

*Case No IV/M.670 -
Elsag Bailey / Hartmann
& Braun AG*

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**REGULATION (EEC) No 4064/89
MERGER PROCEDURE**

Article 6(1)(b) NON-OPPOSITION
Date: 20/12/1995

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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 20.12.1995

PUBLIC VERSION

MERGER PROCEDURE
ARTICLE 6(1)(b) DECISION

TO THE NOTIFYING PARTIES

Subject : Case No IV/M.670 - Elsad Bailey / Hartmann & Braun AG

Notification of **17.11.1995** pursuant to Article 4 of Council Regulation No 4064/89

1. The above mentioned notification concerns the (indirect) acquisition by Elsad Bailey Process Automation N.V. ("EBPA") of 99.5% of the share capital of the Hartmann & Braun AG ("H&B") and eighteen other businesses belonging to the H&B group of companies from Mannesmann AG. The remaining 0.5% will be acquired by Elsad Bailey Invest S.p.A.
2. After the examination of the notification, the Commission has concluded that the notified operation falls within the scope of application of Council Regulation No 4064/89 and does not raise serious doubts as to its compatibility with the common market and with the functioning of the EEA Agreement.

I. THE PARTIES

3. EBPA, incorporated in the Netherlands, is majority-owned by Finmeccanica S.p.A. ("Finmeccanica") which is the engineering holding company of IRI, the Italian state-owned conglomerate active in the sectors of energy, transportation, automation, aerospace and defence. Elsad Bailey Invest S.p.A. is a subsidiary of Finmeccanica. IRI owns 62% of Finmeccanica's shares and has a worldwide turnover of ECU 38.2 billion. Finmeccanica achieved a worldwide turnover of ECU 5,220 million, some 64 per cent

(ECU 3,323 million) of it within the Community. EBPA itself is a global supplier of process control systems and instruments.

4. H&B group of companies specialises in the design, engineering and manufacture of industrial process control equipment, in particular process control systems, instruments and process analysers. H&B also has considerable activities in the field of radiation measuring instruments. The worldwide turnover of H&B was ECU 690 million, some 79 per cent (ECU 546 million) of it was achieved in the Community. The main activities of H&B are concentrated in Germany.

II. CONCENTRATION

5. The merger between two previously independent undertakings, EBPA and H&B group of companies will constitute a concentration according to Article 3(1)(a) of the Merger Regulation.

III. COMMUNITY DIMENSION

6. The combined aggregate worldwide turnover of IRI/Finmeccanica and H&B group of companies in 1994 exceeded ECU 5,000 million. Both IRI/Finmeccanica and H&B group of companies achieved a Community-wide turnover in excess of ECU 250 million but do not achieve more than two-thirds of their aggregate Community-wide turnover within one and the same Member State. The operation therefore has a Community dimension according to Article 1(2) of the Merger Regulation.

IV. COMPATIBILITY WITH THE COMMON MARKET

Relevant product market

7. The proposed operation affects the overall markets for the manufacture and sale of industrial process control equipment, of process analysers and of nuclear radiation measuring instruments.

Industrial process control equipment

8. Industrial process control equipment is used in production processes that involve liquids and gases. Process control instruments are located throughout a manufacturing facility and measure, record, monitor and adjust physical parameters related to the production process. These "field" instruments are connected to a computer based control unit, that allows the manufacturer to control the instruments from a central location (control room or workstation) and to ensure that the production process proceeds in the required manner.
9. The customers of process control equipment are active in industries using continuous or batch production processes, e.g. the petrochemical, power generation, chemical, pharmaceutical, steel, pulp and paper, food and beverages industries. Process control instruments may be adapted in some way for applications in certain industries and cannot be used effectively for applications in other industries. For example, refineries ask for a high degree of flexibility of the process control system, whereas customers in the

electricity sector focus more on the availability and the number of measuring points. For this reason, some suppliers have developed different products to serve the particular needs of customers in different sectors of industry. However, there still is considerable commonality in the function and basic design of these instruments. The essential features of, for example a pressure transmitter, are the same, regardless of whether the transmitter is used in a pharmaceutical plant, a chemical plant or other process industries. The main differences in process control systems supplied to certain industries concern the software and the know-how that is applied in the process control unit. However, the customisation of process control software depends more on the specific application of the system than on the particular industry sector concerned. The Commission's investigation has shown that while manufacturers of process control equipment, for historical reasons, may focus on sales to certain categories of customers, however, they also tend to supply a wide variety of industries⁽¹⁾. For these reasons the markets for process control equipment are not differentiated by the different end user industries.

