

# **STEEL WIRE STRAND FOR PRESTRESSED CONCRETE FROM JAPAN**

**Determination of Injury  
in Investigation No. AA1921-188  
Under the Antidumping Act,  
1921, as Amended, Together With  
the Information Obtained  
in the Investigation**

**USITC PUBLICATION 928**

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# UNITED STATES INTERNATIONAL TRADE COMMISSION

## COMMISSIONERS

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Bill Alberger, Vice Chairman  
George M. Moore  
Catherine Bedell  
Paula Stern

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## CONTENTS

	<u>Page</u>
Determination of the Commission-----	1
Statement of reasons of Chairman Joseph O. Parker and Commissioners George M. Moore and Catherine Bedell-----	3
Statement of reasons of Commissioner Bill Alberger-----	7
Summary-----	A-1
Information obtained in the investigation:	
Introduction-----	A-3
Description and uses-----	A-4
U.S. tariff treatment-----	A-5
Nature and extent of LTFV sales-----	A-5
U.S. market-----	A-7
U.S. industry-----	A-8
Japanese industry-----	A-9
Consideration of injury or likelihood thereof:	
U.S. producers' capacity, production, and capacity utilization-----	A-10
U.S. producers' shipments and exports-----	A-12
U.S. imports-----	A-13
Employment-----	A-15
Inventories-----	A-16
Profit-and-loss experience-----	A-16
Consideration of the causal relationship between LTFV imports from Japan and the alleged injury:	
Market penetration of LTFV imports from Japan-----	A-21
Lost sales-----	A-23
Prices-----	A-24
Appendix A. Treasury Department letter to the Commission advising of its determination of LTFV imports from Japan-----	A-27
Appendix B. U.S. International Trade Commission notice of investiga- tion and hearing-----	A-29
Appendix C. Treasury Department notices on steel wire strand for prestressed concrete from Japan as published in the <u>Federal Register</u> ---	A-31

## TABLES

1. Steel wire strand for prestressed concrete from Japan: Quantity of exports to the United States, net value of U.S. sales compared, amount of margins, percent of sales compared, percent of comparisons at margin, margin range, and weighted average margin, by companies, June 1- Nov. 30, 1977-----	A-6
2. Steel wire strand for prestressed concrete: U.S. producers' capacity, production, and capacity utilization, by companies, 1974-77, January-August 1977, and January-August 1978-----	A-11

## CONTENTS

	<u>Page</u>
3. Steel wire strand for prestressed concrete: U.S. imports for consumption, by principal sources, 1974-77, January-August 1977, and January-August 1978-----	A-14
4. Steel wire strand for prestressed concrete: U.S. imports for consumption from Japan, by customs districts, 1974-77-----	A-15
5. Ratios of net operating profit or (loss) to net sales for domestic producers on their operations producing steel wire strand for prestressed concrete, for producers of fabricated metal products, and for all manufacturing corporations, 1974-77 and January-June 1978-----	A-17
6. Profit-and-loss experience of domestic producers on their operations producing steel wire strand for prestressed concrete, by companies, 1974-77, January-June 1977, and January-June 1978-----	A-18
7. Steel wire strand for prestressed concrete: Average unit selling price and average unit cost to manufacture, by companies, 1974-77, January-August 1977, and January-August 1978-----	A-19
8. Steel wire strand for prestressed concrete: Cost of wire rod purchased by U.S. producers, by sources, 1975-77, January-August 1977, and January-August 1978-----	A-20
9. Steel wire strand for prestressed concrete: Capital expenditures and research and development expenses incurred by U.S. producers, 1974-77-----	A-21
10. Steel wire strand for prestressed concrete: U.S. producers' shipments, exports, imports, and apparent consumption, 1966-77, January-August 1977, and January-August 1978-----	A-22
11. Steel wire strand for prestressed concrete (Grade 270k, 1/2", 7-wire strand): Average lowest net selling prices received by U.S. producers and importers, by quarters, 1975-77 and January-August 1978-----	A-25

Note.--Information which would disclose confidential operations of individual concerns may not be published and therefore has been deleted from this report. Deletions are indicated by asterisks.

UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, D.C.

[AA1921-188]

November 16, 1978

STEEL WIRE STRAND FOR PRESTRESSED CONCRETE FROM JAPAN

Determination of Injury

On the basis of its investigation, the United States International Trade Commission (Commission) has unanimously determined (Commissioner Stern not participating) <sup>1/</sup> that an industry in the United States is being injured by reason of the importation of steel wire strand for prestressed concrete from Japan that is being, or is likely to be, sold at less than fair value within the meaning of the Antidumping Act, 1921, as amended.

On August 22, 1978, the United States International Trade Commission received advice from the Department of the Treasury that steel wire strand for prestressed concrete from Japan, with the exception of that produced by Kawatetsu Wire Products Co., Ltd., is being, or is likely to be, sold at less than fair value within the meaning of the Antidumping Act, 1921, as amended (19 U.S.C. 160(a)). Accordingly, on August 29, 1978, the Commission instituted investigation No. AA1921-188 under section 201(a) of said act to determine whether an industry in the United States is being or is likely to be injured, or is prevented from being established, by reason of the importation of such merchandise into the United States.

Notice of the institution of the investigation and of the public hearing held in connection therewith was published in the Federal Register of September 5, 1978 (43 F.R. 39454). On October 3, 1978, a hearing was held in Washington, D.C., at which all persons who requested the opportunity were permitted to appear in person or by counsel.

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<sup>1/</sup> Commissioner Stern did not participate in the decision because she did not assume her duties as a Commissioner until the preliminary investigation of the economic factors and legal issues in the case had been completed.

In arriving at its determination, the Commission gave due consideration to written submissions from interested parties and information adduced at the hearing as well as information obtained by the Commission's staff from questionnaires, personal interviews, and other sources.

STATEMENT OF REASONS OF CHAIRMAN JOSEPH O. PARKER AND  
COMMISSIONERS GEORGE M. MOORE AND CATHERINE BEDELL

On August 22, 1978, the United States International Trade Commission received advice from the Department of the Treasury that steel wire strand for prestressed concrete from Japan, with the exception of that produced by Kawatetsu Wire Products Co., Ltd., is being, or is likely to be, sold in the United States at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921, as amended. Accordingly, on August 29, 1978, the Commission instituted investigation No. AA1921-188 under section 201(a) of this act to determine whether an industry in the United States is being or is likely to be injured, or is prevented from being established, 1/ by reason of the importation of such merchandise into the United States.

Determination

On the basis of the information obtained in the investigation, we determine that an industry in the United States is being injured by reason of the importation of steel wire strand for prestressed concrete from Japan which the Secretary of the Treasury has determined is being, or is likely to be, sold at LTFV.

The imported article and the domestic industry

Steel wire strand for prestressed concrete includes all steel wire strand, other than alloy steel, which has been stress-relieved and is suitable for use in prestressing concrete. Prestressed concrete is widely used in the construction of bridge girders, beams, pilings, railroad ties, and a variety of building

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1/ Prevention of the establishment of an industry is not an issue in this investigation and will not be discussed further because there is a domestic industry of six U.S. firms currently producing steel wire strand.

products such as columns, roofs, and floors. In this determination, we considered the relevant domestic industry to consist of facilities in the United States devoted to the production of steel wire strand for prestressed concrete. Six U.S. firms currently produce such strand.

#### LTFV sales

The Department of the Treasury examined sales of five Japanese manufacturers for the period June 1 through November 30, 1977. One of these companies, Kawatetsu Wire Products Co., Ltd., was excluded from Treasury's determination because its weighted average margin of 0.62 percent was considered minimal in relation to the total volume of its sales and because the firm gave formal assurances that it would make no future sales at LTFV. During the period examined by Treasury, 95.6 percent of the sales compared for the other four Japanese suppliers were at LTFV. The weighted average dumping margin for all the sales compared was 9.76 percent.

#### Injury by reason of LTFV sales

The information obtained in the investigation clearly shows that the domestic industry producing steel wire strand for prestressed concrete is being injured by reason of LTFV sales. The domestic industry suffered a declining rate of capacity utilization, a decrease in shipments, an increase in inventories, a drop in employment, and a precipitous decline in profitability between 1974 and 1977.

The capacity utilization rate for facilities producing prestressed concrete strand in the United States fell by nearly one-half between 1974 and 1976 (from 89 to 44 percent) and improved only marginally in 1977 to 51 percent. U.S.

producers' shipments fell from 120.4 million pounds in 1974 to 74.1 million pounds in 1975, or by 39 percent. Despite some recovery in the industry, shipments in 1977 were about 91.6 million pounds or 24 percent less than in 1974. Yearend inventories of steel wire strand for prestressed concrete were 39 percent higher in 1977 than in 1974. The average number of production and related workers engaged in the production of steel wire strand for prestressed concrete in 1977 was 278, 19 percent less than in 1974.

