ELECTROLYTIC MANGANESE DIOXIDE FROM GREECE AND JAPAN

Determinations of the Commission in Investigations Nos. 731-TA-406 and 408 (Final) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigations

USITC PUBLICATION 2177

APRIL 1989

United States International Trade Commission
Washington, DC 20436

UNITED STATES INTERNATIONAL TRADE COMMISSION

COMMISSIONERS

Anne E. Brunsdale, Chairman
Ronald A. Cass, Vice Chairman
Alfred E. Eckes
Seeley G. Lodwick
David B. Rohr
Don E. Newquist

Staff assigned:

Bruce Cates, Investigator
Jack Greenblatt, Industry Analyst
Catherine Beyer, Economist
James Stewart, Accountant
Craig McKee, Attorney

George Deyman, Supervisory Investigator

Address all communications to
Kenneth R. Mason, Secretary to the Commission
United States International Trade Commission
Washington, DC 20436

CONTENTS

CONTENTS

Tables

CONTENTS

Tables--Continued

Note.--Information that would reveal business proprietary operations of individual concerns may not be published and therefore has been deleted from this report. Such deletions are indicated by asterisks.

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 731-TA-406 and 408 (Final)

ELECTROLYTIC MANGANESE DIOXIDE FROM GREECE AND JAPAN

Determinations

On the basis of the record 1/ developed in the subject investigations, the Commission determines, pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b) (the Act), that an industry in the United States is materially injured by reason of imports from Greece 2/ and Japan of electrolytic manganese dioxide (EMD), 3/ provided for in subheading 2820.10.00 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce to be held sold in the United States at less than fair value (LTFV).

Background

The Commission instituted these investigations effective November 14, 1988, following preliminary determinations by the Department of Commerce that imports of EMD from Greece and Japan were being sold in the United States at LTFV within the meaning of section 731 of the Act (19 U.S.C. § 1673). Notice of the institution of the Commission's investigations and of the public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC,and by publishing the notice in the Federal Register of December 28, 1988 (53 F.R. 52516). The hearing was held in Washington, DC, on March 9, 1989, and all persons who requested the opportunity were permitted to appear in person or by counsel.

1/ The record is defined in sec. 207.2(i) of the Commission's Rules of Practice and Procedure (19 CFR § 207.(i)).

2/ Chairman Brunsdale and Vice Chairman Cass determine that an industry in the United States is not materially injured or threatened with material injury, and the establishment of an industry in the United States is not materially retarded, by reason of LTFV imports from Greece.

3/ The product covered by these investigations is manganese dioxide (MnO2) that has been refined in an electrolysis process.

VIEWS OF THE COMMISSION 1/

We determine that a domestic industry in the United States is materially injured by reason of the less than fair value imports of electrolytic manganese dioxide from Greece and Japan. 2/

I. Like Product and Domestic Industry

In determining in a Title VII investigation whether a U.S. industry is materially injured or is threatened with material injury by reason of the imports, the Commission must, as a threshold matter, define the relevant domestic industry. Section 771(4)(A) of the Tariff Act of 1930 defines the domestic industry as the "domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product." 3/ Correspondingly, "like product" is defined as "[a] product that is like, or in the absence of like, most similar in characteristics and uses with the articles subject to investigation." 4/

The imported article subject to these investigations is electrolytic manganese dioxide ("EMD"). 5/ EMD is an intermediate product used in the

---

1/ Chairman Brunsdale and Vice-Chairman Cass determine that an industry in the United States is not materially injured or threatened with material injury, and the establishment of an industry in the United States is not materially retarded, by reason of less than fair value imports of electrolytic manganese dioxide from Greece. See their separate views.
2/ See n.1, supra.
3/ 19 U.S.C. § 1677(4)(A).
4/ 19 U.S.C. § 1677(10).
5/ 53 Fed. Reg. 24114-24116 (June 27, 1988).

production of dry cell batteries, and comes in three physical forms--powder, chip, and plate, and two grades--alkaline and zinc chloride. EMD is produced in three stages: ore handling, electrolysis, and finishing. During the electrolysis stage, a purified manganese sulfate solution is metered to electrolytic cells, where hydrogen is liberated at the cathodes and manganese dioxide is deposited on the anodes. Until this decade, EMD producers used graphite anodes in the electrolytic cells, but recently, producers have converted to titanium anodes, which yield EMD with higher performance characteristics, other things being equal.

During the finishing stage, the cell's anodes are removed and the EMD deposit is stripped from the anodes, washed and then neutralized to remove traces of electrolyte. 6/ The EMD, which is in plate or chip form, then is ground into powder for sale. The neutralization and grinding processes result in two separate grades of EMD: alkaline and zinc chloride. Zinc chloride grade EMD is less acidic and more finely ground than alkaline grade EMD.

A. Like Product

The Commission's decision regarding the appropriate like product(s) is essentially a factual determination, and we have applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis. 7/

In analyzing like product issues, the Commission generally examines such factors as: (1) physical characteristics, (2) end uses, (3) interchangeability of the products, (4) channels of distribution, (5)

6/ Neutralization determines the final pH (acidity) of the EMD.
7/ Asociacion Columbiana de Exportadores de Flores, et. al. v. United States ("ASOCOLFLORES") __CIT__ , Slip. Op. 88-91 at 9 (July 14, 1988).

production processes, (6) customer or producer perceptions, (7) common manufacturing facilities and production employees, and (8) price. 8/ No single factor is dispositive, and we may consider other factors we deem relevant based upon the facts of a given investigation. We have found minor product variations to be an insufficient basis for a separate like product analysis, and instead, have looked for clear dividing lines among products. 9/ The like product requirement is not to be "interpreted in such a narrow fashion as to permit minor differences in physical characteristics and uses to lead to the conclusion that the products are not like each other." 10/

In the preliminary investigations, respondents urged the Commission to find two domestic like products, zinc chloride grade EMD and alkaline grade EMD. 11/ Petitioner argued that all EMD should be treated as a single like product. We found a single like product consisting of both alkaline and zinc chloride grade EMD, in either powder, plate or chip form. 12/

8/ Light-Duty Integrated Hydrostatic Transmissions and Subassemblies Thereof, With or Without Attached Axles, from Japan, Inv. No. 731-TA-425 (Preliminary), USITC Pub. No. 2149 (January 1989); Certain Forged Steel Crankshafts from the Federal Republic of Germany and the United Kingdom, Invs. Nos. 731-TA-351 and 353 (Final), USITC Pub. 2014 (September 1987) (hereinafter Crankshafts); ASOCOLFLORES at 12, n.8.

9/ See, e.g., Operators for Jalousie and Awning Windows from El Salvador, Invs. Nos. 701-TA-272 and 731-TA-319 (Final), USITC Pub. 1934 (January 1987) at 4, n.4.

10/ S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979).

11/ Mitsui Mining & Smelting Co., Ltd. and Mitsui & Co. (U.S.A.), Inc.'s (hereinafter "Mitsui") postconference brief at 5; Tosoh Corporation ("Tosoh Corp."), Tosoh Hellas A.I.C. ("Tosoh Hellas"), Mitsubishi Corporation, Mitsubishi International Corporation and Mitsubishi U.K.'s (hereinafter collectively "Tosoh") postconference brief at 7; Eveready postconference brief at 26.

12/ Electrolytic Manganese Dioxide from Greece, Ireland, and Japan, Inv. Nos. 731-TA-406-408 (Preliminary), USITC Pub. No. 2097 (July 1988) at 6-7.

In these final investigations, petitioners again argue that domestic EMD is a single domestic like product. 13/ Although respondents appear to endorse the like product definition set forth in the Commission's preliminary determination, respondent Tosoh suggests in a footnote that we treat titanium anode EMD as a separate like product from graphite anode EMD imported from Greece. 14/

In addressing the question whether domestic titanium anode EMD is not like imported graphite anode EMD from Greece, we note that the record indicates that graphite anode EMD produced in Greece by Tosoh Hellas is of much higher quality than EMD typically produced on graphite anodes. Indeed, the majority of domestic EMD purchasers view Tosoh Hellas' EMD as comparable to both domestic and foreign titanium anode EMDs. 15/ All the subject imports from Greece are produced by Tosoh Hellas.

Further, except for the type of anode employed, titanium anode EMD production is nearly identical to that of graphite anode EMD; titanium anode EMD is merely the latest technological improvement in EMD production. 16/

Finally, we find that both zinc chloride and alkaline grade EMD are manufactured in common facilities, are sold through the same channels of distribution, and are used exclusively in batteries. Accordingly, we find

---

13/ Petitioners prehearing brief at 11-25; Rayovac also supports a single like product definition. Tr. at 53 (Mr. Spellman).
14/ Tosoh's posthearing brief at 1, n.1.
15/ See, e.g., Duracell's postconference brief at Appendix C; Hearing Tr. (Tr.) at 47 (Mr. Spellman).
16/ See 64K Dynamic Random Access Memory Components from Japan, Inv. No. 731-TA-270 (Final), USITC Pub. 1862 (June 1986). Titanium anode EMD is manufactured by the same domestic companies and production employees that formerly produced graphite anode EMD, using nearly identical production processes, and is marketed through the same distribution channels for an identical end use.

that domestically produced titanium anode EMD is like the subject EMD imported from Greece.

In conclusion, we find the minor physical differences between zinc chloride grade, alkaline grade, titanium anode, and imported graphite anode EMD to be insufficient bases for separate like product treatment. Consequently, as in the preliminary investigations, we find that domestically produced EMD is a single like product. We accordingly find one domestic industry consisting of all producers of EMD.

B. Domestic Industry/Related Parties

The record indicates that there are four domestic producers of EMD: Chemetals, Inc. ("Chemetals"), Eveready Battery Co., Inc. ("Eveready"), Kerr-McGee Chemical Corp. ("KMCC"), and Rayovac Corp. ("Rayovac"). 17/ Eveready and Rayovac are also importers of the subject merchandise, 18/ and as such, are within the related parties provision.

Under the related parties provision, section 771(4)(B) of the 1930 Act, when a producer is related to exporters or importers of the merchandise subject to investigation, or is itself an importer of the product, the Commission may exclude the producer from the definition of the "domestic industry" in appropriate circumstances. 19/ In determining whether appropriate circumstances exist, we have focused principally upon: 20/

17/ Report at A-10.
18/ Id. at A-13.
19/ 19 U.S.C. § 1677(4)(B).
20/ See Certain All-Terrain Vehicles from Japan, Inv. No. 731-TA-388 (Final), USITC Pub. 2163 (March 1989) at 17-18. See also Granular Polytetrafloroethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385 and 386 (Final), USITC Pub. 2112 (August 1988) at 15; Granular Polytetrafloroethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385 and 386 (Preliminary), USITC Pub. 2043 (December 1987) at 9.

> (1) the percentage of domestic production attributable to the related producer;
>
> (2) the reasons the U.S. producer has decided to import the product under investigation, i.e. whether to benefit from the LTFV sales or subsidies or whether importation simply allows it to continue production and compete in the U.S. market; and
>
> (3) the position of the related producer vis-a-vis the rest of the industry, i.e., whether inclusion or exclusion of the related party will skew the data for the rest of the industry. 21/

We have also considered whether each domestic producer's corporate records are maintained separately from its "relations," whether a foreign exporter directs his exports to the United States so as not to compete with his related U.S. producer, and whether the primary interests of the related producer lie in domestic production or in importation. 22/

The related parties provision enables us to minimize distortion in the aggregate data for the domestic industry that might result from including producers whose operations are shielded from the effect of the subject imports by reason of their relationship with a foreign producer or status as an importer of the like product. 23/

We do not find appropriate circumstances for excluding either Rayovac or Eveready as related parties from the definition of the domestic industry. 24/ All parties agreed that we should not exclude Eveready under

---

21/ ATVs, citing Certain Telephone Systems and Subassemblies Thereof from Japan, Korea, and Taiwan, Invs. Nos. 731-TA-426-428 (Preliminary), USITC Pub. 2156 (February 1989) at 25, n. 47; Granular Polytetrafluoroethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385 and 386 (Final), USITC Pub. 2112 (August 1988) at 15; Empire Plow v. United States, 675 F. Supp. at 1353-1354.

22/ ATVs at 17-18, citing Rock Salt from Canada, Inv. No. 731-TA-239 (Final), USITC Pub. 1798 (January 1986) at 11.

23/ See e.g., Granular Polytetrafluorethylene Resin from Italy and Japan, Inv. Nos. 731-TA-385 and 386 (Final), USITC Pub. 2112 (August 1988) at 14-15.

24/ See Electrolytic Manganese Dioxide from Greece, Ireland, and Japan, Inv. Nos. 731-TA-406-408, (Preliminary) USITC Pub. 2097 (July 1988) at 7-10.

the related parties provision. 25/ Further, excluding Eveready would skew overall industry data in this investigation, which is complicated by the presence of captive and merchant sectors within the domestic industry. Similarly, excluding Rayovac's data is inappropriate given that its interests lie primarily in domestic production. 26/

II. Condition of the Domestic Industry

Although we include within the domestic industry all domestic production of the like product, whether consumed captively or sold on the open market, we recognize that "alleged unfairly traded imports may not affect open-market producers and integrated producers in the same way," and we have analyzed issues of material injury and causation with respect to both open market producers and the domestic industry as a whole. 27/

In assessing the condition of the domestic industry, we considered, among other factors, production, capacity, capacity utilization, shipments, inventories, employment, wages, sales, and profitability. 28/

We also then considered the condition of the domestic industry in these investigations in light of the following three structural changes. In 1985, KMCC converted from graphite to titanium anodes. In 1986, Foote/Chemetals entered into commercial EMD production, and Rayovac also

---

25/ Chemetals posthearing brief at 1, n.1.; KMCC's posthearing brief at 1, n.1; Tosoh's posthearing brief, responses to questions at 2; Mitsui prehearing brief at 2.
26/ Report at A-14, Table 5.
27/ Thermostatically Controlled Appliance Plugs and Probe Thermostats Therefor from Canada, Hong Kong, Japan, Malaysia, and Taiwan, Inv. Nos. 731-TA-400-404 (Preliminary), USITC Pub. 2087 (June 1988) at 12-13; Industrial Phosphoric Acid from Belgium and Israel, Inv. No. 731-TA-365 and 366 (Final), USITC Pub. 2000 (1987).
28/ 19 U.S.C. § 1677(7)(C)(iii). Much of the information regarding the condition of the domestic EMD industry is confidential and, therefore, can only be discussed in general terms.

converted to titanium anode EMD production. Finally, in April 1987, the cell room at Eveready's Marietta, Ohio plant was destroyed by fire, eliminating virtually all of Eveready's EMD production through 1988. 29/ These developments were considered in making data comparisons between individual years within the investigation period.

U.S. production of EMD decreased in 1987, and then increased in 1988. 30/ U.S. producers' aggregate capacity utilization decreased in 1987 and increased in 1988 to a level below the rate of capacity utilization in 1986. 31/ Domestic commercial shipments increased both in quantity and value over the period 1986 to 1987. The unit value per pound of domestic output, however, declined over the same period. 32/

Most importantly, the EMD industry reported aggregate operating losses in each year of the period of investigation; EMD operating losses increased from 1985 to 1986 but then declined from 1986 to 1987. 33/ In assessing the industry condition, we also considered the operating income margins on other of petitioners' products. 34/

Although some of the factors we consider in assessing the condition of the domestic industry suggest improving trends for the domestic industry, on balance, we are convinced that the domestic industry's condition evinces material injury. Indeed, given that the domestic industry attempted to

---

29/ Report at A-11.
30/ Id. at A-15.
31/ Id.; compare Tr. at 38 (Dr. Burrows) ("A process industry such as EMD needs capacity utilization in the 90 to 100 percent range for cost effective and profitable operations").
32/ Report at A-18.
33/ Id. at A-22.
34/ Id. at A-27; Of several chemicals that KMCC produces, only EMD did not exhibit improved financial performance over the past two years. Tr. at 21 (Mr. Woodward).

maintain its production levels and market share over the period of investigation, we would expect to see the injury to the domestic industry manifest itself in the domestic industry's financial data.

Based upon the record before us, we find that on balance, the domestic industry is experiencing material injury. 35/

III. Cumulation

Section 771(7)(C)(iv) of the Tariff and Trade Act requires us to cumulatively assess the volume and effect of imports from two or more countries subject to investigation if the imports compete with each other and with like products of the domestic industry in the United States market. 36/

To make this determination, we have considered the following factors:

> (1) the degree of fungibility between imports from different countries and between imports and the domestic

---

35/ Chairman Brunsdale and Vice-Chairman Cass do not reach a separate legal conclusion based upon the condition of the domestic industry. They believe that the discussion of the domestic industry is accurate and relevant to their decision regarding the existence of material injury by reason of the LTFV imports.

36/ 19 U.S.C. § 1677(7)(C)(iv). Under the Omnibus Trade and Competitiveness Act of 1988 ("the 1988 Act"), Pub. L. No. 100-418, § 1330, 102 Stat. 1107, 1206-07 (1988), if imports from a particular country are negligible and have no discernable effect on the domestic industry, the Commission may, in its discretion, decline to cumulate such imports. The 1988 Act, however, does not apply to this investigation; thus, absent the 1988 Act's specific grant of power, we are required to cumulate all imports if they are subject to investigation and if they compete with each other and with the domestic like product(s). Under the 1984 Act, Congress specifically rejected a Senate proposal that would have incorporated a "contributing effect" test, stating:

> [t]he requirement in the bill as introduced that imports from each country have a "contributing effect" in causing material injury would have precluded cumulation in cases where impact of imports from each source treated individually is minimal but the combined impact is injurious.

H.R. Rep. No. 725, 98th Cong., 2d Sess. 37 (1984).

> like product, including consideration of specific customer requirements and other quality related questions;
>
> (2) the presence of sales or offers to sell, in the same geographic market, of imports from different countries and the domestic like product;
>
> (3) the existence of common or similar channels of distribution for imports from different countries and the domestic like product; and
>
> (4) whether the imports are simultaneously present in the market. 37/

No single factor is necessarily determinative, and the list of factors is not exclusive.

Respondent Tosoh strenuously urged us not to cumulate imports from Greece and Japan. 38/ Tosoh claimed that graphite anode EMD from Greece does not compete with, and is not fungible with, titanium anode EMD produced in Japan and in the United States. 39/ Tosoh also argued that its importer, Mitsubishi International Corp. ("Mitsubishi"), had made no efforts to market Greek EMD in the United States in the last several years, and that because Rayovac purchases Greek EMD in small amounts for a special purpose, there is no meaningful competition for these small sales among U.S. producers and Tosoh Hellas. 40/

37/ Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea and Taiwan, Inv. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986), aff'd Fundicao Tupy S.A. v. United States, Slip. Op. 88-1233 (Fed. Cir. Oct. 19, 1988) at 3-4; see also Antifriction Bearings (Other Than Tapered Roller Bearings) and Parts Thereof from the Federal Republic of Germany, France, Italy, Romania, Singapore, Sweden, Thailand, and the United Kingdom, Inv. Nos. 303-TA-19 and 20 and Inv. Nos. 731-TA-391-399 (Preliminary), USITC Pub. 2083 (May 1988) at 30-31.

38/ Tosoh's prehearing brief at 5-16; Tosoh's posthearing brief at 1-3; Tr. at 120-123 (Mr. Victor).

39/ Tosoh's prehearing brief at 5.

40/ Id. at 10; posthearing brief at 2-3; Finally, Tosoh asserted that its Greek EMD has been marketed almost exclusively in Europe since the company was established in 1975 for the purpose of serving the European market. Id at 11-12.

Based upon the record before us, and the factors enumerated below, we determine that cumulation is required in these investigations pursuant to 19 U.S.C. § 1677(7)(C).

(1) Fungibility

Rayovac stated that Chemetals, KMCC, Mitsui Japan, JMC, and Tosoh Hellas' EMD all meet and exceed its minimum quality requirements, and that it is not worth paying a premium for an EMD whose discharge capacity exceed such requirements. 41/

Similarly, Duracell evaluated a wide range of EMDs, both domestic and imported, and Tosoh Hellas' EMD was determined to be fungible with imported and domestic titanium grade EMD. 42/ On this basis, we conclude that Greek, Japanese, and domestic EMD are generally fungible.

(2) The presence of offers to sell in the same geographic market

During the course of these investigations, EMD from Greece and Japan, and domestically produced EMD, have been offered for sale to end users in the same geographic markets. 43/

(3) The existence of common or similar channels of distribution

Both imported and domestic EMD are sold through the same channels of distribution to battery end users. 44/ The EMD producers in Greece and Japan use trading companies located in the United States to market their product. 45/ Mitsubishi, which imports both EMD produced in Japan by Tosoh Corp. and EMD produced in Greece by Tosoh Hellas, also owns a percentage of

---

41/ Tr. at 50-51 (Mr. Cheney).
42/ Duracell's postconference brief at appendix C.
43/ See Report at A-36-37.
44/ Report at A-14.
45/ Id.

Tosoh Hellas through a joint venture with Tosoh Corp. 46/ Thus, the importation of all Greek EMD is controlled by the producer and importer of a large proportion of the subject imported Japanese EMD.

The fact that Mitsubishi is the common importer of record, marketing agent, and conduit to end users for subject imports from both Greece and Japan, while retaining an ownership interest in the production of Greek EMD, is highly probative on the question of competition between the subject imports from Greece and Japan. Indeed, the fact that Tosoh Hellas is jointly owned by Tosoh Corp. and Mitsubishi presents us with a circumstance in which imports from one country are ultimately controlled by ownership in another. All EMD imported from Greece is produced by Tosoh Hellas. When, as here, as a matter of corporate decision-making, imports are able to be "cumulated" by parent corporations in making world-wide sourcing decisions, the imports compete in the supply chain at the discretion of the parent importer and producer, and accordingly we find that the cumulation provision is especially apposite.

(4) Simultaneous presence of imports

The subject imports from Greece and Japan are simultaneously present in the market. 47/ Greek EMD has been imported and has been present in the U.S. market in each of the years covered by these investigations. 48/ Both Duracell and Rayovac received or purchased imported EMD from Greece in the relevant period.

In addition, Rayovac's testimony suggests that Tosoh Hellas' EMD concurrently competes at Rayovac with other Japanese and domestic EMD on

---

46/ Report at A-12.
47/ Id. at A-37, Table 18.
48/ Id.

the basis of price. Rayovac is presently qualifying its own and other domestically produced EMD for use in the battery which currently uses Tosoh Hellas EMD; the price premium charged by Tosoh Hellas for its EMD, and not any perceived quality problem, is the motivating factor for Rayovac's potential change of suppliers. 49/

We conclude that in these final investigations we must cumulatively assess the volume and price effects of the subject imports from Greece and Japan. We base this upon our finding that imports from Greece compete with imports from Japan and with the domestic like product, as evinced by the relative fungibility of Greek graphite anode EMD with imported and domestic EMDs, their continuous presence in the market, and the common channel of distribution for the subject imported EMD from Greece and Japan.

IV. Material Injury By Reason of Imports

We find that the subject imports from Greece and Japan are a cause of material injury to the domestic EMD industry. Specifically, we find that the volume of the subject imports, both absolutely and relative to domestic production and consumption, is significant. The subject imports from Greece and Japan increased from 1986 to 1987 and again from 1987 to 1988, both in quantity and value. 50/ Similarly, the subject imports increased as a share of total apparent U.S. consumption continuously from 1986 through 1988, both in quantity and value terms. 51/ Moreover, we find that the subject imports depressed, and in some instances undercut, domestic EMD

49/ Tr. at 50-51 (Mr. Cheney).
50/ Report at A-37.
51/ Id. at A-39.

prices. In making our determination, we took into account all relevant factors and conditions of trade. 52/

We have carefully considered respondents' argument that the petitioners' decision to increase their EMD capacity and market share caused the price declines in the domestic industry, but we find it unpersuasive. 53/ In essence, respondents argued that when the domestic industry up-graded its EMD production in about 1985, and thereby entered the high quality grade EMD market, KMCC and Chemetals had to price aggressively to gain market share from the subject imports. We find the opposite; we are persuaded that KMCC and Chemetals entered the market because they were assured of market share, and indeed, the respondents had to price aggressively to retain and attempt to regain market share.

52/ The 1988 Act amended 19 U.S.C. § 1677(7)(B) to require, inter alia, that the Commission evaluate: (1) the "impact on the domestic industry" factors within the context of the business cycle and conditions of competition that are distinctive to the domestic industry, and (2) the "actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the like product." Although we are not required to consider these factors in these investigations, we may do so as "other factors" under 19 U.S.C. § 1677(7)(B).

53/ Respondents generally argued that because total domestic demand is unresponsive to changes in EMD prices, added domestic supply in a market with relatively stable demand (i.e. with only moderate growth) created the decline in EMD prices. Tosoh's prehearing brief at 34; Tr. at 110-112 (Mr. Reilly). Accordingly, respondents asserted that KMCC and Chemetals had to aggressively price EMD in order to gain market share, produce at or near capacity, and recoup their costs. Id. Thus, respondents suggested that the petitioners' success in displacing Japanese producers as Duracell's primary EMD supplier in 1986-1988 was a result of petitioners' aggressive pricing tactics. Tosoh's prehearing brief at 35.

In conjunction with this, respondents also argued that increased domestic merchant EMD production allowed Duracell to use its monopsony buying power to compel the petitioners to lower their price. Tosoh's prehearing brief at 39; Mitsui's prehearing brief at 14 (To the extent there was downward pressure on EMD prices, it was because the domestic purchasers took advantage of their concentrated strength to play off one seller against another); Tr. at 110, 116-117 (Mr. Reilly).

In this regard, we emphasize that Duracell encouraged petitioners to enter the market. Indeed, it was principally because of Duracell's displeasure with the high prices being demanded by the Japanese EMD manufacturers, when the Japanese producers were the predominant suppliers of EMD in the U.S., that U.S. producers gained a foothold in the domestic EMD market. 54/ Because Duracell already had adopted a "Buy America" policy and divided its purchases between Chemetals and KMCC, neither KMCC nor Chemetals had any incentive to compete against each other through price bids after entering the market. 55/

Chemetals had no incentive to lead price down, for it had already entered into a three-year fixed supply contract with Duracell, and indeed had every incentive to lead price up. 56/ Similarly, because Chemetals' contract with Duracell required it to match market price, a fact of which KMCC was aware, any KMCC price cut to Duracell would yield no increase in

---

54/ From 1977 through 1980, Duracell purchased the bulk of its EMD requirement from Tosoh corporation because EMD manufactured in the United States could not meet Duracell's specifications. Tosoh Japan's price for the EMD, however, rose steadily during this period. Duracell's postconference brief at 4. Concerned by this price rise, Duracell decided in 1980-81 to help develop a viable U.S. EMD industry, which could offer a competitive quality product. Id. To reach this goal, Duracell worked with KMCC to improve the quality of its EMD. Id at 5. This effort included the expenditure of a substantial amount of money to establish a pilot plant in Norcross, Georgia for the purpose of testing KMCC's EMD. Id.

Duracell also worked with Chemetals' predecessor, Foote Mineral Company. Duracell claimed it was primarily responsible for the development of Chemetals' commercial EMD manufacturing capability. Id. In 1984, Duracell entered into a three-year contract with Foote, in which Duracell agreed to purchase Foote's entire EMD production in 1986 and a stated amount of EMD in 1987 and 1988. Id. The contract provided that Chemetals/Foote's price to Duracell for EMD shall not be higher than the prevailing market price for comparable product over the next year. Id. at 6; see also Tr. at 25 (Mr. Glover).

55/ See Tr. at 35 (Dr. Burrows).

56/ Cf. Tr. at 165 (Mr. Kramer).

its sales, but would instead only reduce KMCC's total revenues. 57/ Nevertheless, the domestic price for EMD fell in 1985 and declined continuously over the period of investigation through 1988.

In sharp contrast to the incentives facing the domestic producers, the Japanese producers already had lost the Duracell market and were defending the Eveready market, so they had nothing to lose by cutting their prices. 58/ Thus, the respondents, not KMCC and Chemetals, had to price aggressively.

