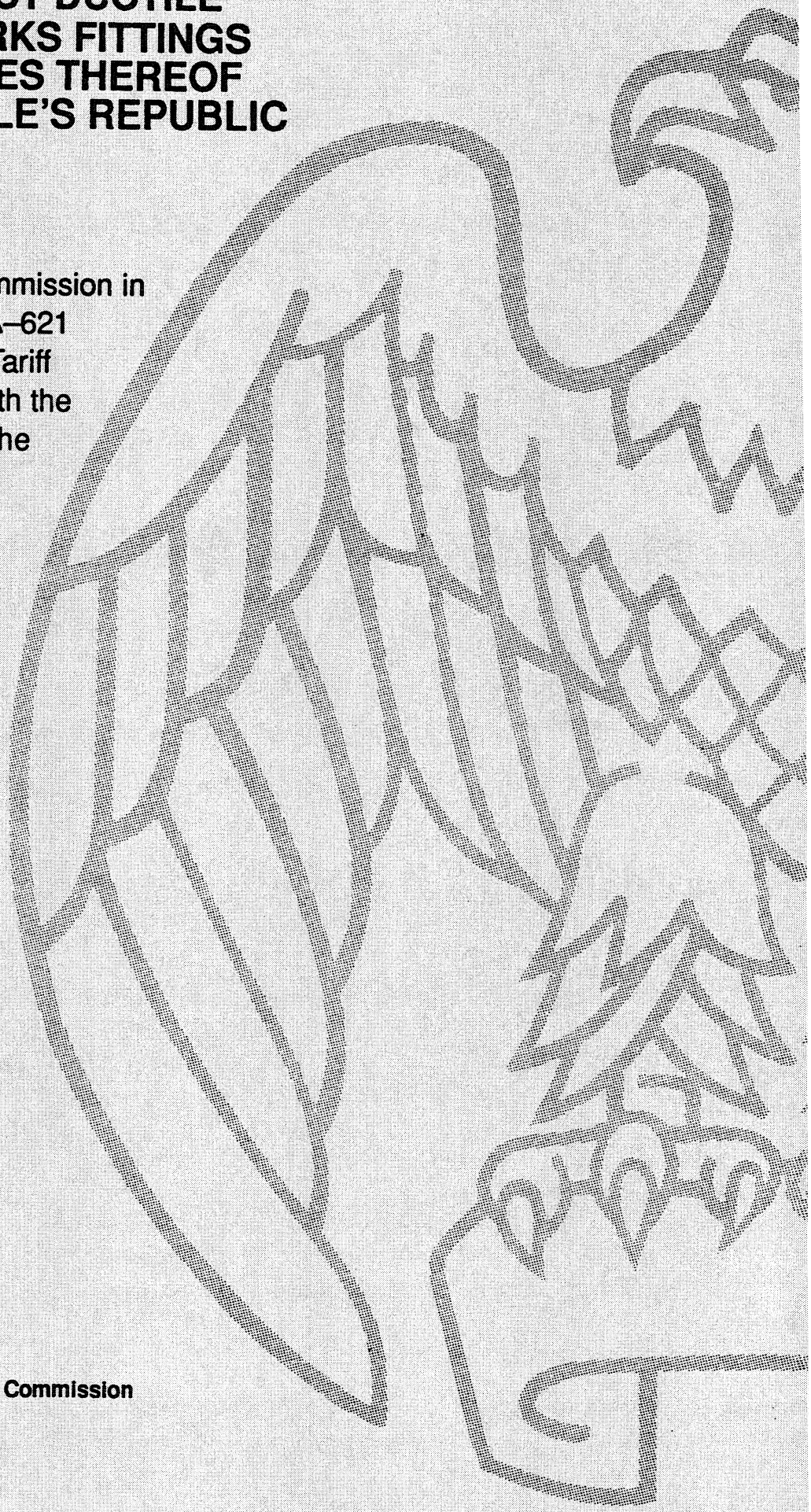
CERTAIN COMPACT DUCTILE IRON WATERWORKS FITTINGS AND ACCESSORIES THEREOF FROM THE PEOPLE'S REPUBLIC OF CHINA

Determination of the Commission in Investigation No. 731–TA–621 (Preliminary) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation



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UNITED STATES INTERNATIONAL TRADE COMMISSION

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-621 (Preliminary)

CERTAIN COMPACT DUCTILE IRON WATERWORKS FITTINGS AND ACCESSORIES THEREOF FROM THE PEOPLE'S REPUBLIC OF CHINA

Determination

On the basis of the record[1] developed in the subject investigation, the Commission unanimously determines,[2] pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)), that there is a reasonable indication that industries in the United States are materially injured by reason of imports from the People's Republic of China of compact ductile iron waterworks fittings and accessories thereof,[3] provided for in subheadings 7307.19.30, 73.18.15.20, 4016.93.00, and 7307.19.90 of the Harmonized Tariff Schedule of the United States, that are alleged to be sold in the United States at less than fair value (LTFV).

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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] Vice Chairman Peter S. Watson did not participate.

[3] As defined by Commerce, the products covered by this investigation are "1) certain compact ductile iron waterworks (CDIW) fittings of 3 to 16 inches nominal diameter regardless of shape, including bends, tees, crosses, wyes, reducers, adapters, and other shapes, whether or not cement lined, and whether or not covered with bitumen or similar substance, conforming to AWWA/ANSI specification C153/A21.53, and rated for water working pressure of 350 PSI; and 2) certain CDIW fittings accessories which typically consist of a standard ductile iron gland, a styrene butadiene rubber (SBR) gasket, the requisite number of Cor-Ten steel or ductile iron T-head bolts, and hexagonal nuts, whether sold separately or together in kits (also called accessory packs), for fittings in sizes 3 to 16 inches, conforming to AWWA/ANSI specification C111/A21.11, and rated for water working pressure of 350 PSI.

The types of CDIW fittings covered by this investigation are compact ductile iron mechanical joint waterworks fittings and compact ductile iron push-on joint waterworks fittings, both of which are used for the same applications." Nonmalleable cast iron fittings and full-bodied ductile fittings are specifically excluded from the scope of Commerce's investigation.

Background

On July 8, 1992, a petition was filed with the Commission and the Department of Commerce by The U.S. Waterworks Fittings Producers Council and its individual members, Clow Water Systems, Tyler Pipe Industries, Inc., and Union Foundry Co., alleging that an industry in the United States is materially injured and threatened with material injury by reason of LTFV imports of compact ductile iron waterworks fittings and accessories thereof from the People's Republic of China. Accordingly, effective July 8, 1992, the Commission instituted antidumping investigation No. 731-TA-621 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference 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 July 15, 1992 (57 F.R. 31384). The conference was held in Washington, DC, on July 29, 1992, and all persons who requested the opportunity were permitted to appear in person or by counsel.

VIEWS OF THE COMMISSION[1]

Based on the information available in this preliminary investigation, we find a reasonable indication that the industry in the United States producing iron waterworks fittings is materially injured by reason of imports of certain compact ductile iron waterworks (CDIW) fittings from the Peoples' Republic of China alleged to be sold at less than fair value (LTFV).[2] We further find a reasonable indication that the domestic industry producing iron glands is materially injured by reason of allegedly LTFV imports of ductile iron glands for iron waterworks fittings from the Peoples' Republic of China; that the domestic industry producing styrene butadiene rubber (SBR) gaskets is materially injured by reason of allegedly LTFV imports of SBR gaskets for iron waterworks fittings from the Peoples' Republic of China; and that the domestic industry producing T-head bolts and hexagonal nuts of Cor-Ten steel or ductile iron is materially injured by reason of allegedly LTFV imports of such products for iron waterworks fittings from the Peoples' Republic of China.

I. THE LEGAL STANDARD FOR PRELIMINARY DETERMINATIONS

The legal standard in preliminary antidumping investigations requires the Commission to determine whether, based on the best information available at the time of the preliminary determination, there is a reasonable indication of material injury or threat thereof to a domestic industry by reason of the imports under investigation.[3] In this investigation, the Commission considered whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of material injury; and

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[1] Vice Chairman Peter S. Watson did not participate.

[2] Material retardation of a domestic industry by reason of the subject imports is not an issue in this investigation and therefore will not be discussed further.

[3] 19 U.S.C. § 1673b(a).

(2) no likelihood exists that contrary evidence will arise in a final investigation."[4] The U.S. Court of Appeals for the Federal Circuit has held that this interpretation of the standard "accords with clearly discernable legislative intent and is sufficiently reasonable."[5]

II. LIKE PRODUCT AND DOMESTIC INDUSTRY

A. Background and Products Subject to Investigation

To determine whether a domestic industry is materially injured or threatened with material injury by reason of the subject imports, the Commission must first define the "like product" and the "industry." Section 771(4)(A) of the Tariff Act of 1930 (the "Act") defines the relevant domestic industry as "the domestic producers as a whole of a like product, or those producers whose collective output of the like product constitutes a major proportion of the total domestic production of that product . . . ."[6] In turn, section 771(10) 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 . . . ."[7]

The Department of Commerce defined the class or kind of merchandise subject to investigation as follows:

> The products covered by this investigation are 1) certain compact ductile iron waterworks (CDIW) fittings of 3 to 16 inches nominal diameter regardless of shape, including bends, tees, crosses, wyes, reducers, adapters, and other shapes, whether or not cement lined, and whether or not covered with bitumen or similar substance, conforming to AWWA/ANSI specification C153/A21.53, and

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[4] American Lamb Co. v. United States, 785 F.2d 994, 1001 (Fed. Cir. 1986). Recently, the CIT interpreted the American Lamb case to affirm "the Commission's practice of reaching a negative preliminary determination of injury only when" these two factors are met. Torrington Co. v. United States, Slip Op. 92-49 at 3.

[5] American Lamb, 785 F.2d at 1004, (Fed. Cir. 1986).

[6] 19 U.S.C. § 1677(4)(A).

[7] 19 U.S.C. § 1677(10).

rated for water working pressure of 350 PSI; and 2) certain CDIW fittings accessories which typically consist of a standard ductile iron gland, a styrene butadiene rubber (SBR) gasket, the requisite number of Cor-Ten steel or ductile iron T-head bolts, and hexagonal nuts, whether sold separately or together in kits (also called accessory packs), for fittings in sizes 3 to 16 inches, conforming to AWWA/ANSI specification C111/A21.11, and rated for water working pressure of 350 PSI.

CDIW fittings accessories are used to join mechanical joint CDIW fittings to pipes. The accessories ensure the completeness of the seal between the CDIW fitting and pipe. Mechanical joint fittings must be used with CDIW accessories. Push-on fittings do not require CDIW accessories.

. . . . .

Nonmalleable cast iron fittings and full-bodied ductile fittings are specifically excluded from the scope of this investigation. Nonmalleable cast iron fittings have little ductility and are generally rated only to 150 or 250 PSI. Full-bodied ductile fittings have a longer body design than a compact fitting because the straight section of the body is deleted to provide a more compact and less heavy fitting without reducing strength or flow characteristics. In addition, the full-bodied ductile fittings are thicker than the compact fittings. Full-bodied fittings are made of either gray iron or ductile iron, in sizes 3 inches to 48 inches, and conform to AWWA/ANSI specification C110/C21.10. In addition, compact ductile iron flanged fittings are excluded from the scope of this investigation.[8]

B. Like Product Analysis

The Commission's like product determinations are factual, and the Commission applies case-by-case the statutory standard of "like" or "most similar in characteristics and uses".[9] In this investigation, we have

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[8] 57 Fed. Reg. 34288-34290 (August 4, 1992).

[9] In analyzing which domestic products are "like" the class or kind of imported articles subject to investigation, the Commission considers factors including: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions; (5) common manufacturing facilities and production employees; and where appropriate, (6) price. Generally the Commission requires "clear dividing lines among possible like products" and disregards minor variations among them. See Torrington Co. v. United States, 767 F. Supp. 744, 748-749 (CIT 1990), aff'd. 938 F.2d 1278 (1991).

identified four issues regarding the definition of the like product: (1) whether all articles subject to investigation constitute a single like product; (2) whether the like product should include gray iron fittings as well as ductile iron fittings; (3) whether the like product should include full-bodied fittings as well as compact fittings; and (4) whether the like product should include fittings over 16 inches in nominal diameter.[10]

1. Whether All Articles Subject to Investigation Constitute a Single Like Product

Petitioners urge the Commission to find that CDIW fittings and accessories constitute a single like product.[11] Respondent argues that there are several like products because accessory packs are distinct from their components, each type of component is a distinct item from each other component, and individual components and accessory packs combining them are distinct from iron waterworks fittings.[12]

CDIW mechanical joint fittings (but not push-on fittings) are attached to pipes using accessories, which include an iron gland, an SBR gasket and the requisite number of T-head bolts and hexagonal nuts.[13] These items are often

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[10] Respondent argues that the Commission's like product determination is governed by a previous section 201 investigation, Certain Metal Castings, Inv. No. 201-TA-58, USITC Pub. 1849 (June 1986), in which the Commission found the industry producing "an article like or directly competitive" with the subject imports to include all waterworks fittings (gray iron and ductile, compact and full-bodied) up to 54 inches in nominal diameter. Post-Conference Brief of Respondent at Exhibit 17, p. 12. However, the Commission has repeatedly held that the standard employed to determine the like product in title VII investigations is different from the standard employed in section 201 investigations. See e.g., Minivans from Japan, Inv. No. 731-TA-522 (Preliminary), USITC Pub. 2402 (July 1991) at 22-23; Tungsten Ore Concentrates from the People's Republic of China, Inv. No. 731-TA-497 (Preliminary), USITC Pub. 2367 (March 1991) at 11-13. Moreover, the Commission is required to make its like product findings based on the particular record before it. See Citrosuco Paulista, S.A. v. United States, 704 F. Supp. 1075, 1087 (CIT 1988).

[11] Petitioners' Post-Conference Brief at 25.

[12] Respondent's Post-Conference Brief at Exhibit 17.

[13] Report at I-5.

purchased at the same time the fitting is purchased, but may be purchased separately. In addition, the accessories may be purchased individually or in a group, known as an accessory pack.[14] Commerce has instituted an antidumping investigation on imports of these articles, whether imported individually or in a pack.

While most of the petitioning companies sell accessory packs along with their iron waterworks fittings, none produces all the accessories or assembles them in an accessory pack.[15] No U.S. producer of CDIW fittings manufactures steel nuts or bolts. Only one of the six U.S. producers, Tyler, claims to produce gaskets.[16]

Three of the six domestic producers produce standard ductile iron glands.[17] These producers manufacture the glands, then purchase the rubber gaskets and bolts and nuts and send the individual items to a packaging company which then assembles the components into accessory packs. Other producers simply purchase the accessory packs for resale to customers. Finally, there are also a number of domestic companies that manufacture glands but do not manufacture CDIW fittings.[18]

Petitioners argue that the Commission should analyze the issue of whether CDIW accessories are like CDIW fittings by considering accessories to

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[14] Report at I-5.
[15] Report at I-14.
[16] Report at I-14, n. 24.
[17] Report at I-16.
[18] Tr. at 69. It does not appear that the principal respondents in this investigation, Sigma and Star Pipe, currently import accessory packs or any accessories other than glands. Tr. at 127. Like the domestic producers, respondents produce and import glands, which they sell to the "loose gland" market. They then purchase either accessory packs or individual accessories domestically. Tr. at 137. See, Post-Conference Brief of Petitioners at Appendix 5.

be a "component" of a CDIW coupling[19] and finding that fittings and accessories are the same like product.[20] In investigations in which the Commission considers whether articles such as fittings and accessories are to be considered a single like product, the Commission has traditionally looked at five factors.[21] [22]

Necessity and costs of further processing. We note that none of the subject accessories requires further processing before it can be used with a CDIW fitting or other waterworks product.[23]

Interchangeability. Neither CDIW accessories nor accessory packs are interchangeable with CDIW fittings. The Commission noted, however, in Certain

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[19] A coupling consists of a CDIW fitting, a gasket, a gland, and the requisite number of fasteners.

[20] Tr. at 71. Petitioners' make the following arguments: (1) the fittings cannot function without the accessories; (2) petitioners Union and Tyler manufacture the ductile iron glands on the same manufacturing facilities using the same production processes and employees used to produce the CDIW fittings; (3) each CDIW fitting is sold with up to four accessory packs and the price of these accessories accounts for a significant portion of the total sales price; and (4) respondents could limit the effect of an antidumping order on CDIW fittings by raising the price of the fittings, but selling the necessary accessories at less than fair value. Post-Conference Brief of Petitioners at 25.

[21] These five factors are: (1) the necessity for, and costs of, further processing; (2) the degree of interchangeability of articles at different stages of production; (3) whether the article at an earlier stage of production is dedicated to use in the finished article; (4) whether there are significant independent uses or markets for the finished and unfinished articles; and (5) whether the article at an earlier stage of production embodies or imparts to the finished article an essential characteristic or function. See, e.g., Special Quality Carbon and Alloy Hot-Rolled Steel Bars and Semifinished Products from Brazil, Inv. No. 731-TA-572 (Preliminary), USITC Pub. No. 2537 (July 1992); Certain High-Information Content Flat Panel Displays and Display Glass Therefor from Japan, Inv. No. 731-TA-469 (Final), USITC Pub. 2413 (August 1991).

[22] Because the products at issue, CDIW fittings and accessories, are neither semi-finished nor components of each other, Commissioners Brunsdale and Crawford find it unnecessary to analyze the five factors.

[23] See Report at I-5.

Telephone Systems and Subassemblies Thereof from Japan, Korea, and Taiwan,[24] that it would not expect to find interchangeability when dealing with component parts and subassemblies generally, "because they are, by definition, something less than a finished product."[25] In addition, none of the different CDIW accessories is interchangeable with any other.