10. The electricity industry may be an exception to this finding because the properties of the process control instruments used in this industry differ to a larger extent from the instruments used in other industries. This could result from special safety standards and equipment identifier codes for process control instruments used in power plants and electric utilities. However, the question of the definition of the relevant market in the last analysis can be left open here, because even if process control equipment for power plants and electricity utilities is taken as a relevant market, the concentration will not create or strengthen a dominant position.
11. A complete process control system consists of a central control unit, control room instruments and "field" instruments. Process control instruments may be marketed together with a central control unit or may be sold separately. The procurement decisions in both cases are based on different factors. Furthermore, central control units and process control instruments are sold to a significant extent to different categories of customers. Instruments are bought by suppliers of process control systems who do not provide the broad range of instruments by themselves and by engineering firms, plant builders or companies active in the field of servicing and maintenance. Against that central control units are predominantly bought directly by the end users active in the processing industries. As a result one has to divide the overall market for industrial process control equipment into a market for the manufacture and sale of central control units (system market) and for distinct markets for the manufacture and sale of control room instruments, of process control "field" instruments and of control valves and valve instruments (instrument markets).
12. The process control "field" instruments and the central control unit are linked by a standard communication system, or "protocol". The protocol used by the process control industry as a means by which the various instruments can communicate with each other was developed in the 1960s and is known as the 4-20mA (milli-amperes) signal. Since the traditional standard was not able to meet the communication needs of advanced instruments some suppliers developed communication systems that necessitate the use of the same supplier of "field" instrumentation and control systems. However, at present time there are several advanced communication standards that are available to all suppliers

⁽¹⁾ For example, EBPA was originally a boiler control specialist whose traditional customer base was utilities. Today, EBPA sells its process control systems to many customers in other industries. Similarly ABB, concentrates on the energy sector. Foxboro first focused on the petrochemical industry, but is now reinforcing its position in the power station business.

and customers of process control equipment, for example HART protocol⁽²⁾. All suppliers asked by the Commission have emphasised that their process control equipment is able to communicate with all the different types of process control equipment manufactured by competitors.

13. The characteristics and usage of process control "field" instruments differ with regard to the physical parameters they are designed to monitor. As the respective instruments are not interchangeable in usage there are distinct markets for the measurement of the rate of fluid flow ("flow"), of absolute pressure at a single point and pressure differential ("pressure"), of fluid level ("level") and of temperature. Although on the one hand from a users point of view there might be distinct markets on the other hand from a point of supply side substitutability there are some indications that these markets are only segments of an overall market for process control instruments. The investigation has found, that most suppliers are active in all of the market segments. Therefore they have the technical capability as well as the access to the customers to adjust their production structure if profitable opportunities arise in certain segments. However, the question of the definition of the relevant markets can be left open to that extent, because even if the relevant markets are assumed to be the product segments, the concentration will not create or strengthen a dominant position.
14. Control valves and valve instruments are used to control the rate of flow of a fluid. When the production parameters deviate from those required, electronic instruction signals from the control unit are sent to the instruments which convert them into pneumatic signals which in turn cause the valve to open or close.

Process analysers

15. Process analysers are used for the measurement and monitoring of the chemical composition and density of liquids and gases. Therefore the overall market for process analysers could be divided into distinct product markets for the analysis of liquids and of gases. Gas analysers could be further divided into markets for continuous gas analysers and for gas chromatographs. Although from a technical point of view there may be no basic differences between the two kinds of gas analysers they are used for different purposes. Simple gases can be analysed with a continuous gas analyser, whereas the analysis of a complex liquid or gas mixture requires the use of a gas chromatograph.

Radiation measuring instruments

16. Instruments for measuring radiation are used in nuclear power plants and in laboratories. In both cases the instruments collect, display and monitor nuclear radiation parameters. Instruments for nuclear power plants are required to meet specialised norms and obtain approval by the national authorities responsible for the supervision of nuclear power plants. In Germany e.g. permission for the operation of nuclear power plants will only be granted if the radiation measuring instruments meet the standards set by the *Kerntechnischer Ausschuss* (Nuclear Committee); as a result the instruments for nuclear power plants are more expensive and can not easily be replaced by those used for applications in laboratories. The total market for radiation measuring instruments for nuclear power plants could be further divided into distinct markets, particular for

⁽²⁾ The HART (Highway Addressable Remote Transducer) communication protocol was developed in the 1980s by Rosemount and was made available to all other suppliers and customers of process control equipment through the HART Foundation.

radiation detectors , ionisation chambers, contamination monitors and filters for the particles and iodine. However, the question of the definition of the relevant markets can be left open to that extent, because even if the mentioned products are assumed to be relevant markets, the concentration will not create or strengthen a dominant position.