In 1974 and 1975, the domestic producers had net profits before taxes on their prestressed concrete strand operations of \$6.0 million and \$4.7 million, respectively. There was a precipitous decline in the financial performance of the domestic industry in 1976 and again in 1977. Net losses of \$810,000 were reported in 1976; the industry's losses increased to \$2.1 million in 1977. The ratio of net operating profit or loss to net sales for the prestressed concrete strand operations of the domestic producers dropped from a profit of about 20 percent in both 1974 and 1975 to a loss of 3 percent in 1976 and to an even greater loss of 7 percent in 1977, the year in which Treasury found sales of imports at LTFV. All five U.S. firms which produced strand in 1977 suffered losses on their prestressed concrete strand operations in that year.

There is a direct causal relationship between the injury to the domestic industry and LTFV imports from Japan. U.S. imports of steel wire strand for prestressed concrete from Japan increased from 139.1 million pounds in 1976 to 176.5 million pounds in 1977, the year in which Treasury found that imports from Japan were sold at LTFV. In both 1976 and 1977, 61 percent of apparent U.S. consumption was accounted for by imports of this product from Japan. U.S.

producers cited sales of 66 million lineal feet (about 34 million pounds) of prestressed concrete strand as being lost as a result of these LTFV imports from Japan. The Commission confirmed that eight customers purchased 6 million lineal feet of Japanese strand during the period of Treasury's investigation (June-November 1977) because of the lower price of the Japanese product. An additional 10 companies also cited price as the principal reason for increasing the proportion of their total strand purchases from Japan in 1977.

Pricing data obtained by the Commission also established a causal link between LTFV imports from Japan and the injury suffered by the domestic industry. The price of U.S.-made prestressed concrete strand in the most popular size and grade fell by 31 percent between January-March 1975 and July-December 1977, from \$198 to \$137 per thousand lineal feet. Japanese strand, which had been selling at a premium over U.S. strand in January-March 1975, fell by about 40 percent in the same time period from \$208 to \$123 per thousand lineal feet. Japanese strand undersold U.S. strand in every quarter from October 1975 through June 1978. During July-December 1977, a period approximately the same as that covered by Treasury's investigation (June-November 1977), the price of imported strand from Japan was 11 percent below the price of domestically produced strand. This margin of underselling was nearly the same as the 9.8-percent weighted average dumping margin of the Japanese producers.

#### Conclusion

On the basis of the information obtained in the Commission's investigation, we conclude that an industry in the United States is being injured by reason of the importation of steel wire strand for prestressed concrete from Japan which the Secretary of the Treasury has determined is being, or is likely to be, sold at LTFV. Having so concluded, it is not necessary to address the issue of whether an industry is likely to be injured.

STATEMENT OF REASONS OF COMMISSIONER BILL ALBERGER

In order for the United States International Trade Commission to find in the affirmative in an investigation under the Antidumping Act, 1921, as amended, (19 U.S.C. 160(a)), it is necessary to find that an industry in the United States is being or is likely to be injured, or is prevented from being established 1/ and the injury or likelihood thereof must be by reason of imports at less than fair value (LTFV).

Determination

On the basis of the information obtained in the investigation, I determine that an industry in the United States is being injured by reason of the importation of steel wire strand for prestressed concrete from Japan, which the Secretary of the Treasury has determined is being, or is likely to be, sold at LTFV.

The imported article and the domestic industry

Steel wire strand for prestressed concrete includes all steel wire strand, other than alloy steel, which has been stress-relieved and is suitable for use in prestressing concrete. Prestressed concrete is widely used in the construction of bridge girders, beams, pilings, railroad ties, and a variety of building products such as columns, roofs, and floors. In this determination, I consider the relevant domestic industry to consist of facilities in the United States devoted to the production of steel wire strand for prestressed concrete. Six U.S. firms currently produce such strand.

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1/ Prevention of the establishment of an industry is not an issue in this investigation and will not be discussed further.

LTFV sales

The Department of the Treasury (Treasury) examined sales of five Japanese manufacturers for the period June 1 through November 30, 1977. One of these companies, Kawatetsu Wire Products Company, Ltd., was excluded from Treasury's determination because its weighted average margin of 0.62 percent was considered minimal in relation to the total volume of its sales and because the firm gave formal assurances that it would make no future sales at LTFV. During the period examined by Treasury, 95.6 percent of the sales compared for the other four Japanese suppliers were at LTFV. The weighted average dumping margin for all of the sales compared was 9.76 percent.

Injury by reason of LTFV sales

U.S. imports -- Imports from Japan dropped by more than 50 percent from 1974 to 1976, but 1977 Japanese imports jumped more than 25 percent over 1976 levels. In spite of this increase, 1977 ran 40 percent lower than 1974, the peak consumption year.

Production and shipments -- Production of steel wire strand by U.S. producers dropped by 35 percent from 1974 to 1975, hitting a low for the 1974-77 period of 77.4 million pounds. 1976 production was up slightly over the previous year and 1977 showed nearly an 18 percent increase over 1976. This level, however, is some 23 percent under peak 1974 levels.

Shipments by U.S. producers followed a pattern relatively similar to production, peaking in 1974, then dropping by 39 percent to a period low in 1975 before climbing back to a level in 1977 that was 24 percent below 1974 figures.

Capacity utilization -- The rate of capacity utilization of U.S. producers dropped from 89 to 44 percent between 1974 and 1976. 1977 showed an improvement with a 15 percent increase in capacity utilization over 1976. One producer has almost totally withdrawn from the market, and this has lowered utilization rates.

Inventories -- Inventories of U.S. producers more than doubled from 1974 to 1975, dropped by more than 40 percent in 1976, and increased slightly in 1977.

Employment -- The average number of production and related workers in 1977 was 278, 19 percent below 1974. This level is slightly up from 1976 and an upward trend in employment has continued into 1978.

Profits -- U.S. producers moved from a strong profit picture in their wire strand operations in 1974 and 1975 to a loss in those operations in 1976 and 1977. In fact, profits were so strong in 1974 and 1975 that the four year average 1974-77 shows a net profit to net sales ratio of 7.8 percent. From a profit of \$6 million in 1974, U.S. producers dropped to a loss of \$2.1 million in 1977. The latter figure represents a net operating loss to net sales ratio of 7 percent during the year encompassing the period of Treasury's LTFV investigation (June-November 1977). These losses for wire strand operators occurred at a time when all U.S. manufacturing was showing a stable profit ratio. Early 1978 figures show profits returning to the industry.

Price -- During July-December 1977, approximately the period of Treasury's investigation, Japanese strand prices ran 11 percent below those of U.S. producers. Treasury found the weighted average dumping margin for Japanese producers during this period to be 9.8 percent, thereby accounting

almost totally for the margin of underselling. Prices for U.S. producers at the end of 1977 remained depressed at early 1976 levels, but have shown some slight upward movement in 1978. Pricing practices of Japanese producers had a strong influence on prices of other imported products, as well as domestic producers.

Lost sales -- The Commission was able to confirm 8 incidents of sales lost to Japanese strand producers during the period of Treasury's LTFV investigation. In addition to these cases, 10 U.S. firms indicated they had increased their purchases of Japanese strand chiefly because of price.

Summary -- Many of the economic factors in this investigation have followed a similar pattern in the 1974-77 period. Production, shipments, capacity utilization and employment peaked in 1974 before dropping significantly in 1975. Similarly, all of these factors have shown an upward trend in 1976, 1977 and continuing into 1978. Those factors do not, in my judgment, point to injury. However, domestic industry's poor financial performance in 1976 and 1977, the year during which LTFV sales occurred, the specific instances of lost sales to Japanese producers and the all but direct correlation between the weighted average margin of LTFV sales and the margin of underselling persuade me that the U.S. producers are suffering injury by reason of LTFV sales from Japan.

## SUMMARY

The U.S. International Trade Commission instituted investigation No. AA1921-188 on August 29, 1978, following notification from the Department of the Treasury on August 22, 1978, that steel wire strand from Japan is being, or is likely to be, sold in the United States at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921, as amended. The petition which led to Treasury's determination of LTFV sales was filed on behalf of five domestic producers of steel wire strand for prestressed concrete. A public hearing in connection with the Commission's investigation was held on October 3, 1978, in Washington, D.C.

Steel wire strand includes all steel wire strand, other than alloy steel, which has been stress-relieved and is suitable for use in prestressed concrete. Prestressed concrete is widely used in the construction of bridge girders, beams, pilings, railroad ties, and a variety of building products such as columns, roofs, and floors.

Six companies--three integrated steel producers and three independents--currently produce steel wire strand for prestressed concrete in the United States. U.S. shipments of such strand amounted to 120.4 million pounds in 1974, fell to 74.1 million pounds in 1975, and then increased to 81.3 million pounds in 1976, and to 91.6 million pounds in 1977. Shipments during January-August 1978 were 66 percent higher than shipments in the corresponding period of 1977. The domestic industry's rate of capacity utilization dropped from 89 percent in 1974 to 44 percent in 1976, recovered slightly to 51 percent in 1977, and increased to 78 percent in January-August 1978.

