

IN THE MATTER OF

BASF WYANDOTTE CORPORATION

DISMISSAL ORDER, ETC., IN REGARD TO ALLEGED VIOLATION OF  
SEC. 5 OF THE FEDERAL TRADE COMMISSION ACT AND SEC. 7 OF  
THE CLAYTON ACT

*Docket 9125. Complaint, April 5, 1979—Final Order, July 12, 1982*

This order upholds the Administrative Law Judge's May 14, 1982 Initial Decision in this matter and effects dismissal of the complaint on July 13, 1982. The complaint charged the wholly-owned American subsidiary of a German chemical corporation with antitrust violations in the organic pigments market.

*Appearances*

For the Commission: *Glenn M. Fellman, James K. Leonard, Leo J. Asaro and David Marx, Jr.*

For the respondent: *James T. Halverson, Thomas M. Geisler, Jr., Leonard Gross, Bradford Anderson, Prisilla Elliot, Paul E. Francis and John P. Walsh, Shearman & Sterling, New York City.*

COMPLAINT

The Federal Trade Commission, having reason to believe that the above-named Respondent, subject to the jurisdiction of the Commission, has acquired the Pigments Division of Chemetron Corporation, a wholly-owned subsidiary of Allegheny Ludlum Industries, Inc., which acquisition violates Section 7 of the Clayton Act, as amended, 15 U.S.C. 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. 45, and that a proceeding in respect thereof would be in the public interest, hereby issues its complaint, pursuant to Section 11 of the Clayton Act, 15 U.S.C. 21, and Section 5(b) of the Federal Trade Commission Act, 15 U.S.C. 45(b), stating its charges as follows:

*Definition*

For purposes of this complaint the following definition shall apply:

*Organic pigments* - insoluble color particles characterized by a chemical composition which includes carbon rings or chains as the basic part of their molecular structure and used to impart color to a variety of materials.

*BASF Wyandotte Corporation*

1. Respondent BASF Wyandotte Corporation (BWC) is a corporation organized under the laws of the State of Michigan, with its principal place of business at 100 Cherry Hill Road, Parsippany, New Jersey. [2]

2. BWC is a wholly-owned subsidiary of BASF America Corporation which in turn is a wholly-owned subsidiary of BASF Aktiengesellschaft (BASF A.G.), a West German corporation with headquarters in Ludwigshafen, West Germany.

3. BASF A.G. manufactures and sells organic pigments and organic pigment formulations throughout the world.

4. BWC sells organic pigments and organic pigment formulations in the United States.

5. In its fiscal year ended December 31, 1977, BWC had total sales of approximately \$786,000,000 of which domestic sales of organic pigments totaled approximately \$8,000,000.

6. BWC is the thirteenth largest seller of organic pigments in the United States.

*The Chemetron Pigments Division*

7. Chemetron Corporation (Chemetron) is a corporation organized under the laws of the State of Delaware, with its principal place of business at 111 E. Wacker Drive, Chicago, Illinois.

8. Chemetron is a wholly-owned subsidiary of Allegheny Ludlum Industries (Allegheny), a corporation organized under the laws of the State of Pennsylvania, with its principal place of business at 2700 Two Oliver Plaza, Pittsburgh, Pennsylvania.

9. Prior to its acquisition by BWC, Chemetron's unincorporated Pigments Division (CPD) produced and sold organic pigments throughout the United States.

10. In its fiscal year ended January 1, 1978, CPD's sales of organic pigments were approximately \$35,000,000.

11. CPD is the fourth largest seller of organic pigments in the United States.

*Jurisdiction*

12. At all times relevant herein BWC has been engaged in the sale of organic pigments in interstate commerce and the assets of CPD have been and are used in interstate commerce, and BWC and CPD are engaged in commerce as "commerce" is defined in Section 1 of the Clayton Act, as amended, 15 U.S.C. 12, and the businesses of BWC and CPD are in or affecting commerce as "commerce" is defined in Section 4 of the Federal Trade Commission Act, as amended, 15 U.S.C. 44. [3]

*The Acquisition*

13. On or about November 18, 1978, BWC and Allegheny entered into a definitive agreement which provided, *inter alia*, for the acquisition by BWC of the assets of Chemetron's Pigment Division.

14. On or about March 23, 1979, BWC acquired the assets, business and property of CPD.

*Trade and Commerce*

15. The relevant line of commerce is the sale of organic pigments and submarkets thereof.

16. A relevant section of the country or geographic market is the continental United States.

17. The sale of organic pigments is concentrated, with the combined market share of the four largest sellers estimated to be approximately 52%.

18. Barriers to entry into the manufacture and sale of organic pigments are substantial.

*Competition*

19. Prior to the acquisition, BWC and CPD were and had been for many years actual competitors of each other in the organic pigments market and submarkets thereof and actual competitors of others in the organic pigments market and submarkets thereof throughout the United States.

20. In 1977, BWC accounted for approximately 2.0% of United States sales of organic pigments and CPD accounted for approximately 9.2% thereof.

21. BASF A.G. is a worldwide leader in the production and sale of organic pigments and had manifested a long standing interest in increasing its share of the U.S. organic pigments market.

*Effects; Violation Charged*

22. Due to various factors, including BASF A.G.'s worldwide sales and production position in organic pigments and its research and development capability, BWC's 2% share understates its competitive strength in the U.S. market.

23. The effects of the acquisition may be to substantially lessen competition or tend to create a monopoly in the relevant market in violation of Section 7 of the Clayton Act, as amended, 15 U.S.C. 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. 45, in the following ways, among others:

(a) actual competition between BWC and CPD in the sale [4]of organic pigments and submarkets thereof will be eliminated;

(b) actual competition between competitors generally in the sale of organic pigments and submarkets thereof may be lessened;

(c) the likelihood of increased participation by BWC and BASF A.G. in the U.S. organic pigments market and submarkets thereof by alternative means will be eliminated;

(d) CPD will be eliminated as an actual substantial independent competitor in the sale of organic pigments and submarkets thereof;

(e) the combined operation will be ranked number three in the organic pigments market thus increasing concentration in the sale of organic pigments and diminishing possibilities for eventual deconcentration; and

(f) mergers or acquisitions between other organic pigment manufacturers may be fostered, thus causing a further substantial lessening of competition and tendency toward monopoly in the sale of organic pigments.

INITIAL DECISION BY

MONTGOMERY K. HYUN, ADMINISTRATIVE LAW JUDGE

MAY 14, 1982

PRELIMINARY STATEMENT

By Complaint issued on April 5, 1979, the Federal Trade Commission ("FTC" or "Commission") charged BASF Wyandotte Corporation ("BWC"), a wholly-owned subsidiary of BASF Aktiengesellschaft ("BASF AG" or "BASF") with a violation of Section 7 of the Clayton Act, as amended (15 U.S.C. 18), and Section 5 of the Federal Trade Commission Act, as amended (15 U.S.C. 45(a)(1)), by virtue of its acquisition of the Pigments Division of Chemetron Corporation ("CPD") from Allegheny Ludlum Industries, Inc. on March 3, 1979. BWC filed its Answer on May 4, 1979 admitting in part and denying in part the various allegations of the Complaint.

The Complaint alleged that prior to the acquisition, BASF, which manufactures and sells organic pigments throughout the world, sold organic pigments in the United States through its wholly-owned [2]subsidiary, BWC. (Complaint ¶ 1-6). The Complaint also alleged that CPD produced and sold organic pigments throughout the United States. (Complaint ¶ 7-11).

Organic pigments and submarkets thereof were alleged to be the relevant lines of commerce for the purpose of evaluating the competitive effects of the acquisition. (Complaint ¶ 15). Subsequent to the issuance of the Complaint, complaint counsel designated

phthalocyanine pigments as an appropriate submarket in which to analyze the effects of the acquisition. The Complaint further charged that the alleged organic pigments market was concentrated and that barriers to entry into the market were substantial. (Complaint ¶ 17-18).

The Complaint further alleged that prior to the acquisition, BWC and CPD had been actual competitors in the markets and that their shares of the organic pigments market were approximately 2% and 9.2%, respectively. (Complaint ¶ 19-20). It also alleged that BASF had manifested a long-standing interest in increasing its share of the United States organic pigment market. (Complaint ¶ 21-22).