Thus, the conditions of competition in the EMD industry suggest that the foreign producers of the subject imports had every incentive to cut prices due to the economies of scale inherent in their large home market plants, the corresponding importance of running production as near to capacity as possible, and the ratio of Japanese home market capacity to home market demand. 59/ Accordingly, we find that the subject imports significantly depressed domestic EMD prices, 60/ and on at least two occasions in 1987, were the unambiguous price leader. 61/

Furthermore, we reject the argument that Duracell alone manipulated the producers to depress prices. Indeed, given the market structure and

---

57/ Tr. at 35 (Dr. Burrows).
58/ Id. Indeed, the subject imports could decrease the price that Chemetals received from Duracell for its EMD, simply by making an offer, which under the terms of Chemetals' contract with Duracell, Chemetals either had to meet, or release Duracell.
59/ See Report at A-53, Table 17; Tr. at 62-63 (Dr. Burrows); Tr. at 55 (Mr. Woodward).
60/ Price quotations generally declined from 1986-1988. Report at A-43-46. We note that 1988 prices were established in 1987 bidding, so that prices for 1988 EMD contracts were not influenced by the filing of this case in May 1988.
61/ These determinations are based upon a comparison of reported prices, which were generally f.o.b. plant basis for the domestic producers. Report at A-43. We note, however, that if prices were compared on a delivered basis, the incidence of price undercutting would increase.

contractual relations discussed above, absent the pricing of the subject imports, Duracell would have been unable to negotiate effectively with Chemetals and KMCC to obtain lower prices. Duracell's "monopsony" power, if any, is primarily a function of the offers of sale and sales by the subject imports. 62/ Simply, the bidding behavior of the producers and importers of the subject EMD depressed the price received by domestic producers from Duracell for their EMD.

As confirmation that the subject imports depressed domestic EMD prices, we look to Eveready's purchases and note that the loss of domestic capacity in 1987 and 1988, resulting from the Eveready plant fire, did not lead to a rise in domestic EMD prices, as one would expect after a major supply source was idled for a product with inelastic demand; instead, it preceded a further fall in prices as imports captured the bulk of Eveready's EMD requirements. 63/ Indeed, the record shows that the subject imports undercut domestic EMD prices for some replacement sales to Eveready following its fire. 64/

As a separate but related argument, respondents also urged that the alleged lost sales in 1986-87, principally to Eveready, were due to quality differences between domestic and imported EMD, and not to price. 65/ We are unpersuaded that Eveready's EMD purchases during the period of investigation were determined by quality alone. 66/ Indeed, Eveready's willingness to substitute domestic EMD for imported EMD following the

---

62/ We note the sharp rise in bid prices in 1989 from 1988 following the affirmative preliminary determinations in these investigations are consistent with our finding.
63/ Tr. at 79 (Mr. Thomas, Dr. Burrows).
64/ Report at A-45.
65/ Tosoh's prehearing brief at 43; Mitsui's prehearing brief at 20-23.
66/ Eveready's postconference brief at 14, 19-23, n.16.

affirmative preliminary determinations in these investigations 67/ is probative of the trade-off between price and quality. As the prospective price differential between domestic commercial EMD and the subject imported EMD increased, domestic EMD purchasers' asserted quality concerns receded.

As further evidence on this quality issue, Eveready claimed that its rebuilt captive plant in Marietta, Ohio would produce top quality EMD capable of replacing the subject imported EMD in Eveready batteries. 68/ Given that EMD production facilities are characterized by economies of scale, 69/ the scale of Eveready's initial reinvestment in its plant belies its claim that quality alone determined its purchasing decisions. If quality alone were dispositive, Eveready could have expanded its assured supply of top quality EMD by rebuilding its captive Marietta, Ohio plant to a larger scale. Because Eveready's investment in its captive production depended to some extent upon the price for available Tosoh and Mitsui EMD, 70/ we note that the pricing of the subject imports may have affected Eveready's investment in rebuilding its plant. 71/ While the record indicates that quality may have been a particularly important factor in Eveready's purchase decision, we find that price was also important when

---

67/ Report at A-49; We note that Rhone Poulenc, 592 F. Supp. 1318 (CIT 1984) and Philipp Bros., 640 F. Supp. 1340 (CIT 1986) stand for the proposition that the Commission may, in its discretion, disregard or give little weight to tactical maneuvering after the filing of an antidumping petition. These cases, however, do not limit the Commission's discretion to weigh or consider evidence of market developments following a petition filing or a preliminary affirmative determination, should we find it probative
68/ Id. at A-11, A-49; Eveready post-conference brief at 24.
69/ Tr. at 112 (Mr. Reilly) ("EMD plants are capital-intensive processing operations that feature increasing efficiencies and declining production costs right up to 100 percent capacity utilization, and that's something that the petitioners and we agree on."); Tr. at 62-63 (Dr. Burrows).
70/ Conference Tr. at 142-145; Eveready's postconference brief at 22-23, n.16
71/ Compare staff telephone conference notes of July 6, 1988 and July 7, 1988 with Report at A-11.

Eveready considered whether to buy domestic commercial EMD or to produce captively.

In summary, we find that the large and increasing volume and market share of the subject imports caused price declines in the U.S. market for EMD. We determine that the subject imports have been a cause of material injury to the domestic industry.

V. Technical Dumping

Finally, respondents urged the Commission to invoke the notion of "technical dumping," arguing that importer pricing to meet domestic competition does not violate the antidumping law. 72/

We first note that technical dumping is a non-statutorily based mode of analysis utilized by the Commission under the Antidumping Act of 1921, and its application is entirely within our discretion. We choose not to apply it here. Furthermore, we believe that the "technical dumping," as described in the legislative history of 1974 Act, is largely superseded by the Trade Agreements Act of 1979, which repealed the 1921 Act and re-enacted its provisions, as amended, into the Tariff Act of 1930.

The 1979 Act, for the first time, defined material injury. 73/ More importantly, Congress provided statutory direction to the Commission as to the factors to which we must look when determining whether there is material injury by reason of imports. "In determining whether material injury exists, the ITC will consider the factors set forth in section 771(7)(3) [sic], (C) and (D) together with any other information it deems

---

72/ Tosoh's prehearing brief at 41-43; Mitsui's prehearing brief at 30-37; Tosoh's posthearing brief, responses to Commissioners' questions at 7-12; Mitsui's posthearing brief at 6-10, Appendix A.

73/ See H.R. Rep. 317, 96th Cong., 1st Sess. 46 (1979) ("harm which is not inconsequential, immaterial or unimportant").

relevant." 74/ The factors we shall consider include the volume of subject imports, their price effects, and their impact on the domestic industry. 75/ When evaluating price effects, we must consider both whether there has been significant price undercutting and whether there has been significant price suppression or depression. 76/ Thus, we may find material injury based upon significant price suppression or depression absent price undercutting. Further, we may find material injury based upon volume effects and impact factors, even without significant price undercutting or significant price suppression or depression.

To the extent respondents argue that the absence of price undercutting or price suppression/depression (i.e., "pricing to meet the competition"), standing alone, compels the Commission to issue a negative determination, they ignore the commands of the 1979 Act. "Technical dumping," presented broadly as an absolute defense under title VII, is inconsistent with the express statutory scheme of the 1979 Act. 77/ Under the Act, of course, the Commission remains free to consider the probative value of the absence of price undercutting in determining causation.

CONCLUSION

74/ Id.
75/ See section 771(7)(C) of the 1979 Act, codified at 19 U.S.C. § 1677(7)(C).
76/ Id.
77/ The CIT's decision in USX Corp. v. United States ("USX"), 682 F. Supp. 60 (CIT 1988), further undermines the respondent's argument. According to the Senate Report, the Antidumping Act (of 1921) was designed "to free U.S. imports from unfair price discrimination practices;" accordingly, "such so-called 'technical dumping' is not anti-competitive, hence, not unfair; it is procompetitive in effect." S. Rep. No. 93-1298, supra. USX, however, establishes that the antidumping law is concerned with injury to competitors rather than injury to competition.

For all the reasons set forth above, we determine that a domestic industry in the United States is materially injured by reason of the LTFV imports of electrolytic manganese dioxide from Greece and Japan.

VIEWS OF CHAIRMAN ANNE E. BRUNSDALE

Electrolytic Manganese Dioxide from Greece and Japan
Inv. Nos. 731-TA-406, 408 (Final)

April 10, 1989

I concur in the Views of the Commission with respect to the state of the domestic industry. I do not, however, draw any legal conclusion from that discussion in this case.

With regard to imports from Japan, I concur in the Commission's analysis of the causal link between the imports and material injury to the domestic industry. I interpret the Commission's views as embodying a method of economic analysis similar to my own, 1/ but without the use of economic terminology. Indeed, the Commission's analysis suggests that demand for the like product in the domestic market is inelastic and that the elasticity of substitution is relatively high 2/; the Commission then resolves the factual dispute concerning the price effect of imports by evaluating the nature of available supply in the domestic market. 3/ Apparently, the majority feels comfortable analyzing this market in an economically rigorous way because the industry consists of just a few purchasers and a handful of suppliers operating under a small number of supply contracts. This makes the record especially easy to analyze. I

1/ See Light-Walled Rectangular Pipes and Tubes from Taiwan, Inv. No. 731-TA-410 (Final), USITC Pub. 2169 (March 1989); Digital Readout Systems from Japan, Inv. No. 731-TA-390 (Final), USITC pub. 2150 (January 1989).

2/ Views of the Commission at 16-17 & n.53.

3/ Id. at 16-17. My traditional analysis would take a similar approach. See Light-Walled Rectangular Pipes and Tubes, supra, USITC Pub. 2169 at 17-24.

would add only that a more complicated market is amenable to the same type of analysis without great difficulty.

With regard to imports from Greece, I concur in the views of Commissioner Cass on the interrelated issues of like product and cumulation. In view of the small market share of Greek imports and the somewhat different characteristics of EMD manufactured on graphite anodes, I conclude that an industry in the United States is not materially injured by reason of Greek imports.

I take no position on respondents' technical dumping arguments because our disposition of the case renders that issue moot. The Commission's dictum dismissing the technical dumping doctrine therefore does not address conceivable circumstances in which the doctrine may have some merit.

ADDITIONAL VIEWS OF VICE-CHAIRMAN RONALD A. CASS

Electrolytic Manganese Dioxide from Greece and Japan
Investigations Nos. 731-TA-406 and 408 (Final)

April 10, 1989

I concur with the Commission's affirmative determination that a domestic industry has been materially injured by reason of imports sold at less than fair value ("LTFV") of electrolytic manganese dioxide from Japan. However, I differ with the Commission's conclusion that imports from Greece should be cumulated with imports from Japan and, consequently, with the Commission's determination that a domestic industry is materially injured by reason of less than fair value ("LTFV") imports from Greece. Moreover, the analysis that leads me to reach an affirmative determination with respect to imports from Japan differs from that of the Commission's majority. For these reasons, I offer the following Additional Views.

I. LIKE PRODUCT AND DOMESTIC INDUSTRY

A. Like Product

In final investigations under the antidumping laws,1/ the Commission must assess the effects of LTFV imports on the industry in the United States comprised of "the domestic producers as a whole of a like product or those

---

1/ Tariff Act of 1930, ch. 497, Title VII, § 735, as added by the Trade Agreements Act of 1979, Pub. L. No. 96-39, Title I, § 101, 93 Stat. 150, 169 (codified as amended at 19 U.S.C. § 1673d(b)).

producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product."2/ The term "like product," in turn, is defined as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."3/

Traditionally, the Commission's general approach to defining the like product entails the examination of five factors: (1) product characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer or producer perceptions of the relevant articles; and (5) common manufacturing equipment, facilities, and production employees.4/ In addition, although the Commission has not expressly incorporated comparison of prices as one of the factors examined in its like product determination, it often has considered the similarity or dissimilarity of prices for imports and potential like domestic products.5/

The factors traditionally employed by the Commission provide us with information about the nature of the markets for closely related domestic products and the markets for the factors of production of those products.6/ Information about the market for products is obtained by analyzing the

---

2/ 19 U.S.C. § 1677(4).

3/ 19 U.S.C. § 1677(10).

4/ See, e.g., Fabric and Expanded Neoprene Laminate from Taiwan, USITC Pub. 2032, Inv. No. 731-TA-371 (Final) at 4 and n. 5 (Nov. 1987).

5/ See, e.g., Associacion Colombiana de Exportadores de Flores v. United States, No. 88-172, slip op. (Ct. Int'l Trade Dec. 27 1988) ("Asocoflores"), at 1170 n. 8 (citing use of comparative pricing data as a suitable factor in analyzing like product issues).

6/ 3.5" Microdisks and Media Therefor from Japan, USITC Pub. 2076, Inv. No. 731-TA-389 (Preliminary) (Hereinafter "Microdisks") at 47 (April 1988) (Additional Views of Commissioner Cass).

characteristics and uses of products, their interchangeability, their channels of distribution, and customer perceptions of their similarity or dissimilarity. It is likely that products compete closely if they are interchangeable, or if they evidence high degrees of similarity in characteristics and uses and in channels of distribution. The extent to which they compete also should be reflected in customer perceptions of their similarity, which in turn should be reflected in similar prices for products of comparable quality.

Similarly, the information furnished from examination of the nature of the manufacturing facilities and employees for products informs us about the degree to which firms compete for inputs to the various products.7/ Greater use of common production facilities and employees indicates a higher degree of competition at the input or factor level in manufacture of the particular articles at issue. The Commission generally has required that the domestic like product should not only compete closely with the imports subject to the investigation, but should comprise essentially one market for domestic consumers and be produced by one market for domestic producers. Together, these requirements should assure that the domestic industry examined is both a coherently defined industry and one that competes most closely with the imports under investigation.

Petitioners in this investigation suggest that all EMD, whether of alkaline or zinc chloride grade, should be treated as a single like product.8/ They contend that all EMD is physically similar (both chemically

---

7/ Microdisks at 48.

8/ Petitioners Prehearing Br. at 11-25. Rayovac also supports a single like product definition. Tr. at 53.

and electrochemically), has identical uses, is distributed through identical channels, is broadly interchangeable, and is manufactured in the same facilities and by closely similar production processes. Similarly, they contend that all EMD has a high degree of substitutability from the viewpoint of battery producers. Although there is substantial evidence that purchasers do not regard all types and grades of EMD as fungible, some purchasers have in fact substituted alkaline grade EMD for zinc chloride.9/ Prices of the two grades of EMD differ, but follow each other fairly closely.10/ Petitioners note that the Commission looks for clear dividing lines between products, and does not permit minor differences in physical characteristics and uses to lead to the conclusion that the products are not like each other.11/

In the preliminary investigations, Respondents contended that alkaline grade EMD and zinc chloride grade EMD are separate like products because they have different physical characteristics, are not interchangeable, are dedicated for use in different batteries, and are perceived as distinct products by customers.12/ In these final investigations, Respondents appear not to have addressed that issue, and therefore seem to have acquiesced in Petitioners' proposed treatment of alkaline and zinc chloride EMD for purposes of like product definition. While the Commission is not obliged to accept an undisputed like product definition proposed by the parties, in these investigations the like product definition proposed by Petitioners

---

9/ Petitioner's Br. at 12.

10/ Id.

11/ Id.

12/ Report at A-4-5.

embracing both alkaline and zinc chloride EMD appears to be appropriate, although certainly not indisputable.

From the viewpoint both of producers and of consumers, alkaline and zinc chloride EMD are reasonably substitutable. They differ in production only in the finishing processes; particle size and acidity, the two characteristics by which alkaline and zinc chloride EMD differ, are achieved only in the finishing stages of the EMD production process and the two forms of EMD are produced identically until the finishing stages.13/ They are often produced in the same manufacturing facilities by the same employees, and the cost of production is about the same. The types and levels of impurities do not differ systematically with the grade of the EMD.

From the viewpoint of consumers, the argument that alkaline and zinc chloride EMD are relatively good substitutes is even more persuasive. The Commission staff interviewed a number of experts in EMD technology on this issue. There seems to have been general agreement among them that the two types of EMD are indeed physically interchangeable. Despite some technical economic disadvantages, alkaline grade EMD can be used in zinc chloride batteries with relatively little loss of performance.14/ In addition, the channels of distribution for these grades are similar. I therefore believe it appropriate to treat alkaline and zinc chloride EMD as a single like product.

In its Posthearing Brief in this investigation, Respondent has suggested that a more significant distinction is between titanium anode EMD and graphite anode EMD, and Respondent has urged that these types of EMD be treated as separate like products. As explained below, I have concluded that

---

13/ Report at A-3.

14/ Report at A-3.

Greek EMD, produced by graphite anode technology, should not be cumulated with Japanese EMD, which is produced by titanium anode technology.15/ In reaching that conclusion, I find that graphite anode EMD is not sufficiently fungible with titanium anode EMD to "compete" with such EMD within the meaning of the statutory provision on cumulation. The Court of International Trade has instructed the Commission that it should not apply a more rigorous standard of competition in reaching conclusions about cumulation than it uses in reaching conclusions as to the domestic product with which subject imports compete for purposes of the like product determination.16/ In most circumstances, then, the decision on cumulation should find a parallel division among the domestic products and industries we examine to ascertain the effects of LTFV imports. Here, however, such a division would be problematic for reasons I have explored at length elsewhere.17/ No domestic producers of EMD use graphite anode technology.

In fact, all domestic EMD producers have converted from graphite anode EMD production to titanium anode EMD production; indeed, all but one did so prior to the period of investigation, and that one converted in 1986, the first year of our investigation.18/ Since that time, there has been no graphite EMD produced in the United States. Hence, notwithstanding differences between them, the product "most similar in characteristics and

---

15/ See infra at 10.

16/ American Grape Growers Alliance for Fair Trade v. United States, 615 F. Supp. 603, 605 (CIT 1985).

17/ Digital Readout Systems and Subassemblies Thereof from Japan, Inv. No. 731-TA-390 (Final), USITC Pub. 2150 (January 1989) (Concurring and Dissenting Views of Commissioner Cass).

18/ Report at A-7.

uses with" the Greek EMD subject to investigation is clearly the titanium anode EMD. I therefore conclude that there is a single like product which defines the domestic industry.

B. Related Parties

An additional issue the Commission must address in this investigation is whether to exclude Eveready from its definition of the relevant domestic industry under the "related parties" provision of Title VII.19/ That provision allows the Commission, in "appropriate circumstances,"20/ to exclude a producer from the definition of the domestic industry when that producer is "related" to an exporter or importer, or when it is itself an importer of the subject imports.

In determining whether "appropriate circumstances" exist to exclude a company from the domestic industry, the Commission has considered five factors:

> (1) the position of the related producers to the rest of the domestic industry;
>
> (2) the reasons why the domestic producers have chosen to import the product under investigation -- to benefit from the unfair trade practice, or to enable them to continue production and compete in the domestic market;
>
> (3) the percentage of domestic production attributable to the related producers;
>
> (4) whether the domestic company's records are maintained separately from those of the foreign firm from which it imports; and

---

19/ See 19 U.S.C. § 1677(4)(B).

20/ Id.

(5) whether the primary interests of the domestic firm lies in domestic production or in importation.21/

The Commission has paid particular attention to the third of these factors, focusing on to whether the related party imported the product subject to investigation principally to benefit from the unfair trade practice or instead, simply in order to enable the domestic producer better to compete in the domestic market. This approach has been affirmed by the Court of International Trade.22/

Eveready clearly is the major importer of EMD from Japan. It imported over [*] of total U.S. imports from Greece and Japan, and over [*] of total U.S. imports of EMD from all sources.23/ Eveready has also imported EMD from [* * *].

In the preliminary investigation, Petitioner argued that Eveready should be excluded from the domestic industry on these grounds. In this final investigation, however, neither Petitioners nor Respondents seek to have Eveready excluded from the domestic industry.24/ There seems to be little reason to disagree with the parties in this matter. Indeed, in terms of the Commission's traditional criteria for evaluating related party claims, it appears there would be little justification for excluding Eveready from the domestic industry in this investigation.

21/ Certain All-Terrain Vehicles from Japan, Inv. No. 731-TA-388 (Final), USITC Pub. 2163 at 13 n. 44, 17-18 (March 1989).

22/ Empire Plow v. United States, 675 F. Supp. at 1353 .

23/ Report at A-12.

24/ See Chemetals' Posthearing Br. at 1, n. 1; Kerr-McGee Chemical Corp.'s Posthearing Br. at 1, n. 1; Tosoh's Posthearing Br., Responses to Questions at 2.

In particular, Eveready's decision to import the product under investigation clearly was unrelated to any motive to benefit from the dumping itself. Eveready's imports from Japan increased dramatically after the April 1987 cell room fire in Eveready's Marietta facility.25/ Eveready's capacity, and its actual production, fell by some [**] short tons between 1986 and 198726/; its imports increased by a lesser figure, some [**] short tons. Beyond Eveready's explicit testimony respecting the reasons for importing Japanese EMD, the coincidence in timing and magnitude of the drop in Eveready's production after the fire and the increase in its imports suggests strongly that the two events are related to each other: the loss of production capacity in the fire resulted in Eveready's decision to increase its imports to replace its lost EMD production. Evidence on the record suggests that domestic capacity at the outset was not sufficient to fill the gap caused by the Eveready fire. Petitioners are two domestic EMD producers that might have supplied Eveready to make up its shortfall, but they concede that they had postponed plans to increase their production capacity at the time of the fire, allegedly because of the reduction in prices of EMD on the domestic market.27/ While the domestic industry did subsequently increase EMD capacity, the domestic industry has produced at or near capacity for the last several years.28/ The only other domestic producer, Rayovac, generally produces only for its own consumption.29/ It is therefore likely that

---

25/ Report at A-14.

26/ Report at A-16.

27/ Petitioners' Prehearing Br. at 30.

28/ Respondents' Prehearing Br. at 22; report at A-16.

29/ Report at A-11.

Eveready chose to increase its imports in order to replace lost production capacity.

There is thus little reason to believe that Eveready does not meet the traditional Commission criteria for inclusion in the domestic industry.

II. CUMULATION

The Commission must also consider whether, in assessing the question of causation of material injury in this investigation, the impact of imports from Japan and Greece should be assessed cumulatively.30/ Under Title VII, the Commission is required to assess cumulatively the volume and effect of imports from two or more countries of like products subject to investigation if such imports "compete with each other and with like products of the domestic industry in the United States market."31/ The Commission generally has examined the following four factors in order to determine whether those statutory criteria are met:

(1) the degree of fungibility between the imports from different countries and between the imports and the domestic like product;

(2) the presence (or absence) of sales or offers to sell in the same geographic market imports from other countries and the domestic like product;

(3) the existence of common or similar channels of distribution for imports form different countries and the domestic like product; and

---

30/ See e.g., Certain Light-Walled Rectangular Pipes and Tubes from Taiwan, USITC Pub. 2169 at 6-9, Inv. 731-TA-410 (Final) (March 1989) (Views of Acting Chairman Brunsdale and Commissioner Cass); Certain Telephone Systems and Subassemblies Thereof from Japan, Korea, and Taiwan, USITC Pub. 2156 at 67-73, Inv. Nos. 731-TA-426-28 (Preliminary) (Feb. 1989) (Additional Views of Commissioner Cass); Certain Malleable Cast-Iron Pipe Fittings from Japan, USITC Pub. 1987 at 7-9, Inv. No. 731-TA-347 (Final) (June 1987); Certain Malleable Cast Iron Pipe Fittings from Thailand, USITC Pub. 2004 at 7-10, Inv. No. 731-TA-348 (Final) (Aug. 1987).

31/ 19 U.S.C. § 1677(C)(iv).

(4) whether the imports are simultaneously present in the market.32/

Petitioners argue that the Commission should cumulate imports from Japan and from Greece.33/ Petitioners note that Rayovac has purchased within the same time periods EMD from Greece, Japan, and the United States34/; that Greek imports are sold through the same channels of distribution throughout the United States market35/; and that Tosoh Greece is a subsidiary of Tosoh Japan and therefore is controlled by the latter firm.36/ Petitioners also contend that "[t]hese imports are sold in competition with one another and in competition with U.S. EMD production."37/

Respondent Tosoh contends that the Commission should not cumulate imports from Japan with those of Greece. Respondent argues that titanium anode EMD, which is produced in the United States and imported from Japan, does not compete with graphite anode EMD which is not produced in the United

---

32/ See, e.g., Telephone Systems, USITC Pub. 2156 at 68. These four factors are used by the Commission to assess the statutory factors -- that imports (1) are subject to investigation and (2) compete with each other and with the domestic like product. See Asocoflores, supra n. 5. Since this investigation was initiated prior to enactment of the Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, § 1330(b) (to be codified at 19 U.S.C. § 1677(7)(C)(v)) of the Act does not apply to the Commission's decision whether to cumulate in this investigation. That section of the 1988 Act allows the Commission not to cumulate imports, even when consideration of the above factors leads to the appearance that cumulation might be appropriate, if it determines that imports of the product from the country under consideration are negligible and have no discernible adverse impact on the domestic industry.

33/ Petitioners' Prehearing Br. at 41-46.

34/ Id. at 43.

35/ Id.

36/ Id. at 44.

37/ Petitioners' Prehearing Br. at 42.

States and is imported exclusively from Greece.38/ In particular, Tosoh contends that graphite anode EMD is not fungible with titanium anode EMD produced in Japan and the United States because they differ in chemical content and hence in the performance characteristics of the EMD. Further, Tosoh argues, U.S. battery companies do not perceive the two types of EMD to be interchangeable, and indeed Greek graphite-anode EMD was sold [* * * * * *].39/ Tosoh also notes that no U.S. EMD producers produce graphite anode EMD and that therefore U.S. production does not compete with Greek imports.40/ Greek production is marketed almost exclusively in Europe and, according to Tosoh, sales to the [* * *] occurred only at the initiation of the user. Finally, Tosoh states that the negligible magnitude of imports from Greece render it barely present in the U.S. market.

On this issue, I believe Respondent Tosoh has made the better case. As Respondent Tosoh argues, Greek EMD has been used by only one of the domestic users of EMD, and that use has been in a limited area of application.41/ That some producers have chosen to evaluate Greek EMD for possible use in their dry cell battery production does not mean that Greek EMD is considered fungible by them; on the contrary, the apparently overwhelming conclusion of U.S. dry cell battery producers, revealed in their market choices over the entire period of our investigation, has been that Greek EMD produced with graphite anodes is not an acceptable substitute for other EMD produced by

---

38/ Tosoh Prehearing Br. at 4-16.

39/ Id. at 10.

40/ Id. at 10.

41/ Report at A-13, A-14.

titanium anodes.42/ It is of interest that the prices of Greek EMD have over the bulk of the period of investigation [* * *].43/ The fact that U.S. dry cell battery producers have chosen consistently and nearly unanimously not to use the [* *] is persuasive evidence that Greek EMD is not considered fungible by those producers. The choice by Rayovac to use Greek EMD in a specialized battery application is not to the contrary. The special nature of that use and the impediments to shifting to a different type of EMD were amply documented on the record of this investigation. I believe the case against cumulation here is persuasive.

Were this a close question, our disposition of the cumulation issue might be influenced by the fact, noted by Tosoh, that the sale of Greek EMD to Rayovac was made as a result of contacts initiated by Rayovac. The Greek imports would not have been "present in the market" had Rayovac not initiated that contact; likewise, there would not have been sales or offers to sell present in the market. Though Respondents point to the relationship between the Japanese and Greek firms, the statute and traditional Commission criteria described above make no mention of any relationship as mandating or even suggesting cumulation; Petitioners' suggestion that the existence of a relationship should give rise to cumulation is therefore without foundation.

Since the conditions under which the Commission will cumulate are not met, I conclude that it would be inappropriate to cumulate imports from Japan and Greece in determining whether the domestic industry has suffered material injury by reason of the subject imports.

42/ [* * *] See Report at A-59, A-A-21.

43/ Report at A-50.

III. MATERIAL INJURY BY REASON OF LTFV IMPORTS

I have explained at some length in other opinions the "unitary" or "comparative" approach that I employ in addressing the issued presented to the Commission in Title VII investigations and the statutory basis for such an approach.44/ I see no need to reiterate that explanation at great length here.

