Defrost Timers From Japan

Investigation No. 731-TA-643 (Final)

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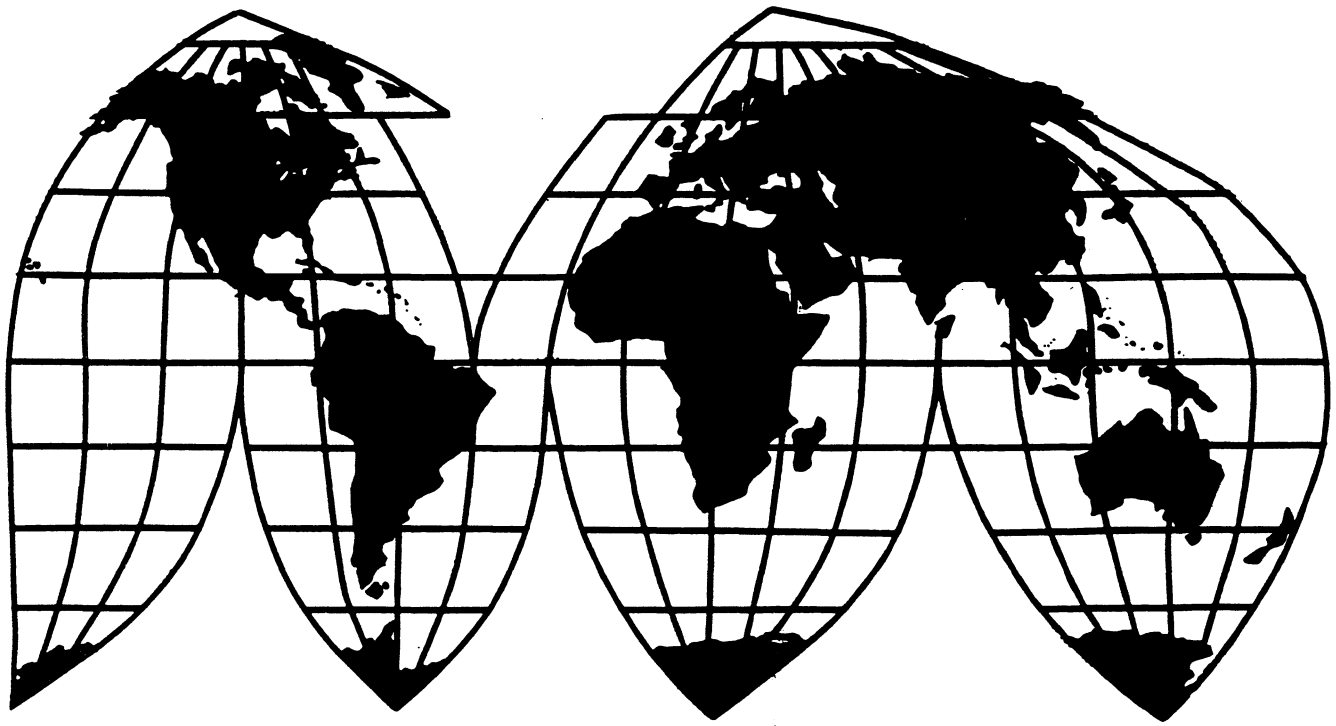
U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Note.--Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.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

PART I

DETERMINATION AND VIEWS OF THE COMMISSION

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-643 (Final)

DEFROST TIMERS FROM JAPAN

Determination

On the basis of the record[1] developed in the subject investigation, the Commission unanimously determines,[2] 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 Japan of defrost timers,[3] provided for in subheading 9107.00.40 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce to be sold in the United States at less than fair value (LTFV).

Background

The Commission instituted this investigation effective August 24, 1993, following a preliminary determination by the Department of Commerce that imports of defrost timers from Japan were being, or were likely to be, sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the institution of the Commission's investigation and of a 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 September 15, 1993 (58 F.R. 48373). The hearing was held in Washington, DC, on January 11, 1994, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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[1] The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(f)).

[2] Chairman Don E. Newquist did not participate in the Commission's vote.

[3] Such defrost timers are electromechanical and electronic defrost timers for residential refrigerators.

VIEWS OF THE COMMISSION

Based on the record in this final investigation, we unanimously determine that the industry in the United States producing defrost timers for residential refrigerators is materially injured by reason of imports of defrost timers from Japan that the U.S. Department of Commerce ("Commerce") has determined are being sold in the United States at less than fair value ("LTFV").[1] [2]

I. Like Product and Domestic Industry

To determine whether an industry in the United States is materially injured or is threatened with material injury by reason of the subject imports, we must first define the "like product" and the "industry." Section 771(4)(A) of the Tariff Act of 1930 (the "Act") defines the relevant 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] In turn, the statute defines "like product" 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. . ."[4]

Our like product determinations are factual, and we apply the statutory standard of "like" or "most similar in characteristics and uses" on a case by case basis.[5] [6] We look for clear dividing lines between possible like products,[7] and have found minor distinctions to be an insufficient basis for finding separate like products.[8] Commerce defined the imported product subject to these investigations as:

> electromechanical and electronic defrost timers for residential refrigerators. Electromechanical defrost timers are comprised of several components that make or break electric circuits by activating two sets of electrical contact points - one to disconnect the compressor (the cooling mechanism) and the other to connect the defrost heater. . . . Electronic defrost timers have a similar function but operate with greater efficiency.[9]

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[1] Whether the establishment of an industry in the United States is materially retarded is not an issue in this investigation.

[2] Chairman Newquist did not participate in this final determination.

[3] 19 USC § 1677(4)(a).

[4] 19 USC § 1677(10).

[5] Torrington Company v. United States, 747 F. Supp. 744, 748-749 (CIT 1990), aff'd 938 F.2d 1278 (1991).

[6] In analyzing like product issues, we generally consider a number of factors including: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) common manufacturing facilities and production employees; (5) customer or producer perceptions; and, where appropriate, (6) price. Calabrian Corp. v. United States, 794 F. Supp. 377, 382 n.4 (CIT 1992); Torrington, 747 F. Supp. at 749; Asociacion Colombiana de Exportadores de Flores v. United States, 693 F. Supp. 1165, 1168 n.4, 1180 n. 7 (CIT 1988). No single factor is dispositive, and we may consider other factors we deem relevant based on the facts of a particular investigation. See S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979); Torrington, 747 F. Supp. at 748-49.

[7] See, e.g., Compact Ductile Iron Waterworks Fittings and Accessories Thereof From the People's Republic of China, Inv. No. 731-TA-621 (Final), USITC Pub. 2671 (August 1993).

[8] Asocoflores, 693 F.Supp. at 1169, S.Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979) ("It is up to [the Commission] to determine objectively what is a minor difference.").

[9] Notice of Final Determination of Sales at Less Than Fair Value; Defrost Timers From Japan, 59 Fed. Reg. 1928 (January 13, 1994).

In our preliminary determination, we concluded that there was a single like product, all defrost timers for residential use, including both electromechanical and electronic timers.[10]

Superficially, the two types of defrost timers appear dissimilar and are somewhat dissimilar in their construction. For example, the electromechanical timer contains a synchronous or subsynchronous motor and electrical contact points, while the electronic defrost timer contains a microprocessor that can use information gathered during a defrost cycle to adjust the defrost cycle. The two types of defrost timers also use different components and different materials.[11]

In spite of these physical dissimilarities, the ultimate use of these defrost timers is the same, that is, to allow for automatic defrosting of residential refrigerators.[12] Also, we have considered the information available on the record and find that the electromechanical and electronic defrost timers are functionally interchangeable. The physical mounting is the same, and the same mechanical wire connection is used for both the electronic control and the electromechanical control.[13] The electronic defrost timer does require two more wire connections in the refrigerator for proper functioning, but the connections for these wires are already in the refrigerator.[14] When defrost timers are installed by the original refrigerator manufacturer, the installation is essentially the same for both electronic and electromechanical timers. When an electronic timer is installed in the field to replace an electromechanical timer, a wiring kit is provided to connect the two additional wires that are required. This task can be accomplished in less than 5 minutes.[15]

The channels of distribution are similar for the two types of defrost timers. Paragon, the only domestic producer of electronic defrost timers, sells both timers to original equipment manufacturers ("OEMs")[16] and the aftermarket. Currently, the aftermarket is primarily a market for electromechanical timers since repair persons tend to prefer replacing a defective timer with the same model, and the use of the electronic timers by OEMs is relatively new.[17] It is expected, however, that increasing quantities of electronic timers will be sold in the aftermarket as more are used in the production of refrigerators by OEMs.[18]

The record further suggests that OEMs perceive the two types of defrost timers as the same product performing the same function, although two of the five major OEMs do not consider them to be as readily interchangeable as claimed by the petitioner. These companies both noted wiring problems as a factor limiting interchangeability.[19] Customer perceptions

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[10] In addition, we considered whether defrost timers intended for commercial use should be included in the like product. We declined to include commercial defrost timers in the like product and stated in our opinion that we would not revisit that question in this final investigation. Defrost Timers from Japan, Inv. No. 731-TA-643 (Preliminary), USITC Pub. 2609 at 9-10 (March 1993) ("Preliminary Determination").

[11] Confidential Report (hereinafter "CR") at I-7; Public Report (hereinafter "PR") at II-5.

[12] We note that Exhibit 1 to the posthearing brief of the petitioner indicates that the electromechanical defrost timer is actually marketed as a repeat cycle control that can be used "for refrigerator defrost, chemical feeding, automatic lubrication, and many other applications." In contrast, the electronic defrost timer is marketed as an "electronic adaptive defrost control" to be used in "a wide variety of refrigeration system applications including food display cases and domestic refrigerators." Exhibit 1 of Petitioner's Posthearing Brief. Petitioner has acknowledged that, in fact, ***. Telephone and meeting notes (George Deyman) Feb. 10, 1994; (Dennis Luther) Feb. 14, 1994.

[13] Tr. of Hearing at 12.

[14] Id. at 12-13.

[15] Id.

[16] The OEMs in this investigation are the purchasers of defrost timers for the production of new refrigerators. Five U.S. refrigerator manufacturers account for nearly all purchases of defrost timers that are used in new refrigerators. These are Admiral Co., Division of Maytag Corp.; Amana Refrigeration, Inc.; Frigidaire Co.; General Electric Co. (GE Appliances); and Whirlpool Corp. CR at I-46; PR at II-18.

[17] Tr. of Hearing at 24-25, 42.

[18] Tr. of Conference at 29.

[19] CR at I-53; PR at II-19. See also Petitioner's Responses to Questions from Commissioner Nuzum at Appendix B, Petitioner's Posthearing Brief.

are, therefore, somewhat mixed. Currently, however, both types of timers are used by OEMs, with the electronic timers being used in larger and more expensive refrigerators.[20]

Paragon produces both types of timers in the same facility. However, the electromechanical and the electronic defrost timers are not produced on the same equipment and are not produced by the same production employees.

There is also a significant difference in price between the electronic and electromechanical defrost timers. Electronic defrost timers are approximately *** times more expensive than electromechanical timers.[21] In considering this difference in price, however, we note that the price of a defrost timer is only a small percentage of the value of a refrigerator. On balance, therefore, we have placed relatively less weight on this factor in making our like product determination.

On balance, the similar physical characteristics and uses, functional interchangeability, and channels of distribution weigh in favor of a single like product, notwithstanding differences in price, manufacturing equipment and employees, and some differences in customer perceptions. We therefore find, as we did in the preliminary determination, that defrost timers for residential refrigerators are a single like product.[22]

In light of our like product determination, we find that there is a single industry comprised of the domestic producers of defrost timers for residential refrigerators. Three companies are members of this industry: Paragon Electric Co., Inc., the petitioner; Controls Division of Eaton Corp.; and Mallory Controls Division of Emerson Electric Co.

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[20] Tr. of Hearing at 51-52. The electronic timers are needed for the larger refrigerators because these timers are more energy efficient and because they allow OEMs to meet energy usage restrictions imposed by the Department of Energy on new refrigerators.

[21] CR at I-58, Table 19 and I-53; PR at II-21 and II-20.