The Complaint finally alleged that BWC's acquisition of CPD would tend to substantially lessen competition in the alleged markets in the following ways:

- (a) actual competition between BWC and CPD in the sale of organic pigments and submarkets thereof will be eliminated;
- (b) actual competition between competitors generally in the sale of organic pigments and submarkets thereof may be lessened;
- (c) the likelihood of increased participation by BWC and BASF AG in the U.S. organic pigments market and submarkets thereof by alternative means will be eliminated;
- (d) CPD will be eliminated as an actual substantial independent competitor in the sale of organic pigments and submarkets thereof;
- (e) the combined operation will be ranked number three in the organic pigments market, thus increasing concentration in the sale of organic pigments and diminishing possibilities for eventual deconcentration; and [3]
- (f) mergers or acquisitions between other organic pigment manufacturers may be fostered, thus causing a further substantial lessening of competition and tendency toward monopoly in the sale of organic pigments. (Complaint ¶ 23).

The parties conducted extensive discovery between themselves and non-party industry competitors prior to the trial of this matter. Complaint counsel conducted an industry-wide survey respecting the production and sale of organic pigments and phthalocyanine pigments for the years 1977-1979. Counsel for respondent subpoenaed profitability data from several organic pigments manufacturers.

The proceeding originally assigned for trial to Administrative Law Judge James P. Timony, April 6, 1979, was reassigned to Administrative Law Judge Paul Teetor on March 19, 1980, and upon Administrative Law Judge Teetor's retirement, to Administrative Law Judge Montgomery K. Hyun on February 19, 1981.

The trial of this matter began on March 30, 1981 in Chicago, Illinois. The case-in-chief was completed on May 1, 1981. The defense case was presented in New York, New York and began on or about June 1, 1981. Hearings continued on a regular basis through the beginning of September 1981. Rebuttal evidence was presented in Chicago during the last week of October and in New York in early December 1981. Surrebuttal was concluded on December 5, 1981. In all, testimony was taken from 46 witnesses, including 13 called by complaint counsel and 33 by counsel for respondent. The record consists of some 12 thousand pages of transcripts of testimony and several thousand pages of documentary exhibits.

The record was closed on December 18, 1981. By an Order dated January 18, 1982, the Commission extended the time for the filing of an initial decision to and including May 14, 1982. The following witnesses gave testimony in this proceeding:

Witnesses Called By Complaint Counsel

Heinz Geiss	Vice-President of Sales and Marketing, Industrial Chemicals Division American Hoechst Corporation (Tr. 2051-52)
David R. Kamerschen, Ph.D.	Distinguished Professor of Economics University of Georgia (CX 7001; Tr. 10,794) [4]
Alan E. Krause	Consumer Protection Specialist Federal Trade Commission (Tr. 931)
Jeffrey M. Lipton	Former Director, Colored Pigment Production Division E.I. Du Pont de Nemours & Co. (Tr. 1591-92)
William O. Nicoll	Vice President, former General Manager, Coatings, Specialty Products Hercules, Inc. (Tr. 10,657)
Sol Panush	Manager of Color, Plastics and Specialties Division Celanese Corporation (Tr. 2691-99)
Paul Papillo	Vice-President, Plastics and Additive Division CIBA-GEIGY Corporation (Tr. 1764-66)

## Witnesses Called By Complaint Counsel

Erhard R. Schober	Director of Marketing, Pigments Division Mobay Chemical Corp. (formerly Harmon Colors Corp.) (Tr. 1637)
Hugh M. Smith, Ph.D.	Director of Research & Development, Pigments Division Sun Chemical Corporation (Tr. 1287)
Dr. Klaus Stammen	President Siegwerk, Inc. (Tr. 2376-77)
John Toogood, Ph.D.	General Manager, Colors Department Harshaw Chemical Company (Tr. 12,106)
Allan Weissglass	President Magruder Color Company, Inc. (Tr. 2481)
Harold C. Whittemore, Jr.	Senior Vice-President Sun Chemical Corporation (Tr. 1907-08) [5]

## Witnesses Called By Respondent

Morris Adelman, Ph.D.	Professor of Economics Massachusetts Institute of Technology (RX 9015; Tr. 10,020-33)
Dr. Hans Albers	Director BASF AG (Tr. 6158)
Richard L. Alsager	Manager of Marketing Research BASF Wyandotte Corporation (Tr. 3508)
Eli M. Aschner	Tenneco, Inc. (former Marketing Manager, BWC) (Tr. 5333)
Theodore Bluey	Partner Deloitte, Haskins & Sells (Tr. 6325)
Dr. Gustav Bock	Director, Pigments & Auxiliaires Applied Technology Department Leader, Development Group BASF AG (Tr. 3389-91)
Roger Brinner, Ph.D.	Vice-President Data Resources, Inc. (Tr. 7662-77)

Initial Decision

100 F.T.C.

## Witnesses Called By Respondent

James Canon, Ph.D.	Consultant of BWC, former Vice President of Harshaw Chemical (Tr. 12,581)
Jerome E. Counihan	Former President of CDP and Consultant, BASF Wyandotte Corporation (Tr. 5521)
Jerome Bruce Giniger	Vice-President Pope Chemical Corporation (Tr. 7205-06)
Michael L. Glassman	President Glassman-Oliver Economic Consultants, Inc. (RX 9003; Tr. 8340) [6]
Dr. Erwin Hahn	Director, Dyestuffs and Pigment Research Laboratory BASF AG (Tr. 3947-53)
Laurie Hiscock	Works Manager, Huntington Works BASF Wyandotte Corporation (Tr. 6012)
Kurt Kiesling	Works Manager, Holland Plant, BASF Wyandotte Corporation (Tr. 6078)
Dr. Josef F. Kohnle	Group Vice-President BASF Wyandotte Corporation (Tr. 4386-87)
Abraham Lindenhauer	Vice-President of Technical Services GAF Corporation (Tr. 7490)
Charles S. Long	Manager of Division Engineering BASF Wyandotte Corporation (Tr. 5795-96)
Paul Malchick, Ph.D.	General Manager, Chemetron Pigments Division BASF Wyandotte Corporation (Tr. 2813-28)
Jesse W. Markham, Ph.D.	Charles Edward Wilson Professor of Economics Harvard University (RX 9002; Tr. 7902-40)
Herbert A. McKenzie	President Hilton-Davis Chemical Group Sterling Drug, Inc. (Tr. 6736-37)

## Witnesses Called By Respondent

Frank Edward McKulka	Manager of Economic Analysis and Planning BASF Wyandotte Corporation (Tr. 7532)
Dr. Rolf Mecke	Member Division of Economic Evaluation BASF AG (Tr. 4152-55)
Charles H. Mertz	Vice-President, Customer Service Group Applied Color Systems (Tr. 7054) [7]
Karl Muench	Director, Sparte CP BASF AG (Tr. 3770)
Michael Peter Parker	Manager, Dyestuffs and Intermediates, Organics Division ICI, Ltd. (Tr. 4936-38)
Walter Schmiedeskamp	Partner Deloitte, Haskins & Sells (Tr. 6967)
Michael Stavar	Accountant BWC (Tr. 7233)
Dr. Erich Stoeckl	Director, Pigment Production BASF AG (Tr. 5014-15)
Clayton A. Sweeney	Executive Vice-President and Chief Administrative Officer Allegheny International (Tr. 7370)
Harold Thiemer	Accountant BASF AG (Tr. 6736-37)
Peter Tschirch	Controller BASF AG (Tr. 5184)

The proposed findings of fact and conclusions of law submitted by the parties and their arguments in support thereof have been given careful consideration by the administrative law judge and to the extent not adopted by this Initial Decision, in the form proposed or in substance, are rejected as not supported by the evidence or as immaterial. Any motion appearing on the record not heretofore or hereby ruled upon either directly or by the necessary effect of the

findings and conclusions made in this Initial Decision are hereby denied.

Upon consideration of the entire record in this proceeding and having considered the demeanor of the witnesses, the administrative [8]law judge makes the following findings of fact and conclusions of law and order based on the record considered as a whole.<sup>1</sup>[9]

### FINDINGS OF FACT

#### I. THE IDENTITY OF THE ACQUIRING AND THE ACQUIRED FIRMS

##### A. BASF AG And Its Business

1. The BASF Group is comprised of BASF Aktiengesellschaft (AG) and all companies which are at least 50% owned by BASF AG or its majority holdings. (RA 1; CX 51B).