Briefly, the comparative approach to the Title VII inquiry systematically addresses the three factors to which Title VII commands attention.45/ The approach consists of an explicit three-part analysis of the manner in which the subject imports affected the domestic industry, and pointedly considers the effects of developing market conditions. The approach frames the inquiry in Title VII investigations by asking three separate, but related, questions: First, how have the volumes and prices of

---

44/ See, e.g., Digital Readout Systems and Subassemblies Thereof from Japan, USITC Pub. 2150, Inv. No. 731-TA-390 (Final) (Jan. 1989) (Concurring and Dissenting Views of Commissioner Cass), at 95-122; 3.5" Microdisks and Media Therefor from Japan, USITC Pub. 2076, Inv. No. 731-TA-389 (Preliminary) (April 1988) (Additional Views of Commissioner Cass) at 32-38, 59-96; Granular Polytetrafluoroethylene Resin from Italy and Japan, USITC Pub. 2112, Inv. Nos. 731-TA-385-386 (FInal) (Aug. 1988) (Additional Views of Commissioner Cass), at 47-71; Certain Internal Combustion, Industrial Forklift Trucks from Japan, USITC Pub. 2082, Inv. No. 731-TA-377 (Final) (May 1988) (Additional Views of Commissioner Cass), at 109-48.

45/ Congress has directed the Commission to consider, in its evaluation of the causation of injury by reason of LTFV imports, among other factors:

> (i) the volume of imports of the merchandise which is the subject of the investigation,
>
> (ii) the effect of imports of that merchandise on prices in the United States for like products, and
>
> (iii) the impact of imports of such merchandise on domestic producers of like products . . . .

19 U.S.C. § 1677(7)(B).

imports been affected by the sales of LTFV? Second, to what extent have the LTFV imports affected prices and, concomitantly, sales of the domestic like product? And, third, what effects have the changes in price and sales of the like product had on such variables as return on investment, employment, and wages in the affected domestic industry? Once this three-part inquiry is completed, the Commission must evaluate the significance of these effects and determine whether the injury caused or threatened by the dumped imports is material.46/

A. Volumes and Prices of LTFV Imports

Imports of EMD from Greece declined dramatically between 1986 and subsequent years, falling from [*] short tons in the first year of our investigation to a low of [*] short tons the following year and recovering partially to [*] short tons in 1988. Furthermore, Respondent Mitsubishi's imports from Greece fell to [*] in 1987 and 1988. Thus, in quantity terms, in 1986 Greek imports constituted [*] of the United States market47/; by 1988 Greek market share had fallen to [*] of the United States market.48/ In value terms, Greek imports have constituted an approximately constant [*] of the U.S. market over the period of the investigation.49/

Japanese imports of EMD, by contrast, have grown in absolute terms both in value and quantity over the period of investigation, and their share of

---

46/ See, e.g., Digital Readout Systems, supra, at 95-122 (Concurring and Dissenting Views of Commissioner Cass).

47/ Report at A-9, A-37.

48/ Id.

49/ Id.

the United States market has also increased both in quantity and value terms. The quantity of Japanese imports nearly doubled from [*] short tons to [*] short tons over the period of investigation; the value of Japanese imports over the period of investigation also increased substantially, from $[*] to $[*]. Even more dramatically, the Japanese share of the U.S. market nearly doubled both in quantity terms and in value terms over this period; the quantity share grew from [*] of the U.S. market to [*], while in value terms the Japanese import share grew from [*] to [*].50/

These volume changes do not of themselves indicate the impact of LTFV sales on those imports' volumes. That effect is more visible from the related effect of LTFV sales on prices of the subject imports. The record suggests that dumping caused prices for these imports to decline by not inconsiderable amounts for both Greece and Japan.

The dumping margins found by the Department of Commerce were substantially lower for Greek imports than for Japanese imports. The reported dumping margins for imports from Greece amounted to 36.72 percent.51/ For Japan, the reported dumping margins were all above 70 percent; for Mitsui Mining and Smelting Co., for example, the margin was as high as 77.43%.52/ In computing these LTFV margins, Commerce compared the U.S. purchase price with the foreign market price for sales to unrelated purchasers in the home market for both Japanese and Greek producers.53/

50/ Id.

51/ Report at A-8.

52/ Report at A-8.

53/ Id.

The evidence before us indicates that dumping led to the declines in import prices and, concomitantly, to some increase in sales of the subject imports. It will not always be possible to ascertain the change in import prices associated with dumping, but at least where the dumping calculation is based on price comparisons (that is, where it measures the difference between foreign sales price and price for sale to the United States), as it is in this investigation, an inference respecting the effect of dumping on import prices can usually be derived from information of record. As explained elsewhere,54/ the effect of LTFV sales on U.S. prices of imports can be estimated from the dumping margin, the sales of subject imports in the United States, and the sales of those products in the exporter's home market (or other country used for price comparison). In general, dumping leads to a decrease in the price of the dumped product by a fraction of the dumping margin that is roughly comparable to the share of the sales assessed in determining the existence of dumping that are made in the exporters' home market. In other words, the decrease in price will be a fraction of the dumping margin approximating the ratio of the subject producers' home market sales as a proportion of their combined home market and U.S. sales.55/

54/ See, e.g., Certain Telephone Systems and Subassemblies Thereof from Japan, Korea, and Taiwan, USITC Pub. 2156, Inv. Nos. 731-TA-426-28 (Preliminary) (Feb. 1989) (Additional Views of Commissioner Cass), at 73-80. Of course, where possible the actual price comparisons should be evaluated, as these may more fully inform our consideration of the effect of LTFV sales on imports' volumes and prices. For purposes of our investigation, precise quantitative measurement generally is not necessary as we ultimately decide only whether the LTFV imports have caused material injury to a domestic industry; if that threshold is passed, the exact magnitude of the injury is not relevant to our decision.

55/ See, e.g., Digital Readout Systems, USITC Pub. 2150 at 125 (Concurring and Dissenting Views of Commissioner Cass).

In this investigation, home market sales of EMD of the Greek exporter constituted over [*] of its combined home market and United States sales in 1987.56/ Similarly, for the Japanese exporters, home market sales constituted over [*] of the relevant combined home and United States sales.57/ Accordingly, for both Greek and Japanese exporters, dumping appears to have caused a decrease in the price of EMD that was a significant fraction of the dumping margin for these firms.58/

B. Prices and Sales of Domestic like Product

The record evidence in this investigation persuades me that imports from Greece could not have significantly affected domestic prices or displaced domestic production of EMD, and there is therefore little reason to believe that any injury to the domestic industry caused by Greek EMD could possibly rise to the level of material injury. On the other hand, imports of EMD from Japan almost surely both affected domestic prices and displaced domestic sales to a significant degree.

The extent to which declines in prices of the imports subject to investigation cause increases in subject imports sales is, in large measure, a function of the degree to which the imported goods are substitutable for

---

56/ See Prehearing Report at A-45.

57/ Id.

58/ There is some question given the dynamics of the markets for EMD, especially the concentration of buyers in the United States, whether inferences respecting the movements in prices of EMD should be drawn on a different basis than in the ordinary case. There is, however, no significant evidence of record here to support a different inference about import prices and volumes. Given the caveat in note 54 supra, respecting the precision necessary to our ultimate judgment, I find it unnecessary to determine exactly how much more or less the price might have been consequent to LTFV sales.

the domestically produced article. As I argued earlier in this opinion,59/ imports of electrolytic manganese dioxide from Greece are not readily substitutable for other EMD, manufactured using titanium anodes, whether produced in this country or in Japan. Although prices of the Greek EMD [* *] throughout the period of investigation,60/ nevertheless domestic users have almost uniformly chosen not to use the Greek product; indeed, in most instances bids were not even solicited from the Greek exporter.61/ That Rayovac chose to use Greek graphite-anode EMD only for a specialized application requiring EMD with unusual characteristics appears to confirm this understanding of the role of the Greek EMD in the United States market.

However, even if Greek EMD were highly substitutable for domestically produced EMD, as the behavior of market participants clearly reveals it is not, that EMD still could not possibly have had any significant effect on the price of domestic firms' EMD or on the volume of those firms' sales. Greek EMD holds a minuscule portion of the domestic market. In 1988, imports from Greece constituted [* *] of total EMD sales in the United States market. There is no basis on which to infer significant price effects from such small sales volumes in the domestic EMD market. Moreover, even if every dollar of sales of Greek EMD directly displaced a sale by a domestic producer, the total loss of sales would be so small that the related effects on the domestic industry could not amount to material injury. Since the domestic producers choose overwhelmingly not to use Greek EMD except in specialized applications, the likelihood that all those sales would, in the absence of

---

59/ See supra at 10.

60/ Report at A-50.

61/ See Report at A-44.

dumping, have gone to domestic producers seems vanishingly small. For these reasons, I must conclude that imports of EMD did not cause material injury to domestic EMD producers.

With respect to Japanese EMD, however, the case is quite different. It seems clear that Japanese titanium-anode EMD is relatively substitutable with domestically produced titanium-anode EMD. For that reason, all three U.S. battery manufacturers purchased Japanese EMD during the period of investigation. There are, doubtless, significant quality differences among EMD from different companies and, even within firms, for EMD from different plants. Respondents' evidence respecting the qualification process is probative on this point. All purchasers of EMD insist on "qualifying" sellers to make sure that the EMD purchased meets the buyers' specific needs. The length of time this process takes and the cost incurred strongly indicate the existence of potentially important quality variations.

That said, however, while it is clear that quality is a principal determinant of EMD users' purchasing choices, it is by no means clear that a consistent quality difference exists between domestically produced and Japanese-produced EMD or that, if it did, such difference would be of sufficient magnitude to remove or dramatically limit the degree to which Japanese EMD can substitute for domestic EMD.62/ In general, the actions of domestic consumers of EMD indicate that, on average, the quality of domestically produced EMD is sufficiently comparable to be used in place of Japanese produced EMD. It is noteworthy that domestic firms are buying both domestically produced EMD and Japanese EMD and have been soliciting bids from

---

62/ See Economic Memorandum EC-M-116, at 13.

both domestic and Japanese producers.63/ Furthermore, there was general agreement among the technical experts consulted by the Commission staff that the differences in quality between EMD produced in the United States and EMD produced in Japan were generally minor.64/ It therefore seems quite likely that Japanese imports are rather substitutable with domestically produced EMD.

That substitutability between Japanese and domestically produced EMD means that imports from Japan clearly could have, and almost surely did, reduce both prices and sales for domestic EMD manufacturers. The fact that imports rose in response to the fire in Eveready's cell room at their Marietta, Georgia, factory is not inconsistent with that conclusion. Respondents argue that domestic producers produced at or near their capacity following that event, that Japanese imports rose only in response to the loss of domestic productive capacity, and that Japanese imports were consistently undersold by domestic producers even during the period immediately following the fire.65/ Therefore, Respondents would have us conclude, Japanese imports could not have been responsible for material injury to the domestic industry.66/

Yet that conclusion does not follow. Though domestic producers produced near capacity following the fire, and imports in that period therefore did little to reduce the sales of domestic producers, U.S. prices of EMD would

---

63/ See Report at A-44.

64/ Report at A-3 n. 2.

65/ Respondents' Prehearing Br. at 34-42.

66/ Respondents' argument that they engaged only in "technical dumping" is, I take it, essentially an argument on the absence of significant price and sales effects.

have risen substantially in this period had not imports entered the market. In short, Japanese imports in this period had the effect of suppressing domestic EMD prices. It is by no means clear that the statute we enforce allows the mere absence of underselling to provide a defense for respondents engaged in sales at less than fair value, as Respondents argue. The statute provides that this Commission must examine the effects of LTFV imports in suppressing domestic prices, even in the absence of underselling.67/ The argument that importers engaged merely in "technical dumping," defined simply as sales without underselling by importers, does not by itself provide a defense to an antidumping action when it is clear that other criteria to which the statute directs our attention may indicate the existence of material injury. Furthermore, domestic producers have expanded capacity in the wake of that fire68/; given the new, larger capacity of the domestic industry, the presence of LTFV sales of an imported product which can substitute for domestic output by consumers almost surely has resulted in some sales lost to domestic manufacturers.

Furthermore, Respondents' argument that, in the period following the fire, Japanese imports were largely replacing Eveready's lost production, even if accepted at face value, does not provide a full explanation for the presence of imports in the United States market over the full period of investigation, and especially over the period in which the Department of Commerce found that dumping did in fact exist. Even before the Eveready fire Japanese EMD had captured a sizeable share of the domestic market. Japanese imports constituted over [*] throughout the period of investigation, both

---

67/ 19 U.S.C. § 1677(7).

68/ Report at A-29.

in value and in quantity terms, and over [*] of the domestic market in 1988.69/

Given the evidence of record, including evidence that Japanese EMD, which is reasonably substitutable for domestic EMD, was sold in the United States in substantial volumes at a price substantially below the probable non-LTFV price, I find that the LTFV imports from Japan have reduced the prices at which domestic EMD sells and have also reduced sales of domestic EMD. In combination, those effects appear to have reduced significantly the domestic producers' revenues from sales of EMD.

C. Investment and Employment

Petitioners argue that material injury to the domestic industry is manifested in declining production, capacity utilization, shipments, prices, employment, and financial performance throughout the period of investigation.70/ They argue that the decline in U.S. capacity to produce EMD caused by the fire at Eveready's Marietta plant "would have been offset by increased capacity of other producers were it not for the LTFV imports,"71/ or, more accurately, that it would have been offset more rapidly and more fully. Respondents, on the other hand, argue that the financial performance of the domestic EMD industry was adversely affected by major capital improvements made by the domestic producers themselves. Respondents contend that the reason domestic EMD price has fallen is because of Petitioners' own decisions to expand their EMD production facilities. As evidence, Respondents

---

69/ Report at A-40.

70/ Petitioner's Prehearing Br. at 28.

71/ Petitioners' Prehearing Br. at 30.

note that domestic EMD producers actually consistently underbid and undersold Greek and Japanese EMD producers in the period between 1986 and 1988.72/ Respondents contend that there is a well established pattern of underselling by domestic producers, who priced EMD aggressively to gain market share, and that this practice, rather than competition from Japanese imports, led to whatever decline in financial fortunes the domestic industry has experienced.73/

It is not necessary to determine precisely what sequence of decisions on pricing and sales volumes accounts for the effects observable in the domestic market for EMD. The low supply requires that the effects of LTFV sales on the domestic industry rose above the level necessary to be material. While direct evidence on employment and investment trends sheds little light on this issue, those trends are not at odds with the most natural inferences to be drawn from evidence respecting the Japanese EMD imports' effects on domestic prices and sales. In this investigation, it seems clear that the domestic industry has indeed been subject to injury, and that sales of imported Japanese EMD at LTFV have been in part responsible for forcing down domestic prices and reducing domestic sales. Respondents do not dispute Petitioners' claims that the domestic industry has suffered financially and in terms of employment, and indeed the facts found by the Commission's own investigation supports that conclusion.74/

Given those facts together with the analysis of imports' effects on domestic prices and sales set forth above, I find that the evidence in this

---

72/ Respondents' Prehearing Br. at 34.

73/ Id. at 35.

74/ Report at A-21, A-23.

investigation is sufficient to indicate that the domestic industry was materially injured by LTFV sales of Japanese EMD.

IV. CONCLUSION

For the foregoing reasons, I conclude that an industry in the United States has been materially injured by reason of dumped imports of electrolytic manganese dioxide from Japan, but not by reason of dumped imports of that product from Greece.

INFORMATION OBTAINED IN THE INVESTIGATIONS

Introduction

Following preliminary determinations by the U.S. Department of Commerce that imports of electrolytic manganese dioxide (EMD) 1/ from Greece and Japan are being, or are likely to be, sold in the United States at less than fair value (LTFV), 2/ the U.S. International Trade Commission, effective November 14, 1988, instituted investigations Nos. 731-TA-406 and 408 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) to determine whether an industry in the United States is materially injured or theatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise, provided for in subheading 2820.10.00 of the Harmonized Tariff Schedule of the United States. Notice of the institution of the Commission's investigations and of the public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the Federal Register of December 28, 1988 (53 F.R. 52516). 3/ The Commission's hearing was held in Washington, DC, on March 9, 1989. 4/

On March 2, 1989, Commerce published in the Federal Register (54 F.R. 8771) its final affirmative LTFV determinations on imports of EMD from Greece and Japan. 5/ The applicable statute directs that the Commission make its final determination within 45 days after the final determination by Commerce, or in this case by April 17, 1989. The Commission voted on these investigations on April 4, 1989, and its final determinations were transmitted to the Secretary of Commerce on April 10, 1989.

Background

These investigations result from a petition filed with the Commission and Commerce on May 31, 1988, by Chemetals, Inc., Baltimore, MD, and Kerr-McGee Chemical Corp., Oklahoma City, OK, alleging that an industry in the United States is materially injured or threatened with material injury, by reason of LTFV imports of EMD from Greece, Ireland, and Japan. Accordingly, effective May 31, 1988, the Commission instituted antidumping investigations Nos. 731-TA-406, 407, and 408 (Preliminary) (on Greece, Ireland, and Japan, respectively) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)), and on July 15, 1988, notified Commerce of its affirmative determinations in the

---

1/ The product covered by these investigations is manganese dioxide (MnO_2) that has been refined in an electrolysis process. EMD is provided for in subheading 2820.10.00 of the Harmonized Tariff Schedule of the United States.
2/ Commerce also preliminarily determined the existence of critical circumstances (massive imports over a relatively short period) under section 733(e) of the Tariff Act of 1930 (19 U.S.C. 1673b(e)) with respect to the subject imports.
3/ A copy of the Commission's notice is presented in app. A.
4/ The calendar of witnesses who appeared at the Commission's hearing is presented in app. B.
5/ Commerce also made a negative final LTFV determination on imports of EMD from Ireland and negative final determinations with respect to the existence of critical circumstances for the subject imports from Greece and Japan. Commerce's Federal Register notices are presented in app. C.

preliminary investigations. Accordingly, Commerce continued its investigations on alleged LTFV sales of EMD from Greece, Ireland, and Japan.

The Product

Description and uses

EMD, whether imported or domestically produced, is manganese dioxide (MnO_2) that has been refined in an electrolysis process. Virtually all EMD is used in dry-cell batteries, 1/ which are able to discharge electrical current as a result of an energetically favorable transfer of electrons from the battery anode to the battery cathode. 2/

The preparation of EMD by electrolysis and the use of EMD in dry-cell batteries were reported as early as 1918, 3/ but commercial use in dry-cell batteries began in the 1940s. EMD's importance in the operating performance of dry-cell batteries is far greater than its share of the cost of producing such batteries.

Physically, EMD is a black powder (or plate or chip that will be ground into powder) that has a gamma crystalline structure. The powder form is required for use in dry-cell batteries. The gamma crystalline structure, as opposed to most other crystalline structures that manganese dioxide can assume, allows for the free transfer of hydrogen ions within the manganese dioxide crystal, thus resulting in the fullest possible utilization of the manganese dioxide in the production of electrical current within a dry-cell battery.

There are two grades of EMD--alkaline grade and zinc chloride grade. Alkaline-grade EMD, because of particle size 4/ and pH (acidity level), 5/

1/ There are no other significant uses for EMD. Small amounts reportedly are used as a colorant in bricks, as an absorbent in certain instrument systems, and in * * *.

2/ The anode generally consists, at least in part, of a metal such as zinc or lithium, which can easily give up electrons; the cathode consists in part of a material that can react with those electrons. The most commonly used electrically active cathode material is manganese dioxide.

3/ G.D. Van Arsdale and C.B. Maier, Transaction Electrochemical Society, 33, 109 (1918).

4/ Alkaline-grade EMD is less finely ground than zinc-chloride-grade EMD. The typical particle size distribution of alkaline-grade EMD is 85 to 95 percent passing through a 200-mesh screen and 50 to 70 percent passing through a 325-mesh screen. The typical particle size for zinc-chloride grade EMD is 90 to 100 percent passing through a 200-mesh screen and 70 to 95 percent passing through a 325-mesh screen. (Submission entitled "Testimony of Richard Wohletz at Administrative Conference, June 20, 1988," pp. 6 and 7.)

5/ Alkaline-grade EMD tends to have a lower pH (i.e., is more acidic) than zinc chloride-grade EMD. The typical pH specification for alkaline-grade EMD is 6 to 7; however, battery producers reportedly have used material ranging in pH from 4.5 to 8.5. The typical pH specification for EMD used in zinc-chloride and also in Leclanche batteries is 7 to 8.5; however, battery producers reportedly have used material ranging in pH from 5 to 8.5. (Submission entitled "Testimony of Richard Wohletz at Administrative Conference, June 20, 1988," pp. 6 and 7.)

qualifies for use in the manufacture of alkaline batteries. 1/ Zinc chloride-grade qualifies for use in zinc chloride batteries. The particle size (grind) and pH are achieved in the finishing process of the EMD and require no changes prior to the finishing step. All other properties of the two grades of EMD, including the moisture content, sulfate content, other metallic element content, purity, and crystalline structure, are essentially identical. 2/

Based on conversations between a member of the Commission staff and a number of experts in EMD technology, 3/ there was general agreement that zinc chloride-grade EMD and alkaline-grade EMD are similar. They are produced in the same manufacturing facilities by the same employees, the cost of production is about the same, the types and levels of impurities are about the same, and there is significant overlap in the channels of distribution, although not all battery producers produce both zinc chloride and alkaline batteries. There was also general agreement that zinc chloride-grade EMD and alkaline-grade EMD are to some degree interchangeable. 4/ Alkaline-grade EMD can be used in zinc chloride batteries virtually without loss of performance. However, if zinc chloride-grade EMD were used in an alkaline battery, the battery would still function but at a reduced performance level. One expert * * * estimated that an alkaline battery's performance would be reduced by about ten percent if zinc chloride-grade EMD were used in lieu of alkaline-grade EMD; however, the expert said that a loss of ten percent in battery performance would not be discernable to many battery customers.

Within each of the two grades of EMD, there is relatively higher and lower quality EMD. Higher quality EMD tends to have a higher discharge rate and longer shelf life than lower quality EMD in the same grade. Of course, the quality of EMD is only one factor out of many that determine the quality of a finished battery. 5/

In addition to EMD, there are two other types of manganese dioxide, both of which are also used in dry-cell batteries: natural manganese dioxide (NMD) and chemical manganese dioxide (CMD). NMD consists of certain naturally occurring manganese ore, selected because of its high MnO_2 content, favorable electrochemical properties, and low content of impurities. The ore is often processed to remove impurities and to further improve its battery activity. NMD has a lower performance rate than EMD or CMD but may be blended with such synthetic manganese dioxide for increased performance. For approximately 80

1/ A discussion of the general types of dry-cell batteries is presented later in this section of the report.
2/ Submission entitled "Testimony of Richard Wohletz at Administrative Conference, June 20, 1988," p. 6.
3/ The EMD specialists contacted were * * *.
4/ The three major U.S. purchasers of EMD responded to the following question in the Commission's questionnaire: "Does your company regard alkaline grade EMD and zinc chloride grade EMD to be interchangeable in use?." Duracell Inc. responded "* * *," Eveready Battery Co, responded "* * *," and Rayovac Corp. responded "* * *."
5/ There was general agreement among the technical experts consulted by the Commission staff concerning this issue that the differences in quality between EMD produced in the United States and EMD produced in Japan were generally minor or at least not major. One * * * described the differences in quality as * * *. In addition, in a recent telephone interview with * * *. However, * * *. Only one out of three * * * specialists contacted stressed the superiority of EMD produced in Japan relative to the domestic product.

years subsequent to the invention of the wet zinc/manganese dioxide primary cell (the ancestor of the present-day dry-cell battery) by Georges Leclanche in the 1860s, NMD was the only type of manganese dioxide used in dry-cell batteries; indeed, NMD may still be the world's predominant source of manganese dioxide for batteries. However, its use is very small in the United States. NMD is not produced in the United States, only small amounts are imported, and NMD is not within the scope of these investigations.

CMD is chemically precipitated, battery-active manganese dioxide. It is generally produced * * *. The properties of CMD differ from EMD in three major respects: surface area, electrolyte absorption, and density. As a result, CMD generally exhibits lower discharge rates than does EMD. 1/ Chuo Denki Kogyo Co., a Sumitomo-group company in Japan, has indicated that it hopes to commercialize by about 1990 a chemical manganese dioxide "comparable with, or superior to, electrolytic type in quality." 2/ * * *. * * *. CMD is not within the scope of these investigations.

The three major types of dry-cell batteries are (1) the Leclanche ammonium chloride, or general purpose battery; (2) the zinc chloride, or heavy-duty battery; and (3) the alkaline battery. 3/ In 1987, 67 percent of EMD consumption in the United States was in the manufacture of alkaline batteries, 20 percent in zinc chloride batteries, and 12 percent in Leclanche batteries. 4/

The Leclanche battery is the oldest and least sophisticated of the three types. It is inferior in discharge rate, shelf life, and leak resistance to zinc chloride and alkaline batteries. Any battery-grade manganese dioxide, including NMD, can be used in Leclanche batteries. In a Leclanche battery, the electrolyte is a solution of ammonium chloride and zinc chloride and the anode is zinc. Manganese dioxide is mixed with carbon to form the cathode. The Leclanche battery was the predominant battery used in the United States as recently as the 1950s, but has since been far surpassed by zinc chloride and especially by alkaline batteries. However, the Leclanche battery may still be the principal battery sold worldwide.

The zinc chloride battery has a higher discharge rate than does the Leclanche battery, but also is more expensive to produce. In a zinc chloride battery, the electrolyte is made completely of zinc chloride. The anode is

---

1/ Petition, p. 16.
2/ Japan Chemical Week, "Electrolytic Manganese Dioxide Upgrades Dry Cells," Feb. 26, 1987, p. 5.
3/ A more recently developed type of dry-cell battery is the lithium battery. A modified form of EMD is used in some primary (nonrechargeable) lithium batteries. However, the aggregate amount of EMD currently used in lithium batteries is small. (One estimate, by * * *, is that less than *** tons of EMD is currently used annually in lithium batteries in the United States.) In addition, rechargeable batteries exist, and EMD is generally not used in such batteries. Intensive research is currently being conducted to develop an EMD-based rechargeable battery. Increased use of rechargeable batteries is not expected to significantly adversely affect EMD consumption, at least not in the near future.
4/ Petition, p. 14. In the United States, there are 5 popular sizes of ready-to-use consumer dry-cell batteries: AAA, AA, 9-volt, C, and D. They are used in consumer items such as toys, flashlights, radios, photoflash units, and electronic games.

zinc. The cathode typically contains higher quality blends of manganese dioxide. Zinc chloride-grade EMD is used in zinc chloride batteries; however, petitioners contend that it is not uncommon for battery producers to use manganese dioxide intended for alkaline batteries in zinc chloride or even in Leclanche batteries.

The alkaline battery represents a significant improvement over the Leclanche battery and typically has a longer shelf life than a zinc chloride battery. The alkaline battery will only accept EMD (not NMD or CMD) and only alkaline-grade EMD. In an alkaline battery, the cathode consists of a high-density, 100-percent blend of EMD and graphite. The electrolyte is concentrated potassium hydroxide; potassium hydroxide is very alkaline or "basic" (the opposite of acidic). The anode is composed of powdered amalgamated zinc.

Before a sample of EMD can be used in a battery it is subjected to extensive testing. Probably the most important tests that an EMD producer or consumer uses to test EMD quality in a battery are (1) discharge performance tests, (2) gassing tests, and (3) tests to measure the compressed density of the EMD. 1/ The discharge performance test measures how long a battery will maintain useful voltage for a given load and drain. This test essentially provides information on the number of hours of service a battery will provide. The gassing test measures how much gas is generated as a result of impurities in the EMD. The less gas that is generated, the purer the EMD and the longer the shelf life of the battery. 2/ Tests to measure the compressed density of a given sample of EMD determine how much EMD can be used in a battery within the space limitations of the battery. The more EMD that can be compressed in a battery, the higher the electrical capacity of the battery.

Even though a given sample of EMD may perform satisfactorily when subjected to standard tests such as a discharge performance test, it must be qualified before it can be used in a given battery. The qualification process can range from about 3 months to a year in duration. The qualification process ensures that the processing equipment used to manufacture a given battery is matched with the type of EMD that is used, so as to optimize battery performance. 3/

Manufacturing process

All types and grades of EMD, whether imported or domestically produced, are produced by the same general process. There are three stages of EMD production: ore handling, electrolysis, and finishing.