The number of production workers producing prestressed concrete strand declined from 341 in 1974 to 238 in 1975, and then increased to 320 in January-August 1978. Yearend inventories held by U.S. producers doubled between 1974 and 1975 (increasing from 3.6 million to 7.8 million pounds), dropped sharply in the following year, and then increased slightly in 1977 to 5 million pounds.

The ratio of net operating profit or loss to net sales for the prestressed concrete strand operations of the domestic producers dropped sharply from a profit of 19 percent in 1975 to a loss of 3 percent in 1976, and declined further to a loss of 7 percent in 1977. All of the domestic producers reported losses on their prestressed concrete strand operations in 1977. In January-June 1978, the strand operations of the U.S. producers, on an aggregated basis, showed profits of 4 percent of net sales, although two of the domestic producers continued to experience losses on their prestressed concrete strand operations.

Imports of steel wire strand for prestressed concrete accounted for the bulk of U.S. consumption during 1974-77, ranging from 65 to 73 percent of consumption. Japan was the principal source of these imports during the period, accounting for approximately 90 percent of the aggregate quantity of imports. Imports from Japan decreased from 295.3 million pounds in 1974

(68 percent of apparent domestic consumption) to 166.8 million pounds in 1975 (65 percent of apparent consumption). A further drop to 139 million pounds (61 percent of consumption) occurred in 1976; although the quantity of Japanese imports rose in 1977, the Japanese market share remained constant.

Treasury examined sales of Japanese prestressed concrete strand for June 1-November 30, 1977. During that period, \* \* \* percent of the imports from Japan were sold at LTFV. The weighted average margins for the five companies whose exports were examined by Treasury--Kawatetsu, Shinko, Sumitomo, Suzuki, and Tokyo Rope--ranged from .62 percent to 15.82 percent, with an overall weighted average dumping margin of 9.76 percent. Kawatetsu was excluded from Treasury's determination because its weighted average margin of 0.62 percent was considered minimal in relation to the total volume of its sales and because the firm gave formal assurances that it would make no future sales at LTFV.

During January 1975-August 1978, prices of both U.S.-made and Japanese strand were at their highest level in January-March 1975. Prices began to drop in April-June 1975, and continued to fall until mid-1977. During the period for which Treasury examined sales of Japanese prestressed concrete strand, the price of the Japanese strand was 11 percent below the domestic price. Sales of 66.1 million lineal feet of prestressed concrete strand were cited by the domestic producers as lost to LTFV imports from Japan. Of the 55 customers that provided information on their purchasing patterns, 48 companies, accounting for at least 48.8 million lineal feet of the alleged lost sales, affirmed that they have purchased strand from Japan. At least 8 of the specific lost sales mentioned by the U.S. producers, involving 5.9 million lineal feet of strand, were verified for the June-November 1977 period covered by Treasury's investigation.

## INFORMATION OBTAINED IN THE INVESTIGATION

## Introduction

On August 22, 1978, the United States International Trade Commission received advice from the Department of the Treasury that steel wire strand from Japan, with the exception of that produced by Kawatetsu Wire Products Co., Ltd., is being, or is likely to be, sold in the United States at less than fair value (LTFV) within the meaning of the Antidumping Act, 1921, as amended. 1/ Accordingly, on August 29, 1978, the Commission instituted investigation No. AA1921-188 under section 201(a) of said act to determine whether an industry in the United States is being, or is likely to be, injured, or is prevented from being established, by reason of the importation of such merchandise into the United States. For the purpose of Treasury's determination, the term "steel wire strand" was defined as steel wire strand, other than alloy steel, stress-relieved and suitable for use in prestressed concrete, provided for in item 642.1120 of the Tariff Schedules of the United States Annotated (TSUSA). By statute, the Commission must make its determination within 3 months of its receipt of advice from Treasury or, in this case, by November 22, 1978.

Notice of the institution of the Commission's investigation and the time and place of the public hearing was published in the Federal Register of September 5, 1978 (43 F.R. 39454). 2/ The public hearing was held on October 3, 1978, in Washington, D.C.

The complaint which led to Treasury's determination of sales at LTFV was filed by counsel representing five domestic producers of steel wire strand for prestressed concrete. The five domestic producers and their headquarters are American Spring Wire Corp., Bedford Heights, Ohio; Armco Steel Corp., Middletown, Ohio; Bethlehem Steel Corp., Bethlehem, Pa.; CF & I Steel Corp., Pueblo, Colo.; and Florida Wire & Cable Co., Jacksonville, Fla. Treasury's notice of investigation was published in the Federal Register of November 23, 1977 (42 F.R. 60034). A notice amending the antidumping proceeding notice to correct the product description and TSUS reference was published in the Federal Register of December 8, 1977 (42 F.R. 62113). Notice of Treasury's determination of sales at LTFV and withholding of appraisement for 6 months was published in the Federal Register of May 31, 1978 (43 F.R. 23671). Treasury's final determination of sales at LTFV and discontinuance of anti-dumping investigation was published in the Federal Register of August 28, 1978 (43 F.R. 38495). 3/

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1/ A copy of Treasury's letter to the Commission concerning LTFV sales from Japan is presented in app. A.

2/ A copy of the Commission's notice is presented in app. B.

3/ Copies of Treasury's Federal Register notices on steel wire strand for prestressed concrete from Japan are presented in app. C.

## Description and Uses

As used in this report, the term "steel wire strand" includes all steel wire strand, other than alloy steel, which has been stress-relieved and is suitable for use in prestressed concrete. Steel wire strand consists of one center wire and six helically placed outer wires with a uniform pitch of not less than 12 nor more than 16 times the nominal strand diameter. Steel wire strand for prestressed concrete is available in two grades, 250 and 270, with minimum ultimate strengths of 250,000 pounds per square inch (psi) and 270,000 psi, respectively, based on nominal area of the strand. According to the American Concrete Institute, prestressed concrete strand conforming to American Society for Testing and Materials (ASTM) specification A416-74, "Uncoated seven-wire stress-relieved strand for prestressed concrete," is generally available in the following sizes (grade 270 is not available in diameters of 1/4 or 5/16 inch):

Nominal diameter

1/4 in (0.250 in, 6.35 mm)  
 5/16 in (0.313 in, 7.94 mm)  
 3/8 in (0.375 in, 9.53 mm)  
 7/16 in (0.438 in, 11.11 mm)  
 1/2 in (0.500 in, 12.70 mm)  
 3/5 in (0.600 in, 15.24 mm)

Steel wire strand for prestressed concrete is produced from uncoated round high-carbon steel wire which has been cold-drawn from wire rods to suitable round wire sizes and then fabricated into the required strand sizes by a stranding machine. After fabrication, the strand is stress relieved by continuous heat treatment to relax the stresses which have built up in the individual wires and in the strand as a result of the drawing and stranding processes.

Steel wire strand is tensioned to its elastic limit and used to compress concrete to provide resistance to loads. The concept of prestressing concrete is building engineered stresses into architectural and structural concrete units which will more than offset the stresses that occur when the unit is subjected to loads. Prestressed concrete is now widely used in the construction of bridge girders, beams, pilings, railroad ties, and a variety of building products such as columns, roofs, and floors.

Pretensioning and posttensioning are the methods used to prestress concrete. In pretensioning, steel wire strands are stretched between abutments; concrete is then poured into forms which encase the steel wire strands and is allowed to harden and bond to the tensioned steel. After the concrete has reached a specified strength, the strands are cut off at the ends of the concrete unit. This prestresses the concrete, putting it under compression and creating a built-in resistance to loads which produce tensile stresses. In posttensioning, strand is encased in tubing or wrapped, positioned in a form, and concrete is poured into the form. When the concrete sets and reaches a specified strength, the steel wire strand in the concrete unit is

then stretched and anchored at the ends of the concrete unit. Stress is transferred to the concrete by the permanent end anchorages. In general, posttensioned prestressed concrete is stronger because it uses four to five times more strand than pretensioning. This factor, combined with the greater ease of shipping steel wire strand compared with concrete with strand inside, has resulted in a greater use of posttensioning for beams, bridges, and other large units. In contrast, pretensioned concrete is used more extensively in the construction of building decks, floors, and walls, which can be mass-produced readily in a plant and transported.

#### U.S. Tariff Treatment

Imported steel wire strand for prestressed concrete is classified for tariff purposes under item 642.11 of the Tariff Schedules of the United States (TSUS). <sup>1/</sup> The column 1 (most-favored-nation) rate of duty, 7.5 percent ad valorem, has been in effect since January 1, 1972, when the final stage of the concessions granted in the Kennedy round of negotiations under the General Agreement on Tariffs and Trade became effective. The statutory rate of duty for TSUS item 642.11 is 35 percent ad valorem. Imports under this item from designated beneficiary countries are not eligible for preferential treatment under the Generalized System of Preferences.

