Non-Refillable Steel Cylinders from China

Investigation Nos. 701-TA-644 and 731-TA-1494 (Preliminary)

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