1/ Testimony of Richard Wohletz, Kerr-McGee Chemical Corp., transcript of the public hearing, pp. 44-45.
2/ The shelf life of a battery is a measure of how long a battery will provide useful service even if it has been sitting on the shelf for a considerable length of time, e.g., several years.
3/ Testimony of Steven Cheney, Purchasing Manager, Rayovac, transcript of the public hearing, p. 58.

Ore handling involves the preparation of manganese dioxide for electrolysis. The manganese ore 1/ is crushed and ground and then fed into reduction furnaces that convert manganese dioxide to the sulfuric acid-soluble manganous oxide (MnO) known as the reduced ore. The manganese is then "leached" from the reduced ore by having the reduced ore digested continuously in spent electrolyte and sulfuric acid. Next, the resulting manganese sulfate solution is purified to remove to the extent possible such impurities as copper, nickel, cobalt, molybdenum, antimony, and arsenic (manganese dioxide for batteries should be essentially free of impurities that would deposit on a zinc anode). 2/ Iron may be added to aid in the removal of impurities. 3/

In electrolysis, the manganese sulfate solution is processed through a number of thickeners and filters and is then fed to the electrolytic cell room. The purified manganese sulfate is then metered to the electrolytic cells, where hydrogen is liberated at carbon or lead cathodes and manganese dioxide is deposited on titanium or graphite anodes. The period of electrolysis lasts from 2 to 4 weeks.

In the finishing process, the anodes are removed from the cell and are immersed in hot water to remove the electrolyte solution. The EMD deposit is then removed from the anodes, washed, and neutralized to remove traces of the electrolyte. Neutralization determines the final pH of the EMD. When the EMD is removed from the anodes and neutralized, it is in a plate or chip form, but it must be ground into a powder for use in batteries. Therefore, it is usually ground and sold as a powder by the EMD producers. Prior to shipment, the EMD is dried and packed according to customer specification. 4/

The only major change in the production process for EMD during the past decade has been the switch by the major producers of quality EMD from graphite anodes to titanium anodes. 5/ The major Japanese producers of EMD reportedly

---

1/ Manganese ore is relatively abundant in the earth's crust, but only certain manganese ore has the relative purity and other properties that make it suitable for use in the production of EMD. Principal sources for manganese ore used in the production of manganese dioxide include Gabon and Australia.
2/ Impurities, especially * * *, which hamper battery performance have been reduced, enabling new batteries to be manufactured that have much longer shelf lives. The average shelf life of an alkaline battery has risen from about 1 to 2 years a decade ago to about 5 years in 1989, in part owing to improvements in EMD production technology.
3/ Later removal of the iron is important because it would otherwise contaminate the product and affect efficiency in the electrolysis process, and because impurities such as arsenic and lead are coprecipitated when the iron is precipitated.
4/ Before EMD is shipped to a particular customer, relatively minor adjustments are made to meet the particular needs of the customer. Adjustments that are made include modifying the particle-size distribution, compressed density, and abrasivity of the EMD. These adjustments, which fine-tune the EMD to meet a given customer's needs, do not lead to major differences in EMD quality or performance. (Testimony of Richard Wohletz, Kerr McGee Chemical Corp., transcript of the public hearing, p. 45).
5/ Technical experts consulted by the Commission staff generally agreed that there are differences in quality between EMD produced using graphite anodes and EMD produced using titanium anodes, with the EMD produced on titanium anodes tending to be superior; however, such differences in quality could be made small if enough care is taken to improve the quality of the EMD produced using

installed titanium anodes in the early 1980s. Eveready and Kerr-McGee installed titanium anodes in 1985, Rayovac did so in 1986, and Chemetals' predecessor (Foote Minerals Co.) installed titanium anodes when it converted its New Johnsonville, TN, manganese metal plant to an EMD plant in 1985. Tosoh Hellas A.I.C. reportedly uses graphite anodes. In addition to the conversion to titanium anodes, new process technology, "learning curve" experience, and better cell-room management have resulted in improvements in EMD performance.

U.S. tariff treatment

Imports of EMD are classified in subheading 2820.10.00 of the Harmonized Tariff Schedule of the United States (HTS). They were previously classified in item 419.44 of the Tariff Schedules of the United States. The most-favored-nation (MFN) (col. 1--general) rate of duty, 1/ applicable to products of Greece, Japan, and all other MFN countries, is 4.7 percent ad valorem. 2/ The column 2 rate of duty 3/ is 25 percent ad valorem.

Nature and Extent of Sales at LTFV

In order to determine whether sales of the subject EMD from Greece and Japan were made in the United States at LTFV, Commerce compared the U.S. price with the foreign market value. The period examined by Commerce's investigations was December 31, 1987, through May 31, 1988. The weighted-average margins in Commerce's final determinations are presented in the following tabulation (in percent):

---

graphite anodes. Several technical experts indicated that they believe that the principal reasons why companies switched from graphite anodes to titanium anodes was production-cost economies, although quality considerations may also have been a factor.

1/ The rates of duty in the general subcolumn of column 1 are most-favored-nation (MFN) rates and are applicable to imported products from all countries except those Communist countries and areas enumerated in general note 3(b) of the HTS. However, the MFN rates do not apply if preferential tariff treatment is sought and granted to products of developing countries under the Generalized System of Preferences (GSP) or the Caribbean Basin Economic Recovery Act (CBERA), or to products of Israel or Canada, as provided under the special rates of duty subcolumn of column 1.

2/ In addition, pursuant to the Omnibus Budget Reconciliation Act of 1986, a user fee (to cover the cost of the U.S. Customs Service's processing of imports) of 0.17 percent ad valorem on most imports is in effect.

3/ The rates of duty in column 2 apply to imported products from those Communist countries and areas enumerated in general note 3(b) of the HTS.

Countries and exporters	Weighted-average margin of sales at LTFV
Greece:	
Tosoh Hellas A.I.C.....	36.72
All other.....	36.72
Japan:	
Mitsui Mining & Smelting Co., Ltd.....	77.43
Tosoh Corp.....	71.91
All other.....	73.30

For Tosoh Hellas, A.I.C., the U.S. sales examined by Commerce amounted to *** short tons, valued at $***. * * * sales examined were found to be at LTFV. Margins on Tosoh Hellas A.I.C.'s sales ranged from *** to *** percent.

For Mitsui Mining & Smelting, U.S. sales examined by Commerce amounted to *** short tons, valued at $***. * * * sales examined were found to be at LTFV. Margins on Mitsui's sales ranged from *** to *** percent.

For Tosoh Corp., the U.S. sales examined by Commerce amounted to *** short tons, valued at $***. 1/ * * * sales examined were found to be at LTFV. Margins on Tosoh's sales ranged from *** to *** percent.

The U.S. Market

The U.S. market for EMD is derived from the market for dry-cell batteries, which is in turn derived from the market for consumer products such as toys, flashlights, etc., that use such batteries. The U.S. market for EMD is essentially composed of the three major U.S. battery manufacturers (Duracell, Eveready, and Rayovac).

Apparent U.S. consumption

Table 1 presents information obtained by the Commission on the apparent U.S. commercial consumption of EMD and on total apparent consumption (including captive consumption) of EMD. The data on apparent U.S. commercial consumption of EMD are composed of U.S. producers' reported domestic commercial shipments of EMD plus importers' domestic shipments. 2/ The quantity of total apparent U.S. consumption of EMD decreased by 2.6 percent in 1987, then increased by 6.9 percent in 1988. The quantity of apparent U.S. commercial consumption of EMD increased by *** percent in 1987 and by *** percent in 1988.

1/ * * *.

2/ All imports of EMD are for resale in the commercial market or are commercial purchases for the importers' own use in the production of batteries.

Table 1
EMD: Apparent U.S. consumption, commercial and total, 1986-88

Firm	1986	1987	1988
	Quantity (short tons)		
U.S. producers' domestic commercial shipments	***	***	***
U.S. importers' domestic commercial shipments	***	***	***
U.S. importers' imports for own use	***	***	***
Subtotal, apparent commercial consumption	***	***	***
U.S. producers' domestic captive shipments	***	***	***
Total apparent U.S. consumption	45,446	44,251	47,283
	Value (1,000 dollars)		
U.S. producers' domestic commercial shipments	***	***	***
U.S. importers' domestic commercial shipments	***	***	***
U.S. importers' imports for own use	***	***	***
Subtotal, apparent commercial consumption	***	***	***
U.S. producers' domestic captive shipments	***	***	***
Total apparent U.S. consumption	56,921	54,392	53,834
	Unit value (per pound)		
U.S. producers' domestic commercial shipments	$***	$***	$***
U.S. importers' domestic commercial shipments	***	***	***
U.S. importers' imports for own use	***	***	***
Average, apparent commercial consumption	***	***	***
U.S. producers' domestic captive shipments	***	***	***
Average, apparent U.S. consumption	.63	.61	.57

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. producers

Four firms produced EMD in the United States during the period covered by these investigations. The four firms, their positions regarding the petition, and their shares of reported U.S. production of EMD in 1988 (in percent), are presented in the following tabulation:

Producers	Position on the petition	Share in the quantity of U.S. production of EMD in 1988
Chemetals, Inc. 1/.....	Supports.....	***
Eveready Battery Co., Inc..	* * * 2/.....	3/***
Kerr-McGee Chemical Corp...	Supports.....	***
Rayovac Corp.....	Supports.....	***
Total.....		100.0

1/ Chemetals is a producer by virtue of its purchase of Foote Mineral Co.'s EMD plant in New Johnsonville, TN, on June 1, 1987.
2/ * * *.
3/ Eveready experienced a fire at its EMD plant in April 1987, resulting in intermittent 1988 operations.

* * *. The *** producers accounted for *** percent of U.S. production of EMD in 1986, *** percent in 1987, and *** percent in 1988. Each of the four domestic producers is discussed below, beginning with the two petitioners.

Chemetals.--Chemetals, Inc., Baltimore, MD, a petitioner in these investigations, is wholly owned by Sadacem, S.A., Tertre, Belgium. 1/ Chemetals produces EMD at its plant in New Johnsonville, TN. 2/ The plant was purchased from Foote Mineral Co. on June 1, 1987. 3/ The plant had been a manganese metal plant until 1985, when it was converted to an EMD plant by Foote. Production of EMD began in November 1985. Full commercial production began in June 1986. In September 1986, the plant was shut down temporarily owing to excess inventory. Since Chemetals is not a producer of dry-cell batteries, its EMD is produced entirely for sale in the commercial market.

Kerr-McGee.--Kerr-McGee Chemical Corp., Oklahoma City, OK, a petitioner in these investigations, produces EMD at its plant in Henderson, NV. The Henderson plant was converted to titanium anodes in 1985. Kerr-McGee Chemical Corp. is wholly owned by Kerr-McGee Corp., Oklahoma City, OK.

Since Kerr-McGee is not a producer of dry-cell batteries, its EMD is produced entirely for sale in the commercial market. Kerr-McGee * * *.

1/ Sadacem does not produce or export EMD.
2/ Chemetals * * *.
3/ Foote reportedly made the decision to sell the plant because a competing bid on EMD produced in Japan had depressed prices to a level that "drastically affected the (Foote's) return on investment." (Dwight Glover, EMD Product Manager, Chemetals, transcript of the conference, pp. 46, 47.) The plant was reportedly sold to Chemetals * * *.

Eveready.--Eveready Battery Co., Inc., St. Louis, MO, produces EMD * * * for captive use in its production of batteries. Eveready is * * * . Eveready's * * *.

Eveready was sold by Union Carbide Corp. to Ralston Purina Co., St. Louis, MO, in 1986. Eveready is affiliated with Electro Manganes, LTDA, Sao Paulo, Brazil, a producer and exporter of EMD. Electro Manganes is *** percent owned by Eveready do Brasil Industria E Comercio, which in turn is wholly owned by Ralston Purina Overseas Battery Co.

The cell room of Eveready's sole EMD plant, located in Marietta, OH, was destroyed in a fire in April 1987. Accordingly, since that time Eveready has been forced to purchase most of its EMD requirements in the commercial market.

Eveready invested over $*** to rebuild and upgrade its Marietta facility in a manner consistent with technological developments and resumed production in the fall of 1988. About *** percent of the * * * by insurance; if the plant had not been rebuilt, insurance would have covered * * *. 1/ Eveready expects to return to full production by * * *, at which time its capacity will then be between *** and *** short tons annually. * * *. Eveready has also * * *. A representative of Eveready stated that its EMD now produced in Marietta, OH, is "* * *." 2/

Rayovac.--Rayovac Corp., Materials Division, formerly known as ESB Materials Co., Covington, TN, produces EMD at its plant in Covington. 3/ * * * Rayovac's production of EMD is for captive use in the production of batteries; however, Rayovac has also sold * * * EMD in the commercial market. Although Rayovac has used EMD from Greece and Japan, it supports the petition in these investigations.

Rayovac * * *. * * *.

U.S. importers

Six firms accounted for all known imports of EMD during the period covered by these investigations (table 2). Each of the six importers is discussed below.

* * * * * * *

1/ Telephone conversation with * * *, Eveready Battery Co., Mar. 20, 1989.
2/ Telephone conversation with * * *.
3/ Rayovac's Materials Division is wholly owned by Rayovac Corp., Madison, WI.

Table 2
U.S. importers of EMD and their shares of the quantity of U.S. imports from the countries subject to these investigations and from all sources, 1988

Importer	Source of imports	Share of aggregate U.S. imports from Greece and Japan	Share of total U.S. imports
		Percent	Percent
* * *.....	* * *.....	***	***
* * *.....	* * *.....	***	***
Mitsubishi International.....	* * * 1/.....	***	***
Mitsui & Co.....	Ireland, Japan...	***	***
* * *.....	* * *.....	***	***
* * *.....	* * *.....	***	***
Total.....		100.0	100.0

1/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Mitsubishi.--Mitsubishi International Corp., New York, NY, is a wholly owned subsidiary of Mitsubishi Corp., Tokyo, Japan. Through Mitsubishi Corp., Mitsubishi International imports EMD produced in Japan by Tosoh Corp. 1/ In addition, Mitsubishi Corp. owns *** percent (and Tosoh Corp. owns *** percent) of a joint venture known as Tosoh Hellas A.I.C., Thessaloniki, Greece, a producer and exporter of EMD established in 1973 that began operations in 1976.

Mitsubishi International Corp. has imported EMD from Greece and from Japan during the period covered by these investigations. Mitsubishi International had supplied EMD to * * *. In 1988, Mitsubishi International * * * with EMD produced by Tosoh. In addition, Mitsubishi has supplied * * *.

Mitsui.--Mitsui & Co. (U.S.A.), Inc., New York, NY, is a wholly owned subsidiary of Mitsui & Co., Ltd., Tokyo, Japan. Through Mitsui & Co, Ltd., Mitsui & Co. (U.S.A.) is related to Mitsui Denman (Ireland), the Irish producer and exporter of EMD. 2/

Mitsui & Co. (U.S.A.), Inc., has imported EMD from Ireland and from Japan. Mitsui & Co. (U.S.A.), Inc.'s U.S. customers have been * * *. In addition, Mitsui & Co. (U.S.A.) supplies * * *.

* * * * * * *

1/ * * *.
2/ Mitsui & Co., Ltd. holds *** percent of the equity of Mitsui (Denman) Ireland, and Mitsui & Co. (United Kingdom), Ltd. (which is wholly owned by Mitsui & Co., Ltd.) owns *** percent.

U.S. purchasers

As mentioned earlier, Duracell, Eveready, and Rayovac account for the great bulk of purchases of EMD in the U.S. market. The three firms are the largest U.S. producers of dry-cell batteries.

Duracell.--Until June 1988, Duracell USA was wholly owned by Kraft, Inc., Glenview, IL, when a leveraged buyout set up by Kohlberg Kravis Robert & Co., in conjunction with Duracell's management, resulted in the formation of a new company, Duracell Holdings Corp., Bethel, CT.

Duracell's purchases of EMD are presented in table 3. Duracell purchased approximately *** to *** short tons of EMD in each of the calendar years 1986-88 for use in its battery production.

Table 3
EMD: Duracell's purchases, 1986-88

(In short tons)

Item	1986	1987	1988
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

In 1986 and 1987 Duracell purchased all its EMD requirements * * *. In 1988, most of its EMD requirements consisted of * * *. Duracell stated in its reponse to the Commission's questionnaire that the reason why it * * *.

Eveready.--Eveready's purchases are presented in table 4. In each of the calendar years 1986-88, Eveready required approximately *** short tons of EMD for use in its production of batteries. In 1986, a large share (about *** percent) of Eveready's requirements were met by obtaining EMD from its Marietta, OH, production facility. Most of the EMD used by Eveready * * *. According to Eveready, in late 1986 or early 1987, * * *. 1/

Following the April 1987 cell-room fire at the Marietta facility, Eveready was forced to decrease its inventories and to purchase virtually all of its new EMD requirements in the commercial market. It asked for bids from Chemetals, Kerr-McGee, Mitsui, and Tosoh for its EMD requirements. The great bulk of Eveready's commercial purchases in 1987 and 1988 consisted of * * *. In the preliminary investigations, Eveready contended that EMD produced in Japan is superior to any other EMD in quality, and that Eveready's purchase decisions are based solely on quality considerations. 2/ In response to its

1/ Telephone conversation with * * *.
2/ Postconference brief of Sidley & Austin, pp. 19 to 22.

questionnaire in the final investigations, Eveready indicated that "* * *." Eveready also stated in its questionnaire response that "* * *."

Table 4
EMD: Eveready's purchases, 1986-88

(In short tons)

Item	1986		1987		1988	
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Rayovac.--Rayovac's purchases of EMD are presented in table 5. Rayovac obtains most of its EMD requirements from its production facility in Covington, TN. Rayovac has purchased * * * EMD from other domestic producers, * * *. 1/

Table 5
EMD: Rayovac's purchases, 1986-88

(In short tons)

Item	1986		1987		1988	
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Channels of distribution

Both imported and domestic EMD are sold through the same channels of distribution and are sold directly to end users. These end users, i.e., battery manufacturers, purchase EMD from sales representatives of the EMD producers and importers (the EMD producers in both Greece and Japan use trading companies located in the United States to market their product). U.S.

1/ Rayovac presently uses EMD produced by * * *. * * *. Rayovac uses EMD produced * * *. Rayovac has stated that it could likely use other EMDs in its alkaline AAA and 9-volt batteries, but that these batteries use very little EMD, and the process of qualifying a new EMD is expensive and time consuming (submission entitled "Hearing testimony of Patrick J. Spellman, Mar. 9, 1989, p. 7). At the hearing, Mr. Steven Cheney, Purchasing Manager, Rayovac, stated that Rayovac is running qualification trials of its own and other domestically produced EMD for use in these batteries (transcript of the hearing, p. 51).

producers and importers reported that virtually all EMD was shipped directly to battery manufacturers.

Consideration of Alleged Material Injury

In order to gather data on the question of material injury to the U.S. industry producing EMD, questionnaires were sent to the four firms that accounted for 100 percent of the production of EMD in the United States during the period covered by the investigations. All four firms responded to the Commission's questionnaire.

U.S. capacity, production, and capacity utilization

Capacity.--U.S. producers' reported data on capacity, production, and capacity utilization are presented in table 6. The reported capacity decreases in 1987 and 1988 are * * * the loss of capacity resulting from the fire at Eveready's EMD production facility in Marietta, OH. * * * and * * * have the largest capacities to produce EMD. * * * annual capacity was *** short tons as of December 31, 1986, and *** short tons as of December 31, 1987 and December 31, 1988. * * *. 1/

Production.--U.S. production of EMD decreased by *** percent in 1987, then increased by *** percent in 1988. * * *.

Capacity utilization.--U.S. producers' aggregate capacity utilization decreased in 1987 and increased in 1988 to a level below the level of capacity utilization in 1986. Capacity utilization rates during the period covered by the investigations varied significantly by producer and by year.

Establishment product lines.--The Commission's questionnaire sent to producers asked the firms to report whether they produced products other than EMD on the same equipment and machinery used in the production of EMD. * * * responded "no." * * * responded "yes, * * *. * * *. 2/

U.S. producers' shipments

There are three types of U.S. producers' shipments of EMD: (1) intracompany transfers, which are for the firms' own use in the production of dry-cell batteries, (2) domestic open-market shipments (commercial shipments), and (3) export shipments.

1/ Kerr-McGee indicated in its prehearing brief (p. 30) that it "has indefinitely postponed plans to * * *."
2/ * * *.

Table 6
EMD: U.S. producers' capacity, production, and capacity utilization, 1986-88

Firm	1986	1987	1988
	Capacity (short tons)		
Chemetals 1/	***	***	***
Eveready 1/	***	2/***	2/***
Kerr-McGee 3/	***	***	***
Rayovac 1/	***	***	***
Total	***	***	***
	Production (short tons)		
Chemetals	***	***	***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	4/***	***	***
Total	***	***	***
	Capacity utilization (percent)		
Chemetals	***	***	***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	5/***	***	***
Average	6/***	***	***

1/ * * *.
2/ Due to a fire in April 1987, Eveready's EMD facility operated significantly below its capacity. Operations in 1988 were * * *. Eveready anticipates that it will be in full production by * * *.
3/ * * *.
4/ * * *.
5/ * * *.
6/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Intracompany transfers.--Two producers, Eveready and Rayovac, transfer their production of EMD for their own use in the production of batteries. Intracompany transfers account for * * * of Eveready's shipments of EMD and * * * of Rayovac's shipments of EMD. Intracompany transfers * * * (table 7). * * *. Intracompany transfers declined annually, from *** percent of the quantity of U.S. producers' aggregate domestic shipments of EMD in 1986 to *** percent in 1987 and *** percent in 1988.

Table 7
EMD: U.S. producers' intracompany transfers and domestic commercial shipments, 1986-88

Firm	1986	1987	1988
	Quantity (short tons)		
Intracompany transfers:			
Chemetals	***	***	***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Total	1/***	***	***
Domestic commercial shipments:			
Chemetals	***	***	2/***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Total	1/***	***	***
Total domestic shipments:			
Chemetals	***	***	2/***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Total	1/***	***	***
	Value (1,000 dollars)		
Intracompany transfers:			
Chemetals	***	***	***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Total	1/***	***	***
Domestic commercial shipments:			
Chemetals	***	***	2/***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Total	1/***	***	***
Total domestic shipments:			
Chemetals	***	***	2/***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Total	1/***	***	***

See footnotes at end of table.

Table 7--Continued
EMD: U.S. producers' intracompany transfers and domestic commercial shipments, 1986-88

Firm	1986	1987	1988
	Unit value (per pound)		
Intracompany transfers:			
Chemetals	***	***	***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Average	1/***	***	***
Domestic commercial shipments:			
Chemetals	***	***	2/***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Average	1/***	***	***
Total domestic shipments:			
Chemetals	***	***	2/***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	1/***	***	***
Average	1/***	***	***

1/ * * *.
2/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Domestic commercial shipments.--Chemetals, Kerr-McGee, and Rayovac made domestic commercial shipments of EMD during the period covered by these investigations. The three producers' aggregate domestic commercial shipments of EMD trended upward in quantity, * * * by *** percent in 1987 and by *** percent in 1988. The trend was identical for the value of U.S. producers' commercial shipments. * * *. The unit value of U.S. producers' domestic commercial shipments of EMD decreased from *** cents per pound in 1986 to *** cents per pound in 1987 and *** cents per pound in 1988.

U.S. producers' domestic shipments (including intracompany transfers) of EMD by grade are presented in the following tabulation (in short tons): 1/

Year	Alkaline	Zinc chloride	Other 2/
1986	***	***	***
1987	***	***	***
1988	***	***	3/***

1/ Note.-- Because of rounding, figures may not equal totals shown in table 7.
2/ Consists primarily of EMD described by * * * as "* * *."
3/ Includes *** short tons of undetermined grade.

Export shipments.--U.S. producers' export shipments of EMD * * * in quantity by *** percent in 1987, then * * * by *** percent during 1988 (table 8). * * *. Principal export markets were * * *.

Table 8
EMD: U.S. producers' exports, 1986-88

Firm	1986	1987	1988
	Quantity (short tons)		
Chemetals	***	***	***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	***	***	***
Total	***	***	***
	Value (1,000 dollars)		
Chemetals	***	***	***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	***	***	***
Total	***	***	***
	Unit value (per pound)		
Chemetals	$***	$***	$***
Eveready	***	***	***
Kerr-McGee	***	***	***
Rayovac	***	***	***
Average	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Total shipments.--U.S. producers' total shipments of EMD (i.e., intracompany transfers plus commercial shipments plus export shipments) declined from *** short tons in 1986 to *** short tons in 1987, or by *** percent, then rose slightly (* * *) in 1988.

U.S. producers' purchases

Eveready and Rayovac *** purchased *** during the period covered by these investigations ***.

U.S. producers' inventories

All four U.S. producers reported inventory data on EMD produced in their establishments. U.S. producers' inventories of EMD increased by *** percent as of December 31, 1986; decreased by *** percent as of December 31, 1987; and decreased by an additional *** percent as of December 31, 1988, as shown in table 9. Inventories of EMD as a share of U.S. producers' total domestic shipments in the preceding period were over *** percent in 1986 and 1987, then dropped to *** percent in 1988. Inventories of EMD as a share of shipments in

the preceding year decreased by *** percentage points as of December 31, 1987, and by *** percentage points as of December 31, 1988.

Table 9
EMD: U.S. producers' inventories as of Dec. 31, 1985-88

Item	Dec. 31-- 1985	1986	1987	1988
Inventories:				
Chemetals (short tons)	***	***	***	***
Eveready 1/ (short tons)	***	***	***	***
Kerr-McGee (short tons)	***	***	***	***
Rayovac 1/ (short tons)	***	***	***	***
Total (short tons)	***	***	***	***
Ratio of reported inventories to U.S. producers' total domestic shipments in the preceding year:				
Chemetals (percent)	***	***	***	***
Eveready (percent)	***	***	***	***
Kerr-McGee (percent)	***	***	***	***
Rayovac (percent)	***	***	***	***
Average (percent)	***	***	***	***

1/ Consists only of inventories of own production, not of imported material.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Employment, wages, and productivity

Except for average hourly wages, which rose throughout the period covered by the investigations, most of the aggregate employment-related indicators obtained from the four U.S. producers tended to show decreases in 1987 and increases in 1988 (table 10). 1/ * * * 1987 was the fire at Eveready's Marietta, OH, facility and * * *. The number of production and related workers producing EMD decreased by 15.4 percent in 1987 and decreased by 2 workers in 1988. Hours worked by such workers decreased by 19.0 percent in 1987, and increased by 4.4 percent in 1988. Total wages paid to such workers decreased by 17.5 percent in 1987 and increased by 10.4 percent in 1988. Total compensation paid to such workers decreased by 14.8 percent in 1987 and increased by 10.7 percent in 1988.

In response to a question in the Commission's questionnaire, *** of the U.S. producers (* * *) reported that they reduced the number of production and related workers producing EMD by at least 5 percent or 50 workers during the period covered by the investigations. * * * reported no such reduction. * * *. * * *.

1/ The number of production and related workers producing EMD decreased slightly in 1988.

Table 10
Average number of production and related workers employed in U.S. establishments producing EMD, hours worked by such workers, wages paid, and total compensation paid, 1986-88

Item	1986	1987	1988
Average number of employees	***	***	***
Production and related workers producing--			
All products	***	***	***
EMD	***	***	***
Hours worked by production and related workers producing--			
All products (1,000 hours)	***	***	***
EMD (1,000 hours)	***	***	***
Wages paid to production and related workers producing--			
All products (1,000 dollars)	***	***	***
EMD (1,000 dollars)	***	***	***
Average hourly wages paid to production and related workers producing--			
All products	$***	$***	$***
EMD	***	***	***
Total compensation paid to production and related workers producing--			
All products (1,000 dollars)	***	***	***
EMD (1,000 dollars)	***	***	***

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Production and related workers producing EMD at three of the four U.S. producers are unionized. Chemetals' workers belong to the International Union of Operating Engineers; Eveready's workers belong to the Industrial Chemical Workers Union; and Kerr-McGee's workers belong to the Oil, Chemical, and Atomic Workers International. Rayovac's production and related workers do not belong to a union.