#### Nature and Extent of LTFV Sales <sup>2/</sup>

Treasury's investigation of U.S. imports of steel wire strand for prestressed concrete from Japan covered the 6-month period June 1 through November 30, 1977. According to the Treasury Department, approximately 92 percent of the imports of the subject strand from Japan are sold for export to the United States by Shinko Wire Co., Ltd. (Shinko), Amagasaki; Sumitomo Electric Industries, Ltd. (Sumitomo), Osaka; Suzuki Metal Industry Co., Ltd. (Suzuki), Tokyo; Kawatetsu Wire Products Co., Ltd. (Kawatetsu), Tokyo; and Tokyo Rope Manufacturing Co., Ltd. (Tokyo Rope), Tokyo. Treasury's investigation, therefore, was limited to sales by these five manufacturers.

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<sup>1/</sup> TSUS item 642.11 was established effective Mar. 1, 1977; prior to that date, imports of steel wire strand for prestressed concrete entered under TSUS item 642.10. Executive Order 11974 of Feb. 25, 1977, deleted TSUS item 642.10 and added new items 642.09 and 642.11 in lieu thereof.

<sup>2/</sup> The five domestic producers of prestressed concrete strand also filed a dumping complaint regarding imports from India on Oct. 17, 1977, the same day that they filed the dumping complaint regarding Japanese imports. On May 31, 1978, Treasury announced the withholding of appraisement for imports of steel wire strand for prestressed concrete from India and a final determination of LTFV sales. On June 2, 1978, the Commission instituted investigation No. AA1921-182, Steel wire strand for prestressed concrete from India; on Aug. 25, 1978, the Commission unanimously determined (Commissioner Minchew not participating) that an industry in the United States is not being, and is not likely to be injured, and is not prevented from being established, by reason of the importation of steel wire strand for prestressed concrete from India that is being, or is likely to be, sold at LTFV within the meaning of the Antidumping Act, 1921, as amended.

Table 1.--Steel wire strand for prestressed concrete from Japan: Quantity of exports to the United States, net value of U.S. sales compared, amount of margins, percent of sales compared, percent of comparisons at margin, margin range, and weighted average margin, by companies, June 1-Nov. 30, 1977

Japanese producer	Quantity of exports to United States	Net value of U.S. sales compared	Percent of sales compared	Percent of comparisons at margin	Amount of margins	Margin range	Weighted average margin
Kawatetsu	***	***	***	52.47	***	0.14-03.97	0.62
Shinko	***	***	***	99.98	***	1.54-26.20	13.28
Sumitomo	***	***	***	95.64	***	.43-32.69	15.82
Suzuki	***	***	***	93.31	***	.14-15.54	6.90
Tokyo Rope	***	***	***	83.83	***	.34-11.72	4.48
Total or average	***	***	***	87.36	***	.14-32.69	9.76

Source: U.S. Department of Treasury file.

For purposes of Treasury's determination of whether the merchandise in question is being, or is likely to be, sold at LTFV within the meaning of the Act, the purchase price was compared with the home-market price of such or similar merchandise on all sales by Shinko, Suzuki, Tokyo Rope, and Sumitomo, and with the price for export to countries other than the United States on sales made by Kawatetsu. Treasury made comparisons on 98.7 percent of the sales to the United States by the five manufacturers investigated and obtained data indicating that sales valued at \* \* \* were at margin and that the overall weighted average margin on the sales compared was 9.76 percent. A summary of the data on fair-value comparisons developed by Treasury is shown in table 1. Of the five Japanese manufacturers, Sumitomo had the largest weighted average dumping margin, 15.82 percent; however, Sumitomo has claimed an additional adjustment to account for costs allegedly arising from manufacturing processes employed in the production of strand for home consumption to assure a flawless strand but which are not used on strand sold for export. Customs is now conducting tests to determine whether the claimed differing manufacturing processes result in actual physical differences in the merchandise produced for the two markets. If so, Treasury may adjust Sumitomo's margin. Kawatetsu was excluded from Treasury's determination because its weighted average margin of 0.62 percent was considered minimal in relation to the total volume of its sales and because the firm gave formal assurances that it would make no future sales at LTFV. During the period of Treasury's investigation, Kawatetsu accounted for \* \* \* percent of the strand sales investigated by Treasury.

#### U.S. Market

The first practical application of the concept of prestressing concrete is credited to Eugene Freyssinet of France in about 1928. Prestressed concrete began to be widely used in bridge construction in Europe shortly after World War II; the first major prestressed concrete bridge in the United States was built in 1950. Demand for prestressed concrete (and consequently for steel wire strand for prestressed concrete) has increased steadily since that time, as prestressed concrete has replaced structural steel as a building material in many applications because of its lower cost and greater strength.

Both domestic producers and importers sell steel wire strand for prestressed concrete directly to approximately 300 prestressed concrete contractors, which either produce the concrete unit containing strand at a factory and then transport and install it at the building site (pretensioning) or transport the strand to the building site, where it is installed and tensioned within the concrete unit which has been poured on site (posttensioning).

Imports account for the major share of the U.S. prestressed concrete strand market. There was a strand shortage in 1973 and 1974, which was a peak period for heavy construction in the United States. In response to the chaotic market conditions which existed at that time--higher prices, longer delivery times, and no certainty regarding sources of supply--strand production capacity was expanded both in the United States and in other countries. This expansion was followed by the 1975 recession, which had a particularly severe impact on major construction projects and, consequently, depressed demand for prestressed concrete strand. This type of construction--i.e., multi-residential buildings and public works projects such as highways,

bridges, railroad improvements, and so forth--lagged behind single-family residential construction and other sectors of the economy in recovering from the recession. Noticeable improvement in the level of heavy construction and demand for prestressed concrete strand did not occur until 1977.

#### U.S. Industry

There are six U.S. firms currently producing steel wire strand for prestressed concrete. These companies and the locations of their plants in which prestressed concrete strand is produced are as follows:

American Spring Wire Corp-----	Bedford Heights, Ohio
Armco Steel Corp-----	Kansas City, Mo.
Bethlehem Steel Corp-----	Sparrows Point, Md.
CF & I Steel Corp-----	Pueblo, Colo.
Florida Wire & Cable Co-----	Jacksonville, Fla.
Washburn Wire Products Co-----	New York, N.Y. <u>1/</u>

Three of these companies (Armco, Bethlehem, and CF & I) are integrated steel producers manufacturing a wide range of steel products including wire rod, the raw material used to produce strand. The remaining three producers (American Spring Wire, Florida Wire & Cable, and Washburn Wire Products) are independent producers which purchase wire rod for use in fabricating strand and other wire products.

Steel wire strand for prestressed concrete was first produced in the United States in about 1950 by Union Wire Rope Co. of Kansas City, Mo. (now part of Armco). Bethlehem began production of this product in 1958. By 1960 about 11 companies produced this product in the United States; most of these companies ceased production in the late 1960's. Between 1970-73 Laclede Steel Co. (St. Louis, Mo.), Wire Rope Corp. (St. Joseph, Mo.), and U.S. Steel (New Haven, Conn.; Waukegan, Ill.; and Pittsburg, Cal.) stopped producing strand at the cited plants. In June 1974 CF & I closed its plant at Roebling, N.J., one of the largest prestressed concrete strand production facilities in the United States. The facility was offered for sale intact, but no buyers were found for it on that basis, partially because the general view in the industry was that it was an inefficient plant. Accordingly, the Roebling stranding equipment was sold separately to Bethlehem, \* \* \*.

Two new producers have begun prestressed concrete strand operations since 1974. American Spring Wire Corp. started production in 1975, and Washburn Wire Products Co. started production in June 1978.

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1/ Throughout this report the data presented on U.S. producers' capacity, production, shipments, exports, employment, inventories, and profit-and-loss experience exclude Washburn Wire Products Co. since that firm did not manufacture this product until June 1978. Data from that producer, therefore, would not significantly alter the data reported by the remaining five domestic producers of steel wire strand for prestressed concrete during the period for which data are presented.

## Japanese Industry

The Japanese companies producing prestressed concrete strand for export to the United States--Kawatetsu, Shinko, Sumitomo, Suzuki, and Tokyo Rope--are predominantly independent steel producers. The one exception, Sumitomo, is one of the five largest integrated steel producers in Japan. The Japanese producers sell prestressed concrete strand principally to about 8 large importing companies in the United States, although several smaller companies make occasional strand purchases from Japanese sources. Included among these importing companies are some of the largest Japanese trading houses such as Kawasho, Mitsubishi, and Mitsui. Nearly all of the importers sell strand produced by more than one Japanese manufacturer; however, Kurt Orban Co., one of the largest U.S. distributors of imported steel products, is the exclusive agent for Sumitomo.

According to the Japanese Wire Products Exporters' Association, the capacity utilization rate of the Japanese producers of prestressed concrete strand fell from 89 percent in 1974 to 43 percent in 1976. The utilization rate rose to 53 percent in 1977, but dropped again in January-June 1978 to 51 percent, as shown in the following tabulation:

<u>Period</u>	<u>Capacity</u> <sup>1/</sup> <u>1,000</u> <u>pounds</u>	<u>Production</u> <u>1,000</u> <u>pounds</u>	<u>Capacity</u> <u>utilization</u> <u>percent</u>
1973-----	449,298	377,932	84
1974-----	449,298	400,384	89
1975-----	487,217	216,373	44
1976-----	487,217	211,199	43
1977-----	533,513	282,037	53
Jan.-June 1978--	275,796	141,696	51

<sup>1/</sup> Capacity data shown represent theoretical capacity and have not been adjusted to reflect actual capacity.