2. BASF AG (hereinafter "BASF") is a West German corporation with headquarters in Ludwigshafen, the Federal Republic of Germany ("FRG" or "West Germany"). BASF is engaged in six lines of business:

Basic Petrochemicals, including oil, gas, and petroleum products such as fuel oil, naphtha, and benzene;

<sup>1</sup> The following abbreviations were used in this Initial Decision:

CB .....	Memorandum In Support of Complaint Counsel's Proposed Findings
RB .....	Respondent's Brief in Support of Proposed Findings
CPF .....	Complaint Counsel's Proposed Findings
RPF .....	Respondent's Proposed Findings
CX .....	Complaint Counsel's Exhibit
RX .....	Respondent's Exhibit
(Tr.) .....	Transcript Reference
(Name Number) .....	Testimony of the Named Witness at Listed Transcript Page Number
(CC's Admission, §) .....	Paragraph Number of Complaint Counsel's Responses to Respondent's Admissions
RA .....	Refers to Respondent's Responses to Complaint Counsel's Second Request for Admissions, dated February 23, 1981 and supplemented on March 30 and April 22, 1982 (No.)
Int. (I) .....	Refers to Respondent's Answers to Complaint Counsel's First Set of Interrogatories, dated December 24, 1979 and June 26, 1980 (No.)
Int. (II) .....	Refers to Respondent's Answers to Complaint Counsel's Second Set of Interrogatories, dated November 18, 1980, November 21, 1980 and December 3, 1980 (No.)
Stip. ....	Refers to Stipulation between Complaint Counsel and Respondent's Counsel (Date)

Agricultural Chemicals, including fertilizers, potash, salts, and crop protection products;

Plastics, including polyolefins, polystyrene, polyvinyl chloride, and specialty plastics;

Chemicals, including basic chemicals, industrial chemicals, intermediates, fine chemicals, and fiber raw chemicals;

Dyestuffs and Auxiliaries, including textile chemicals, pigments and non-textile auxiliaries, and dispersions; and

Consumer Products, including coatings and paints, magnetic recording media, nyloprint, and pharmaceuticals. (CX 51J).

3. The BASF Group manufactures and sells its products all over the world including the European Community, North America, West Europe excluding the European Community, Latin America, South and East Asia, Australia, East Europe, Africa, and West Asia. (CX 51X-Z). [10]

4. The BASF Group had the following net sales, earnings, and assets for the years 1971 through 1978:

million \$ <sup>2</sup>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Net Sales	2,944	3,720	5,384	7,642	7,364	8,338	[***]*	[***]
Net Income	[***]	[***]	[***]	[***]	[***]	[***]	[***]	[***]
Fixed Assets	1,934	2,183	2,625	2,772	3,026	3,084	[***]	[***]
Total Assets (RA 3).	3,309	3,926	4,944	5,668	6,069	6,170	[***]	[***]

5. Approximately 11% of the BASF Group's net sales were made in North America. (Compare RA 5 with RA 3). In the years 1977 and 1978 respectively, [\*\*\*] and [\*\*\*] of the BASF Group's investments in tangible fixed assets were made in the United States. (RA 6). In 1978 alone, the BASF Group invested almost [\*\*\*] million in tangible fixed assets in the United States. (RA 6).

6. The BASF Group sold the following quantities and value of organic pigments under the following tradenames in the years 1974-1978: [ 11]

<sup>2</sup> Deutschemarks converted to Dollars according to the following exchange rates listed in the Federal Reserve Bulletin:

<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
28.768	31.364	37.758	38.723	40.729	39.737	43.079	49.867

Cents per Deutschemark. Because responses to interrogatories, requests to admit facts, and documents often provided value information in a foreign currency, complaint counsel converted the foreign currency to dollars. All conversions from Deutschemarks to Dollars were made according to the exchange rates listed above. The source of these rates, the Federal Reserve Bulletin, is the same source used for the Stipulation dated February 10, 1982.

\* Throughout this document, reference to [\* \* \*] indicates where *in camera* material has been excised.

<u>Tradename</u>	<u>Initial Decision</u>			<u>100 F.T.C.</u>	
	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>
Heliogen <sup>3</sup>					
Metric Tons	5,471.1	3,287.0	4,918.2	[***]	[***]
Million \$	39.7	27.3	38.7	[***]	[***]
Fanal					
Metric Tons	620.7	322.9	533.6	[***]	[***]
Million \$	7.8	4.3	6.8	[***]	[***]
Lithol					
Metric Tons	1,580.1	1,393.2	1,498.7	[***]	[***]
Million \$	8.7	8.7	9.2	[***]	[***]
Paliogen					
Metric Tons	243.9	139.8	210.5	[***]	[***]
Million \$	8.0	4.8	8.1	[***]	[***]
Paliotol					
Metric Tons	228.7	94.0	127.4	[***]	[***]
Million \$	3.5	1.4	2.1	[***]	[***]
Sico					
Metric Tons	1,056.9	632.4	801.6	[***]	[***]
Million \$	9.2	6.4	8.0	[***]	[***]
Others					
Metric Tons	247.6	164.4	189.3	[***]	[***]
Million \$	1.2	1.0	1.1	[***]	[***]
Total Worldwide <sup>4</sup>					
Metric Tons	9,449	6,033.7	8,279.3	[***]	[***]
Million \$	78.1	53.8	74.0	[***]	[***]

(RA 22; 24). [12]

7. Until August 1, 1980, BASF was organized according to a divisional principle. (Int. (I) 16). There were ten "Ressorts" which had the following organization codes and titles:

<u>Code</u>	<u>Title</u>
A	Units reporting directly to the chairman
G	Basic Chemicals, Oil and Gas, Agrichemicals
K	Plastics
C	Dyestuffs, Chemicals, Dispersions
V	Consumer Products, Sales Coordination, Distribution
U	Overseas Operations
T	Engineering
W	Research and Development
F	Finance
P	Human Resources

Each "Ressorts" consisted of several "Sparten"—either "Product-

<sup>3</sup> Quantity and value for the Heliogen tradename includes sales of phthalocyanine pigments in the United States under the tradename Paliofast. See RA 131; 134-35.

<sup>4</sup> Differences between the total worldwide figures and the sum of the amounts for each tradename by year are the result of rounding errors in conversion from DM to \$ and inconsistencies between BWC's responses to RA 22 and RA 24.

Sparten" or "Regional-Sparten." "Product-Sparten" were responsible for sales in Europe and had worldwide chemical/technical responsibilities for the products they handle. "Regional-Sparten" were responsible for sales in their geographical regions outside Europe. (Int. (I) 16). Each of the "Sparten" were further subdivided into divisions, departments, and subdepartments which had progressively narrower areas of responsibility and specialization. See RA 7; 9-11; 13-19; 34; 37-40.

8. Until December 31, 1977, Ressort C (dyestuffs, chemicals, dispersions) was organized into four "Product-Sparten" which had the following organization codes and titles:

<u>Code</u>	<u>Title</u>
CF	Dyestuffs and Auxiliaries
CI	Industrial Chemicals
CZ	Intermediates
CD	Dispersions

(RA 9; Int. (I) 20). Sparte Dyestuffs and Auxiliaries ("CF") was responsible for the management of BASF's dyestuffs, pigments, and auxiliaries business. (RA 10). Sparte CF was subdivided into several departments, as follows: [13]

<u>Code</u>	<u>Title</u>
CFOS	Staff
CFA	Dyestuff (Production) Division I
CFB	Dyestuff (Production) Division II
CFH	Auxiliaries Division
CFV	Sales - Dyestuffs and Auxiliaries
CFE	Technical Services Department - Dyestuffs and Auxiliaries

(RA 11).

9. In 1970, BASF acquired G. Siegle and Co., GmBH, a manufacturer of organic and inorganic pigments. Until December 31, 1977, Sparte VS (Special Colors) was responsible for the management of the Siegle pigments business. (RA 12; Int. (I) 20).

10. On January 1, 1978, as a result of a reorganization of Ressorts C and V, Sparte Pigments and Auxiliaries ("CP") and Sparte Textile Dyes and Chemicals ("CT") were formed and Sparte CF and Sparte VS were abolished. (RA 12; Int. (I) 20). Thereafter, Sparte CP became responsible for the pigments business previously managed by Sparte VS and for the pigments, pigments dispersions, and non-textile dyestuffs and auxiliaries products previously managed by Sparte CF.

Initial Decision

100 F.T.C.

Sparte CT became responsible for the dyestuffs and auxiliaries used for the textile industry. (RA 12; Int. (I) 20).