[22] Commissioner Brunsdale concurs with her colleagues that there is but a single like product, but would define it as all electromechanical defrost timers. She notes that 19 USC Section 1677(10) defines the like product as the product which is like (or most similar in characteristics and uses with) "the article subject to investigation." The "article" subject to investigation in this case is a set of imported Japanese defrost timers which are described as "electromechanical and electronic defrost timers for residential refrigerators." I-3 n.1. But the actual set of timers that Commerce investigated were all electromechanical timers. To her this means that the "merchandise with respect to which the administering authority has made an affirmative determination," 19 USC § 1673d(b)(1) was all imports from Japan of electromechanical timers for residential refrigerators.

Commissioner Brunsdale focuses her like product analysis on the substitutability of the potential like products among both their purchasers and their producers. Her goal is always to identify an industry that can be reasonably expected to be directly affected by any dumping of the articles subject to investigation, whether that effect is caused by consumers switching their purchases or manufacturers switching their production. Thus, the domestic industry that makes the products most like the subject imports is the electromechanical defrost timer industry, unless either consumers or producers of defrost timers can easily switch from one type of timer to another. Producers can not switch because the different types of timers are not made on the same production lines, and consumers will not, because electronic timers are significantly more expensive than electromechanical ones, and are currently only a niche product.

She understands that the petitioner included electronic timers in its petition (even though there are no imports of them from Japan) because it expects that electronic timers will be the next generation of timers. That argument, as important as it is in Commerce's decision on the applicability of an existing antidumping order to later-developed goods, is simply irrelevant to the definition of a like product. Moreover, she notes, the inclusion of electronic timers in the like product can only dilute the present impact of the dumping of electromechanical timers. Their inclusion reduces the imports' market share, artificially inflates the domestic industry's revenues, and reduces the degree of substitutability between the imports and the like product that is central to the Commission's analysis. However, the market for electronic timers is so small that these distortions are insignificant.

II. Condition of the Domestic Industry

In assessing whether the domestic industry is materially injured by reason of the LTFV imports, the Commission considers all relevant economic factors which have a bearing on the state of the industry in the United States. These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, and research and development. No single factor is determinative, and we consider all relevant factors "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[23]

A key factor in the defrost timer market is the small number of buyers and sellers.[24] The vast majority of the defrost timers sold for use in the United States is sold to OEMs for production of new refrigerators.[25] A majority of these sales is on a contract basis. These contracts may provide a supply of defrost timers to an OEM for more than one year.[26] Therefore, each contract lost can have significant adverse impact on the domestic industry sales, by involving a significant number of defrost timers.[27]

During 1990-91, producers in the domestic defrost timer industry introduced changes to make the industry more efficient.[28] With these changes, the indicators of the condition of the domestic industry showed some improvement. Apparent U.S. consumption of defrost timers for residential refrigerators, including consumption in U.S. foreign trade zones (FTZs) increased by *** percent during 1990-91.[29] Domestic production *** percent during the same period. Capacity utilization *** percent in 1990 to *** percent in 1991 even though the actual capacity had *** percent during the same period.[30] U.S. producers' shipments by quantity *** percent during 1990-91; by value, these shipments *** percent. The ratio of U.S. producers' inventories to their total shipments ***.[31]

Also from 1990 to 1991, the number of production and related workers producing defrost timers *** percent, and the hours worked *** percent. However, productivity, measured in units per hour, *** percent, and unit labor costs *** percent.[32]

The financial experience of the U.S. producers *** from 1990 to 1991.[33] *** experienced by the domestic industry were ***, and net sales by quantity and value ***. Gross profits *** from 1990 to 1991, and ***. The operating *** margin (ratio of operating *** to net sales), ***. The cost of goods sold also *** during this period, as well as selling, general, and administrative expenses.[34] Capital expenditures by U.S. producers ***.[35]

These indicators began to deteriorate in 1992, and this decline continued during the first nine months of 1993 ("interim 1993") when compared to the same period of 1992

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[23] 19 USC § 1677(7)(C)(iii).

[24] There are three domestic producers of defrost timers and five OEMs that purchase the vast majority of the defrost timers that are used in new refrigerators. CR at I-46; PR at II-18.

[25] CR at I-46; PR at II-18. The remainder of the defrost timers is sold to the aftermarket for use in the repair of refrigerators. The demand for new refrigerators is closely tied to the level of new housing starts in the United States. Because of the general weakness in housing starts during much of the period of investigation, the overall demand for defrost timers used in residential refrigerators increased modestly overall during the period examined. CR at I-43, Table 17; PR at II-17. But cf. Tr. of Conference at 22-23.

[26] CR at I-49; PR at II-19.

[27] CR at I-48 and I-68-I-70; PR at II-18, II-23, and II-25.

[28] Tr. of the Hearing at 18-21.

[29] CR at I-10-I-11; PR at II-6. See discussion on FTZs, infra at 16-17.

[30] CR at I-15-I-16; PR at II-9.

[31] CR at I-19, Table 4; PR at II-10.

[32] CR at I-19; PR at II-10. The employment trends from 1990 to 1991 reflect the industry's own productivity ***. Tr. of Hearing at 18-21.

[33] CR at I-22-I-23; PR at II-11.

[34] CR at I-23, Table 6; PR at II-11.

[35] CR at I-31; PR at II-13.

("interim 1992"). A significant percentage of this deterioration can be attributed to the loss of a major GE contract by petitioner to Sankyo Seiki.[36]

Apparent U.S. consumption of defrost timers decreased by *** percent during 1991-92. This trend reversed with a rise of *** percent during interim 1993 when compared to interim 1992.[37] Domestic production *** percent from 1991 to 1992, and *** during interim 1993 when compared to interim 1992. Capacity utilization *** in 1992, reaching *** percent. Interim 1993 also showed *** percent compared with *** percent in interim 1992. Capacity *** after 1991.[38] The quantity of U.S. producers' shipments *** percent from 1991 to 1992, and then *** percent in interim 1993 compared to interim 1992.[39] The ratio of U.S. producers' inventories to their total shipments *** from 1991 to 1992, ***. The ratio of inventories to total shipments *** in interim 1993 to *** compared with *** in interim 1992.

During 1991-92, production and related workers producing defrost timers *** percent. There was also *** percent during interim 1993 compared with interim 1992. Hours worked also *** from 1991 to 1992 *** percent and *** by *** percent during interim 1993 compared to interim 1992. Consistent with those changes, productivity *** percent during 1991-92. However, it *** percent during interim 1993 compared to interim 1992. Unit labor costs *** percent from 1991 to 1992, but they *** percent during interim 1993 compared to interim 1992.[40]

U.S. producers experienced a *** in their financial indicators during 1991-92. This *** trend continued through interim 1993 compared to interim 1992.[41] *** experienced by the domestic industry *** from 1991 to 1992. ***. Net sales by quantity and value *** during 1991-92, *** during interim 1993 compared to interim 1992. Gross profits *** from 1991 to 1992 and again in interim 1993 compared to interim 1992. The operating *** from 1991 to 1992 and was *** in interim 1993 compared with interim 1992.[42] The operating *** margin ***. The cost of goods sold *** from 1991 to 1992 and then was *** in interim 1993 compared with interim 1992. The selling, general, and administrative expenses experienced the same trend during 1991-92 and in interim 1993 when compared to interim 1992.[43] Capital expenditures by the U.S. producers *** from 1991 to 1992, but *** in interim 1993 compared with interim 1992.[44] [45]

III. Material Injury by Reason of LTFV Imports

In its determination of whether the domestic industry is materially injured by reason of the imports that Commerce has determined to be at LTFV, the statute directs the Commission to consider the volume of imports, their effect on prices for the like product, and their impact on domestic producers of the like product.[46] Although the Commission may

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[36] Petitioner has stated that the loss of this contract occurred as early as ***. CR at I-68; PR at II-23. The contract did not go into effect until ***. With this agreement, petitioner was ***. Petitioner's Posthearing Brief, Attachments 2 and 3.

[37] CR at I-10-I-11; PR at II-6.

[38] CR at I-15-I-16; PR at II-9.

[39] CR at I-16-I-17; PR at II-9.

[40] CR at I-19; PR at II-10.

[41] CR at I-22-I-23; PR at II-11.

[42] Vice Chairman Watson notes that the *** from interim 1992 to interim 1993 is somewhat misleading in that the *** is due, in large part, to *** in the domestic producers' own costs of production. He notes that, in interim 1993, domestic producers sold ***. Despite these *** trends, however, *** in 1993 due to *** in raw material, labor, and allocated factory overhead costs.

[43] CR at I-23, Table 6; PR at II-11.

[44] CR at I-31; PR at II-13.

[45] On the basis of the foregoing, Commissioner Rohr finds that the domestic industry is currently experiencing material injury.

[46] See 19 USC § 1677(7)(B)(i). The Commission also may consider "such other economic factors as are relevant to the determination." Id.

consider causes of injury other than the LTFV imports, it is not to weigh causes.[47] [48] [49] For the reasons discussed below, we find that the domestic industry producing defrost timers for residential refrigerators is materially injured by reason of LTFV imports of defrost timers from Japan.

In calculating the volume of subject imports, we have addressed the issue of whether shipments of Japanese defrost timers into a foreign trade zone ("FTZ") should be considered imports into the United States for material injury purposes.[50] Petitioner argues that such shipments should be considered subject imports,[51] while, in the preliminary investigation, respondents contended that they should not.[52] As in a recent preliminary investigation,

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[47] See e.g., Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1101 (CIT 1988). Commissioners Rohr and Nuzum further note that the Commission need not determine that imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 249, 96th Cong., 1st Sess. 57 and 74 (1979). Rather, a finding that imports are a cause of material injury is sufficient. See e.g., Metallverken Nederland, B.V. v. United States, 728 F. Supp. 730, 741 (CIT 1989); Citrosuco Paulista S.A. v. United States, 704 F. Supp. 1075, 1101 (CIT 1988).

[48] Vice Chairman Watson notes that the courts have interpreted the statutory requirement that the Commission consider whether there is material injury "by reason of" the subject imports in a number of different ways. Compare, e.g., United Engineering & Forging v. United States, 779 F. Supp. 1375, 1391 (CIT 1989)("rather it must determine whether unfairly-traded imports are contributing to such injury to the domestic industry. Such imports, therefore, need not be the only cause of harm to the domestic industry" (citations omitted)); Metallverken Nederland B.V. v. United States, 728 F. Supp. 730, 741 (CIT 1989)(affirming a determination by two Commissioners that "the imports were a cause of material injury"); USX Corporation v. United States, 682 F. Supp. 60, 67 (CIT 1988)("any causation analysis must have at its core, the issue of whether the imports at issue cause, in a non de minimis manner, the material injury to the industry...").

Accordingly, Vice Chairman Watson has decided to adhere to the standard provisions, which state that the Commission must satisfy itself that, in light of all the information presented, there is a "sufficient causal link between the less-than-fair-value imports and the requisite injury." S. Rep. No. 249, 96th Cong., 1st Sess. 75 (1979).

[49] Commissioners Brunsdale and Crawford note that the statute requires that the Commission determine whether a domestic industry is "materially injured by reason of" the LTFV imports. They find that the clear meaning of the statute is to require a determination on whether the domestic industry is materially injured by reason of LTFV imports, not by reason of LTFV imports among other things. Many, if not most, domestic industries are subject to injury from more than one economic factor. Of these factors, there may be more than one that independently is causing material injury to the domestic industry. It is assumed in the legislative history that the "ITC will consider information which indicates that harm is caused by factors other than the less-than-fair-value imports." S. Rep. No. 249 at 75. However, the legislative history makes it clear that the Commission is not to weigh or prioritize the factors that are independently causing material injury. Id. at 74; H.R. Rep. No. 317 at 47. The Commission is not to determine if the LTFV imports are "the principal, a substantial or a significant cause of material injury." S. Rep. No. 249 at 74. Rather it is to determine whether any injury "by reason of" the LTFV imports is material. That is, the Commission must determine if the subject imports are causing material injury to the domestic industry. "When determining the effect of imports on the domestic industry, the Commission must consider all relevant factors that can demonstrate if unfairly traded imports are materially injuring the domestic industry." S. Rep. No. 71, 100th Cong., 1st Sess. 116 (1987) (emphasis added).

[50] A Foreign-Trade Zone is territory physically situated within the United States but outside the official U.S. customs territory. Customs duties on foreign goods entering an FTZ are not paid by the importer unless and until the merchandise is shipped from the FTZ into the U.S. customs territory. However, customs laws and other U.S. laws do apply in FTZs.