Japanese exports of stranded wire of high carbon steel, n.e.s., believed to consist almost entirely of steel wire strand for prestressed concrete, accounted for the great bulk of Japanese production of this product in 1976-77 and January-June 1978. Exports to the United States during this period represented about 70 percent of total Japanese strand production in 1976 and 1977 and about 54 percent in January-June 1978, as shown in the following tabulation based on data compiled by the Japanese Wire Products Exporters' Association and the Japan Tariff Association:

<u>Item</u>	<u>1976</u>	<u>1977</u>	<u>January-June</u> <u>1978</u>
Production--1,000 pounds--	211,199	282,037	141,696
Exports--all countries			
1,000 pounds--	212,832	253,485	113,722
Percent of production--	100.8	89.9	80.3
Exports to United States			
1,000 pounds--	143,023	195,414	76,123
Percent of production--	67.7	69.3	53.7

## Consideration of Injury or Likelihood Thereof

U.S. producers' capacity, production, and capacity utilization

U.S. producers' capacity <sup>1/</sup> to produce steel wire strand for prestressed concrete increased during 1974-77, rising from 133.6 million pounds in 1974 to 180.8 million pounds in 1977, or by 35 percent (table 2).

\* \* \* \* \*

Counsel for the petitioning firms advised that they plan to expand capacity if the profitability of the product improves. The basic constraining factor on the speed with which expansion plans could occur would be the delivery times for new equipment, \* \* \*. The capacity expansion plans of the domestic producers are shown in the following tabulation, which is based on the posthearing brief submitted on behalf of five producers in the Indian case (AA1921-182) and discussions with an official of Washburn:

U.S. producer	Capacity		
	Current	Expansion plans	Total
	<u>1,000</u>	<u>1,000</u>	<u>1,000</u>
	<u>pounds</u>	<u>pounds</u>	<u>pounds</u>
American Spring Wire Corp-----	***	***	***
Armco Steel Corp-----	***	***	***
Bethlehem Steel Corp-----	***	***	***
CF & I Steel Corp-----	***	***	***
Florida Wire & Cable Co-----	***	***	***
Subtotal-----	198,600	78,000	276,600
Washburn-----	***	***	***
Total-----	***	***	***

U.S. production of steel wire strand for prestressed concrete fell from 118.9 million pounds in 1974 to 77.4 million pounds in 1975, or by 35 percent. Even excluding the operations of CF & I's Roebling Division in 1974 from these calculations, production dropped by 21 percent in this period, despite the entry of American Spring Wire into the industry in June 1975.

\* \* \* \* \*

<sup>1/</sup> Practical capacity to produce steel wire strand for prestressed concrete is defined as the greatest level of output that can be achieved within the framework of a realistic work pattern, assuming a normal product mix, operating facilities for 3 shifts a day, 7 days a week, considering only the machinery and equipment in place and ready to operate.

Table 2.--Steel wire strand for prestressed concrete: U.S. producers' capacity, production, and capacity utilization, by companies, 1974-77, January-August 1977, and January-August 1978

Company and period	Capacity <sup>1/</sup>	Production	Capacity
	1,000 pounds	1,000 pounds	utilization Percent
American Spring Wire:			
1974-----	2/	2/	2/
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
Armco:			
1974-----	***	***	***
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
Bethlehem:			
1974-----	***	***	***
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
CF & I:			
1974-----	***	***	***
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
Florida Wire & Cable:			
1974-----	***	***	***
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
Total:			
1974-----	133,600	118,916	89.0
1975-----	129,600	77,418	59.7
1976-----	176,600	78,112	44.2
1977-----	180,800	92,020	50.9
January-August--			
1977-----	123,064	61,587	50.0
1978-----	131,198	101,700	77.5

<sup>1/</sup> Rated capacity of U.S. producers has been adjusted to reflect the following: \* \* \*

<sup>2/</sup> American Spring Wire did not begin production until 1975.

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

A-11

Note.--Data shown for U.S. producers' capacity, production, and capacity utilization in 1974 differ from that shown in Steel Wire Strand for Prestressed Concrete From India, USITC Pub. 906, August 1978, because data covering the operations of CF & I's Roebling plant for 6 months in 1974 were not included in that publication.

By the end of 1977 the industry's strand production had made a strong recovery to 92 million pounds, 23 percent less than in the peak year of 1974 but only 6 percent less than production in that year excluding Roebling.  
\* \* \*

The capacity utilization rate for facilities producing prestressed concrete strand in the United States fell by nearly one-half between 1974-76 and improved only marginally in 1977 (table 2). However, the rate for the industry increased substantially in January-August 1978 to 78 percent, compared with 50 percent in the corresponding period of 1977.

\* \* \* \* \*

U.S. producers' shipments and exports

U.S. producers' shipments of steel wire strand for prestressed concrete fell from 120.4 million pounds in peak year 1974 to 74.1 million pounds in 1975, or by 39 percent. About 45 percent of this decrease was attributable to the closure of CF & I's Roebling plant. There was a steady gain in the volume of domestic producers' shipments in 1976 and 1977; however, shipments in 1977 were about 29 million pounds less than shipments in 1974, including shipments from the Roebling plant, and 8 million pounds less excluding these shipments. Responses to Commission questionnaires indicate that shipments in January-August 1978 have already exceeded shipments in 1977 as shown in the following tabulation:

	<u>Quantity</u> <u>(1,000 pounds)</u>
1974-----	120,419
1975-----	74,103
1976-----	81,253
1977-----	91,599
January-August--	
1977-----	61,123
1978-----	101,133

The U.S. Department of Commerce has collected statistics on exports of steel wire strand for prestressed concrete as a separate item since January 1978 only. According to these official statistics, 1 million pounds of prestressed concrete strand, valued at \$650,000, were exported during January-August 1978, principally to Guatemala and Mexico. Data on U.S. exports of prestressed concrete strand submitted to the Commission by five domestic producers are as follows:

Quantity  
(1,000 pounds)

1974-----	3,344
1975-----	1,523
1976-----	801
1977-----	862
January-August--	
1977-----	307
1978-----	687

U.S. imports

U.S. imports of steel wire strand for prestressed concrete decreased sharply between 1974 and 1975, from 316 million pounds to 182 million pounds (table 3). Imports declined further in 1976 but increased to 200 million pounds in 1977 and continued to increase in January-August 1978. Japan accounts for the bulk of the prestressed concrete strand imports; its shares of total imports during 1974-77 and January-August 1978 are shown in the following tabulation:

	<u>Percent</u>
1974-----	93.4
1975-----	91.4
1976-----	93.5
1977-----	88.3
1978 (January-August)-----	73.7

Imports from Japan decreased from 295.3 million pounds in 1974 to 139.1 million pounds in 1976 and then increased in 1977 to 176.5 million pounds. Although this was the second largest quantity of strand imported from Japan between 1974 and 1977, such imports were 119 million pounds, or 40 percent, lower in 1977 than in 1974, the peak consumption year in the United States during this period. Imports of strand from Japan totaled 119.5 million pounds in January-August 1978 compared with 110.8 million pounds in the corresponding period of 1977, although the share of total imports accounted for by Japan dropped from 89 percent to 74 percent in January-August 1977 compared with 74 percent in the corresponding period of 1978.

Although Mexico, South Africa, India, the United Kingdom, and West Germany were the principal remaining sources of prestressed concrete strand imports in 1977, Spain became the second largest source of imports of this product in January-August 1978, amounting to 12.7 million pounds or 8 percent of the total strand imports. Between 1974-77 Spain supplied only negligible quantities of strand to the United States.

