IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA, Plaintiff, v. COOKSON GROUP PLC, ELECTROVERT LTD., and ELECTROVERT U.S.A. CORP., Defendants.	92 2206 Civil Action No. Filed: September 29, 1992 Judge Hogan

COMPETITIVE IMPACT STATEMENT

Pursuant to Section 2(b) of the Antitrust Procedures and Penalties Act ("APPA") (15 U.S.C. § 16(b)-(h)), the United States of America files this Competitive Impact Statement relating to the proposed Final Judgment submitted for entry with the consent of Cookson Group plc, Electrovert Ltd., and Electrovert U.S.A. Corp. in this civil antitrust proceeding.

I.

NATURE AND PURPOSE OF THE PROCEEDING

On September 29, 1992, the United States filed a civil antitrust complaint under Section 15 of the Clayton Act, 15 U.S.C. § 25, alleging that the acquisition by Electrovert U.S.A. Corp. ("Electrovert") of the wave soldering machine assets of Hollis Automation Co. ("Hollis") violated Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18. The Complaint

alleges that the effect of the acquisition may be substantially to lessen competition in the North American high performance and mid-range wave soldering machine markets.[1/] Electrovert Ltd. is the largest producer of such wave soldering machines, and Hollis was the second largest producer. The Complaint seeks an order requiring Electrovert to divest the wave soldering machine assets it acquired from Hollis to a purchaser able promptly to replace competition lost as a result of the acquisition.

1/ Wave soldering machines are machines used by manufacturers to apply solder to connect electronic components to a printed circuit board using a process that applies a wave of solder to the underside of the board. Electronic firms and their subcontractor assemblers are the primary customers of these machines; appliance, automotive and aerospace firms are also significant purchasers. Such customers base their purchasing decisions upon a variety of technical considerations, such as throughput, pre-heat capability, solder wave configuration, number of waves, computer controls, and conveyor board width.

High performance wave soldering machines are used primarily by large assemblers of printed circuit boards, which may produce as many as one million boards per production run. These machines usually have 30 to 50 percent higher production capacity than mid-range machines, and have greater width capacity and computer sophistication. High performance wave soldering machines generally sell for between $100,000 and $250,000.

Mid-range wave soldering machines are used primarily by medium-sized assemblers of printed circuit boards, which produce boards in lower volumes than high performance machine customers, and therefore do not require a machine with as high production capacity, complexity, and durability. Such customers, however, have sufficient volume that they cannot substitute low-end wave soldering machines which have smaller width capacity than mid-range machines. Mid-range wave soldering machines generally sell for between $25,000 and $100,000.

On September 29, 1992, the United States and the defendants filed a Stipulation by which they consented to the entry of a proposed Final Judgment. Under the proposed Final Judgment, Electrovert is required to license Hollis' wave soldering technology, including Hollis' patented hot air knife,[2/] to other industry participants. See Section III, infra. The United States and the defendants have agreed that the proposed Final Judgment, which is designed to eliminate the anticompetitive effects arising from Electrovert's acquisition of Hollis' wave soldering machine assets, may be entered after compliance with the APPA, unless the government withdraws its consent after considering public comments on the proposal. Entry of the proposed Final Judgment will terminate the action, except that the Court will retain jurisdiction to construe, modify, and enforce the Judgment, and to punish any violations.

II.

EVENTS GIVING RISE TO THE ALLEGED VIOLATION

On or about March 30, 1992, Electrovert, a wholly owned subsidiary of Electrovert Ltd., acquired all of the assets of Hollis in a transaction valued at approximately $10 million. These assets included the production equipment in its wave

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[2/] A hot air knife is used to blow excess solder off the surface of the printed circuit board and is used to minimize the defects of soldering.

soldering machine facility in Nashua, New Hampshire, and intellectual property.

Electrovert is engaged in the production and sale of wave soldering machines. Until its assets were acquired by Electrovert, Hollis was also engaged in the production and sale of wave soldering machines as an independent competitor of Electrovert.

The United States' investigation indicated that wave soldering machines are the only viable method used in mass production of printed circuit boards using pin-through-hole components. Such components have leads that are inserted through holes in the printed circuit board and are attached to circuits on the reverse side of the board with solder applied by a wave soldering machine. The other type of components are "surface mounted" and can be attached to the board by means of a different machine, called a reflow machine. The design and technical features of the circuit board will determine which type of component is needed, and thus which type or types of machines will be used for soldering. About 90 percent of printed circuit boards produced today contain both pin-through-hole components and surface-mounted components. Wave soldering machines are always used on these hybrid boards, and reflow machines may also be used, depending on the location of the components. Thus, wave soldering machines and reflow machines are not substitutes, and manufacturers will not use a reflow machine instead of a wave soldering machine in response

to a small but significant and nontransitory price increase of wave soldering machines.