Dedication for use. In past investigations involving parts and components, the Commission has relied heavily on whether a part or component is dedicated for use with the finished product. It does not appear that individual accessories or accessory packs are dedicated for use with CDIW fittings. Accessories can be used with other groups of waterworks products which include plastic pipe, hydrants, valves, and mechanical joint pipes, in addition to mechanical joint CDIW fittings.[26] A number of companies other than manufacturers of CDIW fittings produce and market individual accessories, such as iron glands, and accessory packs.[27] While certain of the petitioners manufacture glands, other domestic gland producers do not produce CDIW fittings, and their equipment and machinery is not capable of producing CDIW fittings.[28] Moreover, SBR gaskets and hexagonal nuts and T-head bolts have other uses in addition to their use as CDIW fittings accessories.[29]

Independent Markets. In this investigation, we find that an independent market exists for each of the individual accessories because they are also

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[24] Invs. Nos. 731-TA-426-428 (Preliminary), USITC Pub. 2156 (February 1989) at 14.

[25] Several investigations involving subassemblies or components have resulted in a single like product finding, notwithstanding the absence of interchangeability. Id.

[26] Petition at 5; Tr. at 55, 90, 117-118.

[27] Tr. at 90.

[28] Tr. at 69.

[29] We also note that individual accessories and accessory packs are not dedicated to use in the sense that they may be used only with the fittings of a particular manufacturer.

used with hydrants, valves and other fittings.[30] We note that the markets for these products include the waterworks market; however, the products are also sold in many other markets.

Essential Characteristic. In this investigation the issue of whether individual accessories or accessory packs are essential for the operation of the fittings is contested by the parties. Petitioners state that accessories are essential to the operation of mechanical joint fittings.[31] Respondent Sigma, however, contends that a product known as a "self-restraining device" is an alternative to the use of accessories in securing a CDIW fitting to another waterworks product.[32] [33] We intend to seek additional information on this issue in the event of any final investigation.

Based on our analysis of the factors in this case, we determine, for purposes of this preliminary investigation, that there are four separate products "like" the articles subject to investigation -- iron waterworks fittings, iron glands, SBR gaskets, and hexagonal nuts and T-head bolts.[34] [35]

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[30] Report at I-5; Tr. at 55; Tr. at 90.

[31] Post-Conference Brief of Petitioners at 25; Tr. at 31.

[32] Tr. at 117-118; Tr. at 127.

[33] Chairman Newquist notes that when the subject accessories are purchased and used to attach CDIW fittings to pipes, they do perform an essential function. The existence of alternative "accessories" does not necessarily militate against including accessory packs with CDIW fittings in a single like product. He will seek further briefing on this issue and on the broader question of whether iron waterworks fittings and accessories are components of a single like product consisting of iron waterworks couplings in any final investigation.

[34] A number of domestic companies that produce accessories or accessory packs do not produce ductile iron fittings. It is possible that this second set of producers of ductile iron fittings may be affected differently than the petitioners by imports of accessories subject to investigation.

[35] Commissioner Brunsdale notes that she has criticized the five-factor test in rather harsh terms. See Sulfur Dyes from China, India, and the United Kingdom, Invs. Nos. 731-TA-548, 550, and 551 (Preliminary), USITC Pub. No. 2514, at 36-37; Magnesium from Canada, Invs. Nos. 701-TA-309 and 731-TA-528 (Final) (forthcoming). She urges the parties to any final investigation to

(continued...)

We note that in a past Commission determination, Digital Readout Systems (DRO) and Subassemblies Thereof from Japan,[36] petitioners argued that two products used together constituted a single like product when both products were subject to investigation. Each DRO system consisted of one transducer and one electronic console. A DRO system was produced simply by plugging a transducer into a console; no further processing of the subassemblies was required. The value of a DRO system, the Commission found, was the sum of the values of these two components.[37]

The present investigation is similar. The products at issue, CDIW fittings and accessories, are neither semi-finished nor components of each other. Their only connection to each other is that the end-user must connect them. Under the reasoning in Digital Readout Systems, CDIW fittings and their accessories also should be considered separate like products.

In this investigation, we therefore find four domestic industries corresponding to the four like products: (1) the domestic producers of iron waterworks fittings, (2) the domestic producers of iron glands, (3) the domestic producers of SBR gaskets, and (4) the domestic producers of Cor-Ten steel or ductile iron T-head bolts and hexagonal nuts.[38] [39]

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[35] (...continued)
discuss its continuing usefulness.

Instead of the five-factor test, she applies her normal analysis of the like product issue, articulated at some length in Polyethylene Terephthalate Film, Sheet, and Strip from Japan and Korea, Inv. Nos. 731-TA-458 and 459 (Final) USITC Pub. 2383 (May 1991), to the question of whether the accessories and the fittings are one like product. At this point in the investigation, it seems that they are not. Neither producers nor consumers could substitute among the various components of a completed coupling.

[36] Inv. No. 731-TA-390 (Final), USITC Pub. 2150 (January 1989).

[37] Id. at 7.

[38] In any final investigation we will consider whether assemblers of accessory packs are domestic producers.

We note that petitioners produce only CDIW fittings and, in some cases, iron glands. In this preliminary investigation, the Commission has no data regarding the domestic industries producing the nuts, bolts, or gaskets, or the numerous additional domestic manufacturers of iron glands.[40] In the event of a final investigation, it will be necessary to send producer questionnaires to the domestic producers of iron glands, T-head bolts, hexagonal nuts, and SBR gaskets.[41]

2. Like Product Issues Relating to Iron Waterworks Fittings

(a) Whether the Like Product Should Include Gray Iron Fittings

Another issue regarding the definition of the like product is whether the iron waterworks fitting product should include gray iron fittings as well as fittings made of ductile iron. With respect to physical characteristics and uses, ductile iron is stronger than gray iron.[42] Ductile iron fittings are [illegible], some evide[illegible] certain

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[39] (...continued)

[39] Chairman Newquist and Commissioner Nuzum note that petitioners' primary rationale for including accessories within the like product is its concerns regarding possible circumvention of an antidumping duty order on CDIW fittings. Although the Commission should be sensitive to concerns regarding circumvention of orders, we do not believe that anticircumvention concerns are an appropriate focus of like product analysis.

[40] We also lack information regarding imports of nuts, bolts and gaskets.

[41] We note that our like product determination may raise the issue of whether the petitioners in this case are representative of certain of the domestic industries at issue, such as the U.S. industry producing gaskets or the industry producing T-head bolts and hexagonal nuts. Our reviewing courts, however, have indicated that the Commerce Department and not the Commission decides questions of standing in title VII investigations. See Suramerica de Aleaciones Laminadas, C.A. v. United States, 966 F.2d 660, 665, n.6 (Fed. Cir. 1992); Minebea Co., Ltd. v. United States, Slip Op. 92-101 (CIT 1992) at 8.

[42] Report at I-5, n. 7. This is illustrated by the fact that for the three to twenty-four inch size range, ductile iron fittings are rated for 350 psi working pressure while gray iron fittings are rated for 150 to 250 psi working pressure.

customers prefer ductile iron fittings.[43] On the other hand, the fact that both gray iron and ductile iron fittings must conform to AWWA\ANSI Standard C110 suggests that they are interchangeable in use.[44] We have limited data regarding both the degree of interchangeability between gray iron fittings and ductile iron fittings and customer perceptions of the two types of fittings. We therefore intend to seek such data in the event of any final investigation.

The production processes for producing gray iron and ductile iron fittings appear to differ primarily in the use of a different type of iron.[45] Ductile iron fittings production may also be more automated than that for gray iron fittings. However, both petitioners and respondent acknowledge that the volume of the product produced determines whether production is automated or performed manually.[46] The channels of distribution are the same for all types of fittings; the vast majority are sold through distributors. The Commission gathered no information in this preliminary investigation regarding the prices of gray iron fittings.

Based on the limited data available in this preliminary investigation, including data indicating similarities in end uses, physical and performance characteristics, and channels of distribution, we determine that gray iron fittings should be included in the same like product as ductile iron fittings. We may re-examine this question, however, in any final investigation.

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[43] In fact, the parties agree that there is a significant trend away from gray iron and toward ductile iron fittings. Tr. at 16, 115.

[44] See ANSI\AWWA C110\A21.10-87, American National Standard for Ductile-Iron and Gray-Iron Fittings, 3 in. through 48 in., for Water and Other Liquids. The American Water Works Association ("AWWA") and the American National Standards Institute, Incorporated ("ANSI") are the standards-setting bodies for the waterworks industry. Report at I-6.

[45] Questionnaire responses.

[46] Tr. at 114. Petitioners' Post-Conference Brief at 14-15; Tr. at 18 & 52.

(b) Whether the Like Product Should Include Full-Bodied Fittings

The next issue relating to our definition of the iron waterworks fitting product is whether full-bodied iron waterworks fittings should be included in the like product with compact fittings. Compact and full-bodied iron fittings have many physical characteristics in common. Both have essentially the same shape but differ somewhat in design and greatly in weight. Each must meet the AWWA/ANSI C110 Standard and therefore both have the physical and performance characteristics specified by that standard.

For the majority of applications, both compact and full-bodied fittings have the same end use.[47] In addition, because they must meet the same standards, petitioners concede the two types of fittings are "technically interchangeable."[48] Two limitations on this interchangeability may be in the case of fittings used in the replacement market[49] and fittings required for certain extra heavy duty applications such as for water systems in earthquake zones. Evidence obtained in this investigation, however, indicates that compact and full-bodied iron fittings are generally interchangeable.[50]

Information gathered in this investigation suggests that the production processes for the two types of fittings are quite similar. They are produced in common manufacturing facilities by common production employees.[51] Moreover, the channels of distribution for compact fittings and full-bodied

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[47] Tr. at 113-114.

[48] Petitioners' Post-Conference Brief at 13.

[49] Petitioners note that, while full-bodied and compact fittings are interchangeable at the "design in" stage, once a system has been installed it is usually necessary to replace a compact fitting with another compact fitting and to replace a full-bodied fitting with another full-bodied fitting. Petitioners' Post-Conference Brief at 13. We note that we have no information regarding the size of the replacement market.

[50] Questionnaire responses.

[51] Questionnaire responses.

fittings are the same. For purposes of this preliminary investigation, we include full-bodied fittings in the same like product with compact fittings. We will, however, reexamine this issue in any final investigation.

(c) Whether the Like Product Should Include Fittings Over 16 Inches in Nominal Diameter

A third issue regarding the definition of the iron waterworks fitting product is whether the like product should include waterworks fittings over 16 inches in nominal diameter, as well as fittings of smaller diameter. Other than the obvious differences in size,[52] there appear to be few differences in physical characteristics between fittings of less than 16 inches and larger diameter fittings. The AWWA/ANSI Standard C110 covers both ductile iron and gray iron fittings with nominal diameters of 3 inches through 48 inches. It also appears that compact ductile iron fittings are produced domestically in sizes of up to 24 inches.[53]

Petitioners claim that CDIW fittings with a nominal diameter of 16 inches or less have a different end use.[54] Respondent disagrees.[55] In the event of any final investigation, the Commission will seek information relevant to this issue.

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[52] We note that in previous investigations, the Commission has been reluctant to draw like product distinctions based on product size alone. See Sweaters Wholly or in Chief Weight of Manmade Fibers from Hong Kong, the Republic of Korea, and Taiwan, Inv. Nos. 731-TA-448-50 (Final), USITC Pub. 2312 (September 1990) at 20-21; Heavy Forged Handtools from the People's Republic of China, Inv. No. 731-TA-457 (Final), USITC Pub. 2357 (February 1991) at 7-8.

[53] The AWWA/ANSI has a separate standard that applies specifically to compact ductile iron fittings of 3 inches through 16 inches. At the Commission's conference, however, petitioners' representative, who is also a member of the AWWA/ANSI committee that drafts its standards, testified that over the last five years there have been constant requests by consumers to expand the coverage of the standard to include larger fittings, and that it is likely that the committee will do so. Tr. at 96. Report at I-6, n. 9.

[54] Post-Conference Brief of Petitioners at 20.

[55] Post-Conference Brief of Respondent at Exhibit 17, p. 4, n. 5.

Information obtained in this investigation indicates that the production processes for all sizes of waterworks fittings are very similar, except that production lines producing the larger volume, smaller fittings are more automated. The volume of the product produced, however, appears to determine whether production is automated or performed manually.[56] Moreover, the channels of distribution are the same or similar for fittings of all sizes.

It is unclear whether the perceptions of customers differ for the larger sized fittings versus the smaller fittings. It does appear, not surprisingly, that prices for larger fittings are generally higher.

For purposes of this preliminary investigation, we include fittings over 16 inches within the same like product as smaller fittings, but note that we shall reexamine this issue in the event of a final investigation.

III. CONDITION OF THE INDUSTRY

In assessing whether there is a reasonable indication of material injury to a domestic industry by reason of the allegedly LTFV imports, the Commission is directed to consider "all relevant economic factors which have a bearing on the state of the industry in the United States. . . ."[57] These include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investments, ability to raise capital, and research and development.[58] No single factor is determinative, and the Commission considers all relevant factors "within the business cycle and conditions of competition distinctive to the affected

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[56] Tr. at 114. Petitioners' Post-Conference Brief at 14-15; Tr. at 18 & 52.

[57] 19 U.S.C. § 1677(7)(C)(iii).

[58] Id.

industry."[59]

A. Condition of the Iron Waterworks Fittings Industry

For purposes of our analysis, the relevant domestic industry with respect to waterworks fittings is the industry producing all iron waterworks fittings. We have complete data, however, for only the producers of ductile iron waterworks fittings. Therefore the discussion that follows focuses on those producers.[60] We intend to collect data regarding the industry producing gray iron waterworks fittings in any final investigation.[61]

By volume, apparent consumption of iron waterworks fittings increased by 0.8 percent from 74,843 tons to 75,421 tons between 1989 and 1990, but decreased by 7 percent to 70,115 tons in 1991.[62] Thus, domestic consumption fell by 6.3 percent between 1989 and 1991.[63] The U.S. producers' market share by both volume and value increased by 1.4 percentage points between 1989 and 1991 and decreased by 2.2 and 1.0 percentage points, respectively, in the

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[59] Id. Respondent Sigma argued at the conference that the waterworks fittings industry is both capital intensive and very cyclical in nature, and that capital intensive industries are more sensitive to market fluctuations, such as the recent economic downturns. Respondent also asserted that the waterworks industry is directly affected by housing starts and the general condition of the economy. Tr. at 119. Petitioners stated that although the market for waterworks fittings is generally related to housing starts, water distribution systems must be designed and financed well in advance of the building of houses. Moreover, they stated that it is during recessionary times that a domestic industry is most vulnerable to the effects of LTFV imports. Tr. at 143.

[60] Commissioner Crawford does not find the information relating to the ductile iron waterworks fittings industry necessarily probative as a surrogate for information with respect to the larger industry composed of all iron waterworks fittings.

[61] We estimate that the U.S. production of gray iron waterworks fittings is less than 20 percent of the entire production of all iron waterworks fittings.

[62] Report at Table C-3. By value, domestic consumption increased by 0.3 percent between 1989 and 1991.

[63] Consumption increased, however, by 8 percent from 33,966 tons in the first six months of 1991 to 36,699 tons in the first six months of 1992. The increase by value for the first six months of 1992 over the corresponding period in 1991 was 13.4 percent. Report at Table C-3.

first six months of 1992 as compared to the first six months of 1992.[64]

By volume, domestic production also increased, by 10.1 percent between 1989 and 1990, from 64,926 tons to 71,471 tons. Production fell between 1990 and 1991, to 64,028 tons, a decrease of 10.4 percent. Thus, production by volume over the three year period decreased by 1.4 percent.[65] The domestic iron waterworks fittings industry's capacity utilization increased from 66.5 percent to 74.3 percent between 1989 and 1990, and fell to 68.0 percent in 1991.[66] It increased an additional 6.5 percent in the first six months of 1992 as compared with the corresponding period in 1991.[67]

The industry's U.S. shipments by volume increased by 4.5 percent from 1989 and 1990, but declined by 9.0 percent in 1991.[68] [69] By value, U.S. producers' U.S. shipments increased by 9.1 percent between 1989 and 1990, but fell by 6.7 percent in 1991.[70] End-of-period inventories increased between 1989 and 1990, then decreased between 1990 and 1991, resulting in an overall decrease for the three year period.[71]

Productivity increased throughout the period of investigation. The number of production workers, hours worked and total compensation increased

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[64] Report at Table C-3.

[65] Report at Table C-3. Production then increased by approximately 15.2 percent for the first six months of 1992, from 29,055 tons in the first six months of 1991 to 33,479 tons in the first six months of 1992.

[66] Report at Table C-3.

[67] Report at Table C-3.

[68] Shipments by quantity and value increased in the first six months of 1992 as compared to the first six months of 1991. By quantity, the increase was 5.4 percent and by value, it was 12.2 percent.

[69] Report at Table C-3. In the event of any final investigation, we intend to gather shipments data for iron waterworks fittings on a per unit basis, as well as by tonnage and by value.

[70] By value such shipments increased by 12.2 percent in the first six months of 1992 as compared to the same period in 1991. Report at Table C-3.

[71] Report at Table C-3.

between 1989 and 1990, then declined in 1991.[72]

Net sales increased by 9.9 percent between 1989 and 1990, from $105.8 million to $116.2 million, but decreased by 0.1 percent between 1990 and 1991 to $116.1 million, for a total increase from 1989 to 1991 of 9.7 percent.[73] Operating income margins were negative throughout the period of investigation, ranging from minus 6 percent in 1989 to minus 2.5 percent in 1991.[74] [75]

B. Condition of the Domestic Iron Gland Industry[76]

In this preliminary investigation, we have very limited data regarding the U.S. industry producing iron glands. We have obtained data from the three petitioning companies that produce iron glands.[77] Petitioners, however, did not provide us with information regarding the other domestic companies that produce glands. We intend to seek such information in the event of any final investigation.