Table 3.--Steel wire strand for prestressed concrete: U.S. imports for consumption, by principal sources, 1974-77, January-August 1977, and January-August 1978

Source	1974	1975	1976	1977	January-August--	
					1977	1978
Quantity (1,000 pounds)						
Japan-----	295,304	166,750	139,096	176,452	110,822	119,485
Mexico-----	0	1,457	2,312	10,545	6,796	4,196
South Africa-----	28	0	156	5,249	2,921	6,209
India-----	420	1,065	4,130	2,370	1,593	46
United Kingdom-----	1,115	336	233	2,259	754	3,878
West Germany-----	9,022	3,626	1,260	2,087	1,494	4,436
Australia-----	1,176	3,381	607	386	176	2,717
Spain-----	190	351	230	92	46	12,718
Brazil-----	2,294	1,436	18	0	0	5,799
All other-----	6,496	4,008	710	323	231	2,627
Total-----	316,044	182,409	148,753	199,763	124,833	162,112
Value (1,000 dollars)						
Japan-----	67,589	52,973	28,662	34,372	21,622	26,845
Mexico-----	-	464	471	2,036	1,288	941
South Africa-----	7	-	22	962	541	1,302
India-----	102	237	613	411	277	7
United Kingdom-----	220	103	48	470	172	882
West Germany-----	2,497	1,247	276	389	283	963
Australia-----	427	1,181	144	90	39	698
Spain-----	66	209	39	15	7	2,224
Brazil-----	564	432	4	-	-	1,217
All other-----	1,993	1,719	273	101	78	649
Total-----	73,465	58,565	30,553	38,846	24,307	35,728
Unit value (cents per pound)						
Japan-----	22.9	31.8	20.6	19.5	19.5	22.5
Mexico-----	-	31.8	20.4	19.3	19.0	22.4
South Africa-----	24.8	-	14.3	18.3	18.5	21.0
India-----	24.4	22.2	14.9	17.3	17.4	16.3
United Kingdom-----	19.8	30.7	20.5	20.8	22.8	22.7
West Germany-----	27.7	34.4	21.9	18.6	18.9	21.7
Australia-----	36.3	34.9	23.8	23.4	22.1	25.7
Spain-----	34.7	59.7	16.8	16.3	15.0	17.5
Brazil-----	24.6	30.1	20.3	-	-	21.0
All other-----	30.7	42.9	38.5	31.6	33.6	24.7
Average-----	23.2	32.1	20.5	19.4	19.5	22.0

Source: Compiled from official statistics of the U.S. Department of Commerce.

A-14

Note.--Because of rounding, figures may not add to the totals shown. Unit values were calculated from the unrounded figures.

Imports of steel wire strand for prestressed concrete from Japan enter the United States through ports in various parts of the country (table 4). There appears to be no strong regional pattern for these imports; significant entries have occurred at gulf coast, west coast, east coast, and Great Lakes ports over the past 4 years. In 1977 two-fifths of the imported strand entered through Houston, Tex., and New Orleans, La. Between 1974-77, Houston was the principal port of entry of imports from Japan of this product.

Table 4.--Steel wire strand for prestressed concrete: U.S. imports for consumption from Japan, by customs districts, 1974-77

(In thousands of pounds)				
Customs district	1974	1975	1976	1977
Houston, Tex-----	51,145	35,709	33,949	41,752
New Orleans, La-----	20,381	19,350	19,885	26,844
Los Angeles, Calif-----	36,858	26,892	13,740	17,688
San Francisco, Calif-----	14,651	13,651	10,988	13,358
Baltimore, Md-----	21,856	14,207	10,765	11,256
Chicago, Ill-----	16,997	2,330	5,558	9,141
Philadelphia, Pa-----	14,137	7,586	5,364	8,175
Tampa, Fla-----	7,231	4,148	2,206	7,940
Charleston, S.C-----	8,108	2,883	3,457	5,615
Miami, Fla-----	24,241	7,571	7,096	5,276
Wilmington, N.C-----	3,573	2,230	2,196	5,066
Portland, Oreg-----	6,388	2,699	3,827	5,002
Seattle, Wash-----	7,302	6,541	4,676	4,770
Honolulu, Hawaii-----	16,948	5,882	5,320	3,659
Norfolk, Va-----	9,334	2,866	2,056	2,578
New York, N.Y-----	9,369	2,614	1,363	1,595
Boston, Mass-----	6,854	1,540	382	1,559
Savannah, Ga-----	2,933	3,045	3,078	1,233
All other-----	16,998	5,006	3,190	3,945
Total-----	295,304	166,750	139,096	176,452

Source: Compiled from official statistics of the U.S. Department of Commerce.

### Employment

The average number of production and related workers engaged in the production of steel wire strand for prestressed concrete declined in 1975, partially reflecting the closure of CF & I's Roebling plant, but then increased steadily through 1977, as shown in the following tabulation:

	<u>Number of production and related workers</u>	<u>Hours worked (1,000 hours)</u>
1974-----	341	672
1975-----	238	461
1976-----	270	581
1977-----	278	584
January-August--		
1977-----	282	320
1978-----	320	376

In January-August 1978, employment increased to 320, or by 14 percent compared with employment in the corresponding period of 1977. The same general trend also occurred with the number of hours worked, which in 1977 amounted to 584,000, or about 88,000 less than the number during the peak year of 1974.

### Inventories

Yearend inventories of steel wire strand for prestressed concrete held by U.S. producers more than doubled from 1974 to 1975, dropped sharply in the following year, and then increased slightly in 1977, as shown in the following tabulation (in thousands of pounds):

	<u>U.S. producers' inventories</u>	<u>Importers' inventories</u>
Dec. 31, 1974-----	3,608	8,117
Dec. 31, 1975-----	7,806	13,549
Dec. 31, 1976-----	4,608	11,179
Dec. 31, 1977-----	5,029	12,029
Aug. 31, 1977-----	5,089	19,764
Aug. 31, 1978-----	6,328	22,089

Inventories of prestressed concrete strand held by importers followed a similar pattern; however, importers' August 31 inventories were about twice as high as yearend inventories, partially the result of increased shipments in the summer months before the Great Lakes ports closed in the fall. The level of inventories held by the domestic producers remained constant. The ratio of producers' inventories to shipments indicates improvement in the domestic industry; by August 31, 1978, inventories would cover only 2 weeks of shipments of strand, comparable with the situation in 1974. The 1975 inventory level would have been sufficient for 5 weeks of shipments.

### Profit-and-loss experience

The ratio of net operating profit or loss to net sales for the prestressed concrete strand operations of five domestic producers dropped sharply from a profit of about 20 percent in 1974-1975 to a loss of 3 percent in 1976.

The ratio of net operating loss to net sales increased in 1977 to 7 percent, as shown in the following tabulation based on responses to Commission questionnaires:

	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Net sales-----1,000 dollars--	28,063	24,636	20,905	24,848
Net profit or (loss) before taxes-----1,000 dollar --	5,979	4,663	(810)	(2,116)
Ratio of net operating profit or (loss) to net sales--percent--	21.6	19.4	(2.9)	(7.0)

As shown in tables 5 and 6, all five domestic producers suffered losses on their prestressed concrete strand operations in 1977. While the ratio of net operating profit to net sales for prestressed concrete strand operations was much higher than the ratios for all fabricated metal products or for all manufacturing in 1974 and 1975, the losses on prestressed concrete strand

Table 5.--Ratios of net operating profit or (loss) to net sales for domestic producers on their operations producing steel wire strand for prestressed concrete, for producers of fabricated metal products, and for all manufacturing corporations, 1974-77 and January-June 1978

Industry and company	1974	1975	1976	1977	January-June 1978
Steel wire strand for prestressed concrete:					
American Spring Wire-----	<u>1/</u>	***	***	***	***
Armco-----	***	***	***	***	***
Bethlehem-----	***	***	***	***	***
CF & I-----	<u>2/</u> ***	***	***	***	***
Florida Wire & Cable-----	***	***	***	***	***
Total-----	21.6	19.4	(2.9)	(7.0)	3.7
Fabricated metal products---	7.6	7.1	7.9	7.7	7.5
All manufacturing-----	7.7	6.7	7.8	7.8	7.8

1/ American Spring Wire did not produce steel wire strand for prestressed concrete until 1975.

2/ Data shown do not include CF & I's Roebling plant.

Source: Compiled from data submitted in response to questionnaires of the U.S. International Trade Commission and from the Federal Trade Commission, Quarterly Financial Report for Manufacturing, Mining and Trade Corporations.

operations in 1976 ran counter to the improvement in profitability which occurred in these larger sectors of the economy in that year. Although the profit ratio for fabricated metal products declined slightly in 1977 and the ratio for all manufacturing remained constant, the losses reported on prestressed concrete strand operations more than doubled between 1976 and 1977.

Table 6.--Profit-and-loss experience of domestic producers on their operations producing steel wire strand for prestressed concrete, by companies, 1974-77, January-June 1977, and January-June 1978.