In our preliminary determination we were able to reach an affirmative determination without resolving this issue. We asked for further briefing on this issue in the final investigation, but respondents did not participate.

[51] Petitioner's Posthearing Brief at 7-10.

[52] Postconference Brief of Sankyo Seiki at 10-12.

Coumarin from the People's Republic of China ("Coumarin")[53] we have considered such shipments to be subject imports. The statute provides that the Commission shall determine whether an industry in the United States is injured "by reason of imports . . . of the merchandise with respect to which the administering authority has made an affirmative determination. . . ."[54] Commerce considers shipments into FTZs to be imports when it calculates dumping margins.[55] Therefore, under the statute, imports into FTZs are subject imports.[56] [57]

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[53] Coumarin from the People's Republic of China, Inv. No. 731-TA-677 (Preliminary), USITC Pub. 2733 (February 1994). In that preliminary investigation we considered all of the entries into the FTZs to be imports of the product for the material injury determination. We have asked the parties in that investigation to fully brief this issue if there is a final investigation.

[54] 19 U.S.C. § 1673d(b).

[55] See, e.g., Notice of Final Determination of Sales at Less Than Fair Value: Certain Hot-Rolled Carbon Steel Flat Products, Certain Cold-Rolled Carbon Steel Flat Products, Certain Corrosion-resistant Carbon Steel Flat Products and Certain Cut-to-Length Carbon Steel Plate from Germany, 58 Fed. Reg. 37136 at 37140 (July 9, 1993).

[56] In this investigation, some defrost timers enter an FTZ to be incorporated into a downstream product before entering the customs territory of the United States, while other defrost timers enter an FTZ simply to be ***. CR at I-39; PR at II-16. Consistent with Commerce's policy in this investigation and with our recent determination in Coumarin, we consider entries of defrost timers into an FTZ that are then transformed into a downstream product before entering the U.S. customs territory, to be imports of defrost timers from Japan for the purposes of our material injury determination. We do not, however, include in our import volume the defrost timers that enter the FTZ to be ***. Those defrost timers are not included in Commerce's dumping calculation and, therefore, are not "subject imports." Moreover, under Commerce regulations and practice, if an antidumping order is issued, the defrost timers leaving the FTZ for the U.S. customs territory as part of a product manufactured in the FTZ will be subject to the antidumping duty, but the defrost timers *** will not be subject to antidumping duties. 15 C.F.R. § 400.33.

[57] Vice Chairman Watson has determined that those imports going into the FTZ for *** should be included in the data for purposes of determining whether *the domestic defrost timers industry* is experiencing material injury by reason of the subject imports. Defrost timers that initially enter the FTZ for such *** are timers that have already been *sold* to the domestic purchaser of defrost timers. Therefore, regardless of whether the *sold* defrost timer is shipped into an FTZ for further assembly there (such as the FTZ in ***) or whether it is shipped into an FTZ for *** *by the U.S. purchaser* for *** -- the harm to the domestic defrost timers industry is the same. Domestic producers have *lost* U.S. sales to respondents in both situations. In this investigation, all sales of defrost timers lost to respondents *** to the United States. Because all of these lost sales affect the domestic industry, they should be counted in our material injury determination.

Vice Chairman Watson acknowledges the legal and technical distinctions between those imports entering into an FTZ for further assembly there and those FTZ-destined imports that are ***. In this case, the former are considered imports from Japan whereas the latter are considered ***, and therefore, would not be subject to the imposition of additional duties as a result of our affirmative determination here. However, practically speaking, the impact of both types of "imports" on the domestic defrost timers producers is the same. In both instances, the domestic producers have lost sales to the respondents.

Domestic purchasers/importers (such as ***, in this investigation) could effectively avoid the imposition of dumping duties on defrost timers purchased from the subject country, merely by ***. Moreover, Vice Chairman Watson notes that one of the purposes of the 1991 FTZ amendments was to prevent zone procedures from being used to circumvent antidumping and countervailing duty actions. By ***, the purchaser/importer in this investigation escapes the "privilege" marking requirements of the recent 1991 FTZ amendments (15 C.F.R. §400.33(b)) and therefore escapes the purpose of that amendment.

Vice Chairman Watson acknowledges that the domestic purchaser/importer could currently escape the imposition of additional duties regardless of whether the Commission includes or excludes such data in its material injury determinations (by ***). However, he believes that inclusion of such data would more accurately reflect the level of material injury to the domestic industry.

There may be other situations in which ***. Some may be exported directly from *** to other destinations. In this case, however, it is unnecessary to reach the issue of whether such imports

(continued...)

The volume of the subject imports was significant, and it increased during the period of investigation both in absolute terms and in market share. By volume, the level of imports from Japan remained relatively steady from 1990 to 1991, but it increased by more than *** times from 1991 to 1992.[58] In addition, import volumes were larger in interim 1993 than in interim 1992.[59] Market penetration by the imports showed *** by ***, but market penetration then *** from the 1990 level in 1992.[60] In interim 1993, the imports held more than *** of the market.[61] By value, the market share of the Japanese imports demonstrated the same pattern. It *** from 1990 to 1991, but market penetration levels by value were *** the 1990 level in 1992. By value, the Japanese defrost timers had just under *** of the market in interim 1993.[62]

The adverse effects of the subject imports were reflected primarily in lost sales volume and market share by the domestic industry, rather than in price effects.[63] We note that the domestic industry has sufficient unused capacity that it could *** supply the quantity demanded by the refrigerator manufacturers.[64] [65] For example, when petitioner attempted to ***,[66] it lost a major sale of a significant quantity of defrost timers to the subject imports

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[57] (...continued)
should also be included in our data.

Regardless, the Vice Chairman's overall material injury determination in this investigation would not have changed if the data on FTZ *** had been excluded, given that such ***. CR at I-41.

[58] CR at I-41, Table 15; PR at II-16.

[59] Id.

[60] CR at I-44, Table 17; PR at II-17.

[61] Id. We note that imports of defrost timers from Japan ***. Commerce's preliminary affirmative determination suspending liquidation was issued effective August 24, 1993. 58 Fed. Reg. 44655 (August 24, 1993). We find that this decline in imports subsequent to Commerce's preliminary investigation is tied to Commerce's preliminary determination. ***. CR at I-48; PR at II-18.

Further, it is proper as a general matter to discount reductions in import volumes during the post-petition period in an investigation. See, e.g., Metallverken Nederland B.V. v. United States, 744 F.Supp. 281, 284 (Ct. Int'l Trade 1990) ("The court has previously stated that 'the initiation of antidumping and countervailing duty proceedings can create an artificially low demand for affected imports, thus distorting the data on which [the Commission] relies in making its determination.'"); USX Corp. v. United States, 655 F. Supp. 487, 492 (CIT 1987) ("This court and ITC consistently have recognized that the initiation of antidumping and countervailing duty proceedings can create an artificially low demand for affected imports, thus distorting the data on which ITC relies in making its determination."); Philipp Bros., Inc. v. United States, 640 F. Supp. 1340, 1346 (CIT 1986) ("The Commission may disregard or give little weight to tactical maneuvering after the filing of an antidumping petition."); Rhone Poulenc, S.A. v. United States, 592 F. Supp. 1318, 1324 (CIT 1984).

But see, Chr. Bjelland Seafoods A/C v. United States, 16 CIT ___ (Oct. 23, 1992) (hereinafter Bjelland), the CIT (Judge Goldberg) found that the Commission erred in its determination, in part, because it did not adequately explain, in view of apparently contrary evidence in that record, its conclusion that it gave "less weight to the recent decline in imports in 1990 because it appears to be largely the result of the filing of the petition and/or the imposition of provisional antidumping and countervailing duties." Fresh and Chilled Atlantic Salmon from Norway, Inv. Nos. 701-TA-302 and 731-TA-454 (Final), USITC Pub. 2371 (April 1991) at 17. Even if Bjelland correctly states the law, this investigation is distinguishable from the case reviewed by Bjelland since information on the record as set forth above clearly supports the reduced weight we give to the ***. CR at I-48; PR at II-18.

[62] CR at I-44, Table 17; PR at II-17.

[63] Vice Chairman Watson and Commissioner Nuzum note that the unit prices of the imported and domestic product to each of the OEMs demonstrate a mixed record of underselling by Sankyo Seiki. These same data indicate that the domestic industry, while *** its prices to the OEMs in 1992, *** its prices during interim 1993. CR at I-61, Table 20; PR at I-22.

[64] CR at I-16; PR at II-9.

[65] Commissioner Rohr notes that the record reflects that the decline in *** in 1992 and 1993 could have been supplied by the domestic industry.

[66] CR at I-60, n. 40 and I-68; PR at II-22, II-23, and II-25.

from Japan. The lost sale involved a significant percentage of domestic production.[67] In addition, *** at the expense of the domestic producers.[68] [69] [70]

IV. CONCLUSION

For all the reasons above, we find that the domestic industry producing defrost timers for residential refrigerators is materially injured by reason of LTFV imports from Japan.

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[67] *** as a result of competition from imports from Japan. CR at I-68; PR at II-23, II-25. ***. Id.

[68] ***. CR at I-47, Table 18; PR at II-18.

[69] During the preliminary investigation, the respondent claimed that Sankyo's defrost timers were sufficiently superior in quality to the domestically produced timer to be the reason for the domestic producers' loss of sales to Sankyo. Sankyo Seiki's Postconference Brief at 5-10. We considered this issue again during this final investigation and found that quality precertification requirements and other information provided by the OEMs and petitioner suggested that price was a more significant factor in the loss of sales than the quality, CR at I-49-I-52; PR at II-18-II-19; Posthearing Brief of Petitioner, Attachments 2-7, and that there are not now significant quality distinctions between the imports and the domestic product.

[70] Commissioner Brunsdale and Commissioner Crawford note that the dumping margin is 83.67 percent. While the record indicates that the domestic product's quality is lower than the Japanese product, they find that, overall, the two are relatively good substitutes. As a result, they find that an increase in the price of LTFV imports to "fair" levels (e.g., 83.67 percent higher) would price them out of the market. They therefore conclude that the dumping of the imports is materially injuring a domestic industry and, with their colleagues, conclude that the effect is felt through lower sales volume. That is, sales of the domestic product would have been significantly greater, and a domestic industry would have been materially better off, if the Japanese imports had been priced fairly.

PART II

INFORMATION OBTAINED IN THE INVESTIGATION

INTRODUCTION

Following a preliminary determination by the U.S. Department of Commerce that imports of defrost timers for residential refrigerators[1] from Japan are being, or are likely to be, sold in the United States at less than fair value (LTFV) (58 F.R. 44655, August 24, 1993), the U.S. International Trade Commission, effective August 24, 1993, instituted investigation No. 731-TA-643 (Final) under section 735(b) of the Tariff Act of 1930 (the Act) (19 U.S.C. § 1673d(b)) to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of imports of such merchandise. Notice of the institution of the Commission's investigation and of a public hearing to be held in connection therewith was posted in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and published in the *Federal Register* on September 15, 1993 (58 F.R. 48373).[2] The hearing was held in Washington, DC, on January 11, 1994, and the vote was held on February 15, 1994.[3]

The Commission was formally notified of Commerce's final LTFV determination on January 11, 1994. The applicable statute directs that the Commission make its final injury determination before 45 days after the final determination by Commerce. The Commission's administrative deadline for completion of this investigation is February 22, 1994.

A summary of the data collected in this investigation is presented in appendix C.

BACKGROUND

This investigation results from a petition filed by Paragon Electric Co., Inc., Two Rivers, WI, on January 19, 1993, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of defrost timers for residential refrigerators from Japan. In response to that petition, the Commission instituted investigation No. 731-TA-643 (Preliminary) under section 733 of the Act (19 U.S.C. § 1673b(a)) and, on March 5, 1993, determined that there was a reasonable indication of such material injury.