C. Condition of the Domestic SBR Gasket Industry[78]

In this preliminary investigation, we have virtually no data regarding

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[72] Report at Table C-3.

[73] Net sales further increased by 15.0 percent between the first six months of 1991 and the first six months of 1992, from $53.7 million to $61.8 million.

[74] Report at Table C-3.

[75] Based, inter alia, on evidence of this industry's poor financial performance and declining shipments, Chairman Newquist and Commissioner Rohr determine that there is a reasonable indication that this industry is currently experiencing material injury.

[76] Chairman Newquist and Commissioner Rohr do not find "clear and convincing evidence" that there is no present material injury. Nor do they find that there is no likelihood that evidence of material injury will arise in a final investigation. American Lamb v. United States, 785 F.2d 994 (Fed. Cir. 1986). Accordingly, they find a reasonable indication that this industry is materially injured.

[77] Report at I-16.

[78] Chairman Newquist and Commissioner Rohr do not find "clear and convincing evidence" that there is no present material injury. Nor do they find that there is no likelihood that evidence of material injury will arise in a final investigation. American Lamb v. United States, 785 F.2d 994 (Fed. Cir. 1986). Accordingly, they find a reasonable indication that this industry is materially injured.

the U.S. industry producing SBR gaskets.[79] We note that petitioners provided the Commission no information regarding the domestic producers of SBR gaskets. We intend to seek such information in the event of any final investigation.

D. Condition of the Domestic Industry Producing T-Head Bolts and Hexagonal Nuts[80]

In this preliminary investigation, we have virtually no data regarding the U.S. industry producing T-head bolts and hexagonal nuts. Again, petitioners provided the Commission no information regarding the domestic producers of these products. We intend to seek such information in the event of any final investigation.

IV. REASONABLE INDICATION OF MATERIAL INJURY BY REASON OF ALLEGEDLY LTFV IMPORTS

In determining whether there is a reasonable indication that the domestic industry is materially injured by reason of the imports under investigation, the statute directs the Commission to 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 in the United States.[81]

In making this determination, the Commission may consider "such other economic

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[79] Petitioners have alleged that Tyler manufactures SBR gaskets, but we have no data regarding that production.

[80] Chairman Newquist and Commissioner Rohr do not find "clear and convincing evidence" that there is no present material injury. Nor do they find that there is no likelihood that evidence of material injury will arise in a final investigation. American Lamb v. United States, 785 F.2d 994 (Fed. Cir. 1986). Accordingly, they find a reasonable indication that this industry is materially injured.

[81] 19 U.S.C. § 1667(7)(B)(i).

factors as are relevant to the determination . . . ."[82] Although we may consider information that indicates that injury to the industry is caused by factors other than the allegedly LTFV imports, we do not weigh causes.[83] [84]

A. Reasonable Indication of Material Injury by Reason of Allegedly LTFV Imports of Iron Waterworks Fittings

By volume, subject imports increased substantially between 1989 and 1991. The volume of subject imports as a share of apparent domestic consumption of iron waterworks fittings increased irregularly by 1.6 percent from 1989 to 1991. [85] At the same time, the market share of nonsubject imports decreased by 3.4 percentage points from 1989 to 1991, and increased by 1.2 percentage points in the first six months of 1992 as compared to the

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[82] 19 U.S.C. § 1677(7)(B)(ii).

[83] Chairman Newquist, Commissioner Rohr, and Commissioner Nuzum 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).

[84] Commissioner Crawford notes that the statute requires that the Commission determine whether a domestic industry is "materially injured by reason of the LTFV imports." 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 LTFV 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 subsidized 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 subsidized 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).

[85] We note that our apparent consumption data includes only consumption of ductile iron waterworks fittings, rather than consumption of all iron waterworks fittings.

corresponding period in 1991. The value of the subject imports as a share of apparent domestic consumption also increased irregularly from 1989 to 1991, increasing by 0.7 percent. U.S. producers' share of consumption by quantity increased between 1989 and 1991, then decreased in the first six months of 1992 as compared with the corresponding period in 1991.[86]

The subject imports and domestically produced iron waterworks fittings both must conform to the relevant industry standard and appear to be generally substitutable. If so, the market for iron waterworks fittings would be price competitive. Nevertheless, we will seek additional data on this issue in any final investigation. We will also seek information on the price sensitivity of the waterworks fittings market.

The Commission obtained pricing data on sales of CDIW fittings.[87] U.S. producers and importers sell iron waterworks fittings primarily to unrelated distributors (known in the trade as "waterworks houses") and to a lesser extent to contractors and municipal or regional water authorities. Importers sell only to distributors.[88] The price information gathered by the Commission is based on the supplier's largest quarterly sale to an unrelated U.S. distributor for four specific CDIW fittings without accessories.[89]

The record reveals a significant degree of underselling.[90] Chinese

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[86] Report at Table C-3.

[87] In the event of any final determination, we intend to collect pricing data on additional products including gray iron fittings and full-bodied iron fittings.

[88] Report at I-37. Waterworks fittings are sold either as part of a package that includes an entire waterworks system or separately as a component of a system with parts provided by many suppliers. Id.

[89] Report at I-38. We note that the alleged dumping margins in this investigation, approximately 127.38 percent for CDIW fittings sold without accessories, are very high. Report at I-4, n. 5.

[90] Commissioner Crawford notes that underselling is only significant in terms of relative, not absolute, prices. She will seek data on relative prices in the event of any final investigation.

products undersold the domestic products in 47 of 56 available price comparisons.[91] In addition, petitioners cite a number of instances of alleged underselling by the subject Chinese imports resulting in lost sales or lost revenues. The Commission was able to confirm five lost sales allegations and three instances of lost revenues. In each of these instances the purchaser stated that it purchased Chinese produced fittings because they were less expensive than the domestic product and were of comparable quality.[92] [93] [94]

The record shows that, overall, U.S. prices were not depressed during the period of investigation. The evidence of price suppression is mixed. We will seek additional information on price suppression in the event of any final investigation.

We note that in this preliminary investigation there is inadequate information on the record concerning certain factors relevant to the conditions of competition in this industry. These factors include: (1) the role of the recession that occurred during the period of investigation; (2) the nature and significance of fixed costs in the domestic industry; (3) the size of the replacement market for such fittings and the role of such things as changes in environmental regulations on that market; (4) the degree to which the allegedly LTFV imports from China have displaced fairly traded imports from other sources, such as Korea; and (5) the degree of substitutability between subject imports and all domestically produced iron

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[91] Report at I-39.

[92] Report at I-43 to I-45.

[93] We note that five of the six domestic producers have indicated that the presence of allegedly LTFV Chinese imports in the market has had an adverse impact on their companies' capital investment. See Report at D-2 to D-3.

[94] Commissioner Brunsdale rarely gives much weight to evidence of underselling since it usually reflects some combination of differences in quality, other nonprice factors, or fluctuations in the market during the period in which comparisons were sought.

waterworks fittings and all ductile iron waterworks fittings. We intend to seek data on these factors in the event of any final investigation.[95]

Overall, the available information with respect to iron waterworks fittings in this preliminary investigation establishes a reasonable indication that substantial and increasing quantities of allegedly dumped imports from China, sold at lower prices than the domestic product, and accounting for an increasing share of apparent U.S. consumption when domestic consumption decreased, have had an adverse effect on prices, sales, and revenues of the domestic industry.[96] [97] [98]

B. Reasonable Indication of Material Injury by Reason of Allegedly LTFV Imports of Iron Glands

As noted above, our information regarding the U.S. industry producing iron glands is very limited. We lack both import data and domestic data. In

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[95] Commissioner Nuzum notes that she also intends to seek additional information regarding the price of fittings in relation to the price of a complete waterworks system and the relative importance of sales of packages of waterworks pipe and fittings from the manufacturer versus sales of individual waterworks products through distributors.

[96] Chairman Newquist and Commissioner Rohr and Commissioner Nuzum determine that there is a reasonable indication that the subject imports are a cause of material injury to the domestic industry.

[97] Commissioner Crawford finds that the failure to seek information regarding gray iron waterworks fittings precludes the Commission from making a negative determination with respect to the domestic industry in this preliminary investigation. See Budd Co., Ry. Div. v. United States, 507 F. Supp. 997 (CIT 1980). Accordingly, the record evidence does not support a finding that (1) the record as a whole contains clear and convincing evidence that there is no material injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation. American Lamb v. United States, 785 F.2d 994 (Fed. Cir. 1986).

[98] Commissioner Brunsdale finds an absence of clear and convincing evidence that there is no material injury to the U.S. fittings industry based on the nonnegligible market share of the Chinese imports and the dumping margin of 127.38 percent the petitioner alleges. Although only an allegation, this margin (which is the best evidence available now) is sufficiently large that she has to assume that these imports would not be sold in this country at all if they were fairly priced. Her conclusion is based in substantial part on the potentially high degree of substitutability of the like product and the subject imports.

view of the lack of information on the record regarding the domestic industry producing iron glands, we do not find that (1) the record as a whole contains clear and convincing evidence that there is no material injury; and (2) no likelihood exists that any contrary evidence will arise in a final investigation. Because this legal standard for a preliminary negative determination has not been met, we find a reasonable indication of material injury to a domestic industry by reason of allegedly LTFV imports of iron glands.

C. Reasonable Indication of Material Injury by Reason of Allegedly LTFV Imports of SBR Gaskets

As is the case for the U.S. gland industry, we also have virtually no information regarding the U.S. industry producing SBR gaskets. We also lack data regarding imports of SBR gaskets. In view of the lack of information on the record regarding the domestic industry producing SBR gaskets, we do not find that (1) the record as a whole contains clear and convincing evidence that there is no material injury; and (2) no likelihood exists that any contrary evidence will arise in a final investigation. Because this legal standard for a preliminary negative determination has not been met, we find a reasonable indication of material injury to a domestic industry by reason of allegedly LTFV imports of SBR gaskets.

D. Reasonable Indication of Material Injury by Reason of Allegedly LTFV Imports of T-head Bolts and Hexagonal Nuts

We also have virtually no information regarding either imports or the U.S. industry producing hexagonal nuts or T-head bolts of either Cor-Ten steel or ductile iron. In view of the lack of information on the record regarding the domestic industry producing T-head bolts and hexagonal nuts, we once again do not find that (1) the record as a whole contains clear and convincing

determine whether the subject imports are being sold or are likely to be sold in the United States at LTFV. The Commission voted on this investigation on August 19, 1992, and transmitted its determination to Commerce on August 24, 1992.

PREVIOUS AND RELATED INVESTIGATIONS

CDIW fittings and/or CDIW fittings accessories from China or any other country have not been the subject of previous Commission investigations.[4]

NATURE AND EXTENT OF ALLEGED SALES AT LTFV

The petitioners estimate LTFV margins of 161.09 percent for CDIW fittings (without accessories) imported from China.[5] To obtain the estimated dumping margin, the petitioners compared the U.S. price of Chinese-made CDIW fittings with the foreign market value. U.S. price was based on the published price list of a major U.S. importer of CDIW fittings from China for six commonly sold types of fittings. Using the price list, petitioners calculated average net prices for each of the six types of fittings by making deductions for profit and value-added. Foreign market value was based on a constructed value using the factors-of-production cost methodology. India was used as the surrogate country on which to value production costs.

THE PRODUCTS

Description and Uses

CDIW fittings are used to join waterworks products (pipes, valves, and hydrants) in straight lines, and to change, divert, divide, or direct the flow of raw or treated water primarily in municipal water distribution systems. Consequently, CDIW fittings are produced in a variety of shapes, such as bends, tees, crosses, elbows, reducers, and adapters. Before the invention of ductile iron waterworks fittings, the standard fitting used to convey water and sewage in municipal waterworks systems was made of gray iron. However, in terms of physical properties, ductile iron is a far superior product in terms of ductility, corrosion resistance, and strength, which are key qualities because waterworks fittings are usually connected to underground pipe. Ductile iron fittings are also substantially lighter in weight than comparable gray iron fittings. Further, gray iron waterworks fittings are generally

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[4] Although such products have not been the subject of previous investigations, cast-iron pipe and tube fittings, cast-iron soil-pipe fittings, certain carbon steel butt-weld pipe fittings, and certain stainless steel butt-weld pipe fittings have been the subject of numerous other Commission investigations.

[5] Commerce calculated an adjusted alleged LTFV margin of 127.38 percent.

rated no higher than 250 pounds per square inch (PSI) compared with a rating of 350 PSI for ductile iron waterworks fittings.

The CDIW fittings included in the petition consist of either mechanical joint fittings or push-on fittings. Both mechanical joint fittings and push-on fittings conform to American Waterworks Association (AWWA) and American National Standards Institute (ANSI) specification C153/A21.53.[6] They are rated for water working pressure of 350 PSI, and range in size from 3 inches to 16 inches in diameter.

Although push-on CDIW fittings perform the same function as mechanical joint CDIW fittings, push-on fittings do not require CDIW fittings accessories other than a gasket. CDIW fittings accessories include ductile iron glands, styrene butadiene rubber gaskets, and steel or iron T-head bolts and nuts. These accessories are essential to the proper functioning of the mechanical joint CDIW fitting, in that they ensure the completeness of the seal between the CDIW fitting and the pipe. CDIW fittings accessories, which also conform to AWWA and ANSI specifications, are normally marketed in kits referred to in the industry as "accessory or gland packs."

Since CDIW fittings manufactured in the United States and those imported for U.S. consumption must conform to AWWA and ANSI specifications, the products from both sources are indistinguishable, with the exception of the name of the manufacturer, which is cast on the product.

Manufacturing Process

The manufacturing process for CDIW fittings of all sizes begins with the melting of scrap iron in an electric or cupola furnace. Other materials, such as silicon and calcium carbide, are added to improve the iron base and reduce the sulphur content of the iron to 0.15 percent or less. The iron is then stored in an electric holding furnace or transferred directly to a specially designed vessel where magnesium is introduced to convert the iron to "ductile" strength.[7] The addition of magnesium allows the iron to undergo permanent changes in shape without rupture. The molten ductile iron is then "tapped" out of the furnace and poured either manually or mechanically into reusable molds that contain consumable, specially treated sand of controlled particle size. After cooling, the castings are shaken out of the molds either manually or by an automatic system.

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[6] A third type of waterworks fittings, compact ductile iron flanged fittings, is not covered in the AWWA/ANSI specification and is not included in the scope of the petition or in Commerce's investigation.

[7] The addition of magnesium changes the chemical structure of the graphite form of the iron from the flake form found in gray iron to a spheroidal graphite form. This change in chemical structure gives ductile iron twice the strength of gray iron. (See conference transcript, pp. 91-95.)

Both CDIW fittings and accessory glands require a relatively large amount of finishing to remove overpourings or irregularities on the finished casting. In the United States, this process is accomplished by shot blasting and grinding with automatic or semi-automatic tools.

Interchangeability

CDIW fittings sold in the United States must be manufactured in accordance with standards set by the AWWA/ANSI.[8] For this reason, U.S.-produced CDIW fittings and CDIW fittings imported from China are believed to be completely interchangeable. Further, CDIW fittings produced in the United States and CDIW fittings imported from China flow through the same channels of distribution, primarily through waterworks distributors.

Like Product Considerations

Basically, two types of water pipe fittings compete for sales in the U.S. waterworks market. These are CDIW fittings and full-bodied waterworks fittings made of gray or ductile iron. Prior to the adoption of written standards for CDIW fittings in 1984,[9] the accepted fitting used by municipal waterworks systems was the full-bodied waterworks fitting.[10] Petitioners and respondent Sigma Corp. advance opposing arguments as to likenesses and similarities of CDIW fittings with full-bodied fittings. A summary of these opposing views follows.

Petitioners' Arguments

Based on testimony presented at the Commission's conference and in their postconference brief, petitioners argue that CDIW fittings and full-bodied ductile iron fittings are different in all respects, including physical characteristics, uses and interchangeability, manufacturing facilities and

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[8] AWWA/ANSI specification C153/A21.53 provides for compact ductile iron fittings, 3 inches through 16 inches, for water and other liquids. The AWWA/ANSI standard for full-bodied ductile iron and gray iron fittings, measuring 3 inches through 48 inches, for water and other liquids is provided for in specification C110/A21.10.

[9] The AWWA/ANSI standard adopted for CDIW fittings initially covered fittings measuring from 3 inches to 12 inches in nominal diameter. In 1988, the standard was rewritten to include fittings measuring from 3 inches to 16 inches in nominal diameter. According to testimony presented at the Commission's conference, there is a likely possibility that the standard will again be revised in 1993 to include CDIW fittings up to 24 inches (conference transcript, p. 96).

[10] Specifications for full-bodied waterworks fittings are provided for in AWWA/ANSI standard C110/A21.10. This standard covers fittings made of gray iron and ductile iron, from 3 inches to 48 inches, for use with ductile iron pipe for water and other liquids.

production employees, customer perceptions, and prices.[11] In terms of physical characteristics, petitioners argue that CDIW fittings are physically distinguished from full-bodied fittings because CDIW fittings have shorter lay lengths and thinner walls. These design features translate into a product that is 50 percent lighter in weight than the full-bodied fitting. Petitioners state that CDIW fittings and full-bodied fittings are used in the same applications and, within diameters of comparable size, are technically interchangeable at the design stage. However, petitioners also argue that, once the pipe is laid, it becomes almost physically impossible to connect a CDIW fitting to two pipes whose lay lengths are longer than the fitting.