Relevant geographic market

17. In the overall markets for industrial process control equipment, process analysers and nuclear radiation measuring instruments differences in the respective national market shares will not usually be considered as an indicator for the existence of national markets. However, where there are extreme differences in national market shares further investigation on a Member State basis rather than on a Community-wide basis was necessary to come to an appropriate assessment of the likely effects of the concentration.

Industrial process control equipment and process analysers

18. The Commission's investigation has found, that the individual suppliers of process control equipment and analysers currently focus on certain Member States. Although there are no obvious barriers to entry the long-standing relationships with customers still have an impact on the geographical scope of the supplier's activities. However, the major customers are large multinational companies that purchase on a European basis. The parties claim that the geographic scope of the markets for process control equipment and process analysers were at least Community-wide. Transportation costs of the products under consideration are relatively low⁽³⁾ and there are no substantial entry barriers because of the harmonisation of relevant product standards at Community level⁽⁴⁾. The major competitors are active in several Member States of the EC and usually also on a global basis. The price levels throughout Europe are roughly the same and becoming more and more equal. Nevertheless the Commission considered that the definition of the geographic scope of the markets for process control equipment and process analysers can be left open, since even assuming the existence of national markets the concentration would not create or strengthen a dominant position.
19. The electricity industry may be an exception from these findings because the operators of power plant and electric utilities may favour national providers and require technical specifications favouring local suppliers. However, the question of the definition of the geographic scope of the relevant market can be left open to that extent, because even if the sale of process control equipment to power plants and electric utilities is assumed to be a national market, the concentration will not create or strengthen a dominant position.

Radiation measuring instruments

20. As far as radiation measuring instruments are concerned the parties consider the geographical scope of the relevant market to be national. The survey by the Commission of the customers for these products has supported that view. Instruments for nuclear

⁽³⁾ It should be mentioned here that both, H&B and EBPA, manufacture the process analysers sold within the Community totally in the USA.

⁽⁴⁾ The marketing of process control equipment across the Community was eased by several harmonisation measures such as the Directive 73/23/EEC on the harmonisation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits and the Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

power plants are required to meet specialised norms and obtain an approval by the national authorities responsible for the supervision of nuclear power plants (see No. 16).

Assessment

Industrial process control equipment

21. Both parties are leading suppliers of process control equipment and market their products worldwide. As a result of the operation EBPA will widen its product range as well as increase its market shares. Through the acquisition of H&B, EBPA will forward its strategy of becoming a "one-stop shop" vendor for industrial process control equipment. On a worldwide basis the leading suppliers for process control equipment besides H&B and EBPA are Siemens, Honeywell, Fisher-Rosemount (Emerson Electric), ABB, Foxboro-Eckardt (Siebe) and Yokogawa.
22. The parties to the concentration estimate that total sales in the overall market for industrial process control equipment in the Community in 1994 were approximately ECU 5,324 million⁽⁵⁾. According to the parties about ECU 2,146 million of it was achieved in the sale of process control units, about ECU 1,054 million in the sale of control room and workstation instruments, about ECU 1,637 million in the sale of process control "field" instruments and about ECU 167 million in the sale of control valves.
23. On a Community-wide basis the concentration will not raise serious competition concerns as even after the merger there will be several suppliers and market shares will be relatively widely spread. The parties will reach a combined market share of about 9.5% of the overall market for process control equipment. Besides H&B and EBPA the largest suppliers are Siemens, ABB⁽⁶⁾ and Honeywell (between 10 and 20%), followed by Foxboro-Eckardt and Fisher-Rosemount (between 5 and 10%). Further suppliers active in the Community are Endress & Hauser and Yokogawa.
24. These figures do not change significantly if central control units, control room instruments, process control "field" instruments and control valves and valve instruments are considered as distinct markets. On the market for process control units (system market) the parties will reach a combined market share of about 9,7% behind Siemens and Honeywell (between 10 and 20%) and followed by ABB, Fisher-Rosemount and Foxboro-Eckardt (between 5 and 10%). On the market for control room instruments the parties will have a combined market share of 8,1% behind Siemens and followed by Honeywell, ABB, Foxboro-Eckardt and Yokogawa. On the market for process control "field" instruments the parties will reach a market share of 8,8% followed by Fisher-Rosemount, Siemens, ABB, Foxboro-Eckardt (more than 5%), Honeywell and Yokogawa. Finally, on the market for control valves and valve instruments H&B has a market share of about 15%; however, since EBPA has only negligible sales in this area the proposed concentration has no significant effect on this market.
25. From a national point of view the proposed concentration will have only limited effects on most of the national markets as the parties' activities are to a large extent, concentrated on different Member States. In only two national markets for process control equipment does the parties' combined market share exceed 20%. On the Italian

⁽⁵⁾ Other suppliers estimate total sales in the overall market for industrial process control equipment between ECU 5,040 million and ECU 5,494 million.