THE PRODUCT

Description and Uses

The imported articles under investigation are defrost timers used in residential refrigerators to reduce or eliminate the buildup of ice on the evaporator coils. Defrost timers for residential

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[1] As defined by the U.S. Department of Commerce in its "scope of investigation" statement, defrost timers are electromechanical and electronic defrost timers for residential refrigerators. Electromechanical defrost timers are comprised of several components that make or break electric circuits by activating two sets of electrical contact points--one to disconnect the compressor (the cooling mechanism) and the other to connect the defrost heater. The articles are equipped with a synchronous or subsynchronous motor. The defrost timer disconnects the compressor by opening an electrical circuit after the compressor itself has run for a length of time predetermined by the manufacturer depending on the specifications of the model. Upon completion of the compressor run cycle (and simultaneously with the compressor's disconnection) the defrost heater is activated and runs for a preset time (again depending on the model), as predetermined by the manufacturer. Electronic defrost timers have a similar function, but they operate with greater efficiency because a microprocessor in the device uses information gathered during the defrost cycle to adjust the compressor run time. This system defrosts only when needed, thereby improving the efficiency of the refrigerator. Defrost timers for residential refrigerators are provided for in subheading 9107.00.40 of the Harmonized Tariff Schedule of the United States (HTS).

[2] Copies of cited *Federal Register* notices are presented in app. A.

[3] A list of witnesses who appeared at the hearing is presented in app. B.

refrigerators are either electromechanical or electronic. Unlike defrost timers used as a component of commercial refrigerators, defrost timers of residential refrigerators do not activate a defrost cycle based upon the time of day and, therefore, do not incorporate a time clock. Defrost timers for residential refrigerators are also smaller in size and voltage output and are less than one-fifth the cost of commercial refrigerator defrost timers.[4]

Electromechanical defrost timers, each equipped with a synchronous or subsynchronous motor, make or break electric circuits by activating two sets of electrical contact points that connect and disconnect the compressor (the cooling mechanism) and the defrost heater. The electromechanical defrost timer disconnects the compressor by opening an electrical circuit after the compressor has run for a length of time predetermined by the refrigerator manufacturer, depending on the specifications of the model. Upon completion of the compressor run cycle and simultaneously with the compressor's disconnection, the defrost timer activates the defrost heater to run for a predetermined period of time. The defrost heater melts the ice that has accumulated on the evaporator coil. During the defrost cycle, the electromechanical defrost timer is on at all times. The refrigerator manufacturer generally specifies a defrost time approximately five minutes longer than actual defrost requires, with the extra time allowing for water to run off the evaporator coil before the timer turns on the compressor following a defrost.

Electronic defrost timers have a similar function as electromechanical defrost timers. However, instead of a synchronous motor, electronic defrost timers contain a microprocessor that uses information gathered during the defrost cycle to adjust the motor's compressor run time for more efficient operation of the refrigerator. After completion of a defrost cycle, the electronic defrost timer compares the actual defrost time to the factory-programmed optimum defrost time. If the actual defrost time is longer than the optimum defrost time, the electronic defrost timer shortens the time between defrosts during the next cycle. Alternatively, if the actual defrost time is shorter than the optimum defrost time, the electronic defrost timer lengthens the time between defrosts during the following cycles. Thus, by repeated measurements of actual defrost times and automatic adjustments to the times between defrosts, the electronic defrost timer reportedly allows the refrigerator to defrost only when needed.

Manufacturing Processes

Imported electromechanical defrost timers are believed to be manufactured using technological processes similar to those currently employed by domestic manufacturers in electromechanical defrost timers produced for the original equipment market (OEM). Many of the parts that make up domestic electromechanical defrost timers are fabricated, machined, and assembled by dedicated equipment and production workers. ***.[5]

The domestic manufacture of electromechanical defrost timers involves design and development of the unit to conform with timing specifications established by refrigerator manufacturers and with substantially automated fabrication and assembly of subassemblies that make up the finished product. Machine tooling on variously-sized molding presses allows automatic operation in the molding of plastics used in cases, covers, reduction and worm gearing, and cams. Operators run the molding machines and inspect completed molded parts.[6]

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[4] The Commission, in its preliminary investigation, found that residential defrost timers and commercial defrost timers are not like products (USITC pub. 2609, p. 10).

[5] Per conversations with *** during a tour of petitioner's manufacturing plant on Feb. 3, 1993.

[6] The petitioner also continues to manufacture a model of electromechanical defrost timer, intended for the aftermarket, that contains components and a casing fabricated of metal and that operates interchangeably with the newer model manufactured mostly of materials of plastics. Subject imports from Japan are similar to and interchangeable with the domestic products and are fabricated mostly of plastics.

The contact-bearing blades used in the switching mechanism are created by an automatic forming/shearing machine that punches out forms and assembles contacts from rolls of copper alloy and silver composite materials, respectively. Metal parts are stamped, washed, and inspected with various measuring instruments and gages. Subassembly mechanisms in the motor are assembled automatically with customized high-speed, dedicated production equipment. Operators load parts, perform minor maintenance, and inspect production quality. Coils of magnet wire are automatically wound, soldered, and tested for surges and resistance levels. Upon final assembly, each electromechanical defrost timer is tested on specially-built test racks for proper operation of the motor, and the timing is checked against print specifications. Subsequently, timers are packed according to customers' packaging requirements.

The domestic manufacture and assembly of electronic defrost timers are substantially different from those for electromechanical defrost timers. The production of electronic defrost timers, currently numbering *** fewer units than that of electromechanical defrost timers, incorporates different components, materials, equipment, processes, and personnel; proportionately more parts (chiefly electronic circuitry and components) procured from outside vendors; and sensitive handling of delicate electronic circuitry.

The domestic producers reported that the equipment and machinery used in the production of defrost timers for residential refrigerators are not used to produce any other products.

U.S. Tariff Treatment

Electromechanical defrost timers for residential refrigerators are classified for tariff purposes in subheading 9107.00.40 of the HTS, which encompasses time switches with clock or watch movements or with synchronous motors, valued not over $5 each.[7] The column 1-general (most-favored-nation) rate of duty for this subheading, applicable to imports of the subject electromechanical defrost timers from Japan, is a compound rate of duty of 15 cents each plus 4 percent ad valorem plus 2.5 cents per jewel.

At the present time, the petitioner believes that electronic defrost timers for residential refrigerators are not being imported into the United States, and the respondent stated at the conference that it does not manufacture such products. The Customs Service believes that electronic defrost timers for residential refrigerators comparable to those produced domestically by the petitioner, if they were to be imported into the United States, would be classified under a subordinate category of HTS heading 9107 depending upon their customs value.[8]

A substantial portion of the defrost timers imported into the United States from Japan, including subject electromechanical defrost timers for refrigerators, are admitted into special-purpose foreign-trade zones (subzones) for incorporation into such finished products as refrigerators. Foreign-trade zones (FTZs), including subzones, are considered to be outside the customs territory of the United States for tariff purposes (except for purposes of the North American Free-Trade Agreement, as of January 1, 1994). Import duties on foreign merchandise are not collected until the

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[7] Time switches are devices that regulate the operation of various control switches on a timed basis. They are usually components of larger systems that make or break an electric circuit automatically. Time switches are used in such areas as home appliances, heating and air-conditioning systems, and lighting circuits. They usually contain clock movements or modules and fall into one of three types: mechanical, electromechanical, and electronic. Mechanical time switches are spring wound and most often used in appliances. Electromechanical time switches, which generally have a synchronous motor, are employed when precision or switching power somewhat greater than that of mechanical time switches is required; they are found in both household and industrial applications. Electronic time switches have a solid-state module, making them the most precise of the three types, and have applications in both industry and the home.

[8] ***, telephone conversation, Feb. 24, 1993. Subheading 9107.00.80 covers such timer switches valued for customs purposes at over $5 each.

merchandise is entered into U.S. customs territory. The importer generally has the choice of paying duties on goods according to their condition as originally admitted into a zone (privileged status) or according to their condition at the time of entry into the customs territory (nonprivileged status). The latter is often used for certain lower-duty finished goods. Subzone operations are financially advantageous in so-called "inverted tariff" situations, when the rates of duty on finished articles are lower than the rates applicable to the components contained in the articles. Such is the case with respect to defrost timers for residential refrigerators from Japan admitted into a subzone for inclusion in refrigerators. The timers would, if imported directly into the customs territory, be assessed the duty rate of subheading 9107.00.40--considerably in excess of the 2.9 percent ad valorem rate of duty on completed household refrigerators. If a dumping duty were imposed on the subject timers, the FTZ Board could require that timers used in the subzones be treated as having privileged status (that is, be entered as "timers," not as "refrigerators").

THE NATURE AND EXTENT OF SALES AT LTFV

On January 11, 1994, Commerce notified the Commission of its final determination that imports of defrost timers from Japan are being, or are likely to be, sold in the United States at LTFV. Commerce's final LTFV margin is 83.67 percent ad valorem for Sankyo Seiki Manufacturing Co., Ltd. (Sankyo) and for any other Japanese producers and exporters. Commerce's final LTFV margin is based on the use of "best information available" (BIA) as discussed in detail in its *Federal Register* notice (59 F.R. 1928, January 13, 1994).

THE DOMESTIC MARKET

U.S. Consumption

The data on apparent U.S. consumption of defrost timers for residential refrigerators presented in table 1 are composed of U.S. defrost timer producers' U.S. shipments reported in response to the Commission's producers' questionnaires plus U.S. shipments of imported defrost timers reported in response to the Commission's importers' questionnaires.

Table 1
Defrost timers for residential refrigerators: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by types, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

On the basis of the data presented in table 1, apparent consumption of defrost timers (excluding imports consumed in U.S. foreign-trade zones), measured in units, *** from 1990 to 1991 and *** from 1991 to 1992. Apparent consumption during January-September 1993 was *** percent *** that during January-September 1992.

Apparent consumption of defrost timers (including imports consumed in U.S. foreign-trade zones), measured in units, increased *** percent from 1990 to 1991 and decreased *** percent from 1991 to 1992. Apparent consumption during January-September 1993 was *** percent above that during January-September 1992.

U.S. Producers

The petition lists the following producers of defrost timers for residential refrigerators:

Paragon Electric Co., Inc., Two Rivers, WI;
Controls Division of Eaton Corp., Crystal Lake, IL; and
Mallory Controls Division of Emerson Electric Co., Indianapolis, IN.

Paragon Electric Co., Inc. (Paragon), a Wisconsin corporation, is a subsidiary of Ranco, Inc., a Delaware corporation. Ranco is a subsidiary of Siebe, Inc., another Delaware corporation, which is wholly owned by Siebe plc of the United Kingdom.[9] Paragon manufactures its defrost timers in Two Rivers, WI. ***, Eaton Corp. (Eaton) ***.[10] Eaton's corporate headquarters are located in Cleveland, OH. Mallory Controls Division of Emerson Electric Co. (Mallory) manufactures defrost timers in Sparta, TN. Mallory's corporate headquarters are located in Indianapolis, IN.[11] ***.[12]

Eaton, Mallory, and Paragon responded to the Commission's questionnaire, and the following tabulation presents each company's share (in percent) of 1992 production, based on units, and the firms' positions with respect to the petition:

Firm	Share of 1992 total production *(Percent)*	Position with respect to the petition
Eaton		
Crystal Lake, IL	***	***
Mallory		
Indianapolis, IN	***	***
Paragon		
Two Rivers, WI	***	Supports
	100.0	

U.S. Importers

In addition to Sankyo, the petition identified Admiral Refrigeration Co. (Admiral), General Electric, and Whirlpool Corp. (Whirlpool) as likely importers of defrost timers from Japan.[13] Information provided by the U.S. Customs Service identified a limited number of other possible importers. Questionnaires were sent to all firms identified as likely importers of defrost timers.

***. ***. ***. No other importers of defrost timers from Japan were identified. The largest importer of defrost timers from Japan during the period for which data were collected was ***.

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[9] Petition, p. 2. In its questionnaire response, Paragon stated that ***.
[10] ***.
[11] ***.
[12] ***.
[13] Petition, p. 12.

Channels of Distribution

Most sales by U.S. producers of defrost timers for residential refrigerators are made directly to end users; however, some sales of replacement defrost timers are made through distributors. Shipments of defrost timers in 1992 by domestic producers were *** percent to unrelated distributors and *** percent to unrelated end users. Captive shipments by refrigerator manufacturers accounted for *** percent of total shipments of defrost timers imported from Japan in 1992. The remainder, *** percent, were sold to unrelated distributors.