Company and period	Net sales	Cost of goods sold	Gross profit (loss)	General, selling, and administrative expenses	Net operating profit (loss)	Other income (expense), net	Net profit (loss) before taxes	Ratio of net operating profit (loss) to net sales
	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	1,000 dollars	Percent
American Spring Wire:								
1974-----	1/	1/	1/	1/	1/	1/	1/	1/
1975-----	***	***	***	***	***	***	***	***
1976-----	***	***	***	***	***	***	***	***
1977-----	***	***	***	***	***	***	***	***
January-June--								
1977-----	***	***	***	***	***	***	***	***
1978-----	***	***	***	***	***	***	***	***
Armco:								
1974-----	***	***	***	***	***	***	***	***
1975-----	***	***	***	***	***	***	***	***
1976-----	***	***	***	***	***	***	***	***
1977-----	***	***	***	***	***	***	***	***
January-June--								
1977-----	***	***	***	***	***	***	***	***
1978-----	***	***	***	***	***	***	***	***
Bethlehem:								
1974-----	***	***	***	***	***	***	***	***
1975-----	***	***	***	***	***	***	***	***
1976-----	***	***	***	***	***	***	***	***
1977-----	***	***	***	***	***	***	***	***
January-June--								
1977-----	***	***	***	***	***	***	***	***
1978-----	***	***	***	***	***	***	***	***
CF & I:								
1974-----	2/	***	***	***	***	***	***	***
1975-----	***	***	***	***	***	***	***	***
1976-----	***	***	***	***	***	***	***	***
1977-----	***	***	***	***	***	***	***	***
January-June--								
1977-----	***	***	***	***	***	***	***	***
1978-----	***	***	***	***	***	***	***	***
Florida Wire & Cable:								
1974-----	***	***	***	***	***	***	***	***
1975-----	***	***	***	***	***	***	***	***
1976-----	***	***	***	***	***	***	***	***
1977-----	***	***	***	***	***	***	***	***
January-June--								
1977-----	***	***	***	***	***	***	***	***
1978-----	***	***	***	***	***	***	***	***
Total:-----								
1974-----	28,063	20,328	7,735	1,673	6,062	(83)	5,979	21.
1975-----	24,636	17,940	6,696	1,908	4,788	(125)	4,663	19.
1976-----	20,905	19,575	1,330	1,942	(612)	(198)	(810)	(2.
1977-----	24,848	24,261	587	2,314	(1,727)	(389)	(2,116)	(7.
January-June--								
1977-----	11,675	11,605	70	1,011	(941)	(125)	(1,066)	(8.
1978-----	20,980	18,708	2,272	1,487	785	(217)	568	3.

A-18

1/ American Spring Wire did not begin production of this product until 1975.

2/ Data shown do not include CF & I's Roebling plant.

Table 7.--Steel wire strand for prestressed concrete: Average unit selling price and average unit cost to manufacture, by companies, 1974-77, January-August 1977 1/, and January-August 1978 1/

Company and period	Average unit selling price	Average unit cost to manufacture	Ratio of net operating profit (loss) to net sales
	Cents per pound	Cents per pound	Percent
American Spring Wire:			
1974-----	<u>2/</u>	<u>2/</u>	<u>2/</u>
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
Armco:			
1974-----	***	***	***
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
Bethlehem:			
1974-----	***	***	***
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
CF & I:			
1974-----	***	***	***
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***
Florida Wire & Cable:			
1974-----	***	***	***
1975-----	***	***	***
1976-----	***	***	***
1977-----	***	***	***
January-August--			
1977-----	***	***	***
1978-----	***	***	***

1/ Data on the ratio of net operating profit (loss) to net sales cover only January-June 1977 and January-June 1978. A-19

2/ American Spring Wire did not begin production until 1975.

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

The sharp decline in profitability of the domestic strand producers in 1976 and 1977 was partially the result of the decline in the average unit selling price, which began in 1976 and continued in 1977, while the average unit cost to manufacture strand during the same period either increased or declined by a smaller percentage (table 7). One of the components of the increase in average unit cost to manufacture was the increase in the price of domestic wire rod, the basic raw material in strand production, between 1975 and 1976 (table 8). Expenses related to production downtime in 1976 and 1977 also contributed to the poor financial performance of the domestic industry in those years.

Table 8.--Steel wire strand for prestressed concrete: Cost of wire rod purchased by U.S. producers, by sources, 1975-77, January-August 1977, and January-August 1978

Source	1975	1976	1977	January-August--	
				1977	1978
Nonrelated U.S. producer:					
Quantity-----1,000 lb---	***	***	***	***	***
Price-----cents per lb--	***	***	***	***	***
Related U.S. producer:					
Quantity-----1,000 lb---	***	***	***	***	***
Price-----cents per lb--	***	***	***	***	***
Foreign:					
Quantity-----1,000 lb---	***	***	***	***	***
Price-----cents per lb--	***	***	***	***	***
Total:					
Quantity-----1,000 lb---	58,090	65,613	68,574	62,727	93,763
Price-----cents per lb--	14.59	15.00	14.99	14.61	16.06

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

Marked improvement in the financial performance of the domestic industry producing prestressed concrete strand occurred in January-June 1978. The strand operations of the U.S. producers showed a profit ratio of 3.7 percent compared with a loss of 8.1 percent in January-June 1977.

\* \* \* \* \*

The value of the domestic producers' total capital expenditures in connection with their operations on steel wire strand for prestressed concrete peaked in 1975 and declined significantly in 1976 and 1977 as net losses occurred in the industry (table 9). Research and development expenses associated with steel wire strand were relatively stable in 1974-76, averaging \$479,000 annually. Such expenses declined to \$407,000 in 1977.

Table 9.--Steel wire strand for prestressed concrete: Capital expenditures and research and development expenses incurred by U.S. producers, 1974-77

(In thousands of dollars)

Item	1974	1975	1976	1977
Capital expenditures:				
Land, building, and improvements-----	216	1,004	1,044	86
Machinery, equipment, and fixtures-----	1,407	2,705	1,361	1,597
Total-----	1,623	3,709	2,405	1,683
Research and development expenses-----	488	476	472	407

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

Consideration of the Causal Relationship Between LTFV Imports  
From Japan and the Alleged Injury

Market penetration of LTFV imports from Japan

All imports from Japan were not found to be sold at LTFV. Data reported hereafter with respect to imports from Japan overstate Japanese LTFV imports since one of the Japanese firms--Kawatetsu Wire Products Co.--was excluded from Treasury's determination because its weighted average margin of 0.62 percent was considered minimal in relation to the total volume of its sales and because the firm gave formal assurances that it would make no future sales at LTFV. Between June 1 and November 30, 1977, that firm supplied \* \* \* percent of the total U.S. imports of steel wire strand for prestressed concrete from Japan. Treasury found that 95.6 percent of the sales compared for the other Japanese suppliers were at LTFV.

Imports of steel wire strand for prestressed concrete from Japan fell from 68 percent of apparent domestic consumption in 1974 to 65 percent in 1975, and then dropped to 61 percent in 1976 and 1977 (table 10). This decline continued in 1978; the market penetration rate of Japanese imports was 46 percent in January-August 1978 compared with 60 percent in the corresponding period of 1977. Imports from Japan increased in absolute terms, however, rising from 110.8 million pounds in January-August 1977 to 119.5 million pounds in the corresponding period of 1978.

Table 10.--Steel wire strand for prestressed concrete: U.S. producers' shipments, exports, imports, and apparent consumption, 1966-77, January-August 1977, and January-August 1978

Period	Producers' shipments 1/	Exports 1/	Imports	Imports from Japan	Apparent consumption 2/	Ratio of imports to consumption	Ratio of imports from Japan to consumption
	: 1,000 pounds	: 1,000 pounds	: 1,000 pounds	: 1,000 pounds	: 1,000 pounds	: Percent	: Percent
1966-----	127,176	3/	112,854	109,868	240,030	47.0	45.8
1967-----	95,514	3/	93,127	89,922	188,641	49.4	47.7
1968-----	119,044	3/	138,117	131,807	257,161	53.7	51.3
1969-----	79,770	3/	164,474	160,375	244,244	67.3	65.7
1970-----	149,982	3/	200,894	197,623	350,876	57.3	56.3
1971-----	4/	3/	236,845	232,287	4/	4/	4/
1972-----	111,934	3/	274,294	264,467	386,228	71.0	68.5
1973-----	146,506	3/	294,549	286,131	441,055	66.8	64.9
1974-----	120,419	3,344	316,044	295,304	433,119	73.0	68.2
1975-----	74,103	1,523	182,409	166,750	254,989	71.5	65.4
1976-----	81,253	801	148,753	139,096	229,205	64.9	60.7
1977-----	91,599	862	199,763	176,452	290,500	68.8	60.7
Jan.-Aug--							
1977-----	61,123	307	124,833	110,822	185,956	67.1	59.6
1978-----	101,133	687	162,112	119,485	262,558	61.7	45.5

1/ Data for U.S. shipments and exports beginning with 1974 were obtained from responses to Commission questionnaires.

2/ Data for apparent consumption since 1974 were adjusted to exclude exports as reported in responses to Commission questionnaires.

3/ Data on exports are not available. Exports are believed to be negligible.

4/ Not available.

Source: Compiled from official statistics of the U.S. Department of Commerce, except as noted.

Since 1966, the first year that statistics for prestressed concrete strand shipments in the United States were collected by the Commerce Department, Japanese imports of this product have been a major factor in the U.S. market, accounting for over one-half of apparent domestic consumption in every year beginning in 1968. The peak year of market penetration for Japanese strand imports was 1972 (68.5 percent); the 61 percent market share held by these imports in 1976 and 1977 was lower than in any year since 1970. Given the dominance of Japanese imports in the U.S. market, it is apparent that imports from that country strongly influence the trend for all imports. The market share held by imports from Japan remained constant between 1976 and 1977; however, the penetration rate of total imports rose as other countries increased their market share. This trend continued in 1978 as the market penetration of imports from countries other than Japan increased between January-August 1977 and January-August 1978, while imports from Japan declined

as a percentage of apparent consumption. Domestic consumption increased by 70 percent in that time period. U.S. producers' shipments accounted for 37 percent of this gain; imports from Japan, 35 percent; and imports from other countries (principally Spain and Brazil), 28 percent.

