained to what extent the alleged loss of Cebo's purchases could realistically represent any significant risk of foreclosure.
33. Based on the foregoing, the Commission considers that the transaction does not have a significant impact on competition in this market.

##### Minerals/chemicals for underground engineering

34. Cebo, S&B and to a very limited extent Halliburton are active on the market for minerals/chemicals for underground engineering.
35. According to the parties, on the EEA market for minerals/chemicals for underground engineering, the parties had a combined market share in 2005 of less than [0-5]%, their main competitors being Lafarge ([5-10]%) and Holcim ([5-10]%).
36. If the narrower product market for bentonite products used for this application is considered, the transaction would lead to a combined market of [10-20]% (S&B [5-10]%, Cebo [5-10]%). Several other competitors are active on this market, such as Süd Chemie ([20-30]%), Laviosa ([0-5]%), Steetley ([0-5]%) or SP Minerals ([0-5]%).
37. Therefore, even under the narrower product market definition, the transaction will not have any significant impact on this market.

##### Materials for environmental engineering

38. Cebo and S&B are active on the market for materials for environmental engineering.

39. According to the parties on the EEA market for materials for environmental engineering, Cebo and S&B had a combined market share in 2005 of just above [0-5]%, their main competitors being Kemira ([20-30]%), and Naue ([10-20]%).
40. If the narrower product market for bentonite products used for this application is considered, the transaction would lead to a combined market share below [5-10]%. Other suppliers on this market are Naue ([20-30]%), Cetco ([10-20]%), Rawell ([0-5]%) and Laviosa ([0-5]%).
41. Therefore, even under the narrower product market definition, the transaction will not have any significant impact on this market.

*Bentonite used for other applications*

42. The Commission has also investigated whether the transaction may have any anticompetitive impact in the EEA as regards other applications in which bentonite products are used, such as foundry, the paper industry, animal feed, pharmaceuticals or cat litter. Among these applications, the parties only overlap with respect to cat litter (combined market share below [10-20]% with Cebo's contribution less than [0-5]%), paper industry (combined market share below [20-30]% with Cebo's contribution less than [0-5]%) and animal feed (combined market share below [5-10]% with Cebo's contribution less than [0-5]%).
43. At world-wide level, the combined market shares would drop significantly (for example, for cat litter it would drop by more than two thirds, whereas for the paper industry it would drop by around two fifths). At national level, in the few countries where some overlaps take place (France, Germany and the Netherlands), the transaction does not give rise to affected markets either.
44. The low levels, both of the combined market shares and of the market shares added by Cebo, are not indicative of competition concerns. Moreover, no competition concerns were raised during the market investigation. For these reasons the Commission considers that the transaction does not give rise to competition concerns with regard to these applications.

## **V. CONCLUSION**

45. For the above reasons, the Commission has decided not to oppose the notified operation and to declare it compatible with the common market and with the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation (EC) No 139/2004.

For the Commission  
signed  
Neelie KROES  
Member of the Commission