The U.S. producers' labor productivity (aggregate production of EMD per 1,000 hours worked) amounted to *** short tons in 1986, *** short tons in 1987, and *** short tons in 1988. 1/ The U.S. producers' average unit labor costs for EMD (total labor compensation per short ton produced) amounted to *** in 1986, *** in 1987, and *** in 1988. 1/

1/ Data for most of 1987 and 1988 exclude Eveready, owing to the April 1987 fire in its EMD plant.

Financial experience of U.S. producers

Three U.S. producers (Chemetals, Kerr-McGee, and Rayovac), accounting for ***, ***, and *** percent of U.S. production of EMD, respectively, in 1988, provided usable income-and-loss data on their EMD operations as well as on their overall operations. A fourth producer, Eveready, accounting for *** percent of EMD production in 1988, did not furnish complete income-and-loss data on its EMD operations because * * *.

EMD operations.--The income-and-loss data on the EMD operations of each individual company are presented in table 11. Total net sales of EMD increased by *** percent, from $*** million in 1985 to $*** million in 1986. This increase reflects the entry of Chemetals (Foote Mineral) in the commercial market for EMD and the resumption of normal production by Kerr-McGee in 1986 after its conversion to titanium anodes. Total net sales increased by *** percent to $*** million in 1987. During the interim period ended December 31, 1988, such sales rose by *** percent to $*** million, compared with $*** million in the corresponding period of 1987.

The EMD industry reported aggregate operating losses in each period. Such operating losses increased from $*** in 1985 to $*** in 1986, and decreased to $*** in 1987. The average operating loss margin fell from *** percent in 1985 to *** percent in 1986 and to *** percent in 1987. During the interim period ended December 31, 1988, the industry reported an aggregate operating loss of $***, equivalent to *** percent of net sales, compared with an operating loss of $*** or *** percent of net sales, in the corresponding period of 1987.

Kerr-McGee attributed * * *.

Chemetals is the only producer that reported startup costs and trial-run costs; these resulted from the conversion of a manganese metal plant to an EMD plant in 1985. * * *. * * *, Chemetals' predecessor (Foote) reported * * *. * * *.

Rayovac's commercial sales * * * from *** percent of its total sales in 1985 to *** percent in both 1987 and interim 1988. Hence, the majority of Rayovac's sales were company transfers that were captively used in the production of batteries. Rayovac valued its company transfers at * * * price. Rayovac's * * *. If Rayovac's company transfers were valued at * * * for each reporting period, Rayovac's * * *. The EMD industry average operating income-and-loss margins shown in table 11 would have been as follows (in percent):

Item	1985	1986	1987	Interim period ended Dec. 31-- 1987	1988
Operating income or (loss) margin (percent).....	***	***	***	***	***

* * *. The company indicated that all of its transfers of EMD are made at * * * as determined by its internal accounting procedures. * * *.

Table 11
Income-and-loss experience of U.S. producers 1/ on their operations producing EMD, by firms, accounting years 1985-87 and interim periods ended Dec. 31, 1987, and Dec. 31, 1988

Item	1985 2/	1986 3/	1987	Interim period ended Dec. 31-- 1987	1988
	Value (1,000 dollars)				
Net sales:					
Trade:					
Kerr-McGee	***	***	***	***	***
Chemetals	***	***	***	***	***
Rayovac	***	***	***	***	***
Total	***	***	***	***	***
Company transfers:					
Kerr-McGee	***	***	***	***	***
Chemetals	***	***	***	***	***
Rayovac 4/	***	***	***	***	***
Total	***	***	***	***	***
Total net sales:					
Kerr-McGee	***	***	***	***	***
Chemetals	***	***	***	***	***
Rayovac	***	***	***	***	***
Total	***	***	***	***	***
Cost of goods sold:					
Kerr-McGee	***	***	***	***	***
Chemetals	5/***	***	***	***	***
Rayovac	***	***	***	***	***
Total	***	***	***	***	***
Gross profit or (loss):					
Kerr-McGee	***	***	***	***	***
Chemetals	***	***	***	***	***
Rayovac	***	***	***	***	***
Total	***	***	***	***	***
General, selling, and administrative expenses:					
Kerr-McGee	***	***	***	***	***
Chemetals	***	***	***	***	***
Rayovac	***	***	***	***	***
Total	***	***	***	***	***
Operating income or (loss):					
Kerr-McGee	***	***	***	***	***
Chemetals	***	***	***	***	***
Rayovac	***	***	***	***	***
Total	***	***	***	***	***

See footnotes at end of table.

Table 11--Continued
Income-and-loss experience of U.S. producers on their operations producing EMD, by firms, accounting years 1985-87 and interim periods ended Dec. 31, 1987, and Dec. 31, 1988

Item	1985 2/	1986 3/	1987	Interim period ended Dec. 31-- 1987	1988
	Value (1,000 dollars)				
Startup expenses:					
Kerr-McGee 6/.....	***	***	***	***	***
Chemetals.....	***	***	***	***	***
Rayovac.....	***	***	***	***	***
Total.....	***	***	***	***	***
Interest and other expenses:					
Kerr-McGee 6/.....	***	***	***	***	***
Chemetals.....	5/***	***	***	***	***
Rayovac.....	***	***	***	***	***
Total.....	***	***	***	***	***
Net income or (loss) before income taxes:					
Kerr-McGee.....	***	***	***	***	***
Chemetals.....	***	***	***	***	***
Rayovac.....	***	***	***	***	***
Total.....	***	***	***	***	***
Depreciation and amortization:					
Kerr-McGee.....	***	***	***	***	***
Chemetals.....	***	***	***	***	***
Rayovac.....	***	***	***	***	***
Total.....	***	***	***	***	***
Cash-flow: 7/					
Kerr-McGee.....	***	***	***	***	***
Chemetals.....	***	***	***	***	***
Rayovac.....	***	***	***	***	***
Total.....	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold:					
Kerr-McGee.....	***	***	***	***	***
Chemetals.....	8/***	***	***	***	***
Rayovac.....	***	***	***	***	***
Average.....	***	***	***	***	***
Gross profit or (loss):					
Kerr-McGee.....	***	***	***	***	***
Chemetals.....	8/***	***	***	***	***
Rayovac.....	***	***	***	***	***
Average.....	***	***	***	***	***

See footnotes at end of table.

Table 11--Continued
Income-and-loss experience of U.S. producers on their operations producing EMD, by firms, accounting years 1985-87 and interim periods ended Dec. 31, 1987, and Dec. 31, 1988

Item	1985 2/	1986 3/	1987	Interim period ended Dec. 31-- 1987	1988
	Ratio to net sales (percent)				
General, selling, and administrative expenses:					
Kerr-McGee	***	***	***	***	***
Chemetals 8/	***	***	***	***	***
Rayovac	***	***	***	***	***
Average	***	***	***	***	***
Operating income or (loss):					
Kerr-McGee	***	***	***	***	***
Chemetals 8/	***	***	***	***	***
Rayovac	***	***	***	***	***
Average	***	***	***	***	***
Net income or (loss) before income taxes:					
Kerr-McGee	***	***	***	***	***
Chemetals 8/	***	***	***	***	***
Rayovac	***	***	***	***	***
Average	***	***	***	***	***

1/ The producers are Chemetals, Kerr-McGee, and Rayovac. Eveready is not included in the table * * * reported only the costs of the EMD it transferred to its battery operations. The company indicated that all its transfers of EMD are made at * * * as determined by its internal accounting procedures. * * *.
2/ In 1985, Kerr-McGee converted the production of EMD to titanium anodes. This resulted in * * * in that year. Also in 1985, Foote Mineral Co. converted its manganese metal plant to a titanium anode EMD plant. Chemetals purchased the plant in June 1987.
3/ Foote Mineral Co. started commercial production of EMD in June 1986. Rayovac converted its EMD production to titanium anodes during 1986.
4/ Rayovac valued its company transfers at * * *.
5/ Chemetals reported cost of goods sold of * * *. * * *.
6/ Kerr-McGee did not provide any information on * * *. * * *.
7/ Cash-flow is defined as net income or (loss) plus depreciation and amortization.
8/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

If Eveready's company transfers were valued at * * *, 1/ and its general, selling, and administrative expenses were estimated at an industry-average percent of net sales for each reported period, it would show sales and operating income or (loss) in absolute dollars and in relation to its estimated sales value as follows:

Item	1985	1986	1987	Interim period ended Dec. 31-- 1987 1/	1988
Estimated sales value (1,000 dollars).....	***	***	***	***	***
Estimated operating income or (loss) (1,000 dollars)...	***	***	***	***	***
Estimated operating income or (loss) margin (percent)..	***	***	***	***	***

1/ Eveready reported * * *.

If Eveready's estimated sales value of its company transfers and its estimated operating income or (loss) were included in the data reported in table 11, adjusted by Rayovac's company transfers as discussed before in this section, the EMD industry operating income or (loss) margins would be as follows:

Item	1985	1986	1987	Interim period ended Dec. 31-- 1987	1988
Adjusted operating income or (loss) margin (percent)..	***	***	***	***	***

The trend of the industry operating income or (loss) margin * * *.

The combined income-and-loss experience, on an average per-pound basis, for the three producers reporting income-and-loss data for EMD is presented in table 12. The average per-pound sales value * * * from *** cents in 1985 to *** cents in 1986 and * * * to *** cents in 1987. The average per-pound sales value * * * from *** cents in interim 1987 to *** cents in interim 1988. Kerr-McGee * * *. Chemetals' * * *. Both Kerr-McGee and Chemetals * * *. Kerr-McGee reported * * *. Rayovac reported * * *. Chemetals reported * * *.

1/ Computed by total net sales in table 11, adjusted by revaluing the company transfers of Rayovac at its * * * and then dividing by the total quantities sold and transferred by the three producers.

Table 12
Income-and-loss experience (on an average per-pound basis) of 3 U.S. producers on their operations producing EMD, by firms, accounting years 1985-87 and interim periods ended Dec. 31, 1987, and Dec. 31, 1988

(Per pound)

Item	1985	1986	1987	Interim period ended Dec. 31-- 1987	1988
Net sales:					
Kerr-McGee	$ ***	$***	$***	$***	$***
Chemetals	1/***	***	***	***	***
Rayovac	***	***	***	***	***
Average	***	***	***	***	***
Cost of goods sold:					
Kerr-McGee	***	***	***	***	***
Chemetals	1/***	***	***	***	***
Rayovac	***	***	***	***	***
Average	***	***	***	***	***
Gross profit or (loss):					
Kerr-McGee	***	***	***	***	***
Chemetals	1/***	***	***	***	***
Rayovac	***	***	***	***	***
Average	***	2/***	***	3/***	2/***
General, selling, and administrative expenses:					
Kerr-McGee	***	***	***	***	***
Chemetals	1/***	***	***	***	***
Rayovac	***	***	***	***	***
Average	***	***	***	***	***
Operating income or (loss):					
Kerr-McGee	***	***	***	***	***
Chemetals	1/***	***	***	***	***
Rayovac	***	***	***	***	***
Average	***	***	***	***	***

1/ Not applicable.
2/ * * *.
3/ * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Overall establishment operations.--Income-and-loss data for U.S. producers' establishments within which EMD is produced are shown in table 13. The share of total sales accounted for by EMD sales increased from *** percent in 1985 to *** percent in 1986 and *** percent in 1987, and decreased to *** percent in interim 1988. Overall establishment net sales rose by *** percent from 1985 to 1986 and increased by *** percent from 1986 to 1987. The operating income margin decreased in 1986 and 1987. During the interim period ended December 31, 1988, net sales increased by *** percent but the operating income margin fell by *** percentage points compared with such data in the corresponding period of 1987. * * * reported * * * on its other products--* * *--produced in its * * * plant. * * * reported * * *.

Table 13
Income-and-loss experience of U.S. producers on the overall operations of their establishments within which EMD is produced, accounting years 1985-87 and interim periods ended Dec. 31, 1987, and Dec. 31, 1988

Item	1985	1986	1987	Interim period ended Dec. 31-- 1987	1988
	Value (1,000 dollars)				
Net sales	***	***	***	***	***
Cost of goods sold	***	***	***	***	***
Gross profit	***	***	***	***	***
General, selling, and administrative expenses	***	***	***	***	***
Operating income	***	***	***	***	***
Startup expenses	***	***	***	***	***
Interest expense	***	***	***	***	***
Other income (expense), net	***	***	***	***	***
Net income before income taxes	***	***	***	***	***
Depreciation and amortization included above	***	***	***	***	***
Cash-flow 1/	***	***	***	***	***
	Share of net sales (percent)				
Cost of goods sold	***	***	***	***	***
Gross profit	***	***	***	***	***
General, selling, and administrative expenses	***	***	***	***	***
Operating income	***	***	***	***	***
Net income before income taxes	***	***	***	***	***
EMD net sales	***	***	***	***	***
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	***	***	***	***	***

1/ Cash-flow is defined as net income before income taxes plus depreciation and amortization.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Investment in productive facilities.--Four U.S. producers provided data relating to the valuation of property, plant, and equipment used in the production of all products of their establishments and used in the production of EMD. These data are presented in the following tabulation (in thousands of dollars):

Period	All establishment products		EMD	
	Original cost	Book value	Original cost	Book value
1985	***	***	***	***
1986	***	***	***	***
1987	***	***	***	***
As of Dec. 31--				
1987	***	***	***	***
1988	***	***	***	***

The investment in productive facilities and return on those investments for the three producers reporting income-and-loss data are presented in table 14.

Capital expenditures and research and development expenses.--Four U.S. producers supplied data concerning their capital expenditures and their research and development expenses in connection with all products produced in their establishments and, separately, for EMD. These data are shown in the following tabulation (in thousands of dollars):

Period	Capital expenditures		Research and development expenses	
	All establishment products	EMD	All establishment products	EMD
1985	18,201	13,098	***	1,168
1986	***	2,032	1,167	1,083
1987	***	***	***	***
Interim period ended Dec. 31--				
1987	***	***	***	***
1988	***	***	***	***

In 1985, the high capital expenditures reflect the conversion to titanium anodes by most of the companies. The 1987 capital expenditures include $*** incurred by * * *.

Impact of imports on capital and investment.--The Commission requested U.S. producers to describe and explain the actual or anticipated negative effects, if any, of imports of EMD from Greece or Japan on their firms' growth, development and production efforts, investment, and ability to raise capital. The producers' responses are presented in appendix D.

Table 14
EMD: Total assets and value of property, plant, and equipment of 3 U.S. producers, accounting years 1985-87, and 2 U.S. producers for the year ended Dec. 31, 1988

Item	Accounting year including Dec. 31-- 1985	1986	1987	Year ended Dec. 31, 1988 1/
	Value (1,000 dollars)			
Total establishment assets:				
Kerr-McGee	***	***	***	***
Chemetals	***	***	***	***
Subtotal	***	***	***	***
Rayovac	***	***	***	***
Total	***	***	***	2/***
Book value of establishment fixed assets:				
Kerr-McGee	***	***	***	***
Chemetals	***	***	***	***
Subtotal	***	***	***	***
Rayovac	***	***	***	***
Total	***	***	***	2/***
Book value of fixed assets for EMD production:				
Kerr-McGee	***	***	***	***
Chemetals	***	***	***	***
Subtotal	***	***	***	***
Rayovac	***	***	***	***
Total	***	***	***	2/***
	(In percent)			
Return on total establishment assets: 3/				
Kerr-McGee	***	***	***	***
Chemetals	***	***	***	***
Average, 2 firms	***	***	***	***
Rayovac	***	***	***	***
Average, 3 firms	***	***	***	2/***
Return on book value of establishment fixed assets: 4/				
Kerr-McGee	***	***	***	***
Chemetals	***	***	***	***
Average, 2 firms	***	***	***	***
Rayovac	***	***	***	***
Average, 3 firms	***	***	***	2/***

See footnotes at end of table.

Table 14--Continued
EMD: Total assets and value of property, plant, and equipment of 3 U.S. producers, accounting years 1985-87, and 2 U.S. producers for the year ended Dec. 31, 1988

Item	Accounting year including Dec. 31-- 1985	1986	1987	Year ended Dec. 31, 1988 1/
	(In percent)			
Return on book value of fixed assets for EMD production: 5/				
Kerr-McGee	***	***	***	***
Chemetals	***	***	***	***
Average, 2 firms	***	***	***	***
Rayovac	***	***	***	***
Average, 3 firms	***	***	***	2/***

1/ Data for Rayovac are not included because it operates on a fiscal year ending June 30 whereas Kerr-McGee and Chemetals have a fiscal year ending Dec. 31.
2/ Not available.
3/ Defined as net income or loss of the establishments divided by total assets of the establishments.
4/ Defined as net income or loss of the establishments divided by the book value of the fixed assets of the establishments.
5/ Defined as net income or loss of the EMD operations divided by the book value of the fixed assets for EMD production.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Consideration of the Question of Threat of Material Injury

Section 771(7)(F)(i) of the Tariff Act of 1930 (19 U.S.C. § 1677(7)(F)(i)) provides that--

> In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of any merchandise, the Commission shall consider, among other relevant factors 1/--

1/ Section 771(7)(F)(ii) of the act (19 U.S.C. § 1677(7)(F)(ii)) provides that "Any determination by the Commission under this title that an industry in the United States is threatened with material injury shall be made on the basis of evidence that the threat of material injury is real and that actual injury is imminent. Such a determination may not be made on the basis of mere conjecture or supposition."

(I) If a subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the subsidy is an export subsidy inconsistent with the Agreement),

(II) any increase in production capacity or existing unused capacity in the exporting country likely to result in a significant increase in imports of the merchandise to the United States,

(III) any rapid increase in United States market penetration and the likelihood that the penetration will increase to an injurious level,

(IV) the probability that imports of the merchandise will enter the United States at prices that will have a depressing or suppressing effect on domestic prices of the merchandise,

(V) any substantial increase in inventories of the merchandise in the United States,

(VI) the presence of underutilized capacity for producing the merchandise in the exporting country,

(VII) any other demonstrable adverse trends that indicate the probability that the importation (or sale for importation) of the merchandise (whether or not it is actually being imported at the time) will be the cause of actual injury, and

(VIII) the potential for product-shifting if production facilities owned or controlled by the foreign manufacturers, which can be used to produce products subject to investigation(s) under section 701 or 731 or to final orders under section 736, are also used to produce the merchandise under investigation. 1/

1/ The Omnibus Trade and Competitiveness Act of 1988 amended section 771(7)(F) of the Tariff Act of 1930 by adding two items to section 771(7)(F)(i) (19 U.S.C. § § 1677 (7)(F)(i)(IX) and (X)), and by adding section 771(7)(F)(iii) (19 U.S.C. § 1677(7)(F)(iii)) in its entirety. Whereas these investigations were initiated prior to the effective date of the amendments, they are presented below (and discussed in the following text) for information. Section 771(7)(F)(IX) directs that the Commission consider ". . . in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv) and any product being processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both)." Section 771(F)(i)(X) directs that the Commission consider ". . . the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the like product." Section 771(7)(F)(iii) of the act provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other GATT member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

With regard to item (I) above, no subsidies are alleged in these investigations. Information on the volume, U.S. market penetration, and pricing of imports of the subject EMD (items (III) and (IV) above) is presented in the section of this report entitled "Consideration of the causal relationship between imports sold at LTFV and the alleged material injury or threat thereof." Information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in the section of this report entitled "Consideration of alleged material injury." Available information on U.S. inventories of the subject products (item (V)); foreign producers' operations, including the potential for "product-shifting" (items (II), (VI), and (VIII) above), and any other threat indicators, if applicable (item VII) above), follows.

U.S. importers' inventories

U.S. importers' inventories of EMD imported from Greece and Japan decreased by *** percent as of December 31, 1986; increased by *** percent as of December 31, 1987; and increased by *** percent as of December 31, 1988 (table 15). The increase in inventories as of December 31, 1988, is due to an increase in inventories by * * *. * * * tends to have the largest inventories of imports.

Table 15
EMD: U.S. importers' 1/ inventories of imports as of Dec. 31 of 1985-88

Item	Dec. 31-- 1985	1986	1987	1988
Inventories of EMD imported from--				
Greece (short tons)	***	***	***	***
Japan (short tons)	***	***	***	***
Subtotal (short tons)	***	***	***	***
All other countries (short tons)	***	***	***	***
Total (short tons)	***	***	***	***

1/ Only * * *. * * *.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

U.S. importers' current orders for EMD

The Commission's questionnaire requested importers to specify whether they imported, or intended to import, EMD in 1989. Current orders have been placed by * * *. 1/ The responding importers' current orders for EMD are presented in the following tabulation (in short tons):

1/ * * *.

Country	1989
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
* * *.....	***
Total.....	***

Ability of foreign producers to generate exports

The Commission requested counsel for two of the four Japanese producers of EMD (Mitsui Mining & Smelting Co., Ltd. and Tosoh Corp.) 1/ and for the producers of EMD in Greece and Japan to provide information on their clients' EMD operations. The information requested consisted of the number and names of producing firms; plant locations, production, capacity, capacity utilization, home-market shipments, exports to the United States, exports to other major markets, and total exports, for each of the years 1986 to 1988; and projections for 1989. Information received in response to the Commission's requests is presented below.

Greece.--The only producer of EMD in Greece is Tosoh Hellas A.I.C., formerly known as Tekkosha Hellas A.B.E., located in the industrial area of Sindos, Thessaloniki, Greece. Tekkosha Hellas was established in 1973 and production of EMD began in 1976. Tosoh Hellas' production and capacity utilization * * * in 1988 (table 16). Capacity is projected to * * *.

Tosoh Hellas' home-market shipments are * * *. * * * of its shipments are exported, principally to * * *. Exports to the United States have been minimal during 1986-88, and * * *.

Japan.--There are four producers of EMD in Japan: Daiichi Carbon Co., Ltd., Yokohama; Japan Metals & Chemicals Co., Tokyo; Mitsui Mining & Smelting Co., Ltd., Tokyo; and Tosoh Corp., Tokyo. * * *; salient data on Mitsui and Tosoh are presented in table 17. Mitsui's EMD manufacturing plant is located in Takehara City, Hiroshima. Tosoh's EMD plant is located in Funaba-cho, Hyuga City, Miyazaki Prefecture. Japan Metals & Chemicals Co.'s plant was constructed in Takaoka in 1980 with a capacity of *** short tons; its capacity was * * * in 1984, and another capacity expansion in 1986 resulted in a total capacity of *** short tons.

Japan is the world's largest producer of EMD. It accounts for approximately 50 percent of world capacity, excluding China and the U.S.S.R.

1/ The other two producers of EMD in Japan (Japan Metals and Chemicals Co., Inc., and Daiichi Carbon Co., Ltd.) were not represented by counsel and were not contacted directly to provide information. However, information on the EMD industry in Japan was obtained from various public sources and from the U.S. embassy in Tokyo.

Table 16
Salient data on the EMD industry in Greece, 1/ 1986-88, and projections for 1989

Item	1986	1987	1988	1989
Production (short tons).....	***	***	***	***
Capacity 2/ (short tons).....	***	***	***	***
Capacity utilization (percent)..	***	***	***	***
End-of-period inventories (short tons).....	***	***	***	***
Shipments:				
Home market (short tons).....	***	***	***	***
Exports--				
To the United States (short tons).....	***	***	***	***
To all other countries 3/ (short tons).....	***	***	***	***
Total shipments (short tons)....	***	***	***	***

1/ The data presented in the table are for Tosoh Hellas, A.I.C., the only producer of EMD in Greece.
2/ Capacity data are based on an operating period of * * *.
3/ * * * is the principal destination.

Source: Information supplied by Weil, Gotshal & Manges, counsel for Tosoh Hellas A.I.C.

Japan has played a major role in the historical development of EMD. A Japanese patent on the use of EMD in dry-cell batteries was obtained in 1929. Advances in the application of alternating current to $MnSO_4$ solution to produce MnO_2 were detailed by Kameyama and Iida in 1934 and by Takahashi in 1938. The Tokyo Shibaura Electric Co. produced EMD in its Washizu plant as early as 1944 and Mitsui Mining & Smelting Co. began to produce EMD in its Takehara plant in 1948. In November 1948, the Japanese Ministry of International Trade and Industry (MITI) organized an EMD committee composed of representatives of EMD producers and dry-cell battery producers.

Table 17
Salient data on the EMD industry in Japan, 1/ 1986-88, and projections for 1989

Item	1986	1987	1988	1989
Production (short tons).....	***	***	***	***
Capacity (short tons).....	***	***	***	***
Capacity utilization (percent).....	***	***	***	***
End-of-period inventories (short tons).....	***	***	***	***
Shipments:				
Home market (short tons).....	***	***	***	***
Exports--				
To the United States (short tons).....	***	***	***	2/***
To all other countries 3/ (short tons).....	***	***	***	4/
Total shipments (short tons).....	5/***	***	***	6/***

1/ The data presented in the table are for 2 of the 4 producers of EMD in Japan--Mitsui Mining & Smelting Co., Ltd., and Tosoh Corp. Mitsui and Tosoh are * * *.
2/ * * *.
3/ Principal destinations are * * *.
4/ Approximately *** short tons.
5/ Includes *** short tons not accounted for by * * *.
6/ Based on estimates.

Source: Information supplied by Marks Murase & White, counsel for Mitsui Mining & Smelting Co., Ltd., and Weil, Gotshal & Manges, counsel for Tosoh Corp.

Consideration of the Causal Relationship Between the LTFV Imports and the Alleged Material Injury or Threat Thereof

U.S. imports

Data on U.S. imports reported herein are based on responses to the Commission's questionnaire sent to importers (table 18). All known U.S. importers of EMD provided data in response to the questionnaire. Official import statistics of the U.S. Department of Commerce were not used to report imports of EMD because the tariff item under which EMD is reported also contains other types of manganese dioxide.

Greece.--The quantity of U.S. imports of EMD from Greece decreased by *** percent in 1987 and then increased by *** percent in 1988. The trend was the same for the value of U.S. imports from Greece. The unit value of U.S. imports from Greece was *** cents per pound in 1986 and *** cents per pound in 1987 and 1988. The only * * * importers of EMD from Greece during the period covered by the investigations were * * *.

Table 18
EMD: U.S. imports, by country and by importer, 1986-88

Item	1986	1987	1988
*	*	*	*	*	*	*

1/ Excludes imports of * * *.
2/ The value of imports consists of the landed, duty-paid value at the U.S. port of entry, including the cost of ocean freight and insurance, brokerage, and import duties (i.e., all charges except inland freight in the United States).
3/ Excludes imports of * * *.
4/ Based on unrounded data.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Japan.--The quantity of U.S. imports of EMD from Japan increased by *** percent in 1987 and by *** percent in 1988. The trend was the same for the value of U.S. imports from Japan. The unit value of U.S. imports from Japan was *** cents per pound in 1986, *** cents per pound in 1987, and *** cents per pound in 1988. There were *** importers of EMD from Japan during the period covered by these investigations.

Cumulated imports.--The aggregate quantity of U.S. imports of EMD from Greece and Japan increased by *** percent in 1987 and by *** percent in 1988. 1/ The trend was the same for the aggregate value of U.S. imports from the two countries. The unit value of aggregate U.S. imports from Greece and Japan was *** cents per pound in 1986, *** cents per pound in 1987, and *** cents per pound in 1988.

Total imports.--The total quantity of U.S. imports of EMD decreased by *** percent in 1987 and increased by *** percent in 1988. The trend was the same for the total value of U.S. imports. The unit value of total U.S. imports of EMD decreased from *** cents per pound in 1986 to *** cents per pound in 1987 and to *** cents per pound in 1988.

Market penetration of imports

U.S. importers' domestic shipments of imports (U.S. importers' domestic resales of imports plus captive consumption of imports) of EMD are presented in table 19 and will be used to calculate the market penetration of imports. U.S.