### Lost sales

The domestic producers of steel wire strand for prestressed concrete were requested to supply evidence of any sales which they had lost to LTFV imports from Japan. The U.S. producers claimed that sales of 66.1 million lineal feet of strand, involving 73 customers, were lost to such imports in 1976 and 1977. The Commission was able to locate and discuss this matter with 55 of the cited strand purchasers; the Commission was unable either to locate a phone number for the remaining 18 purchasers or to reach a person knowledgeable of the strand purchasing decisions of that company. Of the 55 customers that provided information on their purchasing patterns, 48 companies, accounting for about 49 million lineal feet of the alleged lost sales, affirmed that they have purchased strand from Japan. Nearly three-fourths of these acknowledged purchasers of Japanese strand were buying from this source before the 1974 steel shortage; most of the remaining purchasers switched to Japanese strand during that shortage because of difficulties in obtaining domestic strand.

At least 8 of the specific lost sales mentioned by the U.S. producers, involving 5.9 million lineal feet of strand, were verified for the June-November 1977 period covered by Treasury's investigation. An additional 10 companies also stated that they had increased the proportion of their total strand purchases sourced in Japan in 1977. Inability and/or unwillingness to locate company records made it difficult to confirm purchases of any additional amounts of LTFV strand from Japan. However, about two-thirds of the customers involved in the lost sales cited by the U.S. producers had purchased substantial quantities of LTFV strand from Japan in 1977, and price was cited by 16 of the 48 purchasers as being the most important factor either in their decision to switch to Japanese imports or to continue buying from that source.

The superior quality of the Japanese strand was mentioned by 13 of the 48 Japanese strand customers as a factor in their decision to buy from that country. \* \* \* were singled out by five customers as suppliers of an inferior product in the past; these customers stated that they would not buy from these companies again because of the danger created when strand breaks while under tension. Three companies mentioned the Japanese reel or packing material as evidence of superior quality. Speed of delivery, firm price quotations covering an entire year, and availability were also cited as factors affecting decisions to purchase Japanese strand.

Eight of the purchasers contacted complained about current shortages or extended deliveries resulting from the cutback in Japanese imports after the withholding of appraisement and the inability of the domestic producers to supply demand. Some of these allegations are questionable; one purchaser cited 2 weeks as an extended delivery time, while another was having problems receiving an odd size as quickly as desired. The remaining strand purchasers contacted by the Commission did not indicate that they were experiencing any difficulties in obtaining their strand requirements.

Prices

The Commission requested pricing data on the most popular size and grade of steel wire strand for prestressed concrete (Grade 270k, 1/2", 7-wire strand). The weighted average lowest net selling prices received by U.S. producers and by importers of Japanese, Indian, South African, United Kingdom and Spanish strand are shown in table 11 on the following page. During January 1975-August 1978, prices of both U.S.-made and Japanese strand were at their highest levels (\$198 and \$208 per 1,000 lineal feet, respectively) in January-March 1975. Prices began to drop in April-June 1975 and continued to drop until mid-1977.

During the last 6 months of 1977, about the same period as Treasury's investigation, the price of imported strand from Japan (\$122 per 1,000 lineal feet) was 11 percent below the price of domestically produced strand (\$137 per 1,000 lineal feet). This margin of underselling was accounted for largely by the 9.8 percent weighted average dumping margin of the Japanese producers.

Prices of both U.S.-made and Japanese strand remained depressed at approximately the April-June 1976 level until the beginning of 1978. Prices began to climb again in 1978; by July-August 1978 the price of both U.S.-made and Japanese strand was \$160 per 1,000 lineal feet. This level was still lower than prices in effect through most of 1975. \* \* \*

Table 11.--Steel wire strand for prestressed concrete (Grade 270k, 1/2", 7-wire strand): Average lowest net selling prices received by U.S. producers and importers, by quarters, 1975-77 and January-August 1978

Period	Average lowest net selling prices of--		Ratio of average price of imported strand to U.S.-made							
	U.S.-made strand	Imports from--	Japan	India	South Africa	United Kingdom	Spain	United Kingdom	Spain	
										Japan
	Per 1,000 lineal feet	Per 1,000 lineal feet	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
1975:										
Jan.-Mar-----	\$198	\$208	105	-	-	-	-	-	-	-
Apr.-June-----	190	189	100	***	-	-	-	-	-	-
July-Sept-----	176	178	101	***	-	-	-	-	-	-
Oct.-Dec-----	165	158	96	***	-	-	-	-	-	-
1976:										
Jan.-Mar-----	156	142	91	-	***	-	-	-	-	-
Apr.-June-----	134	122	91	***	-	-	-	-	-	-
July-Sept-----	133	124	93	***	***	-	-	-	-	-
Oct.-Dec-----	132	122	92	***	-	-	-	-	-	-
1977:										
Jan.-Mar-----	131	123	94	***	***	-	-	-	-	-
Apr.-June-----	133	125	94	***	***	-	-	-	-	-
July-Sept-----	137	122	89	***	***	***	-	-	-	-
Oct.-Dec-----	137	123	90	***	***	***	-	-	-	-
1978:										
Jan.-Mar-----	148	123	83	***	***	***	-	-	-	-
Apr.-June-----	150	145	97	***	***	***	***	-	-	***
July-Aug-----	160	160	100	***	***	***	***	***	-	***

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



APPENDIX A

TREASURY DEPARTMENT LETTER TO THE COMMISSION ADVISING  
OF ITS DETERMINATION OF LTFV IMPORTS FROM JAPAN



A-28  
THE GENERAL COUNSEL OF THE TREASURY  
WASHINGTON, D.C. 20220

78 AUG 22 11 4 20 AUG 21 1978

Dear Mr. Chairman:

78 AUG 22 11 3 48

In accordance with section 201(a) of the Anti-dumping Act, 1921, as amended, you are hereby advised that steel wire strand from Japan with the exception of that produced by Kawatetsu Wire Products Company, Ltd., is being, or is likely to be, sold at less than fair value within the meaning of the Act. Treasury's investigation with respect to Kawatetsu is discontinued on the basis of minimal margins in relation to total sales and the receipt of formal price assurances that all future sales to the United States will be at not less than fair value.

For purposes of this investigation, the term "steel wire strand" means steel wire strand, other than alloy steel, stress-relieved, and suitable for use in prestressed concrete, provided for in item number 642.1120 of the Tariff Schedules of the United States, Annotated (TSUSA).

The U.S. Customs Service is making the files relative to this determination available to the International Trade Commission under separate cover. These files are for the Commission's use in connection with its investigation as to whether an industry in the United States is being, or is likely to be, injured, by reason of the importation of this merchandise into the United States. Since some of the data in these files is regarded by the Treasury to be of a confidential nature, it is requested that the Commission consider all information therein contained for the use of the Commission only, and not to be disclosed to others without prior clearance from the Treasury Department.

Sincerely yours,

Henry C. Stockell  
Acting General Counsel

The Honorable  
Joseph O. Parker  
Chairman  
U.S. International Trade Commission  
Washington, D.C. 20436

5-3-5

APPENDIX B

U.S. INTERNATIONAL TRADE COMMISSION  
NOTICE OF INVESTIGATION AND HEARING

UNITED STATES INTERNATIONAL TRADE COMMISSION  
Washington, D.C.

[AA1921-188]

## STEEL WIRE STRAND FOR PRESTRESSED CONCRETE FROM JAPAN

## Notice of Investigation and Hearing

Having received advice from the Department of the Treasury on August 22, 1978, that steel wire strand from Japan is being, or is likely to be, sold at less than fair value, the United States International Trade Commission on August 29, 1978, instituted investigation No. AA1921-188 under section 201(a) of the Antidumping Act, 1921, as amended (19 U.S.C. 160(a)), to determine whether an industry in the United States is being, or is likely to be injured, or is prevented from being established, by reason of the importation of such merchandise into the United States. For purposes of Treasury's determination, the term "steel wire strand" was defined as steel wire strand, other than alloy steel, stress-relieved and suitable for use in prestressed concrete, provided for in item number 642.1120 of the Tariff Schedules of the United States Annotated (TSUSA).

Hearing. A public hearing in connection with the investigation will be held on Tuesday, October 3, 1978, in the Commission's Hearing Room, United States International Trade Commission Building, 701 E Street, NW., Washington, D.C. 20436, beginning at 10:00 a.m., e.d.t. All persons shall have the right to appear in person or by counsel, to present evidence and to be heard. Requests to appear at the public hearing, or to intervene under the provisions of section 201(d) of the Antidumping Act, 1921, shall be filed with the Secretary of the Commission, in writing, not later than noon, Thursday, September 28, 1978.

By order of the Commission.



Kenneth R. Mason  
Secretary

A-30

Issued: August 30, 1978