11. From January 1, 1978 until August 1, 1980, Sparte CP (Pigments and Auxiliaries) was organized into six departments, as follows:

<u>Code</u>	<u>Title</u>
CPOS	Staff
CPP	Pigment Production Division
CPH	Auxiliaries Production Division
CPV	Sales - Pigments and Auxiliaries
CPE	Technical Services Department - Pigments and Auxiliaries
CPOZ	Central Development [14]

(RA 14). Sparte CP also had collateral responsibility over the "U.B. Pigmente" division (formerly the Siegle pigments business) of BASF Farben and Fasern, AG. (RA 12; 14; Int. (I) 20). The "U.B. Pigmente" business (SP) was organized as follows:

<u>Code</u>	<u>Title</u>
ST	Technology
STA	Technical Services Department
SV	Sales

(RA 14).

12. During the period 1971-1979, Sparte CP (and its predecessor Sparte CF) had the following responsibilities respecting BASF's United States organic pigments business: short, middle, and long-range strategic and operations planning; marketing and sales development; production, export planning (in conjunction with Sparte UN); and production technology. (RA 13; Int. (I) 16).

13. Until August 1, 1980, Ressort U (Overseas Operations) was organized into four Sparten, one of which was Sparte UN (North America). (RA 37). Sparte UN was subdivided into three departments, as follows:

<u>Code</u>	<u>Title</u>
UNV	Sales
UNT	Technical Coordination
UNOK	Profit Control

(RA 38).

14. As of March 1979, Sparte UN had the following responsibilities respecting BASF's sale of organic pigments in the United States:

responsibility for the combined results of all United States subsidiaries; planning of exports from Europe (jointly with Sparte CP); handling of exports to BWC; coordination of technology transfer between Sparte CP and BWC; coordination in setting up strategies and plans; and planning and coordination of all major capital investments in tangible fixed assets to be made in the United States (in conjunction with Sparte CP). (Int. (I) 16; RA 39-40). [15]

15. The names and positions of some officers and employees of BASF and BWC are summarized hereinbelow as an aid to understanding the documentary and testimonial evidence in this proceeding.

Dr. Bernhard Timm: From 1971 to February 1981, he held the following positions:

<b>Dates</b>	<b>Position</b>
7/2/74 - present	Chairman, Supervisory Board of BASF
1971 - 7/2/74	Chairman, "Vorstand" (Board of Executive Directors) of BASF AG
1971 - 4/8/74	Member, Board of Directors, BASF Wyandotte Corporation

(RA 41).

Dr. Mathias Seefelder: From 1974 to February 1981, he held the following positions:

<b>Dates</b>	<b>Position</b>
7/2/74 - present	Chairman, "Vorstand" of BASF AG
4/8/74 - 11/15/80	Member, Board of Directors, BWC

(RA 42).

Dr. Hans Albers: From 1971 to February 1981, he held the following positions: [16]

## Initial Decision

100 F.T.C.

Dates	Position	Code <sup>5</sup>
7/2/74 - 7/31/80	Director, Ressort Dyestuffs, Chemicals Dispersions, BASF AG	C
1/1/74 - present	Member, "Vorstand" of BASF AG	
4/25/78 - present	Member, Board of Directors of BWC	
11/1/71 - 7/1/74	General Manager, Sparte Dyestuffs and Auxiliaries, BASF AG	CF

(RA 43).

Dr. Otto Christmann: From July 1974 to August 1, 1980, he held the following positions:

Dates	Position	Code
1/1/78 - 8/1/80	General Manager, Sparte Textile Dyes and Chemicals, BASF AG	CT
7/2/74 - 12/31/77	General Manager, Sparte Dyestuffs and Auxiliaries, BASF AG	CF

(RA 44).

Karl Muench: From 1971 to August 1, 1980, he held the following positions: [17]

Dates	Position	Code
1/1/78 - 8/1/80	General Manager, Sparte Pigments and Auxiliaries, BASF AG	CP
1971 - 12/31/77	Director, Sales Department, Sparte Dyestuffs and Auxiliaries, BASF AG	CFV

(RA 45).

Bernard Hardekopf: From January 1, 1978 to August 1, 1980, he held the position of Director, Sales Department, Sparte Pigments and Auxiliaries, BASF A.G. (CPV). (RA 46).

Werner Scheuer: From 1971 to August 1, 1980, he held the following positions:

<sup>5</sup> An understanding of BASF's system of organization codes is helpful because the authors and recipients of BASF's documents are generally indicated by organization code only.

## Initial Decision

<b>Dates</b>	<b>Position</b>	<b>Code</b>
1/1/78 - 8/1/80	Deputy Director, Pigments and Soluble Dyes, Sales Department Sparte Pigments and Auxiliaries, BASF AG	CPV/P
1971 - 12/31/77	Deputy Director, Sales Department, Sparte Dyestuffs and Auxiliaries, BASF AG	CFV/P

(RA 47).

Dr. Erich Stoeckl: From April 1, 1967 to August 1, 1980, he held the following positions:

<b>Dates</b>	<b>Position</b>	<b>Code</b>
1/1/78 - 8/1/80	Director, Pigments Department, Sparte Pigments and Auxiliaries, BASF AG	CPP
[18] 4/1/67 - 1/1/78	Director, Dyes Department, Sparte Dyestuffs and Auxiliaries, BASF AG	CFA

While holding both of these positions, Dr. Stoeckl was responsible for BASF's production of organic pigments. (RA 48).

Dr. Schrodell: From 1971 to June 12, 1979, he held the following positions:

<b>Dates</b>	<b>Position</b>	<b>Code</b>
1/1/78 - 6/12/79	Deputy Director, Tricolor Factory, Pigments Department, Sparte Pigments and Auxiliaries, BASF AG	CPP/T
1971 - 12/31/77	Deputy Director, Tricolor Factory, Dyes Department, Sparte Dyestuffs and Auxiliaries, BASF AG	CFA/T

(RA 49).

Dr. Brunkhorst: From 1971 to August 1, 1980, he held the following positions:

## Initial Decision

100 F.T.C.

<b>Dates</b>	<b>Position</b>	<b>Code</b>
1/1/78 - 8/1/80	Deputy Director, Azo Factory, Pigments Department, Sparte Pigments and Auxiliaries, BASF AG	CPP/A
[19] 1971 - 12/31/77	Deputy Director, Azo Factory, Dyes Department, Sparte Dyestuffs and Auxiliaries, BASF AG	CFA/A

(RA 50).

Dr. Trauth: From 1971 to August 1, 1980, he held the following positions:

<b>Dates</b>	<b>Position</b>	<b>Code</b>
1/1/78 - 8/1/80	Deputy Director, Finish Factory, Pigments Department, Sparte Pigments and Auxiliaries, BASF AG	CPP/F
1971 - 12/31/77	Deputy Director, Finish Factory, Dyes Department, Sparte Dyestuffs and Auxiliaries, BASF AG	CFA/F

(RA 51).

Dr. Polster: From 1971 to August 1, 1980, he held the following positions:

<b>Dates</b>	<b>Position</b>	<b>Code</b>
1/1/78 - 8/1/80	Deputy Director, Pigments Development Laboratory, Pigments Department, Sparte Pigments and Auxiliaries, BASF AG	CPP/P
1971 - 12/31/77	Deputy Director, Development Laboratory, Dyes Department, Sparte Dyestuffs and Auxiliaries, BASF AG	CFA/P

(RA 52). [20]

Dr. Norbert Gotz: From 1971 to August 1, 1980, he held the following positions:

## Initial Decision

Dates	Position	Code
1/1/78 - 8/1/80	Director, Technical Services Department, Sparte Pigments and Auxiliaries, BASF AG	CPE
1971 - 12/31/77	Director, Technical Services Department, Sparte Dyestuffs and Auxiliaries, BASF AG	CFE

(RA 53; 16).

Dr. Walter Puff: From 1971 to August 1, 1980, he held the following positions:

Dates	Position	Code
1/1/78 - 8/1/80	Deputy Director, Technical Services - "Sonder F" Subdepartment, Sparte Pigments and Auxiliaries, BASF AG	CPE/SF
1971 - 12/31/77	Deputy Director, Technical Services - "Sonder F" Subdepartment, Sparte Dyestuffs and Auxiliaries, BASF AG	CFE/SF

(RA 54). The Technical Services - "Sonder F" Subdepartment of Sparte CP was responsible, *inter alia*, for providing technical assistance and advice to purchasers of BASF's organic pigments through its Market Service Groups. (RA 17-18). [21]

Dr. Gustav Bock: From 1971 to August 1, 1980, he held the following positions:

Dates	Position	Code
1/1/78 - 8/1/80	Leader, Development Group, Technical Services - "Sonder F" Subdepartment, Sparte Pigments and Auxiliaries, BASF AG	CPE/SF1
1971 - 12/31/77	Leader, Development Group, Technical Services - "Sonder F" Subdepartment, Sparte Dyestuffs and Auxiliaries, BASF AG	CFE/SF1

(RA 55).