1/ The quantity of imports of EMD from Greece and Japan accounted for *** percent of total EMD imports in 1986, *** percent in 1987, and *** percent in 1988.

importers' domestic shipments of EMD by grade are presented in the following tabulation (in short tons): 1/

Year	Alkaline	Zinc chloride	Other
1986.....	***	***	***
1987.....	***	***	***
1988.....	***	***	***

Table 19
EMD: U.S. importers' domestic shipments, 1/ by source country, 1986-88

Country	1986	1987	1988
	Quantity (short tons)		
Greece.....	***	***	***
Japan.....	***	***	***
Subtotal.....	***	***	***
All other countries.....	***	***	***
Total.....	***	***	***
	Value (1,000 dollars) 2/		
Greece.....	***	***	***
Japan.....	***	***	***
Subtotal.....	***	***	***
All other countries.....	***	***	***
Total.....	***	***	***
	Unit value (per pound)		
Greece.....	$***	$***	3/$***
Japan.....	***	***	***
Average, 2 countries.....	***	***	***
All other countries.....	***	***	***
Average, all countries.....	***	***	***

1/ Consists of U.S. importers' resales of imports and captive consumption of imports.
2/ The value of an importer's shipments consists of the net value (i.e., gross value of shipments less all discounts, allowances, rebates, and the value of returned goods), f.o.b. the importer's U.S. point of shipment. * * *.
3/ Based on unrounded data.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

1/ Aggregate shipments of the data in the tabulation differ slightly from total shipments in table 19 because * * *.

Commercial market penetration of imports.--U.S. importers' shipments as a share of apparent U.S. commercial consumption of EMD are presented in table 20. U.S. importers' shipments of EMD from Greece accounted for *** percent of the quantity of apparent U.S. commercial consumption in 1986, *** percent in 1987, and *** percent in 1988. U.S. importers' shipments of EMD from Japan increased from *** percent of the quantity of apparent U.S. commercial consumption in 1986 to *** percent in 1987 and *** percent in 1988. 1/ The increased share of imports from Japan in 1987 is accounted for by * * *. U.S. importers' aggregate shipments of EMD from Greece and Japan accounted for *** percent of the quantity of apparent U.S. commercial consumption in 1986, *** percent in 1987, and *** percent in 1988.

Table 20
EMD: U.S. producers' domestic commercial shipments, U.S. importers' domestic shipments, apparent U.S. commercial consumption, and importers' domestic shipments as a share of apparent U.S. commercial consumption, 1986-88

Item	1986	1987	1988
*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Total market penetration of imports.--U.S. importers' shipments as a share of total apparent U.S. consumption of EMD are presented in table 21. U.S. importers' shipments of EMD from Greece accounted for *** percent of the quantity of total apparent U.S. consumption in 1986, *** percent in 1987, and *** percent in 1988. U.S. importers' shipments of EMD from Japan accounted for *** percent of the quantity of total apparent U.S. consumption in 1986, *** percent in 1987, and *** percent in 1988. 2/ The increased share of imports from Japan in 1987 is accounted for * * *. U.S. importers' aggregate shipments of EMD from Greece and Japan accounted for *** percent of the quantity of total apparent U.S. consumption in 1986, *** percent in 1987, and *** percent in 1988.

1/ U.S. importers' shipments of Japanese EMD would have * * * if * * *.
2/ U.S. importers' shipments of Japanese EMD would have * * * if * * *.

Table 21
EMD: U.S. producers' total domestic shipments (including captive shipments), U.S. importers' domestic shipments, apparent U.S. consumption, and importers' domestic shipments as a share of apparent U.S. consumption, 1986-88

Item	1986	1987	1988
	Quantity (short tons)		
U.S. producers' total domestic shipments	***	***	***
U.S. importers' domestic shipments of imports from 1/--			
Greece	***	***	***
Japan	***	***	***
Subtotal	***	***	***
All other countries	***	***	***
Subtotal	***	***	***
Total apparent U.S. consumption	45,446	44,251	47,283
	Value (1,000 dollars)		
U.S. producers' total domestic shipments	***	***	***
U.S. importers' domestic shipments of imports from 1/--			
Greece	***	***	***
Japan	***	***	***
Subtotal	***	***	***
All other countries	***	***	***
Subtotal	***	***	***
Total apparent U.S. consumption	56,921	54,392	53,834
	Percentage distribution of the quantity of consumption		
U.S. producers' total domestic shipments	***	***	***
U.S. importers' domestic shipments of imports from 1/--			
Greece	***	***	***
Japan	***	***	***
Subtotal	***	***	***
All other countries	***	***	***
Subtotal	***	***	***
Total	100.0	100.0	100.0

See footnote at end of table.

Table 21--Continued
EMD: U.S. producers' total domestic shipments (including captive shipments), U.S. importers' domestic shipments, apparent U.S. consumption, and importers' domestic shipments as a share of apparent U.S. consumption, 1986-88

Item	1986	1987	1988
	Percentage distribution of the value of consumption		
U.S. producers' total domestic shipments	***	***	***
U.S. importers' domestic shipments of imports from 1/--			
Greece	***	***	***
Japan	***	***	***
Subtotal	***	***	***
All other countries	***	***	***
Subtotal	***	***	***
Total	100.0	100.0	100.0

1/ Consists of U.S. importers' resales of imports and captive consumption of imports.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Prices

The demand for EMD depends upon the demand for dry-cell batteries and also upon the amount of EMD that is used in each battery. The five most commonly used sizes of primary consumer batteries are AAA, AA, 9-volt, C, and D. Two other factors have affected the demand for EMD in the past 2 or 3 years. As a result of a growing trend towards miniaturization, the demand for smaller batteries, AA and AAA, has grown. Although these smaller batteries use less EMD than larger batteries do, * * *. 1/ * * *.

EMD can be finished to different specifications, which vary from customer to customer and depend on the type of dry-cell battery in which the EMD is to be used. Despite these subtle variations, EMD can generally be classified into two grades: alkaline EMD and zinc chloride EMD. The grades differ according to the particle size and the pH of the material. 2/ These differences come about during the grinding and neutralization phases of EMD production and generally do not affect the price of the EMD. * * *. Others, * * *. 3/

EMD is generally sold as a powder, but can also be sold in chip or plate form. The price of chip is typically less than that of powder because EMD chip must be ground into a powder before it can be used in battery production. Only those battery manufacturers with grinding equipment can use EMD chip. Battery manufacturers that do not produce their own EMD, * * *, usually do not have

1/ * * *.
2/ Testimony of Richard Wohletz, transcript of the conference in the preliminary investigations, p. 11.
3/ * * *.

grinding equipment. During the period of investigation, there were relatively few sales of EMD chip in the United States.

Before EMD is accepted for purchase by the major U.S. battery manufacturers, it must be qualified for use. This qualification process is lengthy, lasting anywhere from 4 to 12 months. Although the process varies from purchaser to purchaser, the procedures are similar in some respects. Generally, the supplier provides small samples of EMD for chemical and physical analysis for such characteristics as * * *. The next test involves manufacturing small quantities of batteries to be used in laboratory testing to determine factors such as * * *. The final step of the qualification process usually involves quantities of EMD large enough to produce batteries on plant equipment. * * * have stated that quality is the most important factor in a purchasing decision. 1/ Because of the time required to qualify suppliers, switching suppliers is difficult unless the new supplier is already qualified with that purchaser. Requalification of a supplier may be necessary if either the battery manufacturer or the EMD supplier changes its production process or if problems arise with the EMD.

The majority of sales of EMD are based on annual agreements that specify the price of the EMD and the estimated quantity of a purchaser's EMD requirements. 2/ Generally, the purchaser determines the amount of EMD needed and the grade desired for the following year. This information is conveyed to the supplier who uses it to formulate an initial price quote. 3/ Once quotations are submitted, negotiations and discussions of competing bids occur before the final price is agreed upon. 4/

In some instances, agreements are longer than one year. In September 1984, Chemetals entered into a 3-year contract with Duracell under which Duracell was to purchase * * * Chemetals' production of EMD in 1986 and between * * * short tons in 1987 and 1988. The price set forth in the contract was not predetermined, rather it was to be based on * * *. * * *. * * *. 5/ In 1987, * * *. * * *. 6/ * * *.

Prices for EMD are quoted in a variety of ways but are always expressed in dollars per pound. The *** U.S. merchant producers, * * *, generally quote prices on an f.o.b. plant basis and the customer pays the shipping costs. The other U.S. producers of EMD, Eveready and Rayovac, consume * * * of the EMD they produce in battery production. 7/

1/ Purchasers were asked to list, in order of importance, the three major factors generally considered in choosing an EMD supplier. Duracell listed * * *. Eveready listed * * *. Rayovac listed * * *.
2/ * * *.
3/ * * *.
4/ Although the purchaser does not reveal who the competition is in most cases, suppliers are usually aware of who their competitors are and what their initial bids are.
5/ Questionnaire response of * * *.
6/ Staff interview with * * *.
7/ * * * EMD on the open market during the period of investigation.

Sales of the imported product are made in a number of ways and generally vary depending on the customer's requirements. * * * deals with * * *, the trading company representing the EMD producer, * * *; 1/ sales are usually * * *. In * * * purchases from both * * *, * * * was the importer of record for all quantities of EMD. In the instances where the U.S. purchaser is the importer of record, prices are negotiated with both the Japanese producer and the U. S. trading company that represents the Japanese producer.

Bid and price information 2/.--The Commission requested bid and price information from U.S. producers and importers on annual or multiyear agreements made by each firm to supply EMD during the period January 1986 through December 1988. 3/ Bids reported by U.S. producers are f.o.b. plant, whereas the prices reported by importers are generally landed, U.S. port of entry, duty paid. Price data were requested for alkaline-grade EMD, zinc chloride-grade EMD, and EMD chip. The products for which price data were collected represented approximately 80 percent of domestic commercial shipments, 100 percent of imports from Greece, and 79 percent of imports from Japan in 1988. Information regarding price quotations, as reported by U.S. producers and importers, is summarized in table 22.

Because the number of participants in the EMD market is small, information regarding price quotations is discussed in detail in the following section. Bid information is presented for each of the three EMD purchasers, Duracell, Eveready, and Rayovac, for the years 1986 to 1988. Although it is difficult to characterize general price trends in this situation, it appears that price quotations declined from 1986 to 1988 and have recently (in negotiations for 1989 deliveries) begun to increase.

Bids to Duracell for 1986.--In December 1985, * * * made initial bids of $***, $***, and $*** to supply alkaline-grade EMD to Duracell in 1986. 4/ * * * stated that it was advised by Duracell that * * *. 5/ Similarly, * * * reported that Duracell * * * its first bid and informed * * * that the * * *. * * * stated that it was informed by Duracell that * * *. According to * * *, Duracell stated that * * *. * * *.

1/ The two trading companies that represent Greek and Japanese EMD producers in the United States are Mitsubishi and Mitsui (USA). Mitsubishi represents the EMD producer Tosoh and sells EMD manufactured by Tosoh in Greece and Japan. Mitsui (USA) represents the EMD producer Mitsui Mining & Smelting Co., Ltd., and sells EMD manufactured by Mitsui in Ireland and Japan.

2/ Lost sales were alleged based on quotes. Table 22 indicates winners of contracts to supply EMD to U.S. battery manufacturers.

3/ Similar bid information has been requested from purchasers of EMD and appears in the section of this report entitled "Purchaser prices." Information was also requested for agreements made during the period of investigation for deliveries to be made after 1988 and for spot sales of EMD. The data for spot sales are very limited, and no information on spot sales is included in this report.

4/ * * *.

5/ * * *.

Table 22
EMD: Bid information from U.S. producers and importers, January 1986-December 1988

EMD purchaser and date of delivery	Firms providing bids	Country of origin	Initial bid	Date of initial bid	Final bid	Date of final bid	EMD contracted for (tons)	Value award ($1,0
*	*	*	*	*	*	*	*	

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Both * * * and * * * lowered their bids to $*** per pound in January 1986, and * * * reported no further price offers. * * * reported that Duracell advised them that * * *, and thus, Duracell made no purchases from * * *. Up to this point, * * * had been supplying Duracell with EMD for approximately *** years. Duracell's 1986 EMD requirements were sourced from * * * (*** tons) and * * * (*** tons) at $*** per pound.

Bids to Eveready for 1986.--* * *, * * *, and * * * offered price quotes to supply alkaline-grade EMD to Eveready for 1986. 1/ * * * made its initial bid of $*** per pound on * * *. * * * price of $*** was not accepted, and it did not make another offer to supply EMD. * * * made its initial bid of $*** in November 1985. 2/ * * *. * * * reported its final price of * * *. For its 1986 requirements Eveready purchased *** tons of Japanese EMD from * * * for $*** and *** tons from * * * for $***. 3/

Bids to Rayovac for 1986.--* * * was the * * * firm that reported price offers to supply Rayovac with alkaline-grade EMD in 1986. * * * made one bid of $*** per pound in * * * that was accepted by Rayovac. * * * believed its competition to be * * * of Japan. * * * sold *** tons to Rayovac during 1986.

Bids to Duracell for 1987.--In 1987, * * * firms, * * *, supplied bid information for shipments of alkaline-grade EMD to Duracell in 1987. * * * initial bid of $*** was offered on * * *. In * * *, * * * made its initial bid of $***. Both * * * reported that Duracell informed them * * *. * * * stated that Duracell * * *. 4/ * * * reported that it * * *. In * * *, * * * met the $*** price and delivered *** tons of alkaline grade EMD at that price. * * * also agreed to the price of $*** per pound and delivered *** tons during 1987.

Bids to Eveready for 1987.--Eveready received offers to supply alkaline-grade EMD for its annual requirements for 1987 from *** suppliers: * * *. * * * initial bid in * * * was $***, a slight * * * over what * * * believed was the prevailing price for EMD. However, * * * was informed that

1/ * * *.
2/ Prices reported by * * *. In general, * * *. * * *.
3/ Eveready purchased *** tons of EMD from * * *.
4/ * * *.

* * *. As a result, * * * reduced its quote in * * * to $*** per pound for 1987 deliveries. In * * *, * * * reduced its price to $*** per pound on the basis of * * *. * * * made one price offer to Eveready of $*** per pound for 1987 deliveries. According to * * *, Eveready had informed them that the price of * * *. In * * *, * * * offered to sell * * * EMD for $*** per pound, which had been the prevailing price at the end of 1986. * * * reported its final price of * * *. Eveready purchased *** tons of EMD from * * * at $*** per pound, *** tons from * * * for $*** per pound, and *** tons from * * * for $*** per pound for its 1987 yearly requirements. 1/

In 1987, Eveready experienced a fire in its Marietta, OH, plant, and had to increase its purchases of EMD for delivery in the second half of 1987. * * * reported price offers to Eveready in mid 1987. * * * made quotes for both * * * in * * *. The quote for sale of * * * was $*** per pound for * * *. * * * offered to sell * * * for $*** for up to * * *. * * * submitted its first bid of * * *, for the period * * *; the offer contained a * * *. 2/ * * * second bid, made on * * *, was $*** for * * *. 3/ Both these offers were rejected by Eveready. * * * stated that the primary reason for the rejection was * * *. * * * made its initial bid of $*** in June 1987; 4/ this was the price that Eveready was currently paying for EMD from * * *. * * * stated that Eveready asked for a * * *. 5/ As a result, * * * lowered its price to * * *. 6/ Eveready purchased *** tons of alkaline-grade EMD from * * * for delivery in the latter portion of 1987.

Bids to Rayovac for 1987.--* * * offered to sell both alkaline-grade EMD * * * to Rayovac in 1987. * * * made its initial bid of $*** in * * * to sell * * *; this price offer was * * * in * * *, but was still not accepted. 7/ On * * *, * * * quoted a price of $*** per pound for alkaline-grade EMD * * *. * * * stated that it was told that * * * and thus, * * * its price to $*** per pound. This final offer was not accepted by Rayovac.

Bids to Duracell for 1988.--For its 1988 shipments, Duracell received price quotes from *** EMD suppliers: * * *. * * * made its initial bid of $*** in * * * but was * * *. * * * then lowered its price to $*** per pound, and on * * *, a purchase order was issued to * * * for *** tons at $*** per pound.

* * * made one offer in * * * to supply alkaline-grade EMD for $*** per pound. Prior to this, * * * had made contact with Duracell. In * * *, * * * was informed by Duracell that Duracell would probably * * *. In * * * reported that Duracell stated that the price of EMD would * * *. * * * informed Duracell that it needed * * *. Duracell stated that *** tons would be available. * * * sold *** tons of EMD for $*** per pound to Duracell in 1988.

* * * reported that it made a courtesy call to Duracell on * * *, and Duracell * * *. Although this price was * * * than the price that * * *, * * *. * * * stated that the EMD it sold Duracell was * * *. * * * began shipping in * * * and shipped *** tons to Duracell.

1/ * * *.
2/ This offer stated that the quantity for * * *.
3/ The quantities involved in this offer are as follows: * * *.
4/ Prices reported by * * *. * * *.
5/ Staff interview with * * *.
6/ Staff interview with * * *.
7/ * * *.

Bids to Eveready for 1988.--For 1988 delivery to Eveready, * * * made quotations of $*** and of $*** per pound for both * * * on * * *. 1/ Both of these offers were rejected. In * * *, * * * made its initial quote of $*** per pound to supply Eveready with EMD. * * * lowered its initial quote in * * *. * * * reported it was informed by Eveready on * * * that * * *. On the other hand, * * * stated that Eveready * * *. Eveready also stated that the * * *. 2/ * * * lowered its price on * * * to $*** * * *. 3/ * * * reported its final price of * * *. Eveready purchased *** tons of EMD at $*** per pound from * * *, *** tons at $*** from * * *, and *** tons at $*** from * * * for delivery in 1988. 4/

Bids to Rayovac for 1988.--During 1988, * * * made quotes to supply EMD to Rayovac. * * * submitted a quote of $*** per pound for * * * in * * *. * * * reported that it was informed that * * *. * * *. * * * made an offer to sell EMD to Rayovac for $*** per pound for * * *. 5/ To the best of * * * knowledge, Rayovac did not receive * * *. * * * made an initial bid of $*** on * * * to supply Rayovac with * * * for its annual requirements. * * * its price to $*** on * * *, and to $*** on * * *. 6/ Rayovac accepted the final price quote from * * * and purchased *** tons. * * * made an initial quotation of $*** per pound * * * to Rayovac but then reported that * * *. * * *. Rayovac purchased *** tons from * * * for 1988 shipments of EMD.

Bids to Duracell for 1989.--* * * and * * * reported initial bids made in * * * and * * * 1988 to supply Duracell with EMD for 1989. Prices for 1989 appear to be * * *. * * * offered EMD powder to Duracell for $*** per pound. According to * * *, this price was * * *. * * * made *** different offers, $*** and $***. The first quote is for * * *; the second refers to a * * *. Negotiations between * * * and Duracell are * * *.

Bids to Eveready for 1989.--* * * reported initial quotes to supply alkaline-grade EMD to Eveready for 1989. * * * offered a price of $*** on * * *, and this price was accepted by Eveready. * * * initial bid was $*** per pound on * * *. Negotiations between * * * and Eveready are * * *. * * * reported that it * * *. 7/

Bids to Rayovac for 1989.--* * * reported initial bids to Rayovac to supply alkaline-grade EMD in 1989. The initial bids of * * * were $*** and $***, respectively. * * *.

Purchaser prices.--Duracell, Eveready, and Rayovac together account for practically all of the EMD purchases in the United States. Since * * *, it has not been a significant purchaser during the period of investigation. Although there are a small number of other battery producers in the United States, purchases by such firms are very small. Since there are two U.S. merchant suppliers and several other producers in the world that supply the U.S. market, the U.S. EMD market consists of more suppliers than purchasers. Virtually the only use of EMD is in batteries, therefore the purchasers, * * *, play an important role in price negotiations. The Commission requested bid and price

---

1/ * * *.
2/ Staff interview with * * *.
3/ This price represents an * * *. * * *.
4/ * * *.
5/ * * *.
6/ * * *.
7/ Staff interview with * * *.

information from U.S. purchasers on annual or multiyear agreements made by each firm to purchase EMD during the period of investigation. Although much of this information is similar to that reported by producers and importers in the previous section, there are some notable differences. 1/ The final bids and quantities submitted by * * * generally correspond to the data submitted by producers and importers; however, * * *. In addition, * * *. * * *. Obtaining bid information for the EMD market is difficult because most of the negotiations are oral and records for bids (other than final bids) may not be kept.

Prices reported by purchasers are f.o.b. plant for purchases from U.S. suppliers and landed, U.S. port of entry, duty paid for purchases of imported EMD. Since * * * pay inland transportation costs, constructed delivered prices are shown in the tables for purposes of comparisons. 2/ Prices referred to in the text are the actual bid prices; therefore, they are f.o.b. plant for domestic purchases and landed, duty paid for purchases of imported material.

Purchases by Duracell--Duracell reported bid information for its purchases of EMD during the period of investigation (table 23). Duracell purchased EMD from domestic and Japanese suppliers during the period; prices paid by Duracell * * *. 3/

Table 23
EMD: Bid information as reported by Duracell, Inc., January 1986-December 1988

*	*	*	*	*	*	*

1/ Delivered bids have been constructed by adding estimated inland transportation costs, as reported by Duracell; * * *.

Source: Compiled from data in response to questionnaires of the U.S. International Trade Commission.

1/ This information is presented to give the purchasers' perspectives on the EMD market during the period January 1986-December 1988.
2/ In response to the question in the Commission's questionnaire "Are transportation costs a major factor in your firm's purchase decisions for EMD," Duracell responded "* * *", Eveready stated "* * *," and Rayovac responded "* * *." In response to the question in the Commission's questionnaire "Was imported EMD available at a lower delivered price than domestic EMD during 1988," * * *.
3/ * * *. * * *.

For its 1986 requirements, Duracell accepted bids from * * *. The first firm Duracell negotiated with was * * *. At that time, Duracell * * *. Duracell met again with * * *. * * *.

Duracell also received initial bids from * * * for its 1986 EMD requirements. * * *. * * *. Duracell received a final quotation from * * * of $*** per pound in * * *. * * *. 1/ Therefore, Duracell reported that * * *. * * *.

For its 1987 requirements, Duracell received bids from * * *. * * * offered to sell * * * EMD for $*** * * *. * * * second quotation, * * *.

In * * * 1986, Duracell met with * * *. * * *. Both * * *. 2/ * * *. Because of the terms of the * * *. Duracell purchased *** tons from * * * and *** tons from * * * for $*** per pound.

Duracell received price quotations from * * * for its 1988 requirements. * * *. Duracell reported that * * *. * * *, was given the opportunity to supply Duracell with * * * tons of EMD. In * * *. In the fall of 1987 * * *. After negotiations with other suppliers were completed, Duracell met with * * *. Duracell purchased *** tons of alkaline-grade EMD from * * * for $*** per pound, *** tons from * * * for $*** per pound, and *** tons from * * * for $*** per pound. 3/

Purchases by Eveready.--Eveready reported bid prices for its purchases of EMD during the period 1986-88; however, * * * (table 24). 4/ For its 1986 requirements, Eveready purchased EMD from *** firms, * * *. 5/ During 1986 Eveready * * *. 6/ Because Eveready * * *. As a result, Eveready * * *. * * *. * * *. * * * final offer to sell * * * EMD to Eveready was * * *. Eveready purchased *** tons from * * *, *** tons from * * *, *** tons from * * *, and *** tons from * * * for its 1986 requirements. 7/

For its 1987 requirements Eveready reported final bid prices of *** firms, * * *. * * * quotation in * * * 1986 was the first Eveready received. * * * offered to sell * * * EMD for * * *. * * * offered its EMD for * * *. Eveready received a quotation from * * *.

On * * *, * * * offered to sell * * * EMD for * * *. Eveready received a bid from * * *. Eveready was * * *. For its 1987 alkaline-grade EMD requirements, Eveready purchased *** tons from * * *, *** tons from * * *, and *** tons from * * *. For its 1987 zinc chloride-grade EMD requirements, Eveready purchased *** tons from * * * and *** tons from * * *. 8/

1/ Staff interview with * * *.
2/ * * *.
3/ * * *.
4/ Staff interview with * * *.
5/ * * *.
6/ Staff interview with * * *.
7/ Eveready also purchased *** tons of alkaline-grade EMD from * * *, and *** tons of EMD * * *.
8/ * * *. Eveready also purchased *** tons of alkaline EMD from * * * and *** tons of EMD for * * *.

Table 24
EMD: Bid information as reported by Eveready Battery Co., January 1986-December 1988

*	*	*	*	*	*	*

1/ Delivered bids have been constructed by adding estimated inland transportation costs, as reported by Eveready; * * *.

Source: Compiled from data in response to questionnaires of the U.S. International Trade Commission.

For its 1988 requirements, Eveready received quotations from * * *. In * * *, * * * offered to sell * * * EMD to Eveready for * * *. * * * offered, in * * *, to sell * * * EMD for * * *. * * * and * * * offered to sell their EMD at $*** per pound. 1/ Eveready purchased *** tons from * * *, *** tons from * * *, *** tons from * * *, and *** tons from * * * for its 1988 requirements.

For its 1989 requirements, Eveready received an offer of $*** per pound on * * *. * * *. Eveready has recently * * *. 2/ According to Eveready, * * *. 3/

Purchases by Rayovac.--* * *. The majority of the EMD used by Rayovac in its batteries is * * *. * * *.

Rayovac did submit prices for its quarterly purchases of alkaline- and zinc chloride-grade EMD from all unrelated suppliers. Rayovac's purchase prices for alkaline-grade EMD from * * * during the period of investigation (table 25); prices for * * * EMD were * * * than those for * * *. 4/ Rayovac paid $*** in 1987 and $*** in 1988 for * * * EMD, and prices for * * * EMD were $*** in 1988. Prices paid by Rayovac for * * * EMD were $*** in 1986 and $*** for 1987 and 1988. In 1987 and 1988, * * *; Rayovac * * *. 5/ Rayovac purchased * * *. * * *. 6/

1/ * * *.
2/ * * *.
3/ * * *. In response to the Commission's questionnaire, Eveready also stated that "* * *."
4/ * * *. Rayovac has recently begun performing qualification tests on its own and other domestic EMD for use in this battery. (Transcript of the hearing, p. 51 and staff interview with * * *.)
5/ Staff interview with * * *.
6/ According to Rayovac, this decision was based on the cost and time involved to qualify another supplier for a battery that uses a small amount of EMD (Transcript of the hearing, p. 48 and 50).

Table 25
Purchase prices for alkaline-grade EMD as reported by Rayovac Corp., by quarters, January 1986-December 1988

*	*	*	*	*	*	*

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission.

Prices for zinc chloride-grade EMD are not presented in tabular form; Rayovac purchased *** tons of zinc chloride-grade EMD from * * * for $*** in each of the years * * *. 1/ Rayovac purchased *** tons of zinc chloride-grade EMD from * * * for $*** per pound in 1986. It also purchased *** tons of zinc chloride-grade EMD from * * * in 1986 for $***, *** tons at $*** in 1987, and *** tons at $*** in 1988.

Exchange rates

Quarterly data reported by the International Monetary Fund indicate that during January 1986-December 1988 the nominal value of the Japanese yen appreciated 50 percent against the U.S. dollar (table 26). 2/ The nominal value of the Greek drachma depreciated 1.4 percent against the U.S. dollar during January 1986-December 1988. Adjusted for relative movements in producer price indexes, the real value of the Greek drachma achieved an overall appreciation of 11.7 percent as of the third quarter of 1988 relative to January-March 1986 levels; the Japanese yen achieved an overall appreciation of 33.5 percent as of the fourth quarter of 1988 relative to January-March 1986 levels.

1/ * * *.
2/ International Financial Statistics, March 1989.