CONSIDERATION OF THE QUESTION OF MATERIAL INJURY TO AN INDUSTRY IN THE UNITED STATES

Section 771(7)(B) of the Act (19 U.S.C. § 1677(7)(B)) provides that in making its determination in this investigation the Commission--

> shall consider (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, but only in the context of production operations within the United States; and
>
> may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--

> In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.
>
> In evaluating the effect of imports of such merchandise on prices, the Commission shall consider whether (I) there has been significant price underselling by the imported merchandise as compared with the price of like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.
>
> In examining the impact required to be considered under subparagraph (B)(iii), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to, (I) actual and potential decline in output, sales, market share, profits, productivity, return on investments, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, and (IV) 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.

Available information on the volume of imports (item (B)(I) above) is presented in the section of this report entitled "U.S. Imports." Information on the other factors specified is presented in this section, and (except as noted) is based on the questionnaire responses of 3 firms that accounted for 100 percent of U.S. shipments of defrost timers for residential refrigerators during 1992.

U.S. Capacity, Production, and Capacity Utilization

The Commission requested producers of defrost timers to provide data on their capacity from January 1990 to September 1993.[14] Reported capacity *** from 1990 to 1991 and from 1991 to 1992 (table 2). Reported capacity during January-September 1993 was *** the capacity reported during January-September 1992.

Table 2
Defrost timers for residential refrigerators: U.S. capacity, production, and capacity utilization, by products, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

U.S. production of defrost timers by U.S. producers *** by *** percent from 1990 to 1991 and then *** by *** percent from 1991 to 1992. Production during January-September 1993 was *** percent *** that during January-September 1992.

Capacity utilization *** from *** percent in 1990 to *** percent in 1991 and *** to *** percent in 1992. Capacity utilization during January-September 1993 was *** percent versus *** percent during January-September 1992. The U.S. defrost timer industry appears to have substantial excess capacity when capacity is compared with apparent consumption presented in table 1.

U.S. Producers' Shipments

U.S. producers' U.S. shipments of defrost timers ***, on the basis of quantity, from 1990 to 1991 and *** percent from 1991 to 1992 (table 3). The quantity of U.S. producers' U.S. shipments during January-September 1993 *** percent when compared with such shipments during January-September 1992. On the basis of value, U.S. producers' U.S. shipments *** percent from 1990 to 1991 and then *** from 1991 to 1992. The value of U.S. producers' U.S. shipments during January-September 1993 *** when compared with such shipments during January-September 1992.

Table 3
Defrost timers for residential refrigerators: Shipments by U.S. producers, by products and by types, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

[14] Practical capacity was defined as the greatest level of output a plant can achieve within the framework of a realistic work pattern. Producers were asked to consider, among other factors, a normal product mix and an expansion of operations that could be reasonably attained in their industry and locality in setting capacity in terms of the number of shifts and hours of plant operations.

U.S. producers' export shipments of defrost timers *** percent, on the basis of quantity, from 1990 to 1991 and *** from 1991 to 1992. The quantity of U.S. producers' export shipments during January-September 1993 *** when compared with such shipments during January-September 1992. On the basis of value, U.S. producers' export shipments *** from 1990 to 1991 and *** percent from 1991 to 1992. The value of U.S. producers' export shipments during January-September 1993 *** when compared with such shipments during January-September 1992.

U.S. Producers' Inventories

U.S. producers' inventories of defrost timers for residential refrigerators ***. U.S. producers' yearend inventories of defrost timers *** percent from 1990 to 1991 and *** from 1991 to 1992 (table 4). Inventories at the end of September 1993 were *** percent *** inventories at the end of September 1992. As a percent of total shipments, inventories were *** percent in 1990, *** percent in 1991, *** percent in 1992, *** percent during January-September 1992, and *** percent during January-September 1993.

Table 4
Defrost timers for residential refrigerators: End-of-period inventories of U.S. producers, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Employment and Wages

The number of production and related workers producing defrost timers *** from 1990 to 1991 and *** from 1991 to 1992 (table 5). The number of production and related workers during January-September 1993 *** when compared with such workers during January-September 1992. Hours worked *** from 1990 to 1991 and *** from 1991 to 1992. Hours worked *** during January-September 1993 when compared with hours worked during January-September 1992. Productivity, measured in units per hour, *** from 1990 to 1991 and *** from 1991 to 1992. Productivity *** during January-September 1993 when compared with productivity during January-September 1992. Unit labor costs *** from 1990 to 1991 and *** from 1991 to 1992. Unit labor costs *** during January-September 1993 when compared with unit labor costs during January-September 1992.

Table 5
Average number of U.S. production and related workers producing defrost timers for residential refrigerators, hours worked, wages and total compensation paid to such employees, and hourly wages, productivity, and unit labor costs, by products, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

The production and related workers at Paragon are represented by the International Brotherhood of Electrical Workers, Local 1512. ***. ***. ***. The workers at Mallory and Eaton are not represented by a union. ***. ***. ***.

Financial Experience of U.S. Producers

Three U.S. producers--Paragon, Mallory, and Eaton--accounting for all U.S. sales of defrost timers for residential refrigerators in 1992, supplied income-and-loss data on their operations producing defrost timers for residential refrigerators. Mallory and Eaton produce only electromechanical defrost timers for residential refrigerators, whereas Paragon produces both electromechanical and electronic defrost timers for residential refrigerators.

Operations on All Defrost Timers for Residential Refrigerators

Aggregate income-and-loss data of the three producers on their defrost timers for residential refrigerators are shown in table 6. Table 7 presents selected income-and-loss data, by firms, for these same operations. The aggregate net sales value *** by *** percent from $*** in 1990 to $*** in 1991, and then *** by *** percent to $*** in 1992. The sales value *** by *** percent from $*** in January-September 1992 to $*** in January-September 1993. Net sales quantities *** by *** percent from 1990 to 1991 and *** by *** percent from 1991 to 1992. Such sales *** by *** percent during the interim period from 1992 to 1993.

Table 6
Income-and-loss experience of U.S. producers on their operations producing all defrost timers for residential refrigerators, calendar years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Table 7
Income-and-loss experience of U.S. producers on their operations producing all defrost timers for residential refrigerators, by firms, calendar years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Paragon reported a *** of *** percent in its sales volume from 1991 to 1992; during this period, the other producers showed ***. During the interim period from 1992 to 1993, *** sales volume: *** by *** percent and *** by *** percent.

Aggregate data for the three producers show operating ***. The operating *** from $***, or *** percent of net sales, in 1990 to $***, or *** percent of net sales, in 1991 and then *** to $***, or *** percent of net sales, in 1992. Such *** from $***, or *** percent of net sales, in January-September 1992 to $***, or *** percent of net sales, in January-September 1993.

Average selling price per unit *** by *** percent from 1990 to 1992. Average cost of goods sold per unit *** by *** percent from 1990 to 1991, and *** by *** percent from 1991 to 1992 and by *** percent from interim 1992 to interim 1993. Average gross profit *** by *** percent per unit in 1991, but *** by *** percent per unit in 1992 and by *** percent per unit from interim 1992 to interim 1993. Average selling, general, and administrative expenses per unit *** in 1991 because of ***, but *** in 1992 to *** in 1990, and *** by *** percent from interim 1992 to interim 1993. Operating *** per unit *** from $*** in 1990 to $*** in 1991 and then *** to $*** in 1992 and $*** in January-September 1993.

Paragon is the only producer that reported ***. Its direct labor cost per unit *** from $*** in 1990 to $*** in 1991 and 1992. The company attributed this *** to ***. Paragon's factory

overhead per unit ***. Its cost per unit *** in 1992 partly because of *** and ***. Paragon's unit costs for raw materials, direct labor, and other factory costs *** from January-September 1992 to January-September 1993. Major elements of cost of goods sold per unit, by firms, are shown in table 7.

* * * * * * *[15]

Operations on Electromechanical Defrost Timers for Residential Refrigerators

Table 8 presents aggregate income-and-loss data on electromechanical defrost timers for residential refrigerator operations. These data are slightly different since 1991 from the data shown in table 6 for all defrost timers for residential refrigerators because they exclude the data on electronic defrost timers. ***. ***.

Table 8
Income-and-loss experience of U.S. producers on their operations producing electromechanical defrost timers for residential refrigerators, calendar years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Operations on Electronic Defrost Timers for Residential Refrigerators

Paragon began production of electronic defrost timers for residential refrigerators in 1991. No other firms produce this product. Paragon's data on electronic defrost timers for residential refrigerators are presented in table 9. ***. The sales value per unit ***.

Table 9
Income-and-loss experience of Paragon on its operations producing electronic defrost timers for residential refrigerators, calendar years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Investment in Productive Facilities

The value of property, plant, and equipment, and total assets of Paragon and Mallory for their operations on defrost timers for residential refrigerators are presented in table 10 (Eaton did not provide asset data). The return on the book value of fixed assets and the return on total assets are also shown in that table. Operating and net returns on the book value of fixed and total assets, except for electronic defrost timers for residential refrigerators, *** during the period for which data were collected in the investigation.

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[15] ***.

Table 10
Value of assets and return on assets of U.S. producers' operations producing defrost timers for residential refrigerators, by products, calendar years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Capital Expenditures

The capital expenditures incurred by Paragon and Mallory are shown in table 11. Eaton did not provide data on its capital expenditures. ***. ***. Most of the capital expenditures have been for ***.

Table 11
Capital expenditures by U.S. producers of defrost timers for residential refrigerators, by products, calendar years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Research and Development Expenses

The research and development (R&D) expenses reported by *** are shown in table 12.

Table 12
Research and development expenses of U.S. producers on defrost timers for residential refrigerators, by products, calendar years 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Impact of Imports on Capital and Investment

The Commission requested each producer to describe any actual and/or potential negative effects of imports of defrost timers for residential refrigerators from Japan on its growth, investment, ability to raise capital, or existing development and production efforts (including efforts to develop a derivative or improved version of its products). Appendix D presents the producers' responses.

CONSIDERATION OF THE QUESTION OF THREAT OF MATERIAL INJURY TO AN INDUSTRY IN THE UNITED STATES

Section 771(7)(F)(i) of the Act (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

the merchandise, the Commission shall consider, among other relevant economic factors[16]--

(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,

(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 706 or 736, are also used to produce the merchandise under investigation,

(IX) 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 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), and

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[16] 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."

(X) 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.[17]

Information on the volume, U.S. market penetration, and pricing of imports of the subject merchandise (items (III) and (IV) above) is presented in the section entitled "Consideration of the Causal Relationship Between Imports of the Subject Merchandise and the Alleged Material Injury," and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts (item (X)) is presented in appendix D. 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)); any other threat indicators, if applicable (item (VII)); and on any dumping in third-country markets, follows. Other threat indicators have not been alleged or are otherwise not applicable.

U.S. Importers' Inventories

All reported imports were of electromechanical defrost timers for residential refrigerators. Importers' inventories are presented in table 13.

Table 13
Electromechanical defrost timers for residential refrigerators: End-of-period inventories of U.S. importers, by types and by sources, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

Ability of Foreign Producers to Generate Exports and the Availability of Export Markets Other Than the United States

There are three defrost timer producers in Japan, but only Sankyo exports defrost timers to the United States. In the preliminary investigation and much of the final investigation, Sankyo retained counsel and actively opposed the petition before the Commission; however, on December 6, 1993, counsel for Sankyo informed the Commission of counsel's withdrawal from the investigation. The other Japanese producers (Tokyo Parts Kogyo Co., Ltd. and Nakagawa Denka Co., Ltd.) did not file entries as parties to this investigation.

Early in this final investigation, the Commission requested counsel for Sankyo to provide information on the firm's operations in Japan. The information requested consisted of production, capacity, capacity utilization, home-market shipments, exports to the United States, and total exports for 1990-92, January-September 1992, and January-September 1993, and of projected changes in those data in 1993 and 1994.[18]

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[17] Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further 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."

[18] Counsel was also asked to provide data for any Sankyo production in countries other than Japan. ***.

Data for Sankyo's defrost timer operations in Japan, as received from Sankyo's counsel, are presented in table 14. As shown, Sankyo's capacity ***.[19] ***. Production ***. Exports to the United States increased *** from 1990 to 1991 and from 1991 to 1992. Exports to markets other than the United States *** from 1990 to 1991 and *** percent from 1991 to 1992. End-of-period inventories *** from 1990 to 1991 and *** from 1991 to 1992.