Petitioners argue that because of the difference in sizes between CDIW fittings and full-bodied fittings, the two are manufactured using different processes. The production process for CDIW fittings is more automated whereas the process used for full-bodied fittings is more labor-intensive. The molding process is also different. Mold patterns used for CDIW fittings are made of aluminum, while some molds used for full-bodied fittings are made of wood. Concerning customer perceptions, petitioners argue that since the adoption of CDIW fittings standards in 1984, CDIW fittings are widely becoming the fitting of choice and are slowly replacing full-bodied fittings in the marketplace. Finally, petitioners state that CDIW fittings are less expensive than full-bodied fittings; the lower price is a function of the smaller size of the compact fittings.

Sigma's Arguments

Respondent Sigma Corp. argues that the like product in this investigation should be all waterworks fittings, including all sizes of CDIW fittings and full-bodied fittings (which range up to 54 inches in diameter) whether made of ductile iron or gray iron.[12] Sigma states that although they may have different physical dimensions, all waterworks pipe fittings are similar in appearance and shape. Further, Sigma argues, the standards used for mechanical joint ends are common to both CDIW fittings and full-bodied fittings. Both fittings, Sigma further argues, perform the same end-use function, i.e., to change or divert the flow of water. Sigma notes that the C153 standard that applies to CDIW fittings allows for interchangeability with full-bodied fittings and that the marketplace uses both types on an "either/or" basis. Lastly, Sigma argues that CDIW fittings and full-bodied fittings share common manufacturing facilities, utilizing the same production processes and workers. Sigma also argues that fittings and accessories are two different like products.

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[11] Petitioners' postconference brief, pp. 12-17.

[12] Conference transcript, p. 102, and Sigma's postconference brief, exhibit 17.

U.S. Tariff Treatment

Imports of CDIW fittings subject to this investigation are provided for in subheading 7307.19.30 of the HTS. The column 1-general (most-favored-nation) rate of duty for CDIW fittings is 6.2 percent ad valorem. Imports of T-head bolts, styrene butadiene rubber gaskets, and standard ductile iron glands are provided for in subheadings 7318.15.20.90.2, 4016.93.00.00.2, and 7307.19.90.90.6, respectively, of the HTS. The column 1-general rate of duty for T-head bolts is 0.7 percent ad valorem; the column 1-general rate of duty for styrene butadiene rubber gaskets is 3.5 percent ad valorem; and the column 1-general rate of duty for standard ductile iron glands is 6.2 percent ad valorem.

THE U.S. MARKET

U.S. Producers

The Commission sent producers' questionnaires to the five firms that were listed in the petition as known domestic producers of the subject merchandise. Producers' questionnaires were also sent to two other firms that the Commission had reason to believe may have produced the subject merchandise during the period for which information was requested. All seven firms responded to the Commission's questionnaire. Six firms produced CDIW fittings and full-bodied ductile iron waterworks fittings; the seventh firm produced fittings other than CDIW or full-bodied fittings.

The bulk of U.S. production of CDIW fittings is accounted for by two of the petitioners, Tyler Pipe Industries, Inc. (Tyler) and Union Foundry Co. (Union). Together, these two firms accounted for *** percent of the U.S. industry's production of CDIW fittings in 1991 (table 1).

Clow Water Systems Co. (Clow), the third petitioner, is a subsidiary of Clow Corp., which in turn is wholly owned by McWane, Inc., a Birmingham, AL, company with manufacturing interests in pipes, fittings, waterworks valves, and fire hydrants. Clow maintains its corporate offices in Oak Brook, IL, and produces pressure pipe and fittings at its Coshocton, OH, manufacturing facility. Clow's production of CDIW fittings in 1991 amounted to *** of the U.S. industry's total production.

Tyler is one of two operating companies owned by Tyler Corp. of Dallas, TX, a holding company. Tyler Corp. is also the parent to a number of manufacturing entities whose principal lines include pipes (cast-iron and plastic), couplings for pipes, pipe fittings, and faucets and spigots. CDIW fittings are produced at Tyler's manufacturing plant in Tyler, TX. Based on information supplied by respondents to the Commission's producers' questionnaire, Tyler is ***, accounting for *** percent of total U.S. production in 1991.

Union, like Clow, is also owned by McWane, Inc. Union produces CDIW fittings at its plant in Anniston, AL. Union's production of CDIW fittings in 1991 accounted for *** percent of total U.S. production, ranking it ***.

Table 1
Waterworks fittings:[1] Current U.S. producers, location of production facility, position on the petition, and share of production in 1991

Firm	Location of production facility	Position on petition	Share of U.S production in 1991	
			CDIW fittings	Full-bodied DI fittings
American Cast Iron Pipe . . .	Birmingham, AL	***	***	***
Clow Water Systems	Coshocton, OH	Petitioner	***	***
Griffin Pipe Products . . .	Downers Grove, IL	***	***	***
Tyler Pipe Industries . .	Tyler, TX	Petitioner	***	***
Union Foundry Company	Anniston, AL	Petitioner	***	***
U.S. Pipe & Foundry	Birmingham, AL	***	***	***
Total			100.0	100.0

[1] Includes CDIW fittings and full-bodied ductile iron fittings.

Note.--Because of rounding figures may not add to the totals shown.

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

U.S. Importers

Importers' questionnaires were sent to 11 firms that were believed to have imported CDIW fittings during the period for which information was requested. Eight of the 11 firms responded to the questionnaire. Three of the eight responded that they did not import CDIW fittings during the period for which information was requested.[13] The remaining five were able to supply information with respect to their imports of CDIW fittings.

The seven firms that were sent U.S. producers' questionnaires were also sent importers' questionnaires. However, each of these firms responded by indicating that it did not import the subject merchandise during the period for which information was requested.

[13] Two firms are known to have stopped importing CDIW fittings during the period for which information was requested (conference transcript, p. 110.). NAPPCO, Inc. (Northbury, MA) and Intermet Corp. (Jacksonville, FL) both went out of business in 1990. Although neither firm was sent a questionnaire, both provided limited information concerning their imports/sales of CDIW fittings.

Based on information presented in the petition and on testimony presented at the Commission's conference, two U.S. importers--Sigma Corp. and Star Pipe Products, Inc.(Star)--account for the bulk of U.S. imports of CDIW fittings.[14]

Sigma has been importing waterworks pipe fittings into the United States and Canada since 1986. It *** and is believed to be *** of CDIW fittings from China.[15] Star started doing business in 1990 after it acquired the inventory of a firm that previously imported CDIW fittings.[16] Star is *** percent owned by ***. Star imports CDIW fittings mostly from China and Brazil.

Channels of Distribution

The vast majority of 3 to 16 inch CDIW fittings, whether domestically produced or imported from China, move through the marketplace from the manufacturer or importer to the end user by way of waterworks distributors. Only a very small percentage of CDIW fittings from either source is sold directly to water systems end users, as shown in the following tabulation.

Source	Estimated shipments to-- Distributors	End users
U.S.-produced fittings	91.0	9.0
U.S. imports from China	100.0	-

[1] Based on responses to questionnaires of the U.S. International Trade Commission.

The prominence of waterworks distributors in the U.S. CDIW fittings market, and the waterworks market in general, has evolved only since the 1980s. Before then, sales of waterworks fittings were generally made directly from the manufacturer to the end user as part of the sale of water pipe.[17] U.S. waterworks distributors number in the thousands and generally handle the full spectrum of waterworks products, including pipes, valves, fire hydrants, etc.[18] Most waterworks distributors are independent firms that have no contractual obligation to U.S. producers or importers.

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[14] Petition, p. 8, and conference transcript, pp. 123 and 124.

[15] Minmetals, Inc. ***.

[16] Star ***. *** currently imports man-hole covers but not CDIW fittings.

[17] Conference transcript, p. 23.

[18] Sigma alone sells imported CDIW fittings through more than 400 distributors throughout the United States (conference transcript, pp. 104 and 105). Sigma also sells its imported products through two firms that it refers to as "master wholesalers." The two wholesalers buy CDIW fittings from Sigma and then resell the products to distributors. Sigma's master wholesalers are given exclusive territorial rights in markets that are limited in size. Areas covered by these wholesalers include Alabama, Florida, Georgia, Idaho, Kentucky, North and South Carolina, Oregon, and the State of Washington.

Apparent U.S. Consumption

Data on apparent U.S. consumption of CDIW fittings are presented in tables 2 and 3. Apparent U.S. consumption of CDIW fittings of all sizes rose 5 percent from 1989 to 1990, increasing from *** short tons in 1989 to *** short tons in 1990 (table 2). Apparent U.S. consumption fell by 7 percent to *** short tons from 1990 to 1991, fueled by a weakening economy, particularly with respect to homebuilding, which is a key demand indicator. Spurred by a general improvement in housing starts and increased public spending for improvements in waterworks systems, apparent U.S. consumption rose by 15 percent in the first 6 months of 1992 over apparent U.S. consumption in the comparable period in 1991.

As a share of apparent U.S. consumption, U.S. producers' shipments of all CDIW fittings fluctuated from lows of ***-*** percent in 1989 and the first 6 months of 1992 to a high of *** percent in 1990. U.S. imports of all CDIW fittings imported from China (about *** percent of which were 3 to 16 inches in diameter in 1991) as a share of apparent U.S. consumption rose irregularly from *** percent in 1989 to *** percent in 1991, and increased to *** percent in January-June 1992 from *** percent in the comparable 1991 period.

The trend in apparent U.S. consumption of the subject CDIW fittings, i.e., CDIW fittings 3 to 16 inches in nominal diameter, closely paralleled the consumption trend for all CDIW fittings. Like apparent U.S. consumption of all CDIW fittings, apparent U.S. consumption of the subject CDIW fittings increased from 1989 to 1990, declined from 1990 to 1991, and rose from January-June 1991 to January-June 1992 (table 3). Similarly, U.S. shipments of domestically produced products and U.S. shipments of the Chinese-produced products as shares of apparent U.S. consumption followed opposing trends.

CONSIDERATION OF ALLEGED MATERIAL INJURY

The information in this section of the report was compiled from responses to questionnaires of the U.S. International Trade Commission. The Commission questionnaire requested information on the subject CDIW fittings as well as information on nonsubject waterworks fittings.[19] All seven firms that were sent questionnaires responded. Six of the seven firms produced the subject CDIW fittings during the period for which information was requested. These six firms are believed to comprise the entire domestic industry producing CDIW fittings.[20] The seventh firm, Russell Pipe and Foundry, produced only nonsubject waterworks fittings. In terms of size, based on

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[19] Nonsubject waterworks fittings include CDIW fittings measuring over 16 inches in nominal diameter and full-bodied ductile iron waterworks fittings and all other waterworks fittings manufactured in accordance with AWWA/ANSI standard C110/A21.10.

[20] The six firms are American Cast Iron Pipe, Clow, Griffin Pipe Products, Tyler, Union, and U.S. Pipe & Foundry.

Table 2
CDIW fittings, all sizes: U.S. producers' U.S. shipments, U.S. imports from China and all other countries, and apparent U.S. consumption, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	1992
	Quantity (short tons)				
U.S. producers' U.S. shipments	33,083	37,691	34,055	15,654	17,221
U.S. imports from:					
China	***	***	***	***	***
All other countries	***	***	***	***	***
Subtotal	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***
	As a share of the quantity of apparent consumption (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. imports from:					
China	***	***	***	***	***
All other countries	***	***	***	***	***
Total	***	***	***	***	***
Apparent U.S. consumption	100.0	100.0	100.0	100.0	100.0

Note.--Because of rounding figures may not add to totals shown.

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

Table 3
CDIW fittings 3-16 inches in diameter: U.S. producers' U.S. shipments, U.S. imports from China and all other countries, and apparent U.S. consumption, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	1992
	Quantity (short tons)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. imports from:					
China	***	***	***	***	***
All other countries	***	***	***	***	***
Subtotal	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***
	As a share of the quantity of apparent consumption (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. imports from:					
China	***	***	***	***	***
All other countries	***	***	***	***	***
Total	***	***	***	***	***
Apparent U.S. consumption	100.0	100.0	100.0	100.0	100.0

Note.--Because of rounding figures may not add to totals shown.

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

reported 1991 data, two producers (Tyler and Union) accounted for about *** percent of the U.S. industry's total capacity and for about *** percent of total production.

Not all U.S. producers were able to segregate their CDIW fittings operations on the basis of fittings 3 to 16 inches in diameter and fittings over 16 inches in diameter. Therefore, the information that follows is based on the total CDIW fittings and fittings accessories operations of the producers. Where firms were able to provide the requested information separately, that information is also presented. Information provided by U.S. producers on their operations in producing full-bodied ductile iron waterworks fittings and gray iron waterworks fittings, as provided for in AWWA/ANSI standard C110/A21.10, is presented separately in appendix C.

U.S. Production, Capacity, and Capacity Utilization

CDIW Fittings, All Sizes

U.S. production of CDIW fittings of all sizes rose by 16 percent from 1989 to 1990, declined by 13 percent from 1990 to 1991, and increased by nearly 25 percent from January-June 1991 to January-June 1992 (table 4). U.S. producers' average-of-period capacity declined slightly from 1989 to 1991 but increased from January-June 1991 to January-June 1992. U.S. producers' capacity utilization increased from 56 percent in 1989 to 65 percent in 1990, but then declined to 57 percent in 1991. Reflecting the general upturn in the economy during the first 6 months of 1992, U.S. producers' capacity utilization rose from 52 percent in January-June 1991 to 63 percent in January-June 1992.

CDIW Fittings 3-16 Inches

U.S. production of CDIW fittings measuring from 3 to 16 inches in nominal diameter accounted for no less than 95 percent of total U.S. production of all CDIW fittings during the period for which information was requested. After increasing by 13 percent from 1989 to 1990, U.S. production of 3 to 16 inch CDIW fittings declined nearly *** percent from 1990 to 1991 (table 5).[21] From January-June 1991 to January-June 1992, however, production again increased, rising by *** percent above the interim 1991 period. The sharp increase, U.S. producers explained, was partly the result of changed economic conditions. Among the six firms for which data are reported, only Tyler was able to supply separate capacity information on its CDIW fittings by size of fitting. As shown in the tabulation that follows, Tyler's production trend for 3 to 16 inch CDIW fittings ***.

* * * * * * *

CDIW Accessories

CDIW accessories consist of T-head bolts made of iron or steel, styrene butadiene rubber gaskets, and ductile iron glands.[22] Together, these accessories are referred to as "accessory packs" and are used in conjunction with mechanical joint fittings to secure the fitting to the pipe.[23] The gland is the main component of the accessory pack and is the only accessory component produced within U.S. producers' establishments wherein CDIW fittings are produced.[24] Further, glands are produced on the same machinery and

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[21] ***.

[22] A gland is a coupling used to connect a pipe to a fitting. The gland is secured to pipe and fitting through the use of a rubber gasket and the requisite number of T-head bolts and hexagonal nuts.

[23] Petition, pp. 4 and 5. See also petitioners' postconference brief, pp. 26 and 27.

[24] Tyler ***. Union ***.

Table 4
CDIW fittings, all sizes:[1] U.S. production, average-of-period capacity, and capacity utilization, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	1992
Production (short tons) . . .	33,285	38,791	33,706	15,260	18,963
Capacity[2] [3] (short tons) . .	59,882	59,278	58,758	29,442	30,286
Capacity utilization (percent)	55.6	65.4	57.4	51.8	62.6

[1] Includes fittings over and under 16 inches in nominal diameter.
[2] Average-of-period.
[3] Tyler's reported capacity was based on operating *** hours per week, *** weeks per year; Union's reported capacity was based on operating *** hours per week, *** weeks per year; and Griffin's, Clow's, and American Cast Iron's reported capacity was based on operating an average of *** hours per week, *** weeks per year. U.S. Pipe did not report the basis for its capacity.

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

Table 5
CDIW fittings: U.S. production, by types and by sizes, 1989-91, January-June 1991, and January-June 1992

(In short tons)

Item	1989	1990	1991	January-June-- 1991	1992
Mechanical joint:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Subtotal	***	***	***	***	***
Push-on:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Subtotal	***	***	***	***	***
Total:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Total	33,285	38,791	33,706	15,260	18,963

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

equipment used to produce CDIW fittings.[25] Because the Commission's questionnaire did not request information on U.S. producers' capacity to produce ductile iron glands, information on U.S. producers' capacity and capacity utilization for glands is not available.

Only Griffin, Tyler, and Union reported production of ductile iron glands. Their aggregate production was *** short tons in 1989, *** short tons in 1990, *** short tons in 1991, *** short tons in interim 1991, and *** short tons in interim 1992.

U.S. Producers' Shipments

U.S. Shipments

CDIW fittings, all sizes

The quantity and value of U.S. producers' U.S. shipments of CDIW fittings of all sizes increased by 14 percent and 18 percent, respectively, from 1989 to 1990 (table 6). From 1990 to 1991, however, the quantity of such shipments declined by almost 9 percent and the value of such shipments fell by nearly 7 percent. Nonetheless, at 34,055 short tons, the quantity of U.S. producers' U.S. shipments in 1991 was about 3 percent higher than the quantity of such shipments in 1989. Similarly, the value of U.S. producers' shipments in 1991 ($57.8 million) was higher by 10 percent than the value of U.S. producers' shipments in 1989. U.S. producers attribute these uneven trends in part to the stop-and-go motion of the economy. The quantity and value of U.S. producers' U.S. shipments rose by 10 percent and 13 percent, respectively, from January-June 1991 to January-June 1992. The January-June 1992 increase was spurred by an increase in homebuilding activity. Further, since CDIW fittings are installed underground, a large part of this activity in most regions of the country occurs in the spring, after the ground has gone through its winter thaw, and continues through the summer and fall seasons of the year.

The average unit value of U.S. producers' U.S. shipments of all CDIW fittings rose continuously throughout the period for which information was collected. The average unit value of U.S. producers' U.S. shipments increased by slightly more than 3 percent from both 1989 to 1990 and from 1990 to 1991. The increase from January-June 1991 to January-June 1992 was just under 3 percent.