16. The Development Group of the Technical Services - "Sonder F" Subdepartment of Sparte CP was responsible, *inter alia*, for forwarding requests for development of new or improved organic pigments to the research laboratories or the production site laboratories; checking and testing new or improved products that came from the research laboratories or the production site laboratories; designating new or improved products as so-called "E" (developmental or experimental) products; sampling "E" products to selected customers for testing purposes; and participating in the decision to upgrade the status of an "E" pigment to a so-called "SF" (test product) pigment. As of January 1, 1979, when a product was upgraded from an experimental pigment ("E") to a test product ("SF"), the "Market Opening Pigments and Dyestuffs" group (organization code CPE/SF 3) assumed responsibility for the introduction of the product to interested customers. Prior to the formation of the "Market Opening" group, this responsibility was assumed by the appropriate market service group within the Technical Services - "Sonder F" Subdepartment that served the industry in which the "SF" product was to be used. (RA 21; Puff dep. CX 5094E-F). [22]

Dr. M. Minsinger: From 1975 to August 1, 1980, he was the General Manager, Sparte North America, BASF AG (code UN). As of May 11, 1976, he was also a member of BWC's Board of Directors. (RA 59).

Dr. von Selchow: From 1971 to August 1, 1980, he was the Director, Sales Department, Sparte North America, BASF AG (code UNV). (RA 60).

Gerd Meyer: From 1971 to August 1, 1980, he was the Prokurist-Marketing, Sales Department, Sparte North America, BASF AG (code UNV/M). (RA 61).

Peter Tschirch: From 1977 to August 1, 1980, he was the Prokurist, Profit Control, Sparte North America, BASF AG (code UNOK). (RA 63).

Dr. von Pigenot: From 1973 to August 1, 1980, he was a Member, Technical Coordination - Dyes, Pigments and Auxiliaries, Sparte North America, BASF AG (code UNT). (RA 64).

17. "Commission F" of BASF AG is responsible for reviewing possible acquisitions by BASF and recommending approval or disapproval of the acquisition to BASF's Board of Directors ("Vorstand"). (RA 36).

18. "Commission S" of BASF AG is responsible for reviewing proposed fixed asset investment plans and recommending approval or disapproval of the capital investment plan to BASF's Vorstand. (Muench 3777-78).

B. *BASF Wyandotte Corporation (BWC) And Its Business*

19. BASF Wyandotte Corporation ("BWC") is a corporation organized under the laws of the State of Michigan, with its principal place of business at 100 Cherry Hill Road, Parsippany, New Jersey. (Comp. 1; Ans. 1).

20. BWC was formed in 1971 as the result of a merger of BASF Corporation, a BASF AG subsidiary conducting business in the United States, into Wyandotte Chemicals Corporation, which BASF AG had acquired in 1969. (RA 65-67). [23]

21. As of March 1979, BWC was a wholly-owned subsidiary of BASF America Corporation, a wholly-owned subsidiary of BASF AG. (Comp. 2; Ans. 2; RA 68).

22. As of January 1, 1979, BWC engaged in four main lines of business:

Industrial Chemicals, including both organic and inorganic chemicals;

Colors and Intermediates, including organic and inorganic pigments, dyestuffs, auxiliaries, agricultural chemicals, plasticizers, and organic intermediates;

Polymers, including urethane and expandable polystyrene; and

Chemical Specialties, including industrial specialties, chemical process specialties, cleaning and sanitizing products, printing plates and equipment, and magnetic recording media.

(RA 71; 73).

23. As of January 1, 1978, BWC maintained the following plants and production sites in the United States:

Bedford, Massachusetts

Magnetic recording media

Carlstadt, New Jersey

Leather finishes and protective paints

Charlotte, North Carolina

Textile and other auxiliaries, leather tanning chemicals and dyestuff laboratories

East Stroudsburg, Pennsylvania

Cleaning and sanitizing products [24]

Geismar, Louisiana

Chlorine, caustic soda, ethylene oxide,

ethylene glycol, toluene diisocyanate,  
polyether polyols, butanediol

Greenville, Mississippi  
Agricultural testing station

Jamesburg, New Jersey  
Expandable polystyrene

Kearny, New Jersey  
Expandable polystyrene

Parsippany, New Jersey  
Administration

Port Edwards, Wisconsin  
Chlorine, caustic soda

Santa Fe Springs, California  
Cleaning and sanitizing products

Troy, Michigan  
Urethane systems

Tucker, Georgia  
Cleaning and sanitizing products

Washington, New Jersey  
Polyether polyols

Wyandotte, Michigan  
Chlorine, caustic soda, sodium  
bicarbonate, propylene oxide, polyether  
polyols, surfactants, cleaning and  
sanitizing products, transparent iron  
oxide pigments.

(RA 72).

24. BWC's butanediol (an intermediate for the production of plastics) plant located at Geismar, Louisiana, was put into operation in 1977. (RA 148). In 1978, BWC completed the construction of a Basagran herbicides plant at Geismar. (RA 149). Also in 1978, BWC [25]put into operation a plant for the manufacture of Vitamin E at Wyandotte, Michigan. (RA 150). On November 5, 1979, BWC began construction of a plant for the manufacture of diphenyl methane diisocyanate (MDI) at Geismar. (RA 152).

25. BWC had the following sales, earnings, assets, and capital expenditures for the years 1971-1977:

Million \$	1971	1972	1973	1974	1975	1976	1977
Net Sales	268.8	315.4	378.3	517.4	589.8	710.0	
Earnings After Taxes	***	***	***	***	***	***	***
Total Assets	254.8	281.4	300.3	354.6	437.1	530.6	
Fixed Assets	147.6	157.6	169.2	187.7	224.1	270.5	
Capital Expenditures	22.9	27.4	30.6	42.0	53.7	76.8	

(RA 70).

26. As of March 1979, BWC was organized into four groups: Industrial Chemicals Group, Colors and Intermediates Group, Polymers Group, and Chemicals Specialties Group. These four basic groups were further subdivided into divisions and departments, each with a progressively narrower scope of responsibility. (RA 73-74; 76-78).

27. BWC's Colors and Intermediates Group (formerly the Colors and Chemicals Group) consisted of three divisions, one of which was the Colors and Auxiliaries Division. (RA 74). The Colors and Auxiliaries Division was responsible for organic pigments, inorganic pigments, dyestuffs, and auxiliaries (RA 76), and was structured into six departments: Manufacturing, TCC (Textile Colors and Chemicals) Marketing, PIC (Pigments and Industrial Colors) Marketing, White-stone Operations, Leather and Paper Dyes Marketing, and Business Strategies. (RA 77).

28. The PIC Department was responsible for organic pigments, inorganic pigments and dyes for all non-textile applications except leather and paper applications. (RA 78). It was headed by a Marketing Manager, who was responsible for the Sales Manager and [26] Technical Service Manager. (RA 79). The Sales Manager was directly responsible for the PIC sales force (RA 80); the Technical Service Manager was directly responsible for the PIC Department's technical service force. (RA 81). As of January 1978, the position of Technical Service Manager was abolished and the Sales Manager assumed responsibility for two newly created Industry Managers, one of whom handled printing inks customers and the other paints and coatings customers. Each of the industry managers assumed responsibility for both technical service and sales to their respective industry. (RA 82).

29. The names and positions of certain officers and employees of BASF/BWC for the relevant period are given hereinbelow:

Dieter Ambros: From April 20, 1971 to April 10, 1979, he was the President of BWC. During the same time period, he was a member of BWC's Board of Directors. (RA 83).

Initial Decision

100 F.T.C.

Dr. J.F. Kohnle: From 1970 to February 1981, he held the following positions with BWC and BASF:

Dates	Position	Code
10/79 - present <sup>6</sup>	Group Vice-President, Colors and Fine Chemicals Group, BWC	
1/1/76 - 10/79	Group Vice-President Colors and Intermediates Group, BWC	
10/1/72 - 11/3/75	Director, Strategic Planning and Five Year Planning, Zentralbereich Zentrale Planung, BASF AG	AZS
[27] 7/1/70 - 10/1/72	Group Leader, Strategic Planning, Zentralbereich Zentrale Planung, BASF AG	AZS

(RA 84).