Table 26
Nominal exchange rates of the Greek drachma and the Japanese yen in U.S. dollars, real exchange-rate equivalents, 1/ and producer price indexes in Greece and Japan, 2/ indexed by quarters, January 1986-December 1988

Period	U.S. Producer Price Index	Greece			Japan		
		Producer Price Index	Nominal-exchange-rate index	Real-exchange-rate index 3/	Producer Price Index	Nominal-exchange-rate index	Real-exchange rate index 3/
			US dollars/drachma			US dollars/yen	
1986:							
Jan.-Mar...	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Apr.-June..	98.2	100.4	102.5	104.9	96.3	110.4	108.4
July-Sept..	97.7	101.1	106.3	110.0	93.8	120.6	115.8
Oct.-Dec...	98.1	105.0	104.6	112.0	92.8	117.2	111.0
1987:							
Jan.-Mar...	99.2	108.1	107.6	117.2	92.2	122.7	114.1
Apr.-June..	100.8	111.2	107.7	118.8	91.5	131.7	119.6
July-Sept..	101.9	111.0	103.7	112.9	92.6	127.9	116.3
Oct.-Dec...	102.3	113.9	108.3	120.5	92.3	138.4	124.8
1988:							
Jan.-Mar...	102.9	116.3	108.0	122.0	91.3	146.8	130.2
Apr.-June..	104.8	118.8	105.9	120.0	90.9	149.6	129.9
July-Sept..	106.2	123.2	96.3	111.7	91.8	140.5	121.5
Oct.-Dec...	106.7	4/	98.6	4/	91.0	150.0	133.5

1/ Exchange rates expressed in U.S. dollars per unit of foreign currency.
2/ Producer price indexes--intended to measure final product prices--are based on average quarterly indexes presented in line 63 of the International Financial Statistics.
3/ The indexed real exchange rate represents the nominal exchange rate adjusted for relative movements in producer price indexes in the United States and the respective foreign country. Producer prices in the United States increased 6.7 percent between January 1986 and December 1988, compared with a 23.2-percent increase in Greece as of September 1988, and a 9-percent decrease in Japan as of December 1988.
4/ Not available.

Note.--January-March 1986=100.

Source: International Monetary Fund, International Financial Statistics, March 1989.

APPENDIX A

NOTICE OF THE COMMISSION'S INSTITUTION OF FINAL ANTIDUMPING INVESTIGATIONS

[Investigations Nos. 731-TA-406 and 408 (Final)]

Electrolytic Manganese Dioxide from Greece and Japan

AGENCY: United States International Trade Commission.

ACTION: Institution of final antidumping investigations and scheduling of a hearing to be held in connection with the investigations.

SUMMARY: The Commission hereby gives notice of the institution of final antidumping investigations Nos. 731-TA-406 and 408 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the act) to determine whether an industry in the United States is materially injured, or is threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports from Greece and Japan of electrolytic manganese dioxide (EMD), provided for in item 419.44 of the Tariff Schedules of the United States (subheading 2820.10.00 of the Harmonized Tariff Schedule of the United States), that have been found by the Department of Commerce, in preliminary determinations, to be sold in the United States at less than fair value (LTFV). Commerce is scheduled to make its final LTFV determinations on or before February 22, 1989 and the Commission is scheduled to make its final injury determinations by April 10, 1989 (see sections 735(a) and 735(b) of the act (19 U.S.C. 1673d(a) and 1673d(b)).

For further information concerning the conduct of these investigations, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 207, subparts A and C (19 CFR part 207), as amended, 53 FR 33034, August 26, 1988, and part 201, subparts A through E (19 CFR part 201).

EFFECTIVE DATE: November 14, 1988.

FOR FURTHER INFORMATION CONTACT: Bruce Cates (202-252-1187), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired individuals are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on 202-252-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-252-1000.

SUPPLEMENTARY INFORMATION:

Background

These investigations are being instituted as a result of affirmative preliminary determinations by the Department of Commerce that imports of EMD from Greece and Japan are being sold in the United States at less than fair value within the meaning of section 731 of the act (19 U.S.C. 1673). The investigations were requested in petitions filed on May 13, 1988, by Chemetals, Inc., Baltimore, MD and Kerr-McGee Chemicals Corp., Oklahoma City, OK. In response to those petitions the Commission conducted preliminary antidumping investigations and, on the basis of information developed during the course of those investigations, determined that there was a reasonable indication that an industry in the United States was materially injured by reason of imports of the subject merchandise (53 FR 28276, July 27, 1988).

Participation in the Investigations

Persons wishing to participate in these investigations as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules (19 CFR 201.11), not later than twenty-one (21) days after the publication of this notice in the Federal Register. Any entry of appearance filed after this date will be referred to the Chairman, who will determine whether to accept the late entry for good cause shown by the person desiring to file the entry.

Service List

Pursuant to § 201.11(d) of the Commission's rules (19 CFR 201.11(d)), the Secretary will prepare a service list containing the names and addresses of all persons, or their representatives, who are parties to these investigations upon the expiration of the period for filing entries of appearance. In accordance with §§ 201.16(c) and 207.3 of the rules (19 CFR 201.16(c) and 207.3), each document filed by a party to the investigations must be served on all other parties to the investigations (as identified by the service list), and a certificate of service must accompany the document. The Secretary will not accept a document for filing without a certificate of service.

Limited Disclosure of Business Proprietary Information Under a Protective Order

Pursuant to section 207.7(a) of the Commission's rules (19 CFR 207.7(a) as amended 53 FR 33034, 33041) the Secretary will make available business proprietary information gathered in

these final investigations to authorized applicants under a protective order, provided that the application be made not later than twenty-one (21) days after the publication of this notice in the Federal Register. A separate service list will be maintained by the Secretary for those parties authorized to receive business proprietary information under a protective order. The Secretary will not accept any submission by parties containing business proprietary information without a certificate of service indicating that it has been served on all the parties that are authorized to receive such information under a protective order.

Staff Report

The prehearing staff report in these investigations will be placed in the nonpublic record on February 24, 1989, and a public version will be issued thereafter, pursuant to § 207.21 of the Commission's rules (19 CFR 207.21).

Hearing

The Commission will hold a hearing in connection with these investigations beginning at 9:30 a.m. on March 9, 1989, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission not later than the close of business (5:15 p.m.) on February 23, 1989. All persons desiring to appear at the hearing and make oral presentations should file prehearing briefs and attend a prehearing conference to be held at 9:30 a.m. on February 28, 1989, at the U.S. International Trade Commission Building. The deadline for filing prehearing briefs is March 6, 1989.

Testimony at the public hearing is governed by § 207.23 of the Commission's rules (19 CFR 207.23). This rule requires that testimony be limited to a nonbusiness proprietary summary and analysis of material contained in prehearing briefs and to information not available at the time the prehearing brief was submitted. Any written materials submitted at the hearing must be filed in accordance with the procedures described below and any business proprietary materials must be submitted at least three (3) working days prior to the hearing (see § 201.6(b)(2) of the Commission's rules (19 CFR 201.6(b)(2)).

Written Submissions

All legal arguments, economic analyses, and factual materials relevant to the public hearing should be included in prehearing briefs in accordance with § 207.22 of the Commission's rules (19 CFR 207.22). Posthearing briefs must conform with the provisions of § 207.24 (19 CFR 207.24) and must be submitted not later than the close of business on March 15, 1989. In addition, any person who has not entered an appearance as a party to the investigations may submit a written statement of information pertinent to the subject of the investigations on or before March 15, 1989.

A signed original and fourteen (14) copies of each submission must be filed with the Secretary to the Commission in accordance with § 201.8 of the Commission's rules (19 CFR 201.8). All written submissions except for business proprietary data will be available for public inspection during regular business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary to the Commission.

Any information for which business proprietary treatment is desired must be submitted separately. The envelope and all pages of such submissions must be clearly labeled "Business Proprietary Information." Business proprietary submissions and requests for business proprietary treatment must conform with the requirements of §§ 201.6 and 207.7 of the Commission's rules (19 CFR 201.6 and 207.7).

Parties which obtain disclosure of business proprietary information pursuant to § 207.7(a) of the Commission's rules (19 CFR 207.7(a)) may comment on such information in their prehearing and posthearing briefs, and may also file additional written comments on such information no later than March 20, 1989. Such additional comments must be limited to comments on business proprietary information received in or after the posthearing briefs.

Authority: These investigations are being conducted under authority of the Tariff Act of 1930, title VII. This notice is published pursuant to § 207.20 of the Commission's rules (19 CFR 207.20).

By order of the Commission.

Issued: December 21, 1988.

Kenneth R. Mason,

Secretary.

[FR Doc. 88-29810 Filed 12-27-88; 8:45 am]

BILLING CODE 7020-02-M

APPENDIX B

LIST OF PARTICIPANTS IN THE COMMISSION'S HEARING IN THE INVESTIGATIONS

CALENDAR OF PUBLIC HEARINGS

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

Subject	:	Electrolytic Managanese Dioxide from Japan and Greece
Invs. No.	:	731-TA-406 and 408 (Final)
Date and time	:	March 9, 1989 - 9:30 a.m.

Sessions were held in connection with these investigations in the Main Hearing Room 101 of the United States International Trade Commission, 500 E Street, S.W., Washington, D.C.

In support of the imposition of antidumping duties:

Drinkle, Biddle and Reath
Washington, D.C.
on behalf of

Kerr-McGee Chemical Corportion (KMCC)

Peter Woodward, Marketing Manager, Electrolytic Products Division, KMCC

Richard Wohletz, Superintendent of Quality Control and Shipping for Henderson plant of the KMCC

Dr. Samuel F. Burkhardt, Senior Staff Engineer, KMCC

Dr. Karl V. Kordesch, Vice President Technology, Battery Technologies Inc., Professor of Inorganic Technology, Technical University, Graz, Austria

In support of the imposition of
antidumping duties:

Dr. Klaus Tomantschger, Director of Technology, (BTI)

Dr. James Burrows, Vice President, Charles River Associates

W.N. Harrell Smith)
Aryeh S. Friedman)--OF COUNSEL
Cynthia Lighty)

Squire, Sanders and Dempsey
Washington, D.C.
on behalf of

Chemetals, Inc. ("Chemetals")

Dwight Glover, Product Manager, Chemetals, Inc.

Dr. Robert Selim, Technical Director, Power Plus of America, Inc.

Steve Whaley, Technical Manager, Power Plus of America, Inc.

Dr. James Burrows, Vice President, Charles River Associates, Inc.

Dr. Brad Miller, Senior Associate, Charles River Associates, Inc.

William D. Kramer)
)--OF COUNSEL
Ritchie Thomas)

Rayovac Corporation
Madison, Wisconsin

Steven Cheney, Purchasing Manager

Patrick Spellman, Director of Product Development

In opposition to the imposition of antidumping duties:

Weil, Gotshal and Manges
Washington, D.C.
on behalf of

Tosoh Corporation ("Tosoh")

Tosoh Hellas, A.I.C. ("Tosoh Hellas")

Mitsubishi Corporation ("Mitsubishi")

Mitsubishi International Corporation ("MIC")

John Reilly, Vice President, Temple, Barker and Sloan Company

A. Paul Victor)
)--OF COUNSEL
Jeffrey P. Bialos)

Marks, Murase and White
Washington, D.C.
on behalf of

Mitsui Mining and Smelting Company, Ltd.

Mitsui and Company (USA) Inc.

Matthew J. Marks)
)--OF COUNSEL
Ramon Marks)

APPENDIX C

NOTICES OF THE DEPARTMENT OF COMMERCE'S FINAL ANTIDUMPING DETERMINATIONS

[A-484-801]

Final Determination of Sales at Less Than Fair Value; Electrolytic Manganese Dioxide From Greece

AGENCY: International Trade Administration, Import Administration, Commerce.

ACTION: Notice.

SUMMARY: We have determined that electrolytic manganese dioxide from Greece is being, or is likely to be, sold in the United States at less than fair value. We also determine that critical circumstances do not exist with respect to imports of electrolytic manganese dioxide from Greece. The U.S. International Trade Commission (ITC) will determine, within 45 days of the publication of this notice, whether these imports are materially injuring, or are threatening material injury to, a United States industry.

EFFECTIVE DATE: March 2, 1989.

FOR FURTHER INFORMATION CONTACT: Anne D'Alauro (202) 377-1130 or Holly Kuga (202) 377-4733, Office of Antidumping Compliance, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC, 20230.

SUPPLEMENTARY INFORMATION:

Final Determination

We have determined that electrolytic manganese dioxide ("EMD") from Greece is being, or is likely to be, sold in the United States at less than fair value as provided in section 735(a) of the Tariff Act of 1930, as amended (19 U.S.C. 1673d(a)) ("the Act"). The weighted-average margin of sales at less than fair value is shown in the "Suspension of Liquidation" section of this notice.

Case History

On November 14, 1988, we made an affirmative preliminary determination (53 FR 45793). The following events have occurred since the publication of that notice.

On November 31, 1988, Tosoh Hellas requested that we postpone making our final determination for a period of thirty days pursuant to section 735(a)(2)(A) of the Act. On December 20, 1988, we issued a notice postponing the final determination until February 22, 1989 (53 FR 51129).

Both the cost of production and sales questionnaire responses from Tosoh Hellas were verified in Greece between November 28, and December 2, 1988.

On January 23, 1988, the Department held a public hearing. Petitioners and respondent also submitted comments for the record in prehearing briefs on January 17, 1989, and in posthearing briefs on February 2, 1989.

Scope of the Investigation

The United States has developed a system of tariff classification based on the international harmonized system of customs nomenclature. On January 1, 1989, the U.S. tariff schedules were fully converted from the tariff Schedules of the United States Annotated ("TSUSA") to the Harmonized Tariff Schedule ("HTS"), as provided for in section 12101 *et seq.* of the Omnibus Trade and Competitiveness Act of 1988. All merchandise entered, or withdrawn from warehouse, for consumption on or after that date is now classified solely according to the appropriate HTS number. As with the TSUSA numbers, the HTS numbers are provided for convenience and customs purposes. The written product description remains dispositive.

The product covered by this investigation is electrolytic manganese dioxide from Greece. During the investigation period, such merchandise was classifiable under item 419.4420 of the TSUSA. This merchandise is currently classifiable under HTS item number 2820.10.0000.

EMD is manganese dioxide (MnO_2) that has been refined in an electrolysis process. The subject merchandise is an intermediate product used in the production of dry cell batteries. EMD is sold in three physical forms, powder, chip or plate, and two grades, alkaline and zinc chloride. EMD in all three forms and both grades is included in the scope of the investigation.

Fair Value Comparisons

To determine whether sales of EMD in the United States were made at less than fair value, we compared the United States price to the foreign market value as specified below. We made comparisons on all sales of the product during the period of investigation December 1, 1987 through May 31, 1988.

United States Price

As provided in section 772 of the Act, we used the purchase price of the subject merchandise to represent the United States price for the sales by Tosoh Hellas to unrelated customers in the United States, all of which were made through a related trading company. We used purchase price as the basis for determining United States price since the following criteria were met: (1) The merchandise was sold to unrelated purchasers in the U.S. prior to importation; (2) the merchandise in question was shipped directly from the manufacturer to the unrelated buyer, without being introduced into the inventory of the related selling agent; (3) this was the customary commercial channel for sales of this merchandise between the parties involved; (4) the related selling agent acted only as a processor of sales-related documentation and a communication link with the unrelated U.S. buyer.

Purchase price was based on the C.I.F. and F.O.B. (foreign port) price to unrelated purchasers in the United States. Where applicable, we made deductions for foreign inland freight and insurance, brokerage and handling, ocean freight, marine insurance, export licensing fees, U.S. inland freight, as well as additions for import duties, import taxes and value-added taxes not collected on exports of the merchandise.

Foreign Market Value

In accordance with section 773(a) of the Act, we determined that there were sufficient home market sales of such or similar merchandise by Tosoh Hellas to form the basis for foreign market value. For this reason, we have not applied the special rule for certain multinational corporations contained in section 773(d) of the Act as requested by petitioners (see Petitioners' comment 2 and the Department's response). Petitioners alleged that home market sales were made at less than the cost of production. We compared the home market prices exclusive of value-added tax to the cost of production, which included materials, fabrication costs, and selling, general, and administration expenses. Because all sales were found to be made at or above the cost of production, the Department used all home market sales in its fair value comparison.

Home market price was based on the delivered and "free on truck" price to unrelated purchasers in the home market. We deducted inland freight and home market packing, and added U.S. packing. We made a circumstance of sale adjustment for differences in credit and value-added taxes between the two markets.

Currency Conversions

We used the exchange rate described in § 353.56(a)(1) of our regulations. All currency conversions were made at the rates certified by the Federal Reserve Bank.

Negative Determination of Critical Circumstances

Petitioners alleged that imports of EMD from Greece present "critical circumstances." Section 735(a)(3) of the Act provides that critical circumstances exist if we determine that there is a reasonable basis to believe or suspect that:

(A)(i) There is a history of dumping in the United States or elsewhere of the class or kind of merchandise which is the subject of the investigation, or

(ii) The person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise which is the subject of the investigation at less than fair value, and

(B) There have been massive imports of the merchandise which is the subject of the investigation over a relatively short period.

Pursuant to section 735(a)(3)(B), we generally consider the following factors in determining whether imports have been massive over a relatively short period of time: (1) The volume and value of the imports; (2) seasonal trends (if applicable); and (3) the share of domestic consumption accounted for by imports.

For purposes of this finding, we based our analysis on the verified shipment data of the Greek respondent, for equal periods immediately preceding and following the filing of the petition until the month of our preliminary determination. Using this data, we find that there has been a slight decrease in imports of EMD following the initiation of this investigation. Since we do not find that there have been massive imports, we need not consider whether there is a history of dumping or whether importers of this product knew, or should have known, that it was being sold at less than fair value. Therefore, we determine that critical circumstances do not exist with respect to imports of EMD from Greece. We have notified the ITC of this determination.

Verification

As provided in section 776(b) of the Act, we verified all information used in reaching the final determination in this investigation. We used standard verification procedures, including examination of relevant accounting records and original source documents provided by respondents.

Petitioners' Comments

Comment 1. Because home market sales of alkaline EMD are identical to U.S. sales of alkaline grade EMD and home market sales of zinc chloride grade EMD are identical to U.S. sales of zinc chloride grade EMD, the petitioners contend that alkaline and zinc chloride grades of EMD constitute two separate "such or similar" categories of EMD. Petitioners state that this conclusion is mandated by law since the definition of "such or similar merchandise" under section 771(16) specifically means "merchandise in the first of the following categories," *i.e.*, "merchandise which is identical in physical characteristics." Following this reasoning, since the home market sales of alkaline grade EMD by Tosoh Hellas are, when viewed alone, not viable (and the home market "such or similar" category of identical merchandise to which we are limited has been exhausted), petitioner further argues that the Department is precluded from using home market sales of zinc chloride grade EMD as the basis of comparison with U.S. alkaline sales. Therefore, foreign market value for alkaline grade EMD should be based on the home market selling price of the related Japanese producer according to the multinational provision.

Department's Position. We disagree. When analyzing the viability of a foreign market, the Department must determine whether adequate sales of comparable merchandise exist. The Department examines a category of merchandise composed of both such *and* similar merchandise in accordance with section 773(a)(1) because this category represents those sales which can serve as a basis for comparison. When testing market viability, section 771(16) of the Act does not preclude us from using a category containing both such and similar merchandise.

In this case, the Department determined that alkaline and zinc chloride EMD are comparable or "similar" merchandise. Information on the record clearly supports this conclusion since the two types of EMD are produced in the same production process and differ only in their final finishing. This finishing merely establishes the grind and the pH to which the EMD is neutralized. Additionally, there is minimal, if any, cost difference attributed to this finishing step, and these two grades are equal in commercial value. Both grades of EMD are used in the production of dry cell batteries. Accordingly, respondent's combined home market sales of alkaline and zinc chloride grade EMD are adequate as a basis of comparison since these sales exceed five percent of sales of that merchandise to third countries.

Comment 2. Petitioners argue that the multinational provision applies in this investigation and requires foreign market value to be determined on the basis of EMD sales in Japanese home market of Tosoh Hellas' parent. Section 773(d) of the Tariff Act provides that the special rule is applicable whenever:

(1) Merchandise exported to the United States is being produced in facilities which are owned or controlled, directly, or indirectly, by a person, firm or corporation which also owns or controls, directly or indirectly, other facilities for the production of such or similar merchandise which are located in another country or countries;

(2) The sales of such or similar merchandise by the company concerned in the home market of the exporting country are nonexistent or inadequate as a basis for comparison with sales of the merchandise to the United States; and

(3) The foreign market value of such or similar merchandise produced in one or more of the facilities outside the country of exportation is higher than the foreign market value of such or similar merchandise produced in the facilities located in the country of exportation (19 U.S.C. section 1677b(d)).

Petitioners maintain that all of the above criteria are satisfied in this case. Regarding the second point, they state that, in determining home market viability, the Department erroneously applied the five percent standard specified in § 353.4. However, § 353.4 is not applicable to a determination of home market sales adequacy for the purpose of application of the multinational rule, which is governed by § 353.9 of the regulations.

Department's Position. The Department agrees with the petitioners that the first criterion of the multinational rule applies in this case since the Greek respondent, Tosoh Hellas, is owned by a firm with additional facilities in Japan to manufacture EMD. As for the second criterion, however, the Department disagrees with the petitioners' conclusions as to the viability of the Greek home market. As explained above, the Department has determined that alkaline and zinc chloride EMD comprise one "such or similar" category of merchandise. Sales of this merchandise in the home market are well above the five percent standard for the home market viability test established in § 353.4 of our regulations. Therefore, we determine that the special rule for multinational corporations contained in section 773(d) of the Act does not apply in this investigation.

The Department is not precluded from using the five percent standard when applying the multinational rule as petitioners contend. In our recent preliminary determination concerning *Ball Bearings and Parts Thereof From Thailand*, 53 FR 45334 (1988), the Department determined that the special rule for multinational corporations did not apply where the home market in Thailand was viable based on the criteria set forth in 19 CFR 353.4. In applying the multinational rule, section 773(d)(2) of the Act requires that sales in the home market be inadequate as a

basis for comparison. The Department has only one viability test for determining the adequacy of a home market, the five percent standard as set out in § 353.4 of the Department's regulations, which it has routinely applied when judging home market viability.

While the language of § 353.4 states, in part, that this section is to be applied to situations "other than that provided for in § 353.9," this language does not affect the application of the five percent test, but rather governs the choice of the appropriate market for determining FMV where sales in the country of exportation are deemed inadequate. Section 353.4 should be read in a manner that applies the five percent benchmark to situations where there is a question concerning home market viability such as where the multinational corporations provision might be applicable. However, unless the five percent test of § 353.4 indicates there is no viable home market, the requirements of the multinational corporations provision have not been met.

Comment 3. If the Dapartment bases foreign market value on home market sales in Greece, it should continue to compare the export prices of alkaline EMD and zinc chloride EMD sold to the United States with, respectively, the prices of home market sales of the same grade of EMB.

Department's Position. We agree. The Department selects that merchandise which is most appropriate for specific price comparisons in accordance with section 771(16) of the Act. The Department followed its standard methodology in this investigation by first matching identical merchandise sold in both markets. Specifically, the Department matched EMD of the same grade (alkaline or zinc chloride grade) when both were sold in the U.S. and home markets.

Comment 4. Petitioners advocate that the respondent's G&A, indirect selling expenses, and financing expenses be allocated over the reported volume of sales during the period of investigation.

Department's Position. We see no reason to change the respondent's allocation methodology. The petitioners are advocating the allocation of period expenses on the basis of "sales" as defined by the Department's date of sale methodology, which is used for properly determining those sales subject to the investigation. On its own books and records, a finished good usually is reflected as sold when it is shipped to fill a customer's order. Since, in this case, the allocation by shipment volume during the POI did not prove distortive, we have accepted the respondent's allocation.

Comment 5. Petitioners fault the treatment of manganese oxide ("MnO") in the calculation of the cost of production ("COP"). Because of the small volume and low value of MnO sales during the period as well as the fact that it is produced in the same process but only incidentally to the production of EMD, petitioners argue MnO is properly treated as a by-product of EMD production. Therefore, manufacturing costs should not be allocated to MnO, but rather the revenue received from the sale of MnO should be used to offset total production costs during the period.

Department's Position. The Department does not agree that MnO should be treated as a by-product in the production of EMD. By-products are basically waste products from the production of the primary product and possess only a residual value. The manufacture of MnO is the first step in the production process of EMD. Manganese ore is converted in this single, distinct production process which yields only one product, MnO. EMD is not produced at this stage. MnO generally continues on in the production process to be further transformed into EMD. Therefore, all costs incurred in the production process of converting manganese ore into MnO should appropriately be allocated to the MnO produced by this initial process.

Comment 6. Inventory carrying costs should be inputed for Tosoh Greece's inventories of manganese ore, anodes, and finished goods inventories.

Department's Position. When we calculate COP pursuant to section 773(b) of the Act, the Department is only interested in determining the actual costs incurred to produce the merchandise under investigation. The Department is not concerned with imputations necessary for determining differences in selling expenses between markets and, for this reason, does not impute costs in the calculation of cost of production. See *Final Determination of Sales at Less Than Fair Value: Certain All-Terrain Vehicles from Japan*, 54 FR 4864 (1989). Since the respondent included imputed credit expenses for home market sales in its calculation of COP, we have deleted this imputed credit expense from the COP used in our final determination.

Comment 7. Petitioners argue that the COP should be adjusted to compensate for certain practices that cannot be continued on a sustained basis. In particular, petitioners question whether the reported level of maintenance can continue to meet the requirements of a plant when operating at high production capacity.

Department's Position. We based our COP on the verified actual costs incurred by the respondent during the period of investigation. Since the respondent's accounting practice follows generally accepted accounting principles, which appropriately reflect the company's accounting methods used in the ordinary course of business and which the Department did not find to be distortive, the Department has based its COP on those costs.

Comment 8. Petitioners argue that the Department has made an improper adjustment with respect to the Greek value-added tax ("VAT"). The petitioners state that the Department has added an amount for VAT to the U.S. selling price while also adjusting FMV by the absolute difference between the Greek VAT on home market sales and the VAT added to United States sales. Petitioners contend that the adjustment the Department made on the foreign market side is not authorized as an adjustment for "other differences in circumstances of sale" (19 U.S.C. section 1677b(a)(4)(B)). Moreover, the petitioners cite *Zenith Electronics Corp. v. United States*, 633 F. Supp. 1382 (1986), as evidence that the Court of International Trade has specifically rejected this "circumstances of sale" approach to the treatment of VAT.

Department's Position. The ruling of the Court of International Trade in *Zenith*, now on appeal, does not bar Commerce from making a circumstance of sale adjustment for the differences in VAT between markets. In practice, the Department has routinely recognized that differences in the tax burden on home market and exported merchandise are properly accounted for by making circumstances of sale adjustments for these differences. See *Television Receivers, Monochrome and Color, from Japan*, 53 FR 4050, 4051 (1988); *Color Television Receivers from Korea*, 53 FR 24975, 25976 (1988).

Comment 9. Petitioners argue that home market sales at less than the cost of production should be excluded from the determination of foreign market value.

Department's Position. The Department found no home market sales to be below the cost of production.

Comment 10. Petitioners contend the Department has incorrectly treated a royalty payment made by the respondent as a direct selling expense rather than as a manufacturing expense. Since the royalty expense is related to certain technical production rights being

provided, the expense is more properly recognized as a cost of manufacturing.

Department's Position. Having examined the agreement governing the respondent's royalty payment, we agree with the petitioners and have disallowed this adjustment as a direct selling expense in our final determination. We have treated it instead as a cost of manufacturing.

Comment 11. The petitioners question the accuracy of the export license fee reported per transaction since this amount does not correlate with the total fee divided by the quantities sold.

Department's Position. The total amount reported for each export license fee was verified as was the per kilogram expense listed for several U.S. transactions. The confusion stems from the transportation of two figures in the total export fee reported in the narrative section of the respondent's questionnaire response. Additionally, shipments of smaller quantities were not charged the same fee.

Comment 12. The Department incorrectly calculated the amount to be added to United States price for the applicable Greek VAT that was forgiven upon exportation of the merchandise. Petitioners argue that the tax percentage should be applied on the basis of the ex-mill price of the U.S. merchandise.

Department's Position. The Department verified that the Greek VAT is applied to the selling price of the merchandise inclusive of transportation expenses when the merchandise is sold on delivered terms. Therefore, the Department has properly calculated the applicable VAT on U.S. sales by multiplying the tax percentage by the same tax base used in the home market, *i.e.*, the selling price.