As noted above, high performance and mid-range wave soldering machines are significantly different from each other and from other types of wave soldering machines in production capability, complexity, and cost. Manufacturing customers would not switch from either type of machine to any other in response to a small but significant and nontransitory price increase. Consequently, the United States determined that high performance wave soldering machines and mid-range wave soldering machines were the appropriate product markets within which to analyze this transaction.

Because the cost associated with shutting down an assembly line is extremely large in relation to the cost of wave soldering machines, United States circuit board manufacturers strongly prefer to purchase from wave soldering machine companies that have a proven reputation in North America for supplying a reliable machine, as well as the ability to supply spare parts and to service the wave soldering machine within 24 hours. As a result, customers are unlikely to switch purchases to suppliers that have not sold in North America and do not have North American service and spare parts facilities in the face of a small but significant and nontransitory increase in price. Consequently, the United States determined that the relevant geographic market within which to analyze this transaction is North America.

The United States further concluded that the North American high performance and mid-range wave soldering machine markets are highly concentrated. In 1991, Electrovert accounted for about 33 percent of the sales of high performance wave soldering machines, and Hollis accounted for about 36 percent. In the same year, Electrovert accounted for over 50 percent of sales of mid-range wave soldering machines, and Hollis accounted for about 17 percent. Electrovert's acquisition of the wave soldering machine assets of Hollis increased the Herfindahl-Hirschman Index ("HHI")[4/] by about 2400 to over 5200 in the high performance wave soldering machine market, and by about 1700 to nearly 5000 in the mid-range wave soldering machine market. Such increases in concentration in already concentrated markets potentially raise significant concerns, depending on other factors, that the transaction may result in the exercise of market power.

4/ The HHI is a measure of market concentration calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers. For example, for a market consisting of four firms with shares of 30%, 30%, 20%, and 20%, the HHI is 2600 ($30^2 + 30^2 + 20^2 + 20^2 = 900 + 900 + 400 + 400 = 2600$). The HHI takes into account the relative size and distribution of the firms in the market. It approaches zero when a market is occupied by a large number of firms of relatively equal size and reaches its maximum of 10,000 when a market is controlled by a single firm. The HHI increases both as the number of firms in the market decreases and as the disparity in size between the leading firms and the remaining firms increases.

Further investigation revealed that Electrovert was the oldest and most recognized name in wave soldering machines. While wave soldering machines are differentiated products, that is wave soldering machines sold by different companies are not perfect substitutes for one another, Hollis machines were considered by many customers as close substitutes for Electrovert machines, primarily due to Hollis' optional "hot air knife" technology. About 75 percent of the wave soldering machines Hollis sold in the past few years contained a hot air knife. The patent for the hot air knife, now owned by Electrovert, will not expire for another thirteen years.

Because many customers considered the Electrovert and Hollis high performance machines to be close substitutes, relative to the wave soldering machines of other firms, a small but significant increase in the price of either machine prior to the acquisition would have caused a significant number of customers to purchase a high performance wave soldering machine of the other, thereby rendering the price increase unprofitable. The same situation was true for Electrovert's and Hollis' mid-range wave soldering machines. After the acquisition, however, such a price increase would be profitable because Electrovert, now owning the Hollis assets, would retain the profits associated with the customers who switched from one to the other as a result of the price increase. Without technology such as Hollis' hot air knife, other firms would be

unlikely to reposition themselves to replace Hollis as the primary competitive alternative to Electrovert.

In addition, the United States determined that entry into the North American high performance and mid-range wave soldering machine markets would not mitigate the likely anticompetitive effects of the transaction. Entry would not be timely, because it takes three years or longer to design, develop, and test a line of high performance or mid-range wave soldering machines. New entrants, moreover, face difficulty in achieving market acceptance because customers are very reluctant to try machines that do not have a proven track record, given the high cost imposed by shutting down an assembly line in the event the machine fails. Thus, consumers have a preference for producers with well-established reputations for supplying a reliable machine in North America, as well as the ability to supply spare parts and to service the wave soldering machines within 24 hours.

Based upon all these factors, the United States concluded that, without divestiture, Electrovert would be able to exercise market power unilaterally in the manner described above.

III.