James G. Brown: From November 1973 to March 1977, he was the General Manager, Colors and Auxiliaries Division, BWC. (RA 85). He was succeeded by Gunter Koenen. (RA 86).

Dr. Edwin Hahn: From 1968 to February 1981, he has held the following positions with BWC and BASF:

Dates	Position	Code
6/13/79 - present	General Manager, Dyestuff Laboratory BASF AG	WF
1/1/78 - 6/12/79	Director, Central Development, Sparte Pigments and Auxiliaries, BASF AG	CPOZ
3/1/74 - 12/31/77	Director, Central Development, Sparte Dyestuffs and Auxiliaries, BASF AG	CFE/ZE
1/70 - 1/74	General Manager, Colors and Auxiliaries Division, BWC	
1968 - 1/70	Director of Technical Relations, BASF Corporation	

(RA 87).

Dr. Uwe Soenksen: From 1971 to July 1979, he held the following positions at BWC and BASF: [28]

<sup>6</sup> In October 1979, BWC's Colors and Intermediates Group was reorganized and renamed the Colors and Fine Chemicals Group. As part of the reorganization, a new Pigments Division was created by combining the former Chemetron Pigments Division and the former PIC Department. (RA 75).

## Initial Decision

<u>Dates</u>	<u>Position</u>	<u>Code</u>
5/78 - 7/79	Venture Manager, Colors and Auxiliaries Division, BWC	
9/77 - 5/78	Manufacturing Manager, Colors and Auxiliaries Division, BWC	
2/74 - 9/77	Manufacturing Manager, Dyestuffs, Colors and Auxiliaries Division, BWC	
1971 - 2/74	Technical Coordination, Sparte North America BASF AG	UNT

(RA 88).

Dr. J. Dayan: From July 1974 to February 1981, he held the following positions:

<u>Dates</u>	<u>Position</u>
5/78 - present	Manufacturing Manager, Colors and Auxiliaries Division, BWC
9/77 - 5/78	Director, Group Technology, Colors and Intermediates Group, BWC
7/74 - 9/77	Assistant to General Manager/Manager, Planning and Administration, Colors and Intermediates Group, BWC

(RA 89). [29]

Ted Smock: From 1971 to March 1978, he held the following positions:

<u>Dates</u>	<u>Position</u>
1971 - 9/76	Marketing Manager, PIC Department, BWC
9/76 - 3/78	Director, National Pigments Accounts, PIC Department, BWC

(RA 90).

Eli Aschner: From September 1976 to January 1980, he was the Marketing Manager, PIC Department, BWC. (RA 91).

J. O'Grady: From 1965 to 1977, he was the Sales Manager, PIC Department, BWC. (RA 92).

Initial Decision

100 F.T.C.

Gunter Kirchmer: From 1971 to August 1, 1980, he held the following positions at BWC and BASF:

<u>Dates</u>	<u>Position</u>	<u>Code</u>
1/1/79 - 8/1/80	Leader, Market Opening Group, Pigments and Dyestuffs, Technical Services - "Sonder F" Subdepartment, Sparte Pigments and Auxiliaries, BASF AG	CPE/SF3
1/1/78 - 12/31/78	Market Service - Paints, Technical Services - "Sonder F" Subdepartment, Sparte Pigments and Auxiliaries, BASF AG	CPE/SF4
[30] 6/75 - 1/1/78	Market Service - Paints, Technical Services - "Sonder F" Subdepartment, Sparte Dyestuffs and Auxiliaries, BASF AG	CFE/SF4
1971 - 6/75	Technical Service Manager, PIC Department, BWC	

(RA 93).

Horst Bender: From 1970 to January 1978, he held the following positions at BWC and BASF:

<u>Dates</u>	<u>Position</u>	<u>Code</u>
1/1/77 - 3/1/78	Sales Manager, PIC Department, BWC	
8/1/75 - 8/1/77	Technical Service Manager, PIC Department, BWC	
1/1/72 - 8/1/75	Senior Technical Advisor, Printing Inks, PIC Department, BWC	
1/1/70 - 12/31/72	Market Service - Printing Inks, Technical Service - "Sonder F" Subdepartment, Sparte Dyestuffs and Auxiliaries, BASF AG	CFE/SF3

(RA 94).

C. *Chemetron Pigments Division ("CPD") And Its Business*

30. Chemetron Corporation was a corporation organized under the laws of the State of Delaware, with its principal place of business [31]located at 111 E. Wacker Drive, Chicago, Illinois. (Comp. 7; Ans.

7). It was a wholly-owned subsidiary of Allegheny Ludlum Industries, Inc. (presently, Allegheny International), a corporation organized under the laws of the State of Pennsylvania, with its principal place of business at 2700 Two Oliver Plaza, Pittsburgh, Pennsylvania. (Comp. 8; Ans. 8).

31. Prior to its acquisition by BWC, the Chemetron Pigments Division ("CPD") was an unincorporated division of Chemetron Corporation engaged in the manufacture and sale of organic pigments throughout the United States. (Comp. 9; Ans. 9)

32. Prior to 1964, Chemetron Corporation conducted its organic pigments business through Holland Color and Chemical Company of Holland, Michigan. (RA 112). In 1964, Chemetron Corporation acquired Standard Ultramarine and Color Co. of Huntington, West Virginia, and combined it with Holland Color and Chemical to form the Holland-Suco Color Co. as a subsidiary. (RA 113). In 1968, the Holland-Suco Color Co. was renamed the Pigments Division, Chemetron Corporation. (RA 114).

33. At the time of the acquisition, CPD manufactured organic pigments at two locations in the United States: Holland, Michigan and Huntington, West Virginia. (RA 110-11; CX 1907Q).

34. The name and positions of certain CPD officers and employees during the relevant period are given hereinbelow:

Jerome E. Counihan: From December 1973 to March 1979, he was the President of CPD. (RA 95).

W. R. Wickline: From November 1974 to March 1979, he held the following positions:

<u>Dates</u>	<u>Position</u>
5/77 - 3/79	Vice President, Marketing and Sales, CPD
3/76 - 5/77	Director, Marketing and Sales, CPD
11/74 - 3/76	General Sales Manager, CPD [32]

(RA 97). As Vice-President - Marketing and Sales, Mr. Wickline was responsible for the Marketing Research, Marketing, and Sales Departments of CPD. (RA 98; CX 2005F).

Richard L. Alsager: From December 1974 to March 1979, he was CPD's Marketing Research Manager. (RA 101).

P.E. Malik: From December 1976 to March 1979, he was a Marketing Research Analyst for CPD and reported to Mr. Alsager. (RA 102; CX 2005G).

T.W. Rogers: As of June 1978, he was Manager of CPD's Sales

Department which included three regional sales managers, 14 salesmen and one sales trainee. (RA 104; CX 2005I).

A.A. Egloff: As of March 1979, he was Manager of CPD's Marketing Department which included, *inter alia*, one technical service representative for solvent inks and another for coatings. (RA 103; CX 2005H).

Dr. S.P. Malchick: From October 1973 to March 1979, he held the following positions with CPD:

<u>Dates</u>	<u>Position</u>
10/73 - 2/77	Director of Research
2/77 - 3/79	Director of Technology

(RA 105). As the Director of Technology, Dr. Malchick was responsible for four departments: Research - Pigments and Chemicals; Research - Dispersions and Vehicles; Technical Service - Graphic Arts; and Technical Service - Coatings and Plastics. (RA 106; CX 2005Q-R, Y, EE, FF). The Research - Pigments and Chemicals Department consisted of the following research groups: azo reds; analytical services; pigments and intermediates process; phthalos; azo yellows; and high performance pigments. (RA 107).

Charles S. Long: From July 1975 to March 1979, he was CPD's Director of Engineering. (RA 109). [33]

#### D. *The Acquisition And Its Background*

35. In 1978, Allegheny Ludlum Industries (ALI) attempted to sell the assets of CPD to Rhinechem Corporation ("Rhinechem"), a subsidiary of Bayer AG ("Bayer"), a West German corporation. (CC's Factual Admissions, ¶ 44). A written agreement concerning the proposed sale of CPD to Rhinechem was entered into by ALI and Rhinechem on August 25, 1978. (BWC's Factual Admissions, ¶ 124). Among the unsuccessful bidders were BASF/BWC, Dainippon, and Sandoz. (Sweeney 7331-32). Upon application by the Federal Trade Commission, the United States District Court for the Northern District of Illinois, on October 20, 1978, issued an order preliminarily enjoining that sale and acquisition. (CC's Factual Admissions, ¶ 45). See *FTC v. Rhinechem Corporation*, 459 F. Supp. 785 (N.D. Ill. 1978).