Comment 13. No addition should be made to U.S. price for import duties and taxes rebated or not collected on graphite anodes used in production. Petitioners argue that this adjustment should be denied since the graphite anodes are not raw materials and it is not apparent whether Greek law permits a credit against duties and taxes paid in these circumstances.

Department's Position. The Department verified that import duties and taxes are forgiven by the Greek government on graphite anodes consumed in the production of EMD that is exported. For this reason, we have added to U.S. price those import duties and taxes forgiven on graphite anodes when EMD is exported.

Comment 14. The Department should compute credit expense using Tosoh Hellas' interest rate rather than it's related trading company's interest rate because it could not verify the latter.

Department's Position. We agree and have made the change in our final determination.

Respondent's Comments

Comment 1. Tosoh Hellas reports the date of sale for one of its home market customers should be changed from the previously reported date of the internal sales "contract" to the date of shipment. Respondent states that sales to this customer were made on a spot basis and the quantity within the sales contract was based simply on an estimate to which the customer was not committed.

Department's Position. We accept that the sales "contract" used by the respondent for the home market customer in question is not a contract establishing terms of sale. The "contract" was written by the respondent for its own internal planning purposes and did not commit either party to the terms contained therein. Accordingly, the Department agrees that the appropriate date of sale is the date of shipment for that customer and has made that change in its final determination.

Comment 2. Since sales in the home market of alkaline grade EMD are not viable, the Department should use sales of zinc chloride EMD as the basis of FMV.

Department's Position. Having determined that the combined sales of alkaline EMD and zinc chloride EMD are viable, the Department compared the same grades of merchandise from within that category of sales to the corresponding grades of U.S. merchandise when this was feasible. See the Department's Response to Petitioners' Comment 3.

Comment 3. Respondent argues that since the sales of alkaline grade EMD in the home market were not in the usual commercial quantities, these sales cannot serve as the basis for foreign market value. Respondent cites section 1677b(a)(1), which provides that the foreign market value shall be the price "* * * at which such or similar merchandise is sold * * * in the principal markets of the country from which exported, in the usual commercial quantities * * * for home consumption."

Department's Position. During the period under investigation, we note that U.S. sales of similar quantities were also made. For this reason, we do not agree with respondent's argument regarding the referenced home market sales and have used these sales in determining foreign market value.

Comment 4. Respondent further argues that sales of EMD to this home market customer were made outside the ordinary course of trade and, therefore, should not be used as the basis for FMV. As support for this argument, respondent states that the terms of sale are not consistent with the terms of other sales made in the home market, that the sales price to this customer differs based on this fact, and sales to this customer were not made under terms similar to those employed in the U.S. market.

Department's Position. As stated above, the quantities that were sold to this home market customer are similar in size to sales made to a U.S. customer. Furthermore, in comparing these sales, price appears to vary independently of quantity. Furthermore, the terms of sale for the U.S. sales of similar quantity and those of the home market customer cited differ more because of specific payment terms than for any other reason. Such differences are more reflective of the particular customer's credit history rather than a basis for concluding that sales to that customer are outside the ordinary course of trade. Sales to this home market customer were made at regular intervals throughout the period of investigation and the Department has used these sales in its final determination.

Comment 5. Respondent states that the legal prerequisites for a critical circumstance finding have not been met.

Department's Position. We agree. See the "Negative Determination of Critical Circumstances" section of this notice.

Suspension of Liquidation

Since we have determined that critical circumstances do not exist with regard to this investigation, entries suspended prior to November 14, 1988, the date of publication of the preliminary determination in the Federal Register, can now be liquidated and all securities posted as a result of the suspension of liquidation prior to that date will be refunded or cancelled. We are directing the U.S. Customs Service to continue to suspend liquidation of all entries of EMD from Greece that are entered, or withdrawn from warehouse, for consumption on or after November 14, 1988. The Customs Service shall continue to require a cash deposit or posting of bond equal to the estimated amounts by which the foreign market value of the merchandise subject to this investigation exceeds the United States price, as shown below. This suspension of liquidation will remain in effect until further notice.

The weighted-average margins are as follows:

Manufacturer/producer/exporter	Weighted-average margin percentage
Tosoh Hellas	36.72
All others	36.72

ITC Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our determination. If the ITC determines that material injury, or threat of material injury, does not exist, this proceeding will be terminated and all securities posted as a result of suspension of liquidation will be refunded. However, if the ITC determines that such an injury does exist, the Department will issue an antidumping duty order directing Customs officers to assess an antidumping duty on EMD from Greece as defined in the "Scope of Investigation" section of this notice, entered or withdrawn from warehouse, for consumption after the suspension of liquidation, equal to the amount by which the foreign market value exceeds the U.S. price.

This determination is published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d)).

Jan W. Mares,

Assistant Secretary for Import Administration.

Date: February 22, 1989.

[FR Doc. 89-4786 Filed 3-1-89; 8:45 am]

BILLING CODE 3510-DS-M

[A-419-801]

Electrolytic Manganese Dioxide From Ireland; Final Determination of No Sales at Less Than Fair Value

AGENCY: International Trade Administration, Import Administration, Commerce.

ACTION: Notice.

SUMMARY: We have determined that electrolytic manganese dioxide from Ireland is neither being, nor is likely to be, sold in the United States at less than fair value. The respondent in this investigation, the sole producer of electroytic manganese dioxide in Ireland, Mitsui Denman Ireland, reported no sales and no outstanding offers for sales during the period of investigation. We have notified the International Trade Commission ("ITC") of our determination.

EFFECTIVE DATE: March 2, 1989.

FOR FURTHER INFORMATION CONTACT: Anne D'Alauro (202) 377-1130 or Holly Kuga (202) 377-4733, Office of Antidumping Compliance, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230.

SUPPLEMENTARY INFORMATION:

Final Determination

We have determined that electrolytic manganese dioxide ("EMD") from Ireland is not being, nor is likely to be, sold in the United States at less than fair value as provided in section 735 of the Tariff Act of 1930, as amended (19 U.S.C. 1673d) ("the Act"). The Department found no sales, commercial shipments, outstanding contractual obligations for sales, or irrevocable offers for sale to the United States during the period of investigation ("POI") to compare with foreign market value.

Case History

On November 14, 1988, we made a negative preliminary determination (53 FR 45795). The following events have occurred since the publication of that notice.

On November 29, 1988, the petitioners, Kerr-McGee Chemical Corporation and Chemetals Inc., requested that we postpone making our final determination for a period of thirty days pursuant to section 735(a)(2)(B) of the Act. On December 20, 1988, we issued a notice postponing the final determination until February 22, 1989 (53 FR 51129).

The Department conducted a verification of respondent, Mitsui Denman Ireland ("MDI") in Ireland on December 5, 1988, and its related trading company, Mitsui & Co., U.S.A., on December 16, 1988.

On January 23, 1989, the Department held a public hearing. Petitioners and respondent submitted comments for the record in prehearing briefs on January 17, 1989, and in posthearing briefs on February 2, 1989. Additional comments were submitted on January 30 and on February 6 and 9, 1989.

Scope of the Investigation

The United States has developed a system of tariff classification based on the international harmonized system of customs nomenclature. On January 1, 1989, the U.S. tariff schedules were fully converted from the Tariff Schedules of the United States Annotated ("TSUSA") to be Harmonized Tariff Schedule ("HTS"), as provided for in section 1201 *et seq.* of the Omnibus Trade and Competitiveness Act of 1988. All merchandise entered, or withdrawn from warehouse, for consumption on or after that date is now classified solely according to the appropriate HTS number. As with the TSUSA numbers, the HTS numbers are provided for convenience and customs purposes. The written product description remains dispositive.

The product covered by this investigation is electrolytic manganese dioxide from Ireland. During the investigation period, such merchandise was classifiable under item 419.4420 of the TSUSA. This merchandise is currently classifiable under HTS item number 2820.10.0000.

EMD is manganese dioxide (MnO_2) that has been refined in an electrolysis process. The subject merchandise is an intermediate product used in the production of dry cell batteries. EMD is sold in three physical forms, powder, chip or plate, and two grades, alkaline and zinc chloride. EMD in all three forms and both grades is included in the scope of the investigation.

Period of Investigation

The petitioners requested the Department to extend the POI because the investigation period initially specified by the Department is not representative of levels of EMD exports to the United States from Ireland. Petitioners request that the Department extend the POI to include those sales made by MDI which correspond to United States entries made in the first half of 1987. They argue that this is the appropriate POI since Irish EMD has been exported to the United States in all of the most recent years except the current one, a fact that reflects a mere depression in current sales activity.

The Department has extended the normal six-month POI where that period did not adequately reflect the sales practices of the firms subject to the investigation. For example, where sales were made pursuant to long term contracts, the Department has extended the period in order to include the date of sale corresponding to shipments during the period. See *Certain Forged Steel Crankshafts from the United Kingdom*, 52 FR 32951 (1987). In instances where distortions would have resulted from using a POI limited to six months, as in the case of seasonally-affected sales, the Department has extended the period to eliminate such distortions. See *Certain Fresh Cut Flowers from Colombia*, 52 FR 6842 (1987). The Department has also extended the period in cases where special order or customized sales are under investigation in order to accommodate the unique circumstances involved in investigating this type of merchandise. See *Offshore Platform Jackets and Piles from Japan*, 51 FR 11768 (1986). Finally, the Department has extended the period in cases where sales activity was unusually depressed

resulting in too few sales for an adequate investigation. See *Certain Iron Metal Castings from India*, 46 FR 39869 (1981).

We have determined that there are no factors in this case that would justify an extension of the POI. No shipments of EMD from MDI were made during the POI which correspond to sales made prior to the period nor were the shipments made during 1987 pursuant to long term contracts with U.S. purchasers. Petitioners argue that sales of EMD are greatest in the fall of the year necessitating the extention of the period to capture this peak sales activitity. The evidence for MDI, however, shows that when it supplied the U.S. market, its monthly shipment volume remained constant. This shipment stability is also evidenced by MDI's related Japanese producer. Even if seasonality were a factor and the POI were extended by an additional six months to capture a full year in our investigation, a sufficient period for eliminating distoritions, no sales would be found within that expanded period.

Finally, the circumstances presented in this case do not support a finding of unusually depressed sales sufficient to warrant extension of the POI. There were no U.S. sales or commercial shipments within the POI. The evidence documents that there had been no commercial sales by the respondent in the U.S. market for an extended period of time which did not coincide with any industry-wide depression in EMD demand. MDI continues to have no current contractual obligation outstanding for EMD of Irish origin (see our response to comment 1). Its product has been disqualified by its primary U.S. purchaser (and remains unqualified by other major U.S. purchasers) and must successfully undergo a considerable qualification process to regain approval. Because of the quality problems that have been experienced with MDI's product, completion of qualification is of particular significance. Since these circumstances go well beyond those that would be present for a firm experiencing only "unusually depressed" sales activity, the Department determines that this reason for expanding the POI does not apply in this case.

Fair Value Comparisons

If we were to determine whether sales of EMD in the United States are made at less than fair value, we would have compared the United States price to the foreign market value. However, in the present investigation, we were unable to make this comparison due to the absence of U.S. sales during the period of investigation, December 1, 1987 through May 31, 1988.

Negative Determination of Critical Circumstances

Petitioners alleged that "critical circumstances" exists with respect to imports of EMD from Ireland. Section 735(a)(3) of the Act provides that critical circumstances exists if we determine that there is a reasonable to believe or suspect that:

(A)(i) There is a history of dumping in the United States or elsewhere of the class or kind of merchandise which is the subject of the investigation, or

(ii) The person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise which is the subject of the investigation at less than fair value, and

(B) There have been massive imports of the merchandise which is the subject of the investigation over a relatively short period.

Pursuant to section 735(a)(3)(B), we generally consider the following factors in determining whether imports have been massive over a relatively short period of time: (1) The volume and value of the imports; (2) seasonal trends (if applicable); and (3) the share of domestic consumption accounted for by imports.

For purposes of this finding, we used company specific shipment data for EMD from Ireland. Since there were no commercial shipments made during 1988, we find that imports of the subject merchandise from Ireland have not been massive over a relatively short period of time.

Since we do not find that there have been massive imports, we need not consider whether there is a history of dumping or whether importers of this product knew or should have known that it was being sold at less than fair value. Therefore, we determine that critical circumstances do not exist with respect to imports of EMD from Ireland.

Verification

As provided in section 776(b) of the Act, we verified all information used in reaching the final determination in this investigation. We used standard verification procedures, including examination of relevant sales records and original source documents provided by the respondent.

Petitioners' Comments

Comment 1. Petitioners contend that MDI's EMD is likely to be sold in the U.S. at less than fair value. In support of this contention, petitioners allege (1) that MDI has made bona fide offers to sell EMD during the POI, and (2) that MDI has been supplying samples for testing and qualification purposes in an attempt to supply the U.S. market.

Department's Position. We disagree with petitioners' conclusion. Section 731 of the Act provides, in part, that in order to find that dumping is occurring the Department must determine that the merchandise subject to investigation "is being, or is likely to be, sold in the United States at less than fair value." "More than a speculative potential of future sales for export is necessary to meet the 'likely to be sold' criterion of section 731 of the Act" *Certain Carbon Steel Products from Czechoslovakia*, 50 FR 1912 (1985). The Department looks for evidence of a current offer, the acceptance of which is reasonably expected. See *Dismissal of Antidumping Petitions on Certain Steel Products from Romania*, 47 FR 5752 (1982). At the very least this requires evidence of an irrevocable offer to sell (*Carbon Steel from Czechoslovakia*).

The Department verified that MDI had no contractual obligations outstanding as of the date our verification was completed, December 16, 1988. Information regarding an April 1988 meeting with a potential customer has been carefully evaluated by the Department. There was no signed, written offer by MDI specifying the price and quantity at which it would sell EMD. No promise was made to hold any offer open for a period of time. The evidence is unclear as to whether quantity terms were specified; price was discussed in relation to a competitive level at an unspecified point in time. Moreover, any agreement that might have been made was subject to successful qualification of MDI's EMD, which requires several months of additional testing. We have determined that discussions at that meeting did not reach the level of an irrevocable offer. Even assuming, *arguendo*, that some form of bona fide offer existed at that time, ten months have passed since this meeting without further action by either party. If this were the case, any reasonable time period for holding an offer open would have expired.

Finally, supplying samples of EMD in an attempt to qualify MDI's merchandise does not constitute "likelihood of sales" for purposes of the antidumping law. The qualification process for EMD is complex and time consuming, requiring at minimum a six month testing period. Irish EMD has been and remains disqualified by one major U.S. purchaser and unqualified by other potential major U.S. purchasers; qualification is a necessary requirement

of battery producers prior to commercial purchase of the subject merchandise. Any likelihood of future sales, pending successful qualification of MDI's EMD, is too speculative for the Department to consider them as sales during the POI.

Comment 2. Petitioners contend that the special rule for multinational corporations contained in section 773(d) of the Act should be applied to calculate the foreign market value of MDI's EMD.

Department's Position. Since we have determined that MDI did not sell EMD to the United States during the POI, nor was there a likelihood of such sales, we did not calculate foreign market value.

Comment 3. Petitioners contend that the Department should determine the appropriate margin based upon the information submitted by petitioners as the best information available.

Department's Position. The respondent has furnished, in proper form, all information requested by the Department. Based on the information reported, and which we have deemed adequate, we have determined that MDI did not sell EMD, nor was there a likelihood of such sales, to the U.S. during the POI. For these reasons, the Department has no reason to resort to the use of best information available as suggested by the petitioners.

ITC Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our determination.

This determination is published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d)).

Date: February 22, 1989.

Jan W. Mares,

Assistant Secretary for Import Administration.

[FR Doc. 89-4787 Filed 3-1-89; 8:45 am]

BILLING CODE 3510-DS-M

[A-508-606]

Final Determination of Sales of Less Than Fair Value: Electrolytic Manganese Dioxide From Japan

AGENCY: International Trade Administration, Import Administration, Commerce.

ACTION: Notice.

SUMMARY: We have determined that electrolytic manganese dioxide from Japan is being, or is likely to be, sold in the United States at less than fair value. We also determine that critical circumstances do not exist with respect to imports of electrolytic manganese dioxide from Japan. The U.S. International Trade Commission (ITC) will determine, within 45 days of the publication of this notice, whether these imports are materially injuring, or are threatening material injury to, a United States industry.

EFFECTIVE DATE: March 2, 1989.

FOR FURTHER INFORMATION CONTACT: Kelly Parkhill (202) 377-1130 or Holly Kuga (202) 377-4733, Office of Antidumping Compliance, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC, 20230.

SUPPLEMENTARY INFORMATION:

Final Determination

We have determined that electrolytic manganese dioxide ("EMD") from Japan is being, or is likely to be, sold in the United States at less than fair value as provided in section 735(a) of the Tariff Act of 1930, as amended (19 U.S.C. 1673d(a)) (the Act). The weighted-average margin of sales at less than fair value is shown in the "Suspension of Liquidation" section of this notice.

Case History

The petitioners in this investigation, Kerr-McGee Chemical Corporation and Chemetals Incorporated, are manufacturers of EMD. The respondents, who account for virtually all of the exports to the United States, are Mitsui Mining and Smelting ("MMS") and Tosoh Corporation ("Tosoh").

On November 14, 1988, we made an affirmative preliminary determination (53 FR 45796). The following events have occurred since the publication of that notice.

On November 21, 1988, Tosoh requested that we postpone making our final determination for a period of thirty days pursuant to section 735(a)(2)(A) of the Act. On December 20, 1988, we issued a notice postponing the final determination until February 22, 1989 (53 FR 51130).

The questionnaire responses from MMS and Tosoh were verified in Japan between November 28 and December 9, 1988.

Petitioners and respondents submitted written comments for the record on January 25 and 31, 1989.

Scope of the Investigation

The United States has developed a system of tariff classification based on the international harmonized system of customs nomenclature. On January 1, 1989, the U.S. tariff schedules were fully converted from the Tariff Schedules of the United States Annotated ("TSUSA") to the Harmonized Tariff Schedule ("HTS"), as provided for in section 1201 *et seq.* of the Omnibus Trade and Competitiveness Act of 1988. All merchandise entered, or withdrawn from warehouse, for consumption on or after that date is now classified solely according to the appropriate HTS number. As with the TSUSA numbers, the HTS numbers are provided for convenience and customs purposes. The written product description remains dispositive.

The product covered by this investigation is electrolytic manganese dioxide from Japan. During the period of investigation ("POI"), such merchandise was classifiable under item 419.4420 of the TSUSA. This merchandise is currently classifiable under HTS item number 2820.10.0000.

EMD is manganese dioxide (MnO_2) that has been refined in an electrolysis process. The subject merchandise is an intermediate product used in the production of dry cell batteries. EMD is sold in three physical forms, powder, chip or plate, and two grades, alkaline and zinc chloride. EMD in all three forms and both grades is included in the scope of the investigation.

Fair Value Comparisons

To determine whether sales of EMD in the United States were made at less than fair value, we compared the United States price to the foreign market value as specified below. We made comparisons on all sales of the product during the period of investigation December 1, 1987 through May 31, 1988.

United States Price

As provided in section 772 of the Act, we used the purchase price of the subject merchandise to represent the United States price for all sales made by MMS and Tosoh. We used purchase price as the basis for determining United States price since the merchandise was sold to an unrelated purchaser in Japan with the knowledge that that purchaser would then export the merchandise to the United States.

Purchase price was based on the F.O.B. (foreign port) and ex-godown price to unrelated purchasers in Japan. Where applicable, we made deductions for foreign inland freight, brokerage and handling, and certain other movement expenses.

Foreign Market Value

In accordance with section 773(a) of the Act, we determined that there were sufficient home market sales of such or similar merchandise by both MMS and Tosoh to form the basis for foreign market value.

Home market price was based on the delivered price to unrelated purchasers in the home market. We deducted inland freight and home market packing, and added U.S. packing. We made a circumstance of sale adjustment for differences in credit between the two markets.

Negative Determination of Critical Circumstances

Petitioners allege that imports of EMD from Japan present "critical circumstances." Section 735(a)(3) of the Act provides that critical circumstances exist if we determine that there is a reasonable basis to believe or suspect that:

(A) (i) There is a history of dumping in the United States or elsewhere of the class or kind of merchandise which is the subject of the investigation, or

(ii) The person by whom, or for whose account, the merchandise was imported knew or should have known that the exporter was selling the merchandise which is the subject of the investigation at less than fair value, and

(B) There have been massive imports of the merchandise which is the subject of the investigation over a relatively short period.

Pursuant to section 735(a)(3)(B), we generally consider the following factors in determining whether imports have been massive over a relatively short period of time: (1) The volume and value of the imports; (2) seasonal trends (if applicable); and (3) the share of domestic consumption accounted for by imports.

For purposes of this finding, we based our analysis on the verified shipment data of the Japanese respondents, for equal periods immediately preceding and following the filing of the petition until the month of our preliminary determination. In the case of MMS, shipments declined during the five month period between the petition and the preliminary determination. Tosoh's shipments increased less than the 15 percent considered to be indicative of massive imports. Based on the above, we find that there is no reasonable basis to conclude that imports of EMD have been massive over a relatively short period.

Since we do not find that there have been massive imports, we need not consider whether there is a history of dumping or whether importers of this product knew or should have known that it was being sold at less than fair value. Therefore, we determine that critical circumstances do not exist with respect to imports of EMD from Japan.

Verification

As provided in section 776(b) of the Act, we verified all information used in reaching the final determination in this investigation. We used standard verification procedures, including examination of relevant accounting records and original source documents provided by respondents.

Petitioners' Comments

Comment 1. Petitioners state that MMS' foreign market value should be based on its home market sales of both types of alkaline EMD. Petitioners state that the two types of alkaline EMD sold in the home market are identical within the meaning of the antidumping statute.

Department's Response. The Department disagrees. MMS provided us with additional information at verification from which we were able to determine that the two types of alkaline EMD are similar, not identical merchandise. One of the two types of EMD sold in the home market was identical to that sold in the U.S. market. We based the foreign market value on sales of that identical merchandise in the home market.

Comment 2. Petitioners contend that a rebate granted by MMS in the home market is a quantity discount which should not be allowed as a deduction by Commerce. Alternatively, petitioners contend that if the deduction is granted, the Department should make a circumstance of sale adjustment in order to reflect price differences resulting from the quantities being sold in both markets.

Department's Response. We disagree. The Department has verified that the adjustment in question is a rebate, *i.e.*, a pre-established post-sale credit or refund based upon meeting certain conditions established between the buyer and the seller at the time of sale. That the condition for obtaining the rebate in this case is based on the cumulative quantity sold does not alter this fact. Even if this was a quantity-based discount, petitioners have not provided the basis for making their proposed adjustments.

Comment 3. Petitioners state that the Department should calculate the dumping margin for MMS based on a dollar denominated U.S. price with any yen denominated adjustments converted at the prevailing exchange rate on the date of sale. To do otherwise, would allow the respondent to artificially reduce the margins by manipulating the exchange rate conversions.

Department's Response. MMS is paid in yen by its unrelated Japanese distributor for its U.S. sales. Foreign market value is also yen-denominated. Therefore, there is no need for currency conversions in performing the dumping calculation. The yen amount MMS receives for its U.S. sales does depend on the exchange rate. However, because the trading company is paid in dollars and then pays MMS using the exchange rate in effect on the date of payment, that date of payment, and therefore the exchange rate used, is determined by the trading company, not MMS. Therefore, we do not see how MMS is able to manipulate its margins through currency conversions.

Comment 4. Petitioners contend that the date of sale for a certain U.S. customer should be the date of the purchase order rather than the date of the contract which predates the POI. Alternatively, the POI should be extended back to include this sale.

Department's Response. The Department determined that the sale terms for the U.S. customer in question were established in a contract which was entered into prior to the date of the POI. This was verified through sales documentation which established a fixed price as well as the specific shipping schedule for each transaction. The Department feels no need to expand the POI to include this transaction since the Department has reviewed 89 percent of Tosoh's shipments and all of their U.S. sales that occurred during the six-month POI.

Comment 5. Petitioners state that Tosoh should report its U.S. prices in dollars, not yen.

Department's Response. We disagree. Tosoh reported its prices in the currency in which it was paid, as requested by the Department in its questionnaire.

Comment 6. Petitioners claim that the Department should not deduct the double payment of rebate incorrectly paid by Tosoh on one of its sales.

Department's Response. The Department verified the amount of rebate paid on home market sales. On the sale in question, the Department verified that, due to a billing error, a rebate was paid twice. Since the customer did not return the second, erroneous rebate payment, the Department believes that a deduction, in the full amount of the rebate actually paid on that transaction, should be allowed.

Comment 7. Petitioners state that Tosoh's credit expenses must be calculated on the basis of gross price less discount in order to reflect the true

cost of extending credit to its customers between shipment and final payment.

Department's Response. The Department agrees. We have subtracted the discount from the gross price before calculating the credit expense.

Comment 8. Petitioners state that the Preliminary Determination of Critical Circumstances must be affirmed in the final determination based upon Tosoh's massive imports during the three month period following the petition and its knowledge of dumping.

Department's Response. The Department disagrees. (See the "Negative Determination of Critical Circumstances" section of this notice.) The period for determining massive imports in this investigation is the five month period between the filling of the petition and the preliminary determination not the three month period following the petition. The Department uses this period between the filing of the petition and the preliminary determination to determine whether there are massive imports since this is the period in which respondents could take advantage of their knowledge of the dumping case to increase exports to the United States without being subject to antidumping duties. See *Certain Internal-Combustion, Industrial Forklift Trucks From Japan,* 53 FR 12552, 12566 (1988). During this time, Tosoh's shipments to the United States increased less than the 15 percent increase considered to be indicative of massive imports. Therefore, we have determined that imports during the period have not been massive and that the requirements for determining critical circumstances have not been met.

Respondents' Comments

Comment 1. Tosoh claims that the legal requirements for critical circumstances have not been met. Specifically, Tosoh claims that the increase in its shipments to the U.S. during the five month period between the petition and suspension of liquidation do not meet the Department's definition of "massive imports." Furthermore, Tosoh claims that its increase is overstated because it includes EMD shipped under long-term contracts outside the POI.

Department's Response. The Department agrees that the requirements for an affirmative determination of critical circumstances have not been met. (See the "Negative Determination of Critical Circumstances" section of this notice.)

Suspension of Liquidation

Since we have determined that critical circumstances do not exist with regard to this investigation, entries suspended prior to November 14, 1988, the date of publication of the preliminary determination in the Federal Register, can now be liquidated and all securities posted as a result of the suspension of liquidation prior to that date will be refunded or cancelled. We are directing the U.S. Customs Service to continue to suspend liquidation of all entries EMD from Japan that are entered or withdrawn from warehouse, for consumption on or after November 14, 1988. The Customs Service shall continue to require a cash deposit or posting of bond equal to the estimated amounts by which the foreign market value of the merchandise subject to this investigation exceeds the United States price, as shown below. This suspension of liquidation will remain in effect until futher notice.

The weighted-average margins are as follows:.

Manufacturer/producer/exporter	Weighted-average margin percentage
Mitsui Mining and Smelting	77.43
Tosoh Corporation	71.91
All others	73.30

ITC Notification

In accordance with section 735(d) of the Act, we have notified the ITC of our determination. If the ITC determines that material injury, or threat of material injury, does not exist, this proceeding will be terminated and all securities posted as a result of suspension of liquidation will be refunded. However, if the ITC determines that such an injury does exist, the Department will issue an antidumping duty order directing Customs officers to assess an antidumping duty order directing Customs officers to assess an antidumping duty on EMD from Japan as defined in the "Scope of Investigation" section of this notice, entered or withdrawn from warehouse, for consumption after the suspension of liquidation, equal to the amount by which the foreign market value exceeds the U.S. price.

This determination is published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d)).

Jan W. Mares,

Assistant Secretary for Import Administration.

Date: February 22, 1989.

[FR Doc. 89-4788 Filed 3-1-89; 8:45 am]

BILLING CODE 3510-DS-M

APPENDIX D

COMMENTS RECEIVED FROM PRODUCERS ON THE IMPACT OF IMPORTS FROM GREECE AND JAPAN ON THEIR GROWTH, DEVELOPMENT AND PRODUCTION EFFORTS, INVESTMENT, AND ABILITY TO RAISE CAPITAL

* * * * * * *