CDIW fittings 3-16 inches

CDIW fittings measuring from 3 to 16 inches in nominal diameter accounted for the vast majority of U.S. producers' total U.S. shipments of CDIW fittings throughout the period for which information was collected. The

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[25] Conference transcript, pp. 19 and 20.

Table 6
CDIW fittings: U.S. producers' U.S. shipments (domestic shipments and company transfers), by types and by sizes, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	1992
	Quantity (short tons)				
Mechanical joint:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Subtotal	***	***	***	***	***
Push-on:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Subtotal	***	***	***	***	***
Total:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Total	33,083	37,691	34,055	15,654	17,221
	Value (1,000 dollars)				
Mechanical joint:[1]					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Subtotal	***	***	***	***	***
Push-on:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Subtotal	***	***	***	***	***
Total:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Total	52,419	61,796	57,758	26,808	30,319
	Unit value (per short ton)				
Mechanical joint:					
3-16 inches	$***	$***	$***	$***	$***
Over 16 inches	***	***	***	***	***
Average	***	***	***	***	***
Push-on:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Average	***	***	***	***	***
Average:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Average	1,584	1,640	1,696	1,713	1,716

[1] Includes the value of fittings shipped with and without accessory packs, including the value of the accessory pack.

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

quantity and value of U.S. producers' U.S. shipments of 3 to 16 inch CDIW fittings rose by *** percent and by *** percent, respectively, from 1989 to 1990 (table 6). From 1990 to 1991, the quantity of such shipments fell by *** percent, decreasing to *** short tons, and the value decreased by nearly *** percent, falling to $***. From January-June 1991 to January-June 1992, the quantity and value of such shipments increased by *** percent and *** percent, respectively. The average unit value of U.S. producers' U.S. shipments of 3 to 16 inch CDIW fittings rose at an average annual rate of *** percent from 1989 to 1991, and increased by slightly more than *** percent from January-June 1991 to January-June 1992.

Exports

U.S. producers' exports of CDIW fittings were insignificant during the period for which information was collected, remaining at *** percent or less of the quantity (less than 5 percent of value) of U.S. producers' total CDIW fittings shipments. U.S. producers' exports of CDIW fittings, mainly to Central and South America, were accounted for by two firms, *** and ***.

U.S. Producers' Inventories

U.S. producers' inventories of CDIW fittings by sizes are shown in table 7. Such inventories fluctuated upward from 1989 to 1991, increasing from 8,058 short tons in 1989 to 9,011 short tons in 1990, and then decreasing to 8,229 short tons in 1991. From January-June 1991 to January-June 1992, U.S. producers' inventories increased by 13 percent to 9,743 short tons. Nearly all producers' inventories of CDIW fittings were concentrated in the 3 to 16 inch size fittings. The ratio of U.S. producers' inventories to production remained fairly constant throughout the period for which information was requested, ranging from 23 to 28 percent of production.

U.S. Producers' Purchases

U.S. producers purchase CDIW fittings for a variety of reasons. Generally, producers will purchase CDIW fittings in sizes they either do not produce at all or produce irregularly, or they will purchase CDIW fittings when an item is not in inventory but is immmediately needed.[26] Clow, which reported *** of CDIW fittings, ***.[27] Based on their questionnaire responses, U.S. producers did not import CDIW fittings during the period for which information was requested.

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[26] Russell Pipe and Foundry, which does not produce CDIW fittings but does produce other waterworks fittings, ***.

[27] Through most of 1989, ***.

Table 7
CDIW fittings: U.S. producers' inventories and ratio to production, by sizes, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June--[1] 1991	1992
	Quantity (short tons)				
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Total	8,058	9,011	8,229	8,617	9,743
	Ratio to production (percent)				
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Average	24.2	23.2	24.4	28.2	25.7

[1] Ratios to production based on annualized production data.

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

U.S. producers' purchases of CDIW fittings declined steadily during the period for which information was collected, falling from 1,440 short tons in 1989 to *** short tons in 1991, and declining from *** short tons in January-June 1991 to *** short tons in January-June 1992 (table 8). In 1989, *** accounted for *** of U.S. producers' purchases. By 1991, *** had all but ceased buying CDIW fittings, while *** continued to purchase from ***.

Employment, Wages, and Productivity

All six firms that produced CDIW fittings during the period for which information was requested were able to provide employment information with respect to their establishments wherein CDIW fittings are produced. Based on the information provided, employment generally improved for U.S. producers from 1989 to 1990 and from January-June 1991 to January-June 1992. A downturn in most employment indicators occurred from 1990 to 1991, reflecting in part a general weakness in the U.S. economy. The number of production and related workers producing all CDIW fittings increased by 21 percent from 1989 to 1990, from 544 workers to 657 workers, and declined by 8 percent, to 603 workers, in

Table 8
CDIW fittings: U.S. producers' U.S. purchases[1] and ratios of U.S. purchases to production, by sizes, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	1992
	Quantity (short tons)				
CDIW fittings:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Total	1,440	***	***	***	***
	Ratio (percent) to production				
CDIW fittings:					
3-16 inches	***	***	***	***	***
Over 16 inches	***	***	***	***	***
Average	4.3	***	***	***	***

[1] Includes purchases from other U.S. producers as well as purchases from U.S. importers.

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

1991 (table 9).[28] The number of such workers increased slightly, by 2 percent, from January-June 1991 to January-June 1992. This fluctuating trend was repeated for the number of hours worked by those same production and related workers and for the total compensation paid to such workers. The average hourly total compensation paid to production and related workers rose steadily from 1989 to 1991 but declined from January-June 1991 January-June 1992.[29] The one employment indicator that increased without interruption was the productivity of production and related workers. Productivity increased from 25 short tons per 1,000 manhours worked in 1989 to 28 short tons per 1,000 manhours worked in 1991. From January-June 1991 to January-June 1992, productivity of production and related workers rose by nearly 5 short tons to 30 short tons per 1,000 manhours worked. U.S. producers' unit labor costs increased irregularly from $603 per short ton in 1989 to $605 per short ton in 1991, and declined sharply to $536 per short ton in January-June 1992.

In the Commission's questionnaire, U.S. producers were asked if production and related workers employed in their establishments wherein CDIW fittings are produced were also used to produce other products of the

[28] Based on the questionnaire responses of *** and ***, these two firms had permanent reductions in the number of production and related workers employed in producing all CDIW fittings of *** workers in *** and *** workers in ***. *** cited ***; *** gave as its reasons ***.

[29] Production and related workers employed by Clow, Griffin, Union, and U.S. Pipe are represented by unions. Such workers employed by American Cast Iron and Tyler have no union representation.

Table 9
CDIW fittings: Average number of production and related workers, hours worked, average hourly wages and total compensation paid to such workers, and productivity and unit labor costs, by sizes, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	January-June-- 1992
Number of production and related workers (PRWs):					
3-16 inch CDIW fittings	***	***	***	***	***
Over 16 inch CDIW fittings	***	***	***	***	***
Total	544	657	603	596	608
Hours worked by PRWs (1,000 hours):					
3-16 inch CDIW fittings	***	***	***	***	***
Over 16 inch CDIW fittings	***	***	***	***	***
Total	1,314	1,471	1,213	619	643
Average hourly total compensation paid to PRWs:					
3-16 inch CDIW fittings	$***	$***	$***	$***	$***
Over 16 inch CDIW fittings	***	***	***	***	***
Average	$15.28	$16.21	$16.81	$16.12	$15.81
Total compensation paid to PRWs (1,000 dollars):					
3-16 inch CDIW fittings	***	***	***	***	***
Over 16 inch CDIW fittings	***	***	***	***	***
Total	20,073	23,847	20,392	9,983	10,168
Productivity of PRWs (tons per 1,000 hours):					
3-16 inch CDIW fittings	***	***	***	***	***
Over 16 inch CDIW fittings	***	***	***	***	***
Average	25.3	26.4	27.8	24.7	29.5
Unit labor costs of PRWs[1] (per ton):					
3-16 inch CDIW fittings	$***	$***	$***	$***	$***
Over 16 inch CDIW fittings	***	***	***	***	***
Average	$603	$615	$605	$654	$536

[1] Calculated using total compensation (wages plus fringe benefits).

Note.--Ratios are calculated using data of firms supplying both numerator and denominator information.

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

reporting establishments. In all cases, U.S. producers responded in the affirmative. CDIW fittings production and related workers employed by *** are used to produce all products produced in its establishment. ***'s CDIW fittings production and related workers are also used to produce ***. *** responded by stating that its CDIW fittings production and related workers are also used to produce ***. *** indicated that its workers are also used to produce ***. *** responded by indicating that its CDIW fittings production and related workers are also used to produce ***. *** responded in the affirmative but did not name the other products that its workers also produce.

Financial Experience of U.S. Producers[30]

Five producers, accounting for virtually all U.S. production of CDIW fittings in 1991, furnished financial data, including separate data on mechanical joint and/or push-on CDIW fittings.[31] [32]

Overall Establishment Operations

In addition to the products under investigation, the producers' establishments manufacture other types of fittings, pipes, and castings. Generally, these other products are manufactured on the same equipment, and use the same production and related workers as the CDIW fittings. In 1991, sales of CDIW fittings accounted for 18 percent of total establishment sales. For the two largest producers, Tyler and Union, it was *** percent.

Tyler and Griffin (Amstead) are public companies. As stated in Tyler's 1991 annual report:

> Tyler Pipe is the nation's leading manufacturer of cast iron pipe and fittings for drain, waste and vent applications in commercial, industrial and residential construction and of cast iron water-works and sewage fittings for use by municipalities . . . 1991 marked the second consecutive year in which the industry faced double-digit declines in residential and non residential construction and square footage. In this environment Tyler Pipe tonnage fell 12%. Better pricing in major product lines partially offset lower volumes producing a sales decrease of 6% . . . In response to persistent deterioration in Tyler Pipe's volumes, significant cost-cutting measures were implemented in March 1991, including a reduction in the company's hourly and salaried work force and a decrease in capital spending programs . . . While cost-reduction efforts have lowered operating expenses, volume inefficiencies and other cost increases resulted in a smaller operating margin.[33]

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[30] All CDIW fittings data in this section include accessories.

[31] These producers are Clow, Griffin, Tyler, Union, and U.S. Pipe.

[32] These five producers also manufacture full-bodied ductile iron fittings. Salient financial data for this product are included in the industry summary in app. C.

[33] Tyler Corp. 1991 annual report, Management Discussion & Analysis, p. 7.

Amstead's 1991 annual report discussed Griffin Pipe's operations as follows:

> Ductile iron pressure pipe and fittings for water transmission and cast iron soil pipe for wastewater transmission are manufactured by Griffin Pipe Products Co. The level of housing starts and the improvements being made to municipal water systems are the principal factors underlying the demand for water and wastewater pipe.[34]

Operations on CDIW Fittings[35]

The income-and-loss experience of U.S. producers on their operations producing all CDIW fittings is presented in table 10.[36] Net sales increased by 21.1 percent from $61.1 million in 1989 to $74.0 million in 1990. In 1991, sales were $68.2 million, a decrease of 7.9 percent from 1990 sales. Operating losses were $3.4 million in 1989, $297,000 in 1990, and $502,000 in 1991. Operating loss margins, as a ratio to net sales, were 5.5 percent in 1989, 0.4 percent in 1990, and 0.7 percent in 1991. Operating losses were incurred by *** companies in all 3 fiscal years.

Net sales in interim 1992 were $36.7 million, an increase of 13.6 percent over interim 1991 sales of $32.3 million. There was an operating loss of $926,000 in interim 1991 and an operating profit of $402,000 in interim 1992. Operating income (loss) margins were (2.9) percent in interim 1991 and 1.1 percent in interim 1992. *** companies incurred operating losses in interim 1991 and *** companies in interim 1992.

Selected income-and-loss data, by company, are presented in table 11. *** companies (***) were unprofitable in all five reporting periods. Net sales for all companies rose between interim 1991 and interim 1992. Interim 1992 was the only period when the aggregate industry was profitable; however, ***.[37]

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[34] Amstead Industries 1991 annual report, Operations Review, p. 8.

[35] An income-and-loss summary for mechanical and push-on fittings is presented later in this section.

[36] Data in the table include mechanical joint and push-on fittings of all sizes, as well as accessories.

[37] As indicated in app. C, U.S. producers' operations on full-bodied ductile iron fittings were unprofitable in each of the five reporting periods.

Table 10
Income-and-loss experience of U.S. producers on their operations producing all CDIW fittings, fiscal years 1989-91, January-June 1991, and January-June 1992[1] [2] [3]

Item	1989	1990	1991	January-June-- 1991	1992
	Value (1,000 dollars)				
Net sales	61,135	74,049	68,176	32,254	36,562
Cost of goods sold	59,746	69,582	63,716	30,768	33,668
Gross profit	1,389	4,467	4,460	1,486	2,894
Selling, general, and administrative expenses	4,751	4,764	4,962	2,412	2,492
Operating income or (loss)	(3,362)	(297)	(502)	(926)	402
Shut down expense	***	***	***	***	***
Interest expense	***	***	***	***	***
Other income or (expense), net	***	***	***	***	***
Net income or (loss) before income taxes	(8,165)	(5,559)	(3,950)	(2,541)	(1,551)
Depreciation and amortization	2,224	2,017	3,239	1,552	1,722
Cash flow[4]	(5,941)	(3,542)	(711)	(989)	171
	Ratio to net sales (percent)				
Cost of goods sold	97.7	94.0	93.5	95.4	92.1
Gross profit	2.3	6.0	6.5	4.6	7.9
Selling, general, and administrative expenses	7.8	6.4	7.3	7.5	6.8
Operating income or (loss)	(5.5)	(0.4)	(0.7)	(2.9)	1.1
Net income or (loss) before income taxes	(13.4)	(7.5)	(5.8)	(7.9)	(4.2)
	Number of firms reporting				
Operating losses	***	***	***	***	***
Net losses	***	***	***	***	***
Data	5	5	5	5	5

[1] The producers are Clow, Griffin, Tyler, Union, and U.S. Pipe.
[2] Fiscal years for Clow, Union, and Tyler end Dec. 31. U.S. Pipe's fiscal year ends May 31, and Griffin's ends Sept. 30.
[3] Data in this table include mechanical joint and push-on CDIW fittings of all sizes, as well as accessories.
[4] Cash flow is defined as net income or loss plus depreciation and amortization.

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

Table 11
Income-and-loss experience of U.S. producers on their operations producing all CDIW fittings,[1] by firms, fiscal years 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June- 1991	1992
	Value (1,000 dollars)				
Net sales:					
Clow	***	***	***	***	***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Total	61,135	74,049	68,176	32,254	36,562
Operating income or (loss):					
Clow	***	***	***	***	***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Total	(3,362)	(297)	(502)	(926)	402
	Ratio to net sales (percent)				
Operating income or (loss):					
Clow	***	***	***	***	***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Average	(5.5)	(0.4)	(0.7)	(2.9)	1.1

[1] Data in this table include mechanical joint and push-on CDIW fittings of all sizes, as well as accessories.

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

Sales of mechanical joint fittings accounted for *** percent of all CDIW (mechanical joint and push-on) sales in 1991. An income-and-loss summary for mechanical joint and push-on CDIW fittings is presented in the tabulation below (in thousands of dollars, except as noted):

Item	1989	1990	1991	January-June 1991	January-June 1992
Net sales:					
Mechanical joint....	***	***	***	***	***
Push-on.....	***	***	***	***	***
Total.....	61,135	74,049	68,176	32,254	36,562
Operating income or (loss):					
Mechanical joint....	***	***	***	***	***
Push-on.....	***	***	***	***	***
Total.....	(3,362)	(297)	(502)	(926)	402
Operating income or (loss) ratio to net sales (percent):					
Mechanical joint....	***	***	***	***	***
Push-on.....	***	***	***	***	***
Average.....	(5.5)	(0.4)	(0.7)	(2.9)	1.1

Per-unit analysis

Because of the diverse product mix (size and/or type of fitting, with or without accessories), the aggregate per-unit values do not reflect the wide variations among the individual producers. However, in the aggregate, average unit sales values did increase in every subsequent period. The average unit cost fluctuated between 1989 and interim 1992, but was approximately the same in those two periods. Volume, after rising sharply in 1990, declined between 1990 and 1991. Although volume increased between interim 1991 and interim 1992, it was still below 1990 on an annualized basis. ***. A summary of the income-and-loss data, by firm, on a dollars-per-ton basis is shown in table 12.

Table 12
Income-and-loss experience on a dollars-per-short-ton basis of U.S. producers on their operations producing all CDIW fittings,[1] by firms, fiscal years 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June- 1991	1992
	Short tons				
Quantity:					
Clow	***	***	***	***	***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Total	39,598	46,913	42,751	19,892	22,328
	Value (per short ton)				
Net sales:					
Clow	$***	$***	$***	$***	$***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Average	$1,544	$1,578	$1,595	$1,622	$1,638
Cost of goods sold:					
Clow	***	***	***	***	***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Average	1,509	1,483	1,491	1,547	1,508
Gross profit or (loss):					
Clow	***	***	***	***	***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Average	35	95	104	75	130
Selling, general and administrative expenses:					
Clow	***	***	***	***	***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Average	120	101	116	121	112

See footnote on next page.

Table 12--Continued
Income-and-loss experience on a dollars-per-short-ton basis of U.S. producers on their operations producing all CDIW fittings,[1] by firms, fiscal years 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June- 1991	1992
	Value (dollars per short ton)				
Operating income or (loss):					
Clow	***	***	***	***	***
Griffin	***	***	***	***	***
Tyler	***	***	***	***	***
Union	***	***	***	***	***
U.S. Pipe	***	***	***	***	***
Average	(85)	(6)	(12)	(46)	18

[1] Data in this table include mechanical joint and push on CDIW fittings of all sizes, as well as accessories.