36. In one of the proposed findings in support of the requested injunction submitted by the Commission's Chicago Regional Office to the District Court in the *Rhinechem* proceeding, it was stated that BWC would be among the more acceptable purchasers of CPD than Rhinechem. (Sweeney 7374-75).

37. Mr. Clayton A. Sweeney, then Senior Vice-President of ALI, met with complaint counsel after the injunction against the Rhinechem sale had been entered and described the nature of the three

serious potential purchasers in the bidding for CPD. (Sweeney 7380). Mr. Sweeney met again with complaint counsel before he signed a tentative agreement with BWC in November 1978. (Sweeney 7380-84).

38. Mr. Sweeney testified that he knew that complaint counsel had recommended to the Commission that a preliminary injunction application be authorized with respect to BWC's acquisition of CPD. On March 19, 1979, there was a meeting among Mr. Sweeney of ALL, complaint counsel and certain Federal Trade Commissioners and some of their staff. (Sweeney 7387-88). Subsequently, the Commission did not authorize an application for preliminary injunction against the acquisition. (Sweeney 7388-89).

39. On November 17, 1978, ALL, Chemetron Corporation, and BWC executed a purchase agreement. (RA 127). The acquisition of CPD by BWC was consummated on March 23, 1979. (RA 128). On April 5, 1979, an administrative complaint was issued in this proceeding. [34]

## II. THE PRODUCT MARKET

### A. *Colorants—Organic Pigments, Inorganic Pigments, And Dyes*

40. Colorants (agents used to impart color to materials) are generally classified into three groups: organic pigments, inorganic pigments and dyes. (CX 3102B, E; Malchick 2875-76). Organic pigments provide much of the color in printing inks, coatings (which include automotive paints, house paints and industrial paints), and plastics. Smaller areas of consumption include textiles and paper. (Schober 1646; Papillo 1785; Whittemore 1926; Malchick 2876). Dyestuffs and inorganic pigments are also used to impart color in various applications. (Smith 1301-04, 1348-49; Malchick 2875-76).

41. Pigments are particulate solids which are used as colorants. Organic pigments are carbon compounds. Inorganic pigments are not carbon compounds. Pigments are usually incorporated or dispersed in a vehicle or substrate for application to the material to be colored. A pigment is normally insoluble in the vehicle or substrate and remains a solid particle throughout the coloration process. (CX 1951F; 2047G; 3102A-C; 3987A; Smith 1321-22, 1585-86). The raw materials used to produce organic pigments are different from those used to produce inorganic pigments. Organic pigments are derivatives of petroleum or coal tar. (CX 2042W; 3101M; Smith 1467, 1585-86; Papillo 1802-03).

42. Dyes are organic chemicals. Unlike pigments, however, dyes are soluble compounds for which fibers have an affinity. (CX 1903B;

1951F; Smith 1304). Because of their different physical and chemical characteristics, pigments and dyes are applied differently in the coloration process. (CX 1951F; 3102C).

43. Organic pigments are classified by the ITC as "lakes" or "toners." (CX 16G; 3102N). A lake is an organic pigment which has been combined with an inorganic material (such as light alumina hydrate). A toner does not contain any inorganic material. (Smith 1314-15A). Historically, more organic pigments used to be sold in lake form than today. In 1978, organic pigment lakes represented less than 2% of total organic pigment production reported to the ITC. (CX 3987E).

44. Organic pigments may be divided into different classes on the basis of their chemistry as follows: azo pigments, condensation pigments, vat pigments, and polycyclic pigments. (Smith 1306-07). See CX 3102R. Azo pigments cover a wide variety of colors and pigment types. (Smith 1328, 1359). Polycyclic pigments include carbazole violets, flavanthrone yellows, indanthrone blues, phthalocyanines and quinacridones. (Smith 1354). Organic pigments may also be grouped by their color or shade. (Glassman 8465, 8475). [35]

45. The *Colour Index*, a standard reference book used by the pigments industry, categorizes and lists pigments according to their shade and chemical type. Each pigment is defined by a *Colour Index* name ("C.I. name") and a *Colour Index* chemical constitution number ("C.I. number"). (CX 3102D; Smith 1304, 1306). A *Colour Index* name is often variously abbreviated (e.g., Pigment Blue 15 as P.B. 15, Blue 15, or B-15). (CX 1801K-O; 3102W).

46. Some of the families of organic pigments and their corresponding *Colour Index* designations are as follows (CX 3101D-F is the basic source; additional sources are noted):

<u>Pigment Name</u>	<u>C.I. Name</u>
Alkali Blue (CX 779F)	Pigment Blue 19 or 61
Anthrapyrimidine (CX 1702F)	Pigment Yellow 108
Azomethines	Pigment Yellow 129
Benzimidazolones	Pigment Yellow 120
	Pigment Red 175, 176, 183, 185, 208
	Pigment Violet 32
	Pigment Brown 25
BON Maroon	Pigment Red 63
BON Reds (CX 16K)	Pigment Red 52 (calcium)
Carbazole Violet	Pigment Red 52:2 (manganese)
	Pigment Violet 23

## Initial Decision

<u>Pigment Name</u>	<u>C.I. Name</u>
Diarylide Yellows & Oranges	Pigment Yellow 12, 13, 14, 15, 16, 17, 55, 83 Pigment Orange 14, 15, 16
Dinitraniline Orange Disazo Condensations	Pigment Orange 5, Pigment Yellow 93, 94, 95 Pigment Orange 31 Pigment Red 144, 166 Pigment Brown 23
Flavanthron Yellow Hansa Yellows	Pigment Yellow 112 [36] Pigment Yellow 1, 3, 4, 5, 10, 60, 73, 74, 75, 78, 85, 97
Indanthrone Blues Isoindoline (CX 1702H) Isoindolinones	Pigment Orange 1 Pigment Blue 21 and 22 Pigment Yellow 139  Pigment Yellow 109, 110 Pigment Red 180
Lithol Reds (CX 16K)	Pigment Red 49 (sodium) Pigment Red 49:1 (barium) Pigment Red 49:2 (calcium) Pigment Red 57 or 57:1
Lithol Rubines (CX 1702B) Naphthol Reds (CX 3102W) Methyl Violet (CX 779D) Nickel Azo Yellow Para Red (Permanent) Red 2B (CX 16K; 3102X) Perylenes	   Pigment Red 17, 22, 23  Pigment Violet 3  Pigment Green 10 Pigment 1 Pigment Red 48:1 (barium) Pigment Red 48:2 (calcium) Pigment Red 123, 149, 179, 190
Pigment Scarlet PhthalocyanineBlues (CX 16L; 1702H) PhthalocyanineGreens Pyrazolones	Pigment Red 60 Pigment Blue 15, 15:1, 15:2, 15:3, 15:4, 16 Pigment Green 7, 36 Pigment Yellow 10 Pigment Orange 13, 34 Pigment Red 37, 38, 41, 42 Pigment Orange 47, 48, 49 Pigment Red 122, 192, 206, 207, 209 Pigment Violet 19, 42 [37] Pigment Yellow 138, 143
Quinacridones	Pigment Red 53 Pigment Red 81 Pigment Violet 1
Quinophthalones Red Lake C Rhodamines (Basic Dye Complexes) (CX 779F)	

Initial Decision

100 F.T.C.

<u>Pigment Name</u>	<u>C.I. Name</u>
Toluidine Red	Pigment Red 3

47. Examples of azo pigments are hansa yellows, diarylide yellows, dinitraniline orange, pyrazolones, red lake C, BON red, lithol red, permanent red 2B, lithol rubine, and naphthol red pigments. (CX 3101M; 3102R, Z). Examples of polycyclic pigments are phthalocyanines ("phthols"), quinacridones, carbazole violet, flavanthrone yellow, indanthrone blue, and perylenes. (CX 3102R, V; Smith 1354).

48. The crystalline structure of a commercial phthalocyanine blue pigment is either alpha- or beta-phase. (CX 3102CC). The alpha-form phthalo blues (or alpha blues), which are green-shade (GS) blues, are Pigment Blue 15 (also sometimes referred to as Pigment Blue 15:0), Pigment Blue 15:1 and Pigment Blue 15:2. The beta-form phthalo blues (or beta blues), which are red-shade (RS) blues, are Pigment Blue 15:3 and Pigment Blue 15:4. (CX 16L; 114F; 1839R). There is also a metal-free (no copper atom) phthalo blue, which is Pigment Blue 16. (CX 144F). Phthalo green pigments come in two shades, a blue-shade (BS) and a yellow-shade (YS), which are Pigment Green 7 and Pigment 36, respectively. (CX 114G; 1839R). Phthalocyanines are sometimes referred to as copper phthalocyanines (CPC) or as "PCN." (CX 200C; 204A, H; 3202C).