The same information was requested for all Japanese producers through diplomatic channels, but no information was received.[20]

Table 14
Defrost timers for residential refrigerators: Sankyo's capacity, production, capacity utilization, shipments, and inventories, 1990-92, Jan.-Sept. 1992, Jan.-Sept. 1993, and projected 1993-94

* * * * * * *

CONSIDERATION OF THE CAUSAL RELATIONSHIP BETWEEN IMPORTS OF THE SUBJECT MERCHANDISE AND THE ALLEGED MATERIAL INJURY

U.S. Imports

Official U.S. Department of Commerce import data cannot be used in this investigation because imports under HTS subheading 9107.00.40 include merchandise other than defrost timers for residential refrigerators. Accordingly, the data presented are based on responses to the Commission's questionnaires.

* * * * * * *[21]

At the Commission's conference, counsel for Sankyo raised the issue of whether entries into U.S. foreign-trade zones constitute imports, given the fact that foreign-trade zones are outside the customs territory of the United States.[22] Petitioner considers all entries into the United States to be imports, including entries into foreign-trade zones.[23] Therefore, imports of defrost timers for residential refrigerators into the U.S. customs territory and into foreign-trade zones are presented both separately and combined for the Commission's consideration (table 15). Shipments of imports from Japan are presented in table 16.

Table 15
Electromechanical defrost timers for residential refrigerators: U.S. imports, by types and by sources, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

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[19] ***.

[20] A Department of State telegram received in response to the Commission's request stated that the U.S. embassy was not in a position to provide the information requested.

[21] ***.

[22] Transcript of conference, pp. 73-75 and p. 107.

[23] Transcript of conference, pp. 101-102.

Table 16
Defrost timers for residential refrigerators: Shipments of U.S. imports (including foreign-trade zone imports) from Japan, by types, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Market Penetration of Imports

U.S. imports of defrost timers as a share of apparent U.S. consumption are presented in table 17. Based on quantity, market penetration by imports from Japan (consumed within the U.S. customs territory) *** from *** percent in 1990 to *** percent in 1991 and increased to *** percent in 1992. Market penetration by imports from Japan during January-September 1993 was *** percent compared with a market penetration of *** percent during January-September 1992.

Table 17
Defrost timers for residential refrigerators: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, by types, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Market penetration by imports from Japan, on a quantity basis (consumed within the U.S. customs territory and within U.S. foreign-trade zones), *** from *** percent in 1990 to *** percent in 1991, and increased to *** percent in 1992. Market penetration by imports from Japan during January-September 1993 was *** percent compared with a market penetration of *** percent during January-September 1992. Market penetration based on value followed similar trends. The unit values of imports from Japan into foreign-trade zones *** the unit values of imports from Japan directly into the customs territory.

Apparent U.S. consumption (excluding U.S. foreign-trade zone imports), by source, is presented graphically in figure 1, and apparent U.S. consumption (including U.S. foreign-trade zone imports), by source, is presented in figure 2.

Figure 1
Apparent U.S. consumption (excluding U.S. foreign-trade zone imports), by source, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Figure 2
Apparent U.S. consumption (including U.S. foreign-trade zone imports), by source, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

* * * * * * *

Market Characteristics

The defrost timers under investigation are sold mainly to original equipment manufacturers (OEMs) for use in new residential refrigerators, with a much smaller amount going to the aftermarket for use as replacement parts. The demand for new refrigerators is closely tied to the level of new housing starts in the United States. Because of the general sluggishness in housing starts much of the time during the past 3 years, the overall demand for defrost timers used in residential refrigerators has increased slowly.[24]

The market for defrost timers to be used in new refrigerators consists of a small number of sellers and buyers. Two domestic firms, Paragon and Mallory, and the Japanese producer, Sankyo, have accounted for most of the sales of defrost timers to the residential refrigerator manufacturers during the last three years. The smallest domestic producer, Eaton, ***. Five refrigerator manufacturers (Admiral, Amana, Frigidaire, General Electric, and Whirlpool) account for most purchases of defrost timers used in new refrigerators. Distributions of purchases by these OEMs from domestic sources, from imports from Japan, and from imports from other sources during 1990-92 are presented in table 18. The major shift in purchases by *** from domestic sources to imports from Japan *** is shown in the table.

Table 18
Defrost timers for residential refrigerators: Purchases of electromechanical defrost timers, by major OEMs and by sources, 1990-92

* * * * * * *

In addition to buying from domestic producers, Admiral, General Electric, and Whirlpool have all imported defrost timers directly from Sankyo during the past three years. However, *** of these companies reported in their questionnaires that they *** during 1993. Admiral and Whirlpool ***, while General Electric ***.[25] According to ***, its imports *** because ***.[26] ***.[27]

Sales by the domestic producers in the aftermarket are made to three basic groups of buyers. They consist of OEMs, who market the defrost timers through their service arms; master distributors; and independent dealers and distributors.[28] Defrost timers produced by Sankyo ***. General Electric reported in its questionnaire that ***; less than ***.

Although defrost timers are commonly sold on both a spot and a contract basis, the majority of sales to OEMs are on a contract basis, while spot sales are predominant in the aftermarket. Eaton, ***, reported that ***. Paragon, ***, reported that ***, whereas Mallory reported that ***.

Product Comparisons

Producers, importers, and purchasers were asked to discuss differences between domestic and imported defrost timers that would help to explain differences in prices and in purchasing patterns. Product characteristics and marketing considerations were both discussed in the questionnaire responses.

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[24] Transcript of conference, pp. 22-23.
[25] The defrost timers that ***. ***.
[26] ***.
[27] ***.
[28] Transcript of conference, pp. 20-21.

Contract terms on sales to OEMs vary widely. In some cases fixed prices and sales quantities are specified for an extended period, while in other cases the agreements are more flexible. OEMs commonly negotiate informally with two or three suppliers before making a purchase. While contracts may extend for periods of more than one year, prices are generally renegotiated at least once a year. Admiral and General Electric have both had provisions in their contracts with ***. General Electric's contract ***. Paragon and Mallory ***.

Before selling defrost timers to any of the OEMs, a supplier must first meet strict qualification requirements. OEMs reported that they consider these requirements important because defective timers can result in expensive repair costs for new refrigerators during the warranty period.[29] In order to obtain qualification, a producer is required to submit sample timers to the OEMs for testing. While these testing requirements vary from purchaser to purchaser, a high degree of reliability in trial factory runs is essential. Other factors, such as efficient energy usage, may also be important. If the sample timers pass the tests, the producer is considered a qualified supplier, and thus eligible to take part in price negotiations for a contract.

Questionnaire responses indicate that product quality tends to be the most important purchasing consideration for OEMs. When asked to rank several factors including availability, credit terms, price, product quality, and supplier's product range in terms of importance, *** of the five OEMs ranked product quality in first place. *** ranked product quality second in importance behind availability. Besides ranking quality in first place, *** gave first place rankings to availability and price. Price was ranked second by *** and *** and third by *** and ***.[30] Responses to the producer's and purchaser's questionnaires indicated that opinions concerning the relative quality of domestically produced defrost timers and those imported from Japan vary widely. All three domestic producers reported that ***. Opinions differed among the OEMs. ***. *** and *** indicated that U.S.-produced and Japanese-produced timers are comparable in quality, although *** indicated that it had problems in the past with ***. *** reported that it had serious problems with the quality of ***.[31] *** reported that it also had quality problems with the defrost timers that it ***. *** defrost timers from Japan in *** of 1993. Quality considerations were not a major factor in this decision.[32] According to ***, *** because ***. ***.

*** and *** consider *** defrost timers to be *** to the competing domestic products. In its purchaser questionnaire, *** reported that the *** than for U.S.-produced timers. *** imported Japanese timers throughout 1990-92, but *** of 1993. Before 1992, *** bought *** its defrost timers from Paragon. However, in 1992 it ***.[33] ***. According to ***, ***.[34] *** estimated that ***.[35] However, ***. ***.

Purchasers were also asked to discuss whether electromechanical and electronic defrost timers are closely substitutable products. While the OEMs generally agree that they can be used for the same purposes, some, namely ***, believe that electronic timers reduce energy consumption and improve efficiency, whereas others felt that the electronic timers could not be substituted in their existing refrigerator models without making major changes in the wiring. In particular, *** stated that the substitution would be extremely difficult, if not impossible, because of these wiring problems. *** also noted that wiring problems are a factor that limits substitutability. The

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[29] ***.

[30] Despite the relatively low ranking that *** gave to price as a consideration in purchasing decisions, it indicated in another section of the questionnaire that it considered price important. Its response indicated that if the Japanese price of defrost timers had been *** percent higher ***, it would have bought U.S.-produced defrost timers instead.

[31] ***.

[32] ***.

[33] According to ***, the primary reason for its ***. ***. ***.

[34] Although Sankyo's ***. ***.

[35] ***.

significantly higher price of the electronic timers was also cited by all five of the OEMs as an important consideration.

When marketing defrost timers, ***.[36] ***. Inland transportation costs are small, generally accounting for less than two percent of the delivered prices of the products. None of the domestic producers consider these costs to be an important competitive consideration. However, among the major OEM purchasers, *** stated that these costs are indeed an important purchasing consideration. *** is the only OEM that does not consider these costs to be important.

Defrost timers are sold throughout the United States and most shipments are made by truck, with distances ranging from 100 to more than 500 miles. U.S. producers reported that lead times for delivery ranged from 4 to 8 weeks for OEM customers, and from 3 days to 4 weeks for aftermarket customers. *** during the past three years, all said that lead times for delivery of Japanese timers have been significantly longer than for U.S.-produced timers.

Prices

Questionnaire Price Data

Producers, importers, and purchasers, including OEMs and distributors, were asked to provide price data on products that are most comparable to the three defrost timers produced and marketed by Paragon. The specified products consisted of Paragon's electromechanical models 499 and 2001 and its electronic model.[37] Producers were requested to report prices on contract sales to OEMs during January-March 1990 through July-September 1993 and on spot sales to the aftermarket during this period. Purchasers were asked to report prices paid for defrost timers purchased from U.S. producers or imported from Japan. Importers were asked to report prices received on sales of Japanese defrost timers in the U.S. aftermarket.[38]

All three producers and all five of the OEMs provided price data. These producers accounted for all domestic shipments of defrost timers during January 1990-September 1993, and the OEMs accounted for most of the imports during this period. Paragon was able to provide complete data on sales of all three of its products to OEMs and to aftermarket distributors. Mallory furnished annual prices on sales to its OEM customers, but reported that ***. Eaton provided prices on ***. *** provided price data on purchases of imported and domestic timers, and *** and *** provided prices on purchases from domestic producers. However, most of the distributors that received questionnaires were unable to provide detailed quarterly price data on their purchases. *** both indicated that they had sold small quantities of *** defrost timers in the aftermarket during January-March 1990 through July-September 1993, but they were unable to provide price data on these transactions.

The discussion of the price data is divided into two separate sections. The first section relates to transactions in the OEM market. It discusses prices received by domestic producers during 1990-92 and the first three quarters of 1993, and prices paid by OEMs for purchases from producers and for imports from Japan during this period. The second section discusses spot sales in the aftermarket. However, no price data were available on the small quantity of *** defrost timers sold in the aftermarket.

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[36] ***.

[37] Model 499 is an older type of defrost timer that Paragon sells primarily in the aftermarket for use in repair and replacement, while model 2001 is commonly sold to OEMs for use in new refrigerators. Paragon also offers a newer model, the model 3001, which is the same as the improved model 2001. (Gary Fredell, transcript of the hearing, pp. 10-11).

[38] OEMs account for most of the imports of defrost timers. These companies import the timers mainly for their own use rather than for sales to aftermarket customers. They do not ***. However, the *** OEMs that import from Japan and Sankyo were asked to provide data on any sales to aftermarket customers.

OEM Market

Paragon provided the most complete price data relating to the OEM market. It reported quarterly prices and shipment data on contract sales to its largest customers of its two electromechanical timers (models 499 and 2001) and its electronic model. Mallory considered the defrost timer that it markets to OEMs to be most similar to Paragon's 2001 model. It did not report sales of a model similar to the 499 or of an electronic model. *** also reported that the electromechanical timers that they have imported from *** are most similar to Paragon's 2001 model. None of these firms reported imports of an electronic model or of a model similar to the 499 model.