Note.--Because of rounding, figures may not add to the totals shown.

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

Income-and-loss data by product

Tyler was the only firm able to provide usable separate income-and-loss data by size of fitting and by accessory.[38] A summary is presented in table 13. Company officials[39] discussed Tyler's operations as follows:

1. ***.

2. ***.

3. ***.

[38] *** is the *** that manufactures over-16-inch CDIW fittings. These larger fittings accounted for less than *** percent of *** net sales of CDIW fittings in 1991. Separate financial data were not provided by the company.

[39] Telephone conversation with Joel Blair, vice president, and Randy Williams, controller, Aug. 5, 1992.

Table 13
Income-and-loss experience of Tyler on its operations producing CDIW fittings, by types and by sizes, fiscal years 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June- 1991	1992
*	*	*	*	*	*	*

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

Investment in Productive Facilities

U.S. producers' investment in property, plant, and equipment and return on investment are shown in table 14. Only two producers (*** and ***) were able to provide separate asset data for CDIW fittings; therefore, returns on assets are not available.

Table 14
Value of assets of U.S. producers' establishments wherein all CDIW fittings are produced, fiscal years 1989-91, January-June 1991, and January-June 1992

(In thousands of dollars)

Item	As of the end of fiscal year-- 1989	1990	1991	As of June 30-- 1991	1992
*	*	*	*	*	*	*

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

Capital Expenditures

Capital expenditures by U.S. producers are shown in table 15.

Table 15
Capital expenditures by U.S. producers of CDIW fittings, fiscal years 1989-91, January-June 1991, and January-June 1992

(In thousands of dollars)

Item	1989	1990	1991	January-June- 1991	1992
*	*	*	*	*	*	*

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

Research and Development Expenses

None of the producers reported research and development expenses.

Capital and Investment

The Commission requested U.S. producers to describe and explain the actual and potential negative effects of imports of 3- to 16-inch CDIW fittings and accessories thereof from China on their growth, investment, ability to raise capital, and/or existing development and production efforts (including efforts to develop a derivative or improved version of CDIW fittings and accessories). Their responses are presented in appendix D.

CONSIDERATION OF THE QUESTION OF THREAT OF MATERIAL INJURY

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

> In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the merchandise, the Commission shall consider, among other relevant economic factors[41]--
>
> > (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),

[41] 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."

(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 section 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

(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.[42]

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[42] 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."

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 the section entitled "Consideration of Alleged Material Injury." Items (I) and (IX) above are not applicable in this investigation.

Available information follows on U.S. inventories of the subject products (item (V)); foreign producers' operations, including the potential for "product-shifting" (items (II), (VI), and (VIII) above); and any other threat indicators, if applicable (item (VII) above). No information is available concerning any dumping in third-country markets.

U.S. Importers' Inventories

U.S. importers' inventories of CDIW fittings of all sizes from all sources, but China primarily, rose irregularly from *** short tons in 1989 to *** short tons in 1991, and declined from *** short tons in January-June 1991 to *** short tons in January-June 1992 (table 16). As shown in the table, the bulk of U.S. importers' inventories of CDIW fittings consisted of fittings measuring from 3 inches to 16 inches in nominal diameter, which represent the bulk of the imports as well. As a share of imports, U.S. importers' inventories of CDIW fittings declined steadily throughout the period for which information was requested, falling from *** percent of imports in 1989 to *** percent of imports in January-June 1992.

Table 16
CDIW fittings: U.S. importers' end-of-period inventories, by sizes and by sources, 1989-91, January-June 1991, and January-June 1992

				January-June--	
	1989	1990	1991	1991	1992
*	*	*	*	*	*	*

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

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

Information presented in this section was provided by counsel for China National Metals Products Import & Export Corp., on behalf of Song Zhuang Foundry Factory, and by Hubei Minerals & Metals Import and Export Corp. on behalf of Xiang Fan Tractor Factory. These two factories are believed to

account for all or nearly all of China's exports to the United States of the products that are the subject of this investigation.[43]

Song Zhuang Foundry produces CDIW fittings ***. CDIW fittings account for about *** percent of Song Zhuang's total sales, the rest accounted for by sales of other fittings, including full-bodied fittings, retainer glands, and automobile parts. *** percent of Xiang Fan Tractor Factory's sales are accounted for by tractor and trailer parts. CDIW fittings and glands account for the remainder. Information concerning the combined CDIW fittings operations of these two factories are shown in table 17.

Table 17
CDIW fittings: Capacity, production, capacity utilization, inventories, and shipments of Song Zhuang Foundry and Xiang Fan Tractor Factory, 1989-91, January-June 1991, January-June 1992, and projected 1992-93

(In short tons, except as noted)

Item	1989	1990	1991	January-June-- 1991	January-June-- 1992	Projected-- 1992	Projected-- 1993
*	*	*	*	*	*	*	

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

As shown in the table, capacity remained unchanged during the period for which information was requested, while production fluctuated upward from 1989 to 1991, and increased from January-June 1991 to January-June 1992. While capacity held steady at *** short tons from 1989 to 1991, production increased unevenly from *** short tons in 1989 to *** short tons in 1991. From January-June 1991 to January-June 1992, production increased by about *** percent with no attendant increase in capacity, resulting in significantly higher capacity utilization (*** percent). A modest increase in production is projected in full year 1992 over 1991.[44] Home market shipments of CDIW fittings were nonexistent during the period, resulting in a full dedication of production output to export markets, predominantly the United States. Exports to the United States declined by *** percent from 1989 to 1990 but increased by more than *** percent from 1990 to 1991, and increased again from January-June 1991

[43] A witness for the respondents testified (conference transcript, p. 115) that "only two foundries have attempted and succeeded in producing the fittings as per required American standards." The same witness also testified (conference transcript, p. 117) that "many foundries not making CDIW fittings make glands. There are independent manufacturers, here in the U.S.A. and overseas, who just make glands."

[44] Note that projected production in full year 1992 implies the two Chinese producers would operate at only *** percent of capacity during the second half of the year.

to January-June 1992, by *** percent. Inventories rose *** percent from 1989 to 1991 and increased by *** percent from January-June 1991 to January-June 1992.

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

U.S. Imports

Sigma and Star are reported to account for virtually all U.S. imports of CDIW fittings from China.[45] Because official import statistics include both the subject and nonsubject ductile iron fittings, and because such statistics do not differentiate fittings by types or by sizes, questionnaire responses of U.S. importers are relied upon here in lieu of official import statistics.

CDIW Fittings, All Sizes

Based on questionnaire responses of U.S. importers, the quantity and value of total U.S. imports of CDIW fittings from all sources fell irregularly from 1989 to 1991, and increased significantly from January-June 1991 to January-June 1992. Such imports decreased from *** short tons, valued at $***, in 1989 to *** short tons, valued at $***, in 1991 (table 18). From January-June 1991 to January-June 1992, total U.S. imports rose from *** short tons, valued at $***, to *** short tons, valued at $***, an increase of *** percent by quantity and *** percent by value. The average unit value of imports from all sources fell by *** percent from 1989 to 1991 and increased *** from January-June 1991 to January-June 1992.

Table 18
CDIW fittings: U.S. imports, by sources and by sizes, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	1992
*	*	*	*	*	*	*

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

[45] Conference transcript, p. 124. During 1989-June 1992, imports reported by Sigma and Star accounted for *** percent of exports as reported by Chinese producers (table 17). Trends were somewhat different, however.

The import trend for U.S. imports of CDIW fittings from China, the major source of supply of imported CDIW fittings, was somewhat different than the trend for imports from all sources. The quantity and value of U.S. imports from China declined from 1989 to 1990, increased to above 1989 levels in 1991, and rose sharply from January-June 1991 to January-June 1992. China's position as the dominant supplier of imported CDIW fittings resulted from a decreasing reliance by U.S. importers on Korean-produced CDIW fittings. The average unit value of such imports from China declined by *** percent from 1989 to 1991 and increased slightly, by under *** percent, from January-June 1991 to January-June 1992.

Based on their responses to the Commission's questionnaire, Sigma and Star have combined undelivered imports of CDIW fittings from China totaling approximately *** short tons. These imports are scheduled to arrive in the United States in the second half of 1992.

CDIW Fittings 3-16 Inches

The bulk of the supply of U.S. imports of CDIW fittings were in the 3- to 16-inch size category. This category of imports accounted for no less than 91 percent of U.S. importers' total imports of CDIW fittings during the period for which information was collected. Again, China was the major supplier of such fittings, accounting for *** percent of the total in 1991. U.S. imports of CDIW fittings in the 3- to 16-inch diameter range from all sources declined irregularly from *** short tons, valued at $***, in 1989 to *** short tons, valued at $*** in 1991. Such imports from China declined in quantity and value from 1989 to 1990 but rose significantly, *** percent by quantity and *** percent by value, from 1990 to 1991. Mainly due to China, the quantity and value of such imports increased significantly from January-June 1991 to January-June 1992. The average unit value of U.S. imports from all sources as well as the average unit value of imports from China declined steadily from 1989 to 1991 and increased by *** percent and *** percent, respectively, from January-June 1991 to January-June 1992.

CDIW Accessory Packs

Sigma does not import CDIW accessory packs. Instead, it buys them from domestic suppliers.[46] It does, however, import ductile iron glands, which make up a part of the accessory pack. The other items that make up the accessory pack (i.e., rubber gaskets, T-head bolts, and nuts) are purchased from domestic suppliers. Sigma did supply information on its imports of ductile iron glands. As shown in the following tabulation, Sigma's imports of such merchandise ***.

* * * * * * *

[46] Conference transcript, pp. 127 and 128.

Market Penetration of Imports

Shares of apparent U.S. consumption of the subject 3- to 16-inch diameter CDIW fittings are presented in tables 19 and 20. As a share of the quantity of apparent U.S. consumption of 3- to 16-inch CDIW fittings, the subject imports from China increased from *** percent in 1989 to *** percent in 1991, and increased by *** percentage point to *** percent of consumption in January-June 1992 from January-June 1991 (table 19). As a share of the value of apparent U.S. consumption of 3- to 16-inch CDIW fittings, imports from China increased irregularly from *** percent in 1989 to *** percent in 1991, and increased from *** percent in January-June 1991 to *** percent in January-June 1992.

Table 19
CDIW fittings 3-16 inches: U.S. imports, U.S. producers' U.S. shipments, and apparent U.S. consumption, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	1992
*	*	*	*	*	*

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

U.S. imports of 3- to 16-inch CDIW fittings from China as a share of the quantity of apparent U.S. consumption of all CDIW fittings increased irregularly by slightly more than 3 percentage points from 1989 to 1991 and by *** from January-June 1991 to January-June 1992 (table 20). As a share of the value of apparent U.S. consumption of all CDIW fittings, U.S. imports of 3- to 16-inch CDIW fittings from China also increased irregularly from 1989 to 1991, and increased by less than 1 percentage point from January-June 1991 to January-June 1992.

Table 20
CDIW fittings, all sizes: U.S. imports, U.S. producers' U.S. shipments, and apparent U.S. consumption, 1989-91, January-June 1991, and January-June 1992

Item	1989	1990	1991	January-June-- 1991	1992
*	*	*	*	*	*

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

Prices

Market Characteristics

U.S. producers sell CDIW fittings primarily to unrelated distributors (known in the trade as "waterworks houses") and to a lesser extent to contractors and municipal or regional water authorities.[47] Importers sell only to distributors. CDIW fittings are sold either as part of a package that includes an entire waterworks system or separately as a component in a system with parts provided by many suppliers. Four of five domestic producers of CDIW fittings report that they also sell waterpipe, but only two stated that CDIW fittings are typically part of a sale that includes waterpipe. Sigma and Star (the two major importers of Chinese CDIW fittings) do not sell waterpipe.

Domestic producers reported that their CDIW fittings are shipped from their plants either directly to jobsites or to distributors that sell to end users. Sigma stated that it supplies its distributors either from three warehouses located in New Jersey, Texas, and California or from its two "master" distributors located in Alabama and the State of Washington. The master distributors maintain large inventories of CDIW fittings and sell only to other distributors.[48]

Municipalities typically request bids for the construction of new waterworks systems from contractors, who in turn negotiate prices with distributors and/or producers of waterworks components.[49] [50] Occasionally, municipalities request bids from CDIW fittings producers and waterworks houses directly to supply waterworks components that the municipality will use for repair or extension of existing systems.

Waterworks components are sold to municipalities and regional water authorities following a formal bid process and require contracts specifying price and quantity. Sales to distributors, however, are made on a spot or informal agreement basis and neither domestic producers nor importers sign contracts with their distributors. Consequently, prices are often subject to change without notice, although both producers and importers report that they try to avoid fluctuations in price. *** reported that it will sometimes agree to hold its price to a distributor who has quoted a fixed price to a contractor.[51] *** stated that it will agree to maintain its price to certain

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[47] *** and *** reported that they sold CDIW fittings exclusively to distributors; ***, ***, and *** stated that they sold directly to municipalities and water authorities as well as to distributors.

[48] One of these master distributors (***) ***. Telephone conversation with Victor Pais, President, Sigma, Aug. 4, 1992.

[49] *** reported that some contractors prefer to deal directly with pipe and fitting producers in order to get a better price while others purchase their waterworks components through distributors because distributors can often supply a complete package of components including valves, meters, manhole covers, etc.

[50] A few municipalities, such as Washington, DC, Los Angeles, and San Francisco, request bids directly from waterworks suppliers to provide the components of waterworks systems. Telephone conversation with Al Smith, sales administrative manager, U.S. Pipe, Aug. 3, 1992.

[51] Conversation with ***, July 23, 1992.

distributors for 1 year if those distributors buy a certain volume of fittings from ***.[52]

Four of five U.S. producers and the two major importers of Chinese CDIW fittings stated that they publish price lists[53] and that distributors are assigned a multiplier to apply to that price list. The multipliers were reported to be based on factors such as shipping costs, sales volumes, and levels of competition.

Two domestic producers and *** offered discounts for prompt payment. *** reported a 2-percent discount for payment within 30 days; *** reported the same discount for payment within 15 days; and *** also reported a 2-percent discount for payment within 30 days. In addition, *** reported that recently it has given ***. No other producer or importer reported that they have ***.

All prices for CDIW fittings shipped in quantities greater than one truckload (approximately 40,000 pounds) are quoted on a delivered basis and purchasers typically pay the freight costs on smaller shipments.[54] Three domestic producers reported that transportation costs for CDIW fittings accounted for between 4 and 10 percent of the total delivered cost. The comparable percentages reported by Sigma and Star were *** and *** percent, respectively. Both domestic producers and importers reported that shipments are made exclusively by truck and that their market area is the entire United States.

*** reported the shortest average lead time (3 days) between a customer's order and the date of delivery, while *** reported the longest (6 weeks) of the five domestic producers that responded to this question. Sigma stated that its average lead time was between *** and *** and Star reported an average of *** between order and delivery.

Most U.S. producers and importers stated that the domestic product and imported Chinese product were used interchangeably and that differences in quality were not a factor. However, *** reported that its fittings had an advantage over the imported product because *** is an established company and customers know that it will be available to stand behind its product. *** reported that it is at a disadvantage vis-a-vis the U.S. product because of "buy American" policies and sentiment.

Price Trends and Price Comparisons

The Commission requested separate price series for the largest quarterly sale to an unrelated U.S. distributor for four specific CDIW fittings without accessories. Five domestic producers of CDIW fittings provided the Commission with usable quarterly pricing data for the period from January 1989 through

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[52] Telephone conversation with ***, Aug. 1, 1992.

[53] *** reported that although it does not publish a company price list, its salesmen will often ***.

[54] *** reported that it pays transportation costs for shipments in excess of 10,000 pounds.

June 1992. One of the two major importers, ***, provided complete pricing data for this period, but the other large importer, ***, was unable to separate its sales of Chinese fittings from its sales of Brazilian fittings; consequently, pricing data for *** could not be used. Two additional importers, *** and ***, reported prices for three quarters and one quarter, respectively. The products for which data were provided were as follows:

Product 1. Compact ductile iron (ASTM A536) mechanical joint, conforming to AWWA/ANSI specification C153/A21.53, 1/4 (90-degree) bend, 6-inch nominal diameter, cement-lined, tar-coated, rated for waterworking pressure of 350 PSI.

Product 2. Compact ductile iron (ASTM A536) push-on joint, conforming to AWWA/ANSI specification C153/A21.53, 1/4 (90-degree) bend, 6-inch nominal diameter, cement-lined, tar-coated, rated for waterworking pressure of 350 PSI.

Product 3. Compact ductile iron (ASTM A536) mechanical joint, conforming to AWWA/ANSI specification C153/A21.53, 8-inch by 6-inch T, 8-inch nominal diameter main, 6-inch nominal branch, cement-lined, tar-coated, rated for waterworking pressure of 350 PSI.

Product 4. Compact ductile iron (ASTM A356) mechanical joint, conforming to AWWA/ANSI specification C153/A21.53, 6-inch by 12-inch straight sleeve, 6-inch nominal diameter, tar-coated, rated for waterworking pressure of 350 PSI.

The domestic producers' prices increased during the period of investigation for three of the four products and decreased slightly for the remaining product. The price of Chinese CDIW fittings increased during this period for all four products. The prices of the Chinese products were lower than the prices of the domestic products in 47 of 56 instances.

Product 1.--The U.S. producers' average selling price for product 1 increased by 27.4 percent from $24.99 per unit during the first quarter of 1989 to a period high of $31.83 during the second quarter of 1992 (table 21). This upward trend fluctuated slightly during this 3-1/2 year period. Imports of product 1 increased in price by *** percent from $*** during the first quarter of 1989 to $*** during the second quarter of 1992. The prices of imports fluctuated more widely than domestic prices and reached a high of $*** during the first quarter of 1991.