#### B. *The Production Process Of Organic Pigments*

49. Organic pigments are synthesized from chemical constituents in a process that is generally similar for all organic pigments. The raw materials which are used to produce organic pigments are precursor chemicals known as "intermediates." (Smith 1317). Major intermediates used in the production of azo yellows are dichlorobenzidine (DCB), MNPT, and arylides (AAA, AAOA, AAMX, and AAOT). (CX 2022; 3101M; 3946VVV; Smith 1325). For azo reds, the main intermediates are C-Amine, beta naphthol, BON acid (BONA), tobias acid, 2B-acid, and 4B-acid. (CX 2042W; 3101M; 3946UUU). These intermediates are in turn based upon the following derivatives of petroleum or coal tar: benzene, toluene, xylene, ethylene, and naphthalene. (CX 2042W; 3101M; Smith 1467). All organic pigments are in some way derived from one or more of these five basic building blocks, which are all compounds of carbon. (Smith 1585-86). [38]

50. The production process of organic pigments may be divided into two separate phases; pigment synthesis and "finishing". Synthesis is the formation of the organic pigment molecule by a chemical reaction of the component parts of raw materials. Finishing (also known as "conditioning"), usually involves the physical modification

of a pigment to give it desirable end-use properties. Finishing includes surface treatment of pigment particles, alteration of particle size, and alteration of particle distribution. (CX 3102AA-BB; Smith 1322-23; Malchick 2993-95). Synthesis and finishing are not always clearly separable. For example, for many azo pigments, synthesis yields products in pigmentary form. (CX 3102BB-CC). Most pigments require a separate finishing step. (Smith 1324).

51. Organic pigments are synthesized in a reaction vessel, in which pigment intermediates and other reaction ingredients are combined under carefully controlled conditions, such as temperature, pH level, and concentration of reactants. After synthesis is complete, various finishing steps may be applied. The pigment slurry is then filtered and pumped to a filter press, where it is washed with water to remove impurities. The resulting product is pigment "presscake," a water-wet pigment paste containing about 60-80% water. [\*\*\*]

52. These vessels can be used for production of some inorganic pigments, such as iron blue and chrome yellow, as well as for production of organic pigments. [\*\*\*]

53. Presscake can either be sold as is, or it can be used to produce dry colors or dispersions. (CX 3102BB; [\*\*\*]). If used for dry colors, the presscake is dried in ovenlike units for specified times, and then the pigment is pulverized by grinding. [\*\*\*] Each batch of dry color is typically blended with other batches to control the color of the products to be sold. [\*\*\*] Dry color can be sold as is, or dispersed with other materials. When dispersed, it usually is combined with a liquid and then used by the coatings or inks industry. If it is dispersed with dry materials, it is normally used in plastics or rubber applications. [\*\*\*]

54. The production process for polycyclic pigments is somewhat longer than the process for production of, for example, simple azo pigments. [\*\*\*] Polycyclic pigments generally require some additional equipment compared to azo pigments, such as explosion-proof vessels and buildings in which to conduct the synthesis. [\*\*\*]

55. The initial synthesis of quinacridones, phthalos, flavan-thrones, indantrones and carbazole violet creates a "crude" material which is still an intermediate. This crude must be properly [39] prepared for finishing. This step may involve a kind of grinding; in the case of these pigments, "salt-grinding" is a process very commonly used in the United States. [\*\*\*]

56. Following salt-grinding, these pigments are finished in much the same way as other organic pigments are finished. [\*\*\*] testified that these steps—the filtration of the pigment from the slurry

created from the crude material, and the drying and pulverizing of the pigment to produce a dry color—are “areas of commonality” between polycyclic pigments and other organic pigments. [\*\*\*]

57. Production equipment for pigments like carbazole violet, flavanthrone yellows, indanthrone blues, phthalos and quinacridones is very similar. The equipment can be, and has been, used interchangeably. [\*\*\*] uses the same equipment to produce both phthalocyanines and carbazole violets. Asked if switching production of one pigment to the other was common, he said: “We can and we do.” [\*\*\*]

58. [\*\*\*] testified that [\*\*\*] “routinely” uses the same equipment to produce phthalo blue and carbazole violet, cleaning the equipment between each use. [\*\*\*] He testified that [\*\*\*] has produced quincridones in the same reactor it has used to produce phthalos. [\*\*\*] He also testified that [\*\*\*] has used the same equipment to finish both phthalocyanines and flavanthrone yellows, again cleaning the equipment thoroughly between each use. [\*\*\*]

59. [\*\*\*] are produced with a vessel for the initial synthesis, a vessel for washing, a grinder, additional tanks for washing, and “filterpresses” (devices used to squeeze much of the water out of the pigment following the washing and leave it in more easily manageable “presscake” form, which may be sold commercially or finished in other ways). [\*\*\*]

60. The equipment for azo pigments is similar to that for polycyclic pigments after the stage at which the crude intermediate is ground. In fact, much of this equipment is interchangeable. [40] [\*\*\*]

61. A major obstacle to such interchange is the need to clean equipment used to produce, for example, a red pigment before it is used for a yellow pigment, and the possibility of contamination of the pigment if the equipment has not been thoroughly cleaned. [\*\*\*] Another factor is the economic cost associated with it. In addition to the labor costs of cleaning, the lost production time during cleaning is a cost that must be considered. (Malchick 3176-77). [\*\*\*] However, because of contamination problems, the equipment may sometimes be “dedicated” to one pigment despite the fact that the equipment could otherwise be used to produce other types of pigments. [\*\*\*]

62. There are some differences among the production processes used for various organic pigments. Some azo pigments (*e.g.*, Pigment Yellow 12) do not necessarily have a finishing step between synthesis and filtration. (CX 31010; 3102BB; [\*\*\*]). The type of vessel and medium in which synthesis takes place may also be different. [\*\*\*] are produced in aqueous solutions in unpressurized vessels known as

"coupling tanks" (or "strike tanks"), whereas the synthesis of [\*\*\*] is a solvent-based process done in a "reactor" which is sometimes pressurized. [\*\*\*]

*C. The Physical And Functional Characteristics Of Organic Pigments and Pigment Products And Their Uses*

63. The physical properties of an organic pigment determine the pigments end use application. (Smith 1312-13). These properties include: shade, color strength, cleanliness, transparency, light-fastness, chemical fastness, heat fastness, bleed resistance, dispersibility, and rheology. The quality of a pigment is essentially determined by its value-in-use. (CX 3102K).

64. The shade of a pigment is its color as perceived by a viewer. (Smith 1311). Color strength (also known as tinctorial strength) refers to the coloring power of a pigment. The cleanliness refers to the pigment's degree of color; it is the opposite of dirtiness of color. (Smith 1312).

65. Transparency is a property which is important in the production of process printing inks and metallic automotive coatings. An ink made with a transparent pigment will allow the [41] color of an underlying ink to show through (and combine with) the color of an overlying ink, thereby producing a multi-color image. (Smith 1310). Pigment transparency is necessary in a metallic car coating so that the aluminum flakes in the coating can reflect the pigment color which overlies them. (Panush 2204).

66. Lightfastness, chemical fastness, heat fastness, and bleed resistance concern an organic pigment's ability to resist the degrading effects of sunlight, chemicals, heat, and solvents. A pigment which is lightfast will not fade or darken under exposure to sunlight. Similarly, a chemically-resistant pigment is unaffected by sulphur dioxide and other chemicals. Resistance to sunlight and chemicals are important properties of pigments used in coatings, particularly automotive coatings. (Smith 1309; Panush 2232-36). Heat resistant organic pigments are required in the coloration of plastics because of the latter's high processing temperatures. (Smith 1309-10). Bleed resistance, or solvent resistance, is the ability of a pigment to remain completely insoluble in solvents. (Smith 1311).

67. Dispersibility concerns the ease with which organic pigment particles are incorporated in the vehicle or substrate in which they are applied. (CX 966B; Panush 2216-19).

68. The rheology of a pigment is measured by its properties of flow (fluidity). Flocculation refers to the tendency of some pigment particles to agglomerate in a vehicle to form blotches. Rheology is an