EXPLANATION OF THE PROPOSED FINAL JUDGMENT

The proposed Final Judgment, which requires Electrovert to license Hollis' wave soldering machine technology, including the patented hot air knife, provides relief that will assure the continuation of a competitive marketplace. As discussed above in Section II, the acquisition raised the likelihood that

Electrovert unilaterally could raise the price of Electrovert's or Hollis' high performance and mid-range wave soldering machines a small but significant amount without fear of losing a significant amount of sales to other producers. Electrovert's ability to exercise market power in that way, however, could be constrained if a significant number of customers would instead turn to other firms producing wave soldering machines.

Licensing Hollis' wave soldering technology to less established but current industry participants will enable these firms effectively to meet the full variety of customer needs for high performance and mid-range wave soldering machines. Licensees of the hot air knife, in particular, will be able to reposition their products to replace competition that would otherwise be lost by Electrovert's acquisition of Hollis' wave soldering machine assets.

Section IV(A) of the proposed Final Judgment would require Electrovert to grant North American rights to all of Hollis' wave soldering technology to two of the following four producers of wave soldering machines, all of which currently sell wave soldering machines in the United States: Technical Devices Company, Sensbey Incorporated, Soltec International B.V., and Seitz & Hohnerlein. As to each proposed license, Electrovert must demonstrate to the satisfaction of the United States that, in view of the terms of the proposed technology license, the proposed licensee has the capability and incentive

to produce wave soldering machines incorporating the hot air knife technology and to compete effectively in the sale of such wave soldering machines in North America within one year from the date of the license. If the plaintiff objects to any proposed license, any grant by Electrovert of a license to that proposed licensee shall not satisfy the requirements of that portion of the proposed Final Judgment.

Section IV(B) of the proposed Final Judgment states that the Court will appoint a trustee to secure the required licenses if Electrovert has not secured the two required licenses within 90 days after the Stipulation to this proposed Final Judgment is entered. The trustee will have the full power to obtain the required licenses, including, if necessary, the power to grant worldwide rights to the acquired Hollis wave soldering technology.

Section VII provides that the Final Judgment will expire five years from the date of entry.

IV.

REMEDIES AVAILABLE TO POTENTIAL PRIVATE LITIGANTS

Section 4 of the Clayton Act, 15 U.S.C. § 15, provides that any person who has been injured as a result of conduct prohibited by the antitrust laws may bring suit in federal court to recover three times the damages the person has suffered, as well as costs and reasonable attorneys fees. Entry of the proposed Final Judgment will neither impair nor assist the bringing of any private antitrust actions under the

Clayton Act. Under the provisions of Section 5(a) of the Clayton Act, 15 U.S.C. § 16(a), the proposed Final Judgment has no prima facie effect in any private lawsuit that may be brought against the defendants.

V.

PROCEDURES AVAILABLE FOR MODIFICATION OF THE PROPOSED FINAL JUDGMENT

The APPA provides a period of at least sixty (60) days preceding the effective date of the proposed Final Judgment within which any person may submit to the United States written comments regarding the proposed Final Judgment. Any person who wishes to comment should do so within sixty (60) days of the date of publication of this Competitive Impact Statement in the Federal Register. The United States will evaluate the comments, determine whether it should withdraw its consent, and respond to the comments. All comments and the responses of the United States will be filed with the Court and published in the Federal Register.

Written comments should be submitted to P. Terry Lubeck, Chief, Litigation II Section, Antitrust Division, U.S. Department of Justice, 555 Fourth Street, N.W., Room 10-437, Washington, D.C. 20001.

The proposed Final Judgment provides that the Court retains jurisdiction over this action and that any party may apply to the Court for any order necessary or appropriate for its modification, interpretation, or enforcement.

VI.

ALTERNATIVE TO THE PROPOSED FINAL JUDGMENT

The United States considered, as an alternative to the proposed Final Judgment filed with this Court, litigation to seek an order requiring Electrovert to divest the acquired Hollis wave soldering machine assets. The United States rejected that alternative because the relief in the proposed Final Judgment should prevent the acquisition from having significant anticompetitive effects in the North American high performance and mid-range wave soldering machine markets, while allowing any procompetitive effects the acquisition may produce.

VII.

DETERMINATIVE DOCUMENTS

No documents were determinative in the formulation of the proposed Final Judgment. Consequently, the United States has not attached any documents to the proposed Final Judgment.

Dated: September 29, 1992

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Willie L. Hudgins, Jr., hereby certify that a copy of the foregoing Competitive Impact Statement was served by mail, first-class, postage prepaid on September 29, 1992 upon the following person:

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