The average price of product 1 imported from China was lower than the domestic price during 13 of the 14 quarters by margins ranging from 1.51 percent to 17.24 percent.

Product 2.--The U.S. producers' average selling price for product 2 decreased by 1 percent from $37.44 during the first quarter of 1989 to $37.06 during the second quarter of 1992 (table 22). The domestic price increased erratically during the first 5 quarters to $40.57 in the first quarter of 1990; decreased during the next two quarters to $34.28 in the third quarter of 1990; increased during the next six quarters to a period high of $42.97 in the

Table 21
Product 1: Weighted-average delivered prices, quantities sold, and margins of under/(over)selling reported by U.S. producers and importers, by quarters, January 1989-June 1992

Period	U.S. product		Chinese product		
	Price	Quantity	Price	Quantity	Margin
	Dollars	Units	Dollars	Units	Percent
1989:					
January-March.....	$24.99	9,304	$***	***	***
April-June.....	24.96	11,971	***	***	***
July-September....	26.74	11,023	***	***	***
October-December..	27.49	9,627	***	***	***
1990:					
January-March.....	28.10	11,113	***	***	***
April-June.....	28.42	12,619	***	***	***
July-September....	28.22	11,358	***	***	***
October-December..	28.83	9,121	***	***	***
1991:					
January-March.....	28.61	9,285	***	***	***
April-June.....	29.09	12,058	***	***	***
July-September....	29.82	12,536	***	***	***
October-December..	31.75	9,483	***	***	***
1992:					
January-March.....	31.53	10,105	***	***	***
April-June.....	31.83	12,280	***	***	***

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

Table 22
Product 2: Weighted-average delivered prices, quantities sold, and margins of under/(over)selling reported by U.S. producers and importers, by quarters, January 1989-June 1992

Period	U.S. product		Chinese product		
	Price	Quantity	Price	Quantity	Margin
	Dollars	Units	Dollars	Units	Percent
1989:					
January-March.....	$37.44	61	$***	***	***
April-June.....	37.42	242	***	***	***
July-September....	39.02	444	***	***	***
October-December..	38.27	335	***	***	***
1990:					
January-March.....	40.57	467	***	***	***
April-June.....	34.61	606	***	***	***
July-September....	34.28	440	***	***	***
October-December..	35.00	383	***	***	***
1991:					
January-March.....	35.55	331	***	***	***
April-June.....	35.95	436	***	***	***
July-September....	36.21	496	***	***	***
October-December..	39.79	321	***	***	***
1992:					
January-March.....	42.97	225	***	***	***
April-June.....	37.06	316	***	***	***

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

first quarter of 1992; and decreased to $37.06 during the second quarter of 1992. Imports of product 2 increased in price by *** percent from $*** during the first quarter of 1989 to $*** during the second quarter of 1992. The price of imports fluctuated throughout the 3-1/2-year period without apparent trend and reached a high of $*** in the third quarter of 1990.

The average price of product 2 imported from China was lower than the domestic price during 11 of the 14 quarters by margins ranging from 1.37 percent to 17.06 percent. The Chinese product was priced higher than the U.S. product during the last three quarters of 1990.

Product 3.--The U.S. producers' average selling price for product 3 increased by 13.9 percent from $50.82 during the first quarter of 1989 to $57.89 during the second quarter of 1992 (table 23). The domestic price decreased from $50.82 during the first quarter of 1989 to $44.98 during the following quarter; increased during the next eight quarters to $55.44; decreased to $52.04 during the following two quarters; increased to a period high of $58.01 during the first quarter of 1992; and decreased to $57.89 during the final quarter of the period. Imports of product 3 increased in price by *** percent from $*** during the first quarter of 1989 to $*** during the second quarter of 1992. The price of imports fluctuated throughout the entire period without apparent trend and reached a high of $*** during the third and fourth quarters of 1989.

Table 23
Product 3: Weighted-average delivered prices, quantities sold, and margins of under/(over)selling reported by U.S. producers and importers, by quarters, January 1989-June 1992

Period	U.S. product		Chinese product		
	Price	Quantity	Price	Quantity	Margin
	Dollars	Units	Dollars	Units	Percent
1989:					
January-March.....	$50.82	6,543	$***	***	***
April-June.....	44.98	8,529	***	***	***
July-September....	50.97	7,782	***	***	***
October-December..	51.02	6,572	***	***	***
1990:					
January-March.....	51.23	6,394	***	***	***
April-June.....	50.61	7,899	***	***	***
July-September....	51.92	6,853	***	***	***
October-December..	51.97	5,684	***	***	***
1991:					
January-March.....	53.53	4,067	***	***	***
April-June.....	55.44	6,797	***	***	***
July-September....	53.98	7,583	***	***	***
October-December..	52.04	5,587	***	***	***
1992:					
January-March.....	58.01	5,308	***	***	***
April-June.....	57.89	6,687	***	***	***

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

The average price of product 3 imported from China was lower than the domestic price during 10 of the 14 quarters by margins ranging from 2.06 percent to 13.89 percent.

Product 4.--The U.S. producers' average selling price for product 4 increased by 41.9 percent from $22.03 during the first quarter of 1989 to a period high of $31.27 during the second quarter of 1992 (table 24). The domestic price fluctuated throughout the period but maintained a generally increasing trend. Imports of product 4 increased in price by *** percent from $*** during the first quarter of 1989 to $*** during the second quarter of 1992. The price of imports increased throughout 1989 to $*** during the fourth quarter; fluctuated throughout 1990; held at $*** during 1991; and decreased during the first two quarters of 1992 to $*** at the end of the period.

The average price of product 4 imported from China was lower than the domestic price during 13 out of 14 quarters by margins ranging from 0.87 percent to 23.76 percent.

Table 24
Product 4: Weighted-average delivered prices, quantities sold, and margins of under/(over)selling reported by U.S. producers and importers, by quarters, January 1989-June 1992

Period	U.S. product		Chinese product		
	Price	Quantity	Price	Quantity	Margin
	Dollars	Units	Dollars	Units	Percent
1989:					
January-March.....	$22.03	5,071	$***	***	***
April-June.....	21.12	6,296	***	***	***
July-September....	25.33	6,211	***	***	***
October-December..	24.13	4,834	***	***	***
1990:					
January-March.....	24.77	6,305	***	***	***
April-June.....	24.17	6,974	***	***	***
July-September....	25.01	6,790	***	***	***
October-December..	24.02	5,412	***	***	***
1991:					
January-March.....	26.15	5,409	***	***	***
April-June.....	26.24	6,949	***	***	***
July-September....	25.81	7,470	***	***	***
October-December..	28.86	6,588	***	***	***
1992:					
January-March.....	30.70	6,099	***	***	***
April-June.....	31.27	6,622	***	***	***

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

Lost Sales and Lost Revenues

Domestic producers reported six instances of lost sales of CDIW fittings valued at $90,554 and totaling 80,651 pounds.[55] They also alleged six instances of lost revenues valued at $2,976 and totaling 75,264 pounds. The Commission staff contacted the purchasers of CDIW fittings named in five of these alleged lost sales and those named in three of the instances of alleged lost revenues.

*** reported two sales of CDIW fittings, on *** and ***, to *** of ***, allegedly lost to a supplier of Chinese-produced fittings. *** alleged that its price quotes of $*** and $***, respectively, were rejected by *** and that the sales were awarded to a supplier of the Chinese product that quoted prices of $*** and $***, respectively.

***, the inside sales manager at ***, stated that he had bought Chinese-produced CDIW fittings during the time period specified by *** but he was not

[55] *** reported *** instances of sales lost by *** to imports from China. The quantities and values of these lost sales have not been included in the totals reported above.

able to recall the total values involved. He stated, however, that the values reported by *** seemed unusually high considering the weight of the fittings involved in the sales.

*** stated that he buys Chinese-produced CDIW fittings because they are less expensive than the domestic product and are of comparable quality. He also stated that approximately 50 percent of the CDIW fittings that he sells are Chinese produced, but that this percentage is unlikely to increase because some of his customers are municipalities and military bases which have strict "buy American" policies.

*** also reported two sales of CDIW fittings to *** of ***, allegedly lost to a supplier of Chinese-produced fittings. *** alleged that on *** both of its price quotes of $*** and $*** were rejected and the sales were awarded to a supplier of the Chinese-produced product that quoted prices of $*** and $***, respectively, for the two sales.

***, president of ***, stated that, although he could not verify the specific quantities and values alleged by ***, 80 percent of the CDIW fittings that he purchases are Chinese-produced. *** said he buys the imported product because it is cheaper and his competitors buy Chinese-produced CDIW fittings. He also stated that the imported and domestic products are comparable in quality. *** reported that he has told several of the domestic producers that he would prefer to buy from them if they would match the price of the imports but they have not yet done so.

*** alleged that in *** instances in *** and *** it lowered its prices to *** of ***, to avoid losing sales because of competition from Chinese-produced CDIW fittings. *** reported that these price reductions resulted in a total revenue loss of $***.

***, *** sales manager, stated that, although he had bought CDIW fittings from ***, ***, and *** throughout 1991 and 1992, he could not recall the specific instances reported by *** because they were relatively small shipments. *** stated that he bought the Chinese-produced fittings not only because they were cheaper than the domestic product but also because *** provided better service. As an example, he said that *** would try to find other waterworks houses in the area that needed fittings so that *** did not have to pay freight on small orders. He reported that this type of service was very important to *** because it had *** throughout the country and it was often very inconvenient to wait until truckload quantities were needed at a single location in order to get freight-free delivery.

*** alleged that its price quote of $*** for *** pounds of CDIW fittings was rejected by *** of *** in 1992 and that the sale was awarded to a supplier of Chinese-produced CDIW fittings that bid approximately $***.

***, general manager of ***, stated that he began buying Chinese-produced CDIW fittings from *** in 1992 and that the quantity and value reported by *** are approximately correct. *** stated that he buys the Chinese product because it is less expensive and comparable in quality to the

domestic product, and because his competitors are also buying from ***. He said that prior to 1992 he bought only U.S.-made fittings and often paid a premium for them not only because some of his customers insisted on fittings made in the United States but also because he wanted to support domestic industries. He stated that he recently began buying from *** because the price differential became too great for him to ignore and still remain competitive.

Exchange Rates

The value of the currency of the People's Republic of China is determined by the Government of China rather than the free market. Therefore, an accurate description of movements in the Chinese exchange rate cannot be presented.

APPENDIX A

THE COMMISSION'S AND COMMERCE'S FEDERAL REGISTER NOTICES

INTERNATIONAL TRADE COMMISSION

[Investigation No. 731-TA-621 (Preliminary)]

Certain Compact Ductile Iron Waterworks Fittings and Accessories Thereof From the People's Republic of China

AGENCY: United States International Trade Commission.

ACTION: Institution and scheduling of a preliminary antidumping investigation.

SUMMARY: The Commission hereby gives notice of the institution of preliminary antidumping investigation No. 731-TA-621 (Preliminary) under section 733(a) of the Tariff Act of 1930 (19 U.S.C. 1673b(a)) to determine whether there is a reasonable indication that 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 the People's Republic of China of certain ductile tube or pipe fittings of iron, and accessories thereof, suitable for use in waterworks, provided for in subheading 7307.19.30 of the Harmonized Tariff Schedule of the United States,[1] that are alleged to be sold in the United States at less than fair value. The Commission must complete preliminary antidumping investigations in 45 days, or in this case by August 24, 1992.

For further information concerning the conduct of this investigation 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 B (19 CFR part 207).

EFFECTIVE DATE: July 8, 1992.

FOR FURTHER INFORMATION CONTACT: Woodley Timberlake (202-205-3188), 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 Washington, DC 20436. Hearing-impaired person can obtain information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need

[1] Subheading 7307.19.30 of the Harmonized Tariff Schedule (HTS) pertains only to ductile fittings. Accessories (e.g., ductile iron glands, styrene butadiene rubber ("SBR") gaskets, or steel or ductile iron T-head bolts) are provided for by constituent material elsewhere in the HTS.

special assistance in gaining access to the Commissions should contact the Office of the Secretary at 202-205-2000.

SUPPLEMENTARY INFORMATION:

Background

This investigation is being instituted in response to a petition filed on July 8, 1992, by counsel on behalf of the U.S. Waterworks Fittings Producers Council and its individual members, Clow Water Systems Company (Coshocton, OH), Tyler Pipe Industries, Inc. (Tyler, TX), and Union Foundry Company (Anniston, AL).

Participation in the Investigation and Public Service List

Persons (other than petitioners) 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 and 207.10 of the Commission's rules, not later than seven (7) 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 preliminary investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made not later than seven (7) 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.

Conference

The Commission's Director of Operations has scheduled a conference in connection with this investigation for 9:30 a.m. on July 29, 1992, at the U.S. International Trade Commission Building, 500 E Street SW., Washington, DC. Parties wishing to participate in the conference should contact Woodley Timberlake (202-205-3188) not later than July 27, 1992, to arrange for their appearance. Parties in support of the imposition of antidumping duties in this investigation and parties in opposition to the imposition of such duties will each be collectively allocated one hour within which to make an oral presentation at the conference. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the conference.

Written Submissions

As provided in §§ 201.8 and 207.15 of the Commission's rules, any person may submit to the Commission on or before August 3, 1992, a written brief containing information and arguments pertinent to the subject matter of the investigation. Parties may file written testimony in connection with their presentation at the conference no later than three (3) days before the conference. If briefs or written testimony contain BPI, they must 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 § 207.12 of the Commission's rules.

Issued: July 13, 1992.

By order of the Commission.

Paul R. Bardos,

Acting Secretary.

[FR Doc. 92-16731 Filed 7-14-92; 8:45 am]

BILLING CODE 7020-02-M

DEPARTMENT OF COMMERCE

International Trade Administration

[a-570-820]

Initiation of Antidumping Duty Investigation: Certain Compact Ductile Iron Waterworks Fittings and Accessories Thereof From the People's Republic of China

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

EFFECTIVE DATE: August 4, 1992.

FOR FURTHER INFORMATION CONTACT: James Maeder or Brian Smith, 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) 377–4929 or (202) 377–1766.

INITIATION OF INVESTIGATION:

The Petition

On July 8, 1992, we received a petition filed in proper from by the U.S. Waterworks Fittings Producers Council and its individual members, Clow Water Systems Company, Tyler Pipe Industries, Inc., and Union foundry Company (petitioners). The U.S. Waterworks Fittings Procedures Council is an *ad hoc* coalition representing U.S. producers of certain compact ductile iron waterworks (CDIW) fittings and accessories thereof. Petitioners submitted amendments to the petition on July 13, 17, 20, 22, and 24, 1992. In accordance with 19 CFR 353.12, the petitioners allege that certain CDIW fittings and accessories thereof from the People's Republic of China (PRC) are being, or are likely to be, sold in the United States at less than fair value within the meaning of section 731 of the Tariff Act of 1930, as amended (the Act), and that these imports are materially injuring, or threaten material injury to, a U.S. industry.

The petitioners have stated that they have standing to file the petition because they are interested parties, as defined under section 771(9)(C) of the Act, and the petition is filed on behalf of the U.S. industry producing the products subject to this investigation. If any interested party, as described under paragraphs (C), (D), (E), or (F) of section 771(9) of the Act, wishes to register support for, or opposition to, this petition, it should file a written notification with the Assistant Secretary for Import Administration.

Under the Department's regulations, any producer or reseller seeking exclusion from a potential antidumping duty order must submit its request for exclusion within 30 days of the date of the publication of this notice. The procedures and requirements regarding the filing of such requests are contained in 19 CFR 353.14.

Scope of Investigation

The products covered by this investigation are (1) certain compact ductile iron waterworks (CDIW) fittings of 3 to 16 inches nominal diameter regardless of shape, including bends, tees, crosses, wyes, reducers, adapters, and other shapes, whether or not cement lined, and whether or not covered with bitumen or similar substance, conforming to AWWA/ANSI specification C153/A21.53, and rated for water working pressure of 350 PSI; and (2) certain CDIW fittings accessories which typically consist of a standard ductile iron gland, a styrene butadiene rubber (SBR) gasket, the requisite number of Cor-Ten steel or ductile iron T-head bolts, and hexagonal nuts, whether sold separately or together in kits (also called accessory packs), for fittings in sizes 3 to 16 inches, conforming to AWWI/ANSI specification C111/A21.11, and rated for water working pressure of 350 PSI.

The types of CDIW fittings covered by this investigation are compact ductile iron mechanical joint waterworks fittings and compact ductile iron push-on joint waterworks fittings, both of which are used for the same applications. CDIW fittings are used to join water main pressure pipes, valves, or hydrants in straight lines, and change, divert, divide, or direct the flow of raw and/or treated water in piping systems. CDIW fittings attach to the pipe, valve, or hydrant at a joint and are used principally for municipal water distribution systems.

CDIW fittings accessories are used to join mechanical joint CDIW fittings to pipes. The accessories ensure the completeness of the seal between the CDIW fitting and pipe. Mechanical joint fittings must be used with CDIW accessories. Push-on fittings do not require CDIW accessories.

CDIW fittings are classifiable under subheading 7307.19.30.00), of the Harmonized Tariff Schedule of the United States (HTSUS). Standard ductile iron glands are classifiable under HTS subheading 7325.99.10.00.3, styrene butadiene rubber gaskets are classifiable under HTS subheading 4016.93.00.00.3, T-head bolts of steel or ductile iron with hexagonal nuts are classifiable under HTS subheading 7318.15.20.90.2, T-head bolts of steel or ductile iron without hexagonal nuts are classifiable under HTS subheading 7318.16.00.80.1, and hexagonal nuts are classifiable under HTS subheading 7318.16.00.00.4.