⁽⁶⁾ The total sales of ABB group of companies have been only partially determined.

market for central control units EBPA and H&B have market shares of 15.5% and 11% respectively. Although the combined market share will reach 26.5% there are several other suppliers of central control units active in Italy, in particular Fisher-Rosemount, Honeywell, Yokogawa, Foxboro-Eckardt and ABB. On the German market for control valves and valve instruments H&B has a market share of 26%; since EBPA is not active in this area there will be no cumulation of market share resulting from the merger.

26. According to the parties, EBPA and H&B have combined shares of 35.5% and 45.7% of the market for process control equipment for the electricity generating industry in Germany and Italy respectively. In Germany, EBPA's sales are marginal so that the position of H&B will be strengthened only insignificantly by the merger. Although the parties in Italy, reach a sizeable market share there are several large suppliers already active in the sale of process control systems and instruments to the electricity industry, in particular Foxboro-Eckardt, ABB, Siemens and Honeywell. Furthermore due to a certain degree of supply side substitutability other producers may be able to enter the Italian market.
27. According to the parties total sales in the overall market for process control "field" instruments in the Community in 1994 were approximately ECU 1,637 million. About ECU 774 million of it was achieved in the sale of flow instruments, about ECU 205 million in the sale of level instruments, about ECU 313 million in the sale of pressure instruments and about ECU 281 million in the sale of temperature instruments⁽⁷⁾.
28. On a Community-wide basis the parties reach in the overall market for process control "field" instruments a combined market share of 8.8% (see No. 24). This figure does not change significantly if instruments for the measurement of flow, level, pressure and temperature are considered as distinct markets. On the market for flow instruments the parties to the concentration reach a combined market share of about 9.9%. On the market for level instruments H&B and EBPA achieve a combined market share of about 4.7%. On the market for pressure instruments the parties reach a combined market share of about 7.8%. Finally, on the market for temperature instruments H&B and EBPA achieve a combined market share of about 10.2%. In all markets for process control "field" instruments the new entity will face direct competition from several large suppliers, in particular Fisher-Rosemount, Siemens, Foxboro-Eckardt, ABB and Honeywell as well as from a number of smaller suppliers such as Endress, Hauser, Yokogawa.
29. Because the market share of the combined undertakings will remain relatively limited and there will be several suppliers of more or less the same size the proposed concentration is not likely to impede effective competition within the different markets for process control equipment.

Process analysers

30. Since H&B does not manufacture liquid analysers the only overlap is in the markets for gas analysers. The parties estimate that the total sales in continuous gas analysers in the Community in 1994 were approximately ECU 177 million and in gas chromatographs were approximately ECU 40 million. On a Community-wide basis H&B has a market share of about 24% for continuous analyses; however, since EBPA is not active in this field there will be no cumulation of market shares by the merger. By a wide margin the

⁽⁷⁾ Source: Estimations of the parties and of Frost & Sullivan: World Flow Sensors Market, 1994; European Pressure Instrumentation Market, 1995.

leading supplier of continuous gas analysers is Siemens. On the market for gas chromatographs the market share of H&B will increase only slightly to a total of about 22.3%. Even after the concentration the new entity will have lower market shares than its main competitors ABB and Siemens.

Radiation measuring instruments

31. H&B has marketed radiation measuring instruments only in Germany and in Belgium; EBPA is not active in this field. According to the parties H&B's market share in Belgium does not exceed 20%. On the German market for radiation detectors H&B reaches a market share of 40%, on the market for ionisation chambers a market share of about 70% and on the market for filters for particles and ions a market share of about 50%. H&B does not manufacture contamination monitors.
32. H&B may hold a dominant position in the German markets for radiation measuring instruments mentioned above. This question can, however, be left open here, because any existing dominant market position of H&B will not be strengthened by the concentration. In none of the affected markets under consideration there will be a cumulation of market shares since EBPA neither manufactures nor sales radiation measuring instruments. The transfer of H&B from Mannesmann AG to EBPA will not result in an increase of financial resources that may be accessible to H&B since Finmeccanica's turnover is significantly lower than Mannesmann AG's. Even spill-over effects that could result from the know-how of EPBA in the markets for process control equipment will not strengthen the market position of H&B in radiation measuring instruments because H&B already itself has a recognized competence in this field.

V. CONCLUSION

33. It follows from the above that the proposed concentration would not create or strengthen a dominant position as a result of which competition would be significantly impeded in the common market or in a substantial part of it.
34. 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 functioning of the EEA Agreement. This decision is adopted in application of Article 6(1)(b) of Council Regulation No 4064/89.

For the Commission,