While Paragon was able to break out quarterly shipments of defrost timers, Mallory was able to provide only annual data on these shipments. Similarly, *** could not break out quarterly purchases of defrost timers from Japan. Since timers are generally purchased under contract, with prices and quantities agreed upon for periods of 1 year or longer, it is understandable that quarterly shipment data would not necessarily be maintained. Therefore, quarterly weighted-average prices could not be computed either for the domestic product or for imports.

Prices reported by Paragon for the three defrost timer models and by Mallory for a model that is similar to Paragon's model 2001 on contract sales to OEMs are shown in table 19 for January-March 1990 through July-September 1993. Paragon's price for the model 499 ***. ***. ***. The price of Paragon's electronic defrost timer has been *** than either of the electromechanical timers. During the 8 quarters where data were available, the price ranged from a low of $*** to a high of $***. The price was *** than during the previous year.

Table 19
Defrost timers for residential refrigerators: Prices received by Paragon and Mallory on contract sales to OEMs, by quarters, Jan. 1990-Sept. 1993

* * * * * * *

The delivered price of Paragon's model 2001 *** during the period from January-March 1990 through July-September 1993, as shown in table 19 and figure 3. However, during the first 3 quarters of 1993 ***. For the 15-quarter period, Paragon's price ranged from a low of $*** per unit in *** to a high of $*** in ***. The price reported by Mallory for its defrost timer model that is most similar to Paragon's 2001 model ***.

Figure 3
Prices reported by Paragon on sales of its 2001 model, by quarters, Jan. 1990-Sept. 1993

* * * * * * *

Prices paid by OEMs for purchases of Paragon's model 2001 and a similar model offered by Mallory also *** during the 15-quarter period. Data provided by *** and *** tend to indicate that the price *** in 1993 (table 20). However, *** price data for 1990-92 reflect purchases from ***, while the data for 1993 reflect purchases from ***. *** price data relating to domestic purchases of

the model 2001 were available only for 1990 and 1991, since it *** (table 20 and figure 4).[39] As shown in the table, the price paid by *** for Paragon's model 2001 *** during 1991, eventually reaching a level of $*** in ***.[40]

Table 20
Defrost timers for residential refrigerators: Delivered prices paid by OEMs for domestic and imported defrost timers that are most similar to the 2001 model produced by Paragon, by quarters, Jan. 1990-Sept. 1993

* * * * * * *

Figure 4
Prices paid by *** for Paragon's model 2001 and a similar model produced by Sankyo, by quarters, Jan. 1990-Dec. 1991

* * * * * * *

The prices reported by the other 2 OEMs, *** and ***, *** during the 15-quarter period. As noted earlier, both of these companies purchased ***. ***'s price for the *** model that is most similar to Paragon's model 2001 was $*** per unit in *** quarters ***. It *** to $*** per unit in the first quarter of 1992 and *** during the next 2 quarters. It *** to $*** per unit in the fourth quarter of 1992 and has ***. Prices reported by *** ranged from a low of $*** per unit to a high of $*** per unit. The price was ***.

Trends in prices paid by OEMs for imported Japanese defrost timers produced by Sankyo ***. While the data provided by *** and *** seem to indicate that *** during January 1990-September 1993, the *** prices reported by both companies for 1992 and 1993 actually reflect purchases of ***. Therefore, *** for the entire 15-quarter period. ***, the other purchaser of ***, bought these products ***. The price was $*** per unit during ***.

While available data were insufficient for developing weighted-average prices of domestic and imported defrost timers and for making comparisons, it was possible to compare the purchase prices reported by the *** OEMs that bought these products from both U.S. producers and from Sankyo. As shown in table 20, the results of the comparisons varied by company. ***'s reported price for imports was lower than the price that it paid for domestic timers in ***, but higher in ***.[41] In the case of ***, the domestic price was lower than the Sankyo price in ***. However, the Japanese price was lower during ***, and then higher again during ***. *** reported a higher price for imports ***. However, the domestic price was higher during ***.

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[39] However, *** continued to purchase defrost timers from *** for use in the aftermarket as replacement parts. ***.

[40] According to ***, ***.

[41] Domestic price data for *** shown in table 20 are for purchases from ***. *** also provided quarterly price data on purchases of ***. However, ***. The price for the *** product was $*** per unit during 1992. It *** to $*** in the first quarter of 1993 and to $*** in the second and third quarters of 1993.

Aftermarket

Prices of defrost timers sold to distributors in the aftermarket were reported by ***, although *** was able to provide prices on sales only during 1992 and 1993. ***.[42]

Prices reported by Paragon on sales of its model 499 and model 2001 are shown in table 21. ***. The data show that prices of the model 499 and the 2001 ***.[43] Paragon generally receives ***.[44] In the case of the 2001 model, quarterly prices in the aftermarket ranged from $*** to $*** during the 15-quarter period, whereas in the OEM market they ranged between $*** and $***.

Table 21
Defrost timers for residential refrigerators: Prices received by Paragon on spot sales of its 499 and 2001 models on sales to distributors in the aftermarket, and total shipments, by quarters, Jan. 1990-Sept. 1993

* * * * * * *

Eaton reported quarterly spot sales prices to distributors of an electromechanical defrost timer that it considers to be similar to the 499 model sold by Paragon. Its reported prices ranged *** during the 7 quarters from January-March 1992 to July-September 1993.

Exchange Rates

Quarterly data reported by the International Monetary Fund indicate that during January-March 1990 through July-September 1993, the nominal value of the Japanese yen fluctuated, appreciating overall by 40.1 percent in relation to the U.S. dollar (figure 5).[45] Adjusted for movements in producer price indexes in the United States and Japan, the real value of the Japanese currency appreciated 28.0 percent overall in relation to the U.S. dollar between January-March 1990 and the third quarter of 1993.

Lost Sales and Lost Revenues

During the preliminary investigation, Paragon provided two lost sales allegations and one lost revenue allegation ***. No additional allegations were provided during the final investigation. Paragon alleged that it lost sales of *** units of defrost timers, valued at $***, as a result of competition from LTFV imports from Japan. Paragon also alleged that it lost revenues of $*** because of such import competition. ***. The staff contacted purchasers to investigate these allegations.

Paragon alleged that it lost a sale of *** defrost timers, valued at $***, to *** in *** as a result of competition from imports from Japan. ***. ***. *** denied that *** shifted its purchases from *** because of lower prices. However, *** said that ***. According to ***, *** was due

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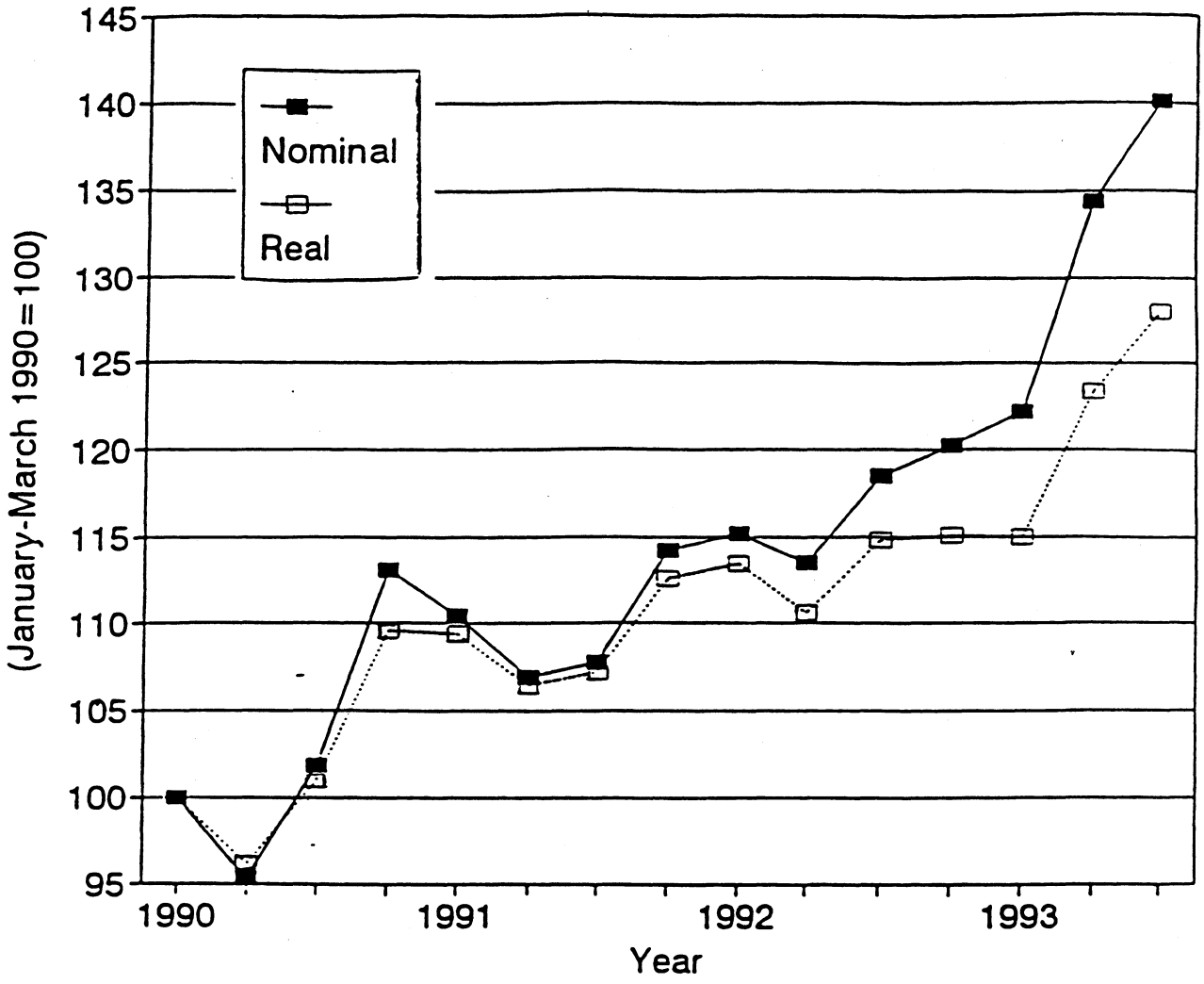
[42] Both firms were contacted in an attempt to obtain this information, but neither firm had price data available on these aftermarket transactions. The petitioner does not consider imports from Japan to be an important source of competition in the aftermarket (transcript of conference, p. 27).

[43] Incomplete quarterly price data received from *** also indicate that the price of the model 499 *** between 1990 and 1993. *** purchased *** of the model 499 from Paragon during this period.

[44] Transcript of conference, p. 18.

[45] *International Financial Statistics*, Jan. 1994.

Figure 5
Indexes of nominal and real exchange rates of the Japanese yen in relation to the U.S dollar, by quarters, Jan. 1990-Sept. 1993



Source: International Monetary Fund, *International Financial Statistics*, January 1994.

entirely to quality considerations rather than to price.[46] He said that *** were forcing *** during the period in which the *** refrigerators were under warranty. The average cost to *** of a visit to replace a defective *** timer is $***. ***.[47] ***.

*** also alleged that it lost a sale to *** because of competition from imports from Japan. *** did not have complete information available to address the allegation. ***. *** said that *** with the quality of *** product ***.

However, *** said that the *** reported *** could easily have been valid. *** said that the defect rate on ***'s defrost timers improved greatly in ***, but that it did face competition from imports from Sankyo of Japan. ***.[48]

*** alleged that it lost a sale of *** defrost timers to *** because of competition from imports from Japan. ***, the purchasing agent for ***, was not able to respond directly to the allegation. ***.

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[46] ***.
[47] ***.
[48] ***.

APPENDIX A

FEDERAL REGISTER NOTICES

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731-TA-643 (Final)]

Defrost Timers From Japan; Institution of Antidumping Investigation

AGENCY: United States International Trade Commission.

ACTION: Institution and scheduling of a final antidumping investigation.

SUMMARY: The Commission hereby gives notice of the institution of final antidumping investigation No. 731-TA-643 (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 Japan of defrost timers, provided for in subheading 9107.00.40 of the Harmonized Tariff Schedule of the United States.

For further information concerning the conduct of this investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

EFFECTIVE DATE: August 24, 1993.

FOR FURTHER INFORMATION CONTACT: Tedford Briggs (202-205-3181), Office of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted as a result of an affirmative preliminary determination by the Department of Commerce that imports of defrost timers from Japan are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigation was requested in a petition filed on January 19, 1993, by Paragon Electric Co., Inc., Two Rivers, WI.