Nonmalleable cast iron fittings and full-bodied ductile fittings are specifically excluded from the scope of this investigation. Nonmalleable cast iron fittings have little ductility and are generally rated only to 150 or 250 PSI. Full-bodied ductile fittings have a longer body design than a compact fitting because the straight section of the body is deleted to provide a more compact and less heavy fitting without reducing strength or flow characteristics. In addition, the full-bodied ductile fittings are thicker than the compact fittings. Full-bodied fittings are made of either gray iron or ductile iron, in sizes 3 inches to 48 inches, and conform to AWWA/ANSI specification C110/C21.10. In addition, compact ductile iron flanged fittings are excluded from the scope of this investigation.

Although the HTSUS subheadings are provided for convenience and customs purposes, our written description of the scope of this investigation is dispositive.

United States Price and Foreign Market Value

In this petition, petitioners provided two methodologies for calculating United States price (USP). Petitioners' primary methodology used a March 1992 price list of a U.S. importer of the subject merchandise as the basis for USP. In calculating USP, petitioners deducted 50 percent for U.S. value-added expenses which included speculative amounts for selling expenses. For purposes of this initiation, we have relied on petitioners' secondary methodology for calculating USP because petitioners' primary methodology may overestimate the amount of U.S. value-added expenses which should be properly deducted from USP. Petitioners' secondary methodology used IM–146 import statistics from January through April 1992, of subject merchandise from the PRC for calculating USP. No adjustments were made to petitioners' calculation using the IM–146 statistics. If it becomes necessary at a later date to consider the petition as a source of best information available (BIA), we may review all of the bases for the petitioners' estimated dumping margins in determining BIA.

Petitioners contend that the foreign market value (FMV) of PRC-produced imports subject to this investigation must be determined in accordance with section 773(c) of the Act, which concerns non-market economy (NME) countries. The PRC is presumed to be an NME within the meaning of section 771(18)(c) of the Act, and the Department has treated it as such in previous investigations (See, Final Determination of Sales at Less Than Fair Value: Sulfanilic Acid from the PRC, 57 FR 29705 (July 6, 1992)). In the course of this investigation, parties will have the opportunity to address this NME determination and provide relevant information and argument on this issue. In addition, parties will have the opportunity in this investigation to submit comments on whether FMV should be based on prices or costs in the NME (see, Amendment to Final Determination of Sales at Less Than Fair Value and Amendment to Antidumping Duty order: Chrome-Plated

Lug Nuts From the People's Republic of China, 57 FR 15052 (April 24, 1992)).

Because of the extent of central control in a NME, the Department further considers that a single antidumping margin, should there be one, is appropriate for all exporters from the NME. Only if individual NME exporters can demonstrate an absence of central government control with respect to the pricing of exports, both in law and in fact, will they be entitled to separate, company-specific rates. (See, Final Determinauon of Sales at Less Than Fair Value: Sparklers From the People's Republic of China, 56 FR 20588, (May 6, 1991), for a discussion of the information the Department considers appropriate in this regard.)

In accordance with section 773(c) of the Act, FMV in NME cases in based on NME producers' factors of production (valued in a market economy country). Absent evidence that the PRC government determines which factories shall produce for export to the United States, for purposes of this investigation, we intend to base FMV only on those factories in the PRC which are known to produce CDIW fittings and accessories thereof for export to the United States.

Petitioners calculated FMV on the basis of the valuation of the factors of production. In valuing the factors of production, petitioners used India as a surrogate country. For purposes of this initiation, we have accepted India as having a comparable economy and being a significant producer of comparable merchandise, pursuant to section 773(c)(4) of the Act.

Petitioners used one of the petitioners' factors for raw material inputs, energy, and labor for constructed value (CV). The raw material, energy and labor factors for producing certain CDIW fittings and accessories thereof are based on one of the petitioner's actual experience through December 1991. Overhead expenses are expressed as a percentage of the cost of manufacture as experienced by one of the petitioners.

In accordance with the hierarchy for preferred input values as set forth in the notice of Final Determination of Sales at Less Than Fair Value: Certain Carbon Steel Butt-Weld Pipe Fittings From the People's Republic of China (PRC), 57 FR 21058 (May 18, 1992) (Comment 4), petitioners first used Indian published, publicly available information to value the factors of production before resorting to unclassified information contained in U.S. government cables or to their own costs of production. Petitioners based the value of raw material costs for fluorite, limestone, silicon, and copper scrap on Indian published, publicly available information. Petitioners based the value of raw material costs for pig iron, coke, and ferrosilicon on cable information from the U.S. consulate in India.

Petitioners based raw material costs for ferrosilicon magnesium, cement lining, and bituminous coating on one of the petitioners' costs as of December 1991. Petitioners based the natural gas value on Indian published, publicly available information, labor and electricity values on cable information from the U.S. consulate in India, and the oxygen value on one of petitioners' costs of production.

Pursuant to section 773(c) of the Act, petitioners added to CV the statutory minima of 10 percent for general expenses and eight percent of profit, and a percentage of the cost of manufacture for packing expenses.

Less Than Fair Value Comparisons

As discussed in the "United States Price and Foreign Market Value" section of this notice, we have relied on petitioners' alternative methodology for calculating USP. Based on this methodology, we calculated a margin of 127.38 percent.

Initiation of Investigation

We have examined the petition on certain CDIW fittings and accessories thereof from the PRC and have found that the petition meets the requirements of section 732(b) of the Act. Therefore, we are initiating an antidumping duty investigation to determine whether imports of certain CDIW fittings and accessories thereof from the PRC are being, or are likely to be, sold in the United States at less than fair value.

ITC Notification

Section 732(d) of the Act requires us to notify the International Trade Commission (ITC) of this action and we have done so.

Preliminary Determinations by the ITC

The ITC will determine by August 24, 1992, whether there is a reasonable indication that imports of certain CDIW fittings and accessories thereof from the PRC are materially injuring, or threaten material injury to, a U.S. industry. Any ITC determination which is negative will result in this investigation being terminated; otherwise, this investigation will proceed to conclusion in accordance with the statutory and regulatory time limits.

This notice is published pursuant to section 732(c)(2) of the Act and 19 CFR 353.13(b).

Dated: July 28, 1992.

Alan M. Dunn,

Assistant Secretary for Import Administration.

[FR Doc. 92-18337 Filed 8-3-92; 8:45 am]

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APPENDIX B

LIST OF PARTICIPANTS IN THE PUBLIC CONFERENCE

Table C-1
CDIW fittings 3-16 inches: Summary data concerning the U.S. market, 1989-91, January-June 1991, and January-June 1992

(Quantity=tons, value=1,000 dollars, unit values and unit labor costs are per ton, period changes=percent, except where noted)

	Reported data					Period changes			
				Jan.-June--					Jan.-June
Item	1989	1990	1991	1991	1992	1989-90	1990-91	1989-91	1991-92
	*	*	*	*	*	*	*		

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

Table C-2
CDIW fittings, all sizes: Summary data concerning the U.S. market, 1989-91, January-June 1991, and January-June 1992

(Quantity=tons, value=1,000 dollars, unit values and unit labor costs are per ton, period changes=percent, except where noted)

	Reported data					Period changes			
				Jan.-June--					Jan.-June
Item	1989	1990	1991	1991	1992	1989-90	1990-91	1989-91	1991-92
U.S. consumption quantity:									
Amount	***	***	***	***	***	+5.1	-6.7	-1.9	+14.8
Producers' share 1/	***	***	***	***	***	+6.9	-2.9	+4.0	-3.6
Importers' share: 1/									
China (subject)	***	***	***	***	***	-0.9	+4.2	+3.3	+1.2
Other sources	***	***	***	***	***	-6.0	-1.3	-7.3	+2.3
Total	***	***	***	***	***	-6.9	+2.9	-4.0	+3.6
U.S. consumption value:									
Amount	***	***	***	***	***	+11.6	-5.2	+5.8	+15.6
Producers' share 1/	***	***	***	***	***	+5.0	-1.3	+3.7	-2.0
Importers' share: 1/									
China (subject)	***	***	***	***	***	-0.9	+2.2	+1.2	+0.8
Other sources	***	***	***	***	***	-4.0	-0.9	-4.9	+1.2
Total	***	***	***	***	***	-5.0	+1.3	-3.7	+2.0
U.S. importers' imports from--									
China (subject):									
Imports quantity	***	***	***	***	***	-9.8	+63.7	+47.6	+28.5
Imports value	***	***	***	***	***	-14.7	+61.3	+37.6	+33.9
Unit value	$***	$***	$***	$***	$***	-5.4	-1.4	-6.8	+4.2
Ending inventory qty	***	***	***	***	***	-7.5	+30.4	+20.6	-18.4
Other sources:									
Imports quantity	***	***	***	***	***	-53.2	-32.4	-68.3	+85.0
Imports value	***	***	***	***	***	-52.2	-31.9	-67.4	+71.2
Unit value	$***	$***	$***	$***	$***	+2.2	+0.7	+2.9	-7.5
Ending inventory qty	***	***	***	***	***	+20.9	+84.9	+123.5	+157.9
All sources:									
Imports quantity	***	***	***	***	***	-36.9	+19.2	-24.8	+43.8
Imports value	***	***	***	***	***	-38.6	+15.1	-29.4	+45.6
Unit value	$***	$***	$***	$***	$***	-2.7	-3.5	-6.0	+1.3
U.S. producers'--									
Average capacity quantity	59,882	59,278	58,758	29,442	30,286	-1.0	-0.9	-1.9	+2.9
Production quantity	33,285	38,791	33,706	15,260	18,963	+16.5	-13.1	+1.3	+24.3
Capacity utilization 1/	55.6	65.4	57.4	51.8	62.6	+9.9	-8.1	+1.8	+10.8
U.S. shipments:									
Quantity	33,083	37,691	34,055	15,654	17,221	+13.9	-9.6	+2.9	+10.0
Value	52,419	61,796	57,758	26,808	30,319	+17.9	-6.5	+10.2	+13.1
Unit value	$1,584	$1,640	$1,696	$1,713	$1,716	+3.5	+3.4	+7.0	+2.8
Export shipments:									
Quantity	***	***	***	***	***	-24.5	+41.3	+6.6	-50.0
Exports/shipments 1/	***	***	***	***	***	-0.1	+0.1	2/	-0.2
Value	***	***	***	***	***	-22.3	+34.9	+4.8	-37.5
Unit value	$***	$***	$***	$***	$***	+2.9	-4.5	-1.7	+25.0
Ending inventory quantity	8,058	9,011	8,229	8,617	9,753	+11.8	-8.7	+2.1	+13.2
Inventory/production 1/	24.2	23.2	24.4	28.2	25.7	-1.0	+1.2	+0.2	-2.5
Production workers	544	657	603	596	608	+20.8	-8.2	+10.8	+2.0
Hours worked (1,000s)	1,314	1,471	1,213	619	643	+11.9	-17.5	-7.7	+3.9
Total comp. ($1,000)	20,073	23,847	20,392	9,983	10,168	+18.8	-14.5	+1.6	+1.9
Hourly total compensation	$15.28	$16.21	$16.81	$16.12	$15.81	+6.1	+3.7	+10.0	-1.9
Productivity (tons/1,000 hours)	25.3	26.4	27.8	24.7	29.5	+4.1	+5.4	+9.7	+19.6
Unit labor costs	$603	$615	$605	$654	$536	+1.9	-1.6	+0.3	-18.0
Net sales value	61,135	74,049	68,176	32,254	36,562	+21.1	-7.9	+11.5	+13.4
COGS/sales 1/	97.7	94.0	93.5	95.4	92.1	-3.8	-0.5	-4.3	-3.3
Operating income (loss)	(3,362)	(297)	(502)	(926)	402	+91.2	-69.0	+85.1	+143.4
Op. income (loss)/sales 1/	(5.5)	(0.4)	(0.7)	(2.9)	1.1	+5.1	-0.3	+4.8	+4.0

1/ 'Reported data' are in percent and 'period changes' are in percentage-point.
2/ An increase of less than 0.05 percentage points.

Note.--Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Because of rounding, figures may not add to the totals shown. Unit values and other ratios are calculated using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

Table C-3
All ductile iron waterworks fittings: Summary data concerning the U.S. market, 1989-91, January-June 1991, and January-June 1992

(Quantity=tons, value=1,000 dollars, unit values and unit labor costs are per ton, period changes=percent, except where noted)

Item	Reported data			Jan.-June--		Period changes			
	1989	1990	1991	1991	1992	1989-90	1990-91	1989-91	Jan.-June 1991-92
U.S. consumption quantity:									
Amount	74,843	75,421	70,115	33,966	36,699	+0.8	-7.0	-6.3	+8.0
Producers' share 1/	***	***	***	***	***	+3.4	-2.0	+1.4	-2.2
Importers' share: 1/									
China (subject)	***	***	***	***	***	-0.4	+2.4	+2.0	+1.1
Other sources	***	***	***	***	***	-3.0	-0.4	-3.4	+1.2
Total	***	***	***	***	***	-3.4	+2.0	-1.4	+2.2
U.S. consumption value:									
Amount	120,994	128,905	121,370	59,064	66,962	+6.5	-5.8	+0.3	+13.4
Producers' share 1/	***	***	***	***	***	+2.2	-0.9	+1.4	-1.0
Importers' share: 1/									
China (subject)	***	***	***	***	***	-0.4	+1.1	+0.7	+0.5
Other sources	***	***	***	***	***	-1.9	-0.2	-2.1	+0.5
Total	***	***	***	***	***	-2.2	+0.9	-1.4	+1.0
U.S. importers' imports from--									
China (subject):									
Imports quantity	***	***	***	***	***	-9.8	+63.7	+47.6	+28.5
Imports value	***	***	***	***	***	-14.7	+61.3	+37.6	+33.9
Unit value	$***	$***	$***	$***	$***	-5.4	-1.4	-6.8	+4.2
Ending inventory qty	***	***	***	***	***	-7.5	+30.4	+20.6	-18.4
Other sources:									
Imports quantity	***	***	***	***	***	-51.7	-19.1	-60.9	+54.0
Imports value	***	***	***	***	***	-50.8	-20.4	-60.8	+48.7
Unit value	$***	$***	$***	$***	$***	+1.9	-1.7	+0.2	-3.4
Ending inventory qty	***	***	***	***	***	+40.0	+196.9	+315.7	+99.5
All sources:									
Imports quantity	***	***	***	***	***	-36.0	+24.6	-20.2	+37.0
Imports value	***	***	***	***	***	-37.7	+20.1	-25.2	+39.4
Unit value	$***	$***	$***	$***	$***	-2.7	-3.6	-6.2	+1.7
U.S. producers'--									
Average capacity quantity	97,592	96,255	94,154	47,213	49,181	-1.4	-2.2	-3.5	+4.2
Production quantity	64,926	71,471	64,028	29,055	33,479	+10.1	-10.4	-1.4	+15.2
Capacity utilization 1/	66.5	74.3	68.0	61.5	68.1	+7.7	-6.2	+1.5	+6.5
U.S. shipments:									
Quantity	67,912	70,986	64,587	31,123	32,804	+4.5	-9.0	-4.9	+5.4
Value	114,450	124,830	116,476	56,589	63,512	+9.1	-6.7	+1.8	+12.2
Unit value	$1,685	$1,759	$1,803	$1,818	$1,936	+4.3	+2.6	+7.0	+6.5
Export shipments:									
Quantity	***	***	***	***	***	-20.5	+92.2	+52.8	-28.6
Exports/shipments 1/	***	***	***	***	***	-0.2	+0.8	+0.5	-0.6
Value	***	***	***	***	***	-8.4	+121.5	+102.9	-28.7
Unit value	$***	$***	$***	$***	$***	+15.2	+15.3	+32.8	-0.1
Ending inventory quantity	21,907	22,065	20,010	19,998	21,318	+0.7	-9.3	-8.7	+6.6
Inventory/production 1/	33.7	30.9	31.3	34.4	31.8	-2.9	+0.4	-2.5	-2.6
Production workers	1,620	1,717	1,582	1,533	1,552	+6.0	-7.9	-2.3	+1.2
Hours worked (1,000s)	3,623	3,724	3,280	1,638	1,720	+2.8	-11.9	-9.5	+5.0
Total comp. ($1,000)	55,004	57,575	53,458	26,816	28,656	+4.7	-7.2	-2.8	+6.9
Hourly total compensation	$15.18	$15.46	$16.30	$16.37	$16.66	+1.8	+5.4	+7.4	+1.8
Productivity (tons/1,000 hours)	17.9	19.2	19.5	17.7	19.5	+7.1	+1.7	+8.9	+9.7
Unit labor costs	$847	$806	$835	$923	$856	-4.9	+3.6	-1.4	-7.3
Net sales value	105,809	116,246	116,100	53,715	61,789	+9.9	-0.1	+9.7	+15.0
COGS/sales 1/	98.1	94.7	94.7	94.1	93.6	-3.4	-0.1	-3.5	-0.5
Operating income (loss)	(6,343)	(1,973)	(2,938)	(1,053)	(689)	+68.9	-48.9	+53.7	+34.6
Op. income (loss)/sales 1/	(6.0)	(1.7)	(2.5)	(2.0)	(1.1)	+4.3	-0.8	+3.5	+0.8

1/ 'Reported data' are in percent and 'period changes' are in percentage-point.

Note.--Period changes are derived from the unrounded data. Period changes involving negative period data are positive if the amount of the negativity decreases and negative if the amount of the negativity increases. Because of rounding, figures may not add to the totals shown. Unit values and other ratios are calculated using data of firms supplying both numerator and denominator information. Part-year inventory ratios are annualized.

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

APPENDIX D

COMMENTS RECEIVED FROM U.S. PRODUCERS ON THE IMPACT OF IMPORTS OF CDIW FITTINGS AND ACCESSORIES THEREOF FROM CHINA ON THEIR GROWTH, INVESTMENT, ABILITY TO RAISE CAPITAL, AND/OR EXISTING DEVELOPMENT AND PRODUCTION EFFORTS