Participation in the Investigation and Public Service List

Persons wishing to participate in the investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in § 201.11 of the Commission's rules, not later than twenty-one (21) days after publication of this notice in the Federal Register. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to this investigation upon the expiration of the period for filing entries of appearance.

Limited Disclosure of Business Proprietary Information (BPI) Under an Administrative Protective Order (APO) and BPI Service List

Pursuant to § 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in this final investigation available to authorized applicants under the APO issued in the investigation, provided that the application is 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 BPI under the APO.

Staff Report

The prehearing staff report in this investigation will be placed in the nonpublic record on December 22, 1993, and a public version will be issued

thereafter, pursuant to § 207.21 of the Commission's rules.

Hearing

The Commission will hold a hearing in connection with this investigation beginning at 9:30 a.m. on January 11, 1994, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before December 27, 1993. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on January 3, 1994, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by §§ 201.6(b)(2), 201.13(f), and 207.23(b) of the Commission's rules. Parties are strongly encouraged to submit as early in the investigation as possible any requests to present a portion of their hearing testimony *in camera*.

Written Submissions

Each party is encouraged to submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of § 207.22 of the Commission's rules; the deadline for filing is January 5, 1994. Parties may also file written testimony in connection with their presentation at the hearing, as provided in § 207.23(b) of the Commission's rules, and posthearing briefs, which must conform with the provisions of § 207.24 of the Commission's rules. The deadline for filing posthearing briefs is January 20, 1994; witness testimony must be filed no later than three (3) days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation on or before January 20, 1994. All written submissions must conform with the provisions of § 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of §§ 201.6, 207.3, and 207.7 of the Commission's rules.

In accordance with §§ 201.16(c) and 207.3 of the rules, each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: This investigation is 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.

Issued: September 10, 1993.

By order of the Commission.

Donna R. Koehnke,

Secretary.

[FR Doc. 93-22560 Filed 9-14-93; 8:45 am]

BILLING CODE 7020-02-P

[A-588-829]

Notice of Final Determination of Sales at Less Than Fair Value: Defrost Timers From Japan

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: January 13, 1994.

FOR FURTHER INFORMATION CONTACT: Bill Crow, Office of Antidumping Investigations, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230; telephone: (202) 482-0116.

FINAL DETERMINATION: We determine that defrost timers from Japan are being, or are 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 (the Act). The estimated margin is shown in the "Suspension of Liquidation" section of this notice.

Case History

Since the preliminary determination of sales at less than fair value and the postponement of the final determination in this investigation on August 24, 1993 (58 FR 44655, August 24, 1993), the following events have occurred: On September 15, 1993, Sankyo Seiki Manufacturing Co. Ltd. (Sankyo) submitted its response to the Department's second deficiency letter. On September 30, 1993, the Department sent Sankyo the agenda outlining the format of the Department's verification of Sankyo's responses. From October 18 through October 22, 1993, the Department conducted the verification of Sankyo's questionnaire response in Japan. On November 26, 1993, petitioner submitted its case brief in this investigation. On December 2, 1993, Sankyo submitted its rebuttal brief in this investigation.

Scope of Investigation

For purposes of this investigation, defrost timers are electro-mechanical and electronic defrost timers for residential refrigerators. Electro-mechanical defrost timers are comprised of several components that make or break electric circuits by activating two sets of electrical contact points—one to disconnect the compressor (the cooling mechanism) and the other to connect the defrost heater. The articles are equipped with a synchronous or subsynchronous motor. The defrost timer disconnects the compressor by opening an electrical circuit after the compressor itself has run for a length of time predetermined by the manufacturer depending on the specifications of the model. Upon completion of the compressor run cycle (and simultaneously with the compressor's disconnection) the defrost heater is activated and runs for a preset time (again depending on the model), as predetermined by the manufacturer. Electronic defrost timers have a similar function but operate with greater efficiency. This is because a microprocessor in the device uses information gathered during the defrost cycle to adjust the compressor run time. This system defrosts only when needed, thereby improving the efficiency of the refrigerator.

The defrost timers subject to this investigation are currently classifiable under subheading 9107.00.4000 of the Harmonized Tariff Schedule of the United States (HTSUS). The HTSUS subheadings are provided for convenience and customs purposes. The written description of the scope of this investigation is dispositive.

Period of Investigation (POI)

We initiated this investigation using a six-month POI from July 1, 1992, through December 30, 1992. In order to capture U.S. sales made pursuant to long-term contracts, we expanded the POI to include two additional six-month periods (i.e., April 30–September 30, 1991, and October 1, 1991–March 31, 1992). Respondent reported home market sales in these periods to correspond to U.S. sales contracted in July 1991 and January 1992, respectively (see memorandum from Richard Moreland to Barbara Stafford dated June 4, 1993).

Best Information Available

We have determined, in accordance with section 776(b) and 776(c) of the Act, that the use of best information available (BIA) is appropriate for sales of subject merchandise in this investigation. In deciding whether to use BIA, section 776(b) provides that the Department shall use BIA if it is unable to verify the accuracy of the information submitted. Further, section 776(c) provides that the Department may take into account whether the respondent was able to produce information requested in a timely manner and in the form required. In this case, Sankyo did not do so.

The Department also took into consideration whether or not the respondent cooperated with the Department. In this case, while its submissions contained significant deficiencies, and could not be completely verified, the respondent was cooperative. As BIA for Sankyo, we are assigning the average margin contained in the petition, in accordance with the two-tiered BIA methodology under which the Department imposes a less adverse rate upon those respondents that cooperate in the proceeding. The Department's two-tier methodology for assigning BIA based on the degree of respondents' cooperation has been upheld by the U.S. Court of Appeals for the Federal Circuit. (See *Allied-Signal Aerospace Co.* v. *the United States*, Appeal No. 93-1049 (Fed. Cir. June 22, 1993); see also *Krupp Stahl AG. et al* v. *the United States*, 822 F. Supp. 789 (CIT May 28, 1993).) The average of the margins contained in the petition is 83.87 percent. For a more detailed discussion of the Department's decision to use BIA in this case, see the December 16, 1993, memorandum from David Binder to Barbara Stafford.

Interested Party Comments

Comment 1: Petitioner argues that due to the various discrepancies and deficiencies discovered by the Department at verification, the Department should use the dumping margins calculated in the petition as BIA. Petitioner bases its request for the use of BIA on the portion of home market sales omitted from respondent's

sales listing, the improper matching of certain U.S. and home market models, the unverifiable assembly costs included in the difference in merchandise (difmer) adjustment, the unverifiable warranty expenses, and the pattern of contracting which existed for home market sales and which called into question respondent's reported home market sales.

Respondent, on the other hand, argues that the Department should reject petitioner's request for the use of BIA across the board because respondent has cooperated in the investigation and because the large majority of its response has been verified as complete. Therefore, respondent requests that the Department limit the use of BIA only to those instances where deficiencies or discrepancies were found during verification.

DOC Position: We agree with petitioner. We learned at verification of home market sales which respondent omitted from its reported database. In addition, we discovered that respondent had eliminated many sales because it believed them not to be subject to the investigation based on the channel of trade and/or ultimate use of the timer models in question; however, respondent had not disclosed these eliminations in its responses to the Department's questionnaire. Because of these late revelations, the Department was not able to structure verification to scrutinize thoroughly these unreported sales. We also established that a pattern of contracting existed for home market sales which raises questions as to the validity of respondent's determination of home market date of sale. The use of contract dates in the home market, rather than the reported order entry dates, would change completely the selection of transactions used to calculate foreign market value. In combination with other discrepancies, these problems call into question the reliability of the home market database.

We also learned at verification that a very significant portion of U.S. products representing a majority of U.S. sales had not been matched correctly to home market models in accordance with the instructions contained in Appendix V of the Department's questionnaire. The Department cannot be responsible for rematching this large percentage of the total data base. Further, the mismatched U.S. models could only be re-matched to a limited set of similar home market sales for which no difmer information had been provided by respondent. Therefore, the majority of U.S. sales would be subject to some form of BIA. In combination with other discrepancies, these problems call into question the reliability of the entire U.S. database. Due to the number and extent of the discrepancies discovered at the verification, the Department is basing the final determination in this investigation on BIA.

In spite of the outcome at verification, we find that the respondent cooperated in this investigation. The numerous mistakes, omissions and deficiencies which were not corrected, clarified or amplified in a timely manner require the use of BIA. While some of these deficiencies, by themselves, may not have led to the use of total BIA, the collective discrepancies and deficiencies discovered at verification undermine the basic reliability of the submitted information.

Given the Department's use of BIA, other comments submitted by the parties in their briefs in this investigation are moot, and will not be addressed in this notice.

Continuation of Suspension of Liquidation

In accordance with section 735 of the Act, we are directing the Customs Service to continue to suspend liquidation of all entries of defrost timers produced or exported from Japan, that are entered, or withdrawn from warehouse, for consumption on or after August 24, 1993. The Customs Service shall require a cash deposit or posting of a bond equal to the estimated final dumping margin, as shown below. The suspension of liquidation will remain in effect until further notice.

Manufacturer/producer/exporter	Margin percentage
Saniyo Seiki Manufacturing Co. Ltd	83.67
All others	83.67

International Trade Commission Notification

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

Notification to Interested Parties

This notice also serves as the only reminder to parties subject to administrative protective order (APO) of their responsibility concerning the return or destruction of proprietary information disclosed under APO in accordance with 19 CFR 353.34(d). Failure to comply is a violation of the APO.

This determination is published pursuant to section 735(d) of the Act (19 U.S.C. 1673d(d)) and 19 CFR 353.20(a)(4).

Dated: January 6, 1994.

Joseph A. Spetrini,

Acting Assistant Secretary for Import Administration.

[FR Doc. 94-891 Filed 1-12-94; 8:45 am]

BILLING CODE 3510-DS-P

APPENDIX B

CALENDAR OF PUBLIC HEARING

CALENDAR OF PUBLIC HEARING

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

Subject : DEFROST TIMERS FROM JAPAN

Inv. No. : 731-TA-643 (Final)

Date and Time : January 11, 1994 - 9:30 a.m.

Sessions were held in connection with the investigation in the Main Hearing Room of the United States International Trade Commission, 500 E Street, S.W., Washington, DC.

In support of the imposition of antidumping duties

Fried, Frank, Harris, Shriver & Jacobson
Washington, DC
On behalf of--

Paragon Electric Co., Inc. (Paragon)

Terry D. Growcock, former Vice President and General Manager, Paragon

L. Matthew Leeka, Executive Account Manager, Paragon

Gary D. Fredell, Vice President, Engineering, Paragon

Dr. Samuel M. Rosenblatt, President, SMR, Inc.

David E. Birenbaum)
Mark Fajfar) --OF COUNSEL

In opposition to the imposition of antidumping duties

(No witnesses appeared in opposition to the petition.)

APPENDIX C

SUMMARY DATA

Table C-1
All defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

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Table C-2
All defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory and foreign-trade zone market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

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Table C-3
Electromechanical defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

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Table C-4
Electromechanical defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory and foreign-trade zone market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

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Table C-5
Electronic defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

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Table C-6
Electronic defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory and foreign-trade zone market, 1990-92, Jan.-Sept. 1992, and Jan.-Sept. 1993

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Figure C-1
All defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory market, 1990-92

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Figure C-2
All defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory and foreign-trade zone market, 1990-92

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Figure C-3
Electromechanical defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory market, 1990-92

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Figure C-4
Electromechanical defrost timers for residential refrigerators: Summary data concerning the U.S. customs territory and foreign-trade zone market, 1990-92

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Figure C-5
Electronic defrost timers for residential refrigerators: Summary data, 1990-92

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APPENDIX D

COMMENTS RECEIVED FROM PRODUCERS ON THE EFFECT OF IMPORTS OF DEFROST TIMERS FROM JAPAN ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL, AND EXISTING DEVELOPMENT AND PRODUCTION EFFORTS

The Commission requested U.S. producers to describe and explain the actual and potential negative effects of imports from Japan of defrost timers for residential refrigerators on their growth, investment, ability to raise capital, or development and production efforts (including efforts to develop a derivative or more advanced version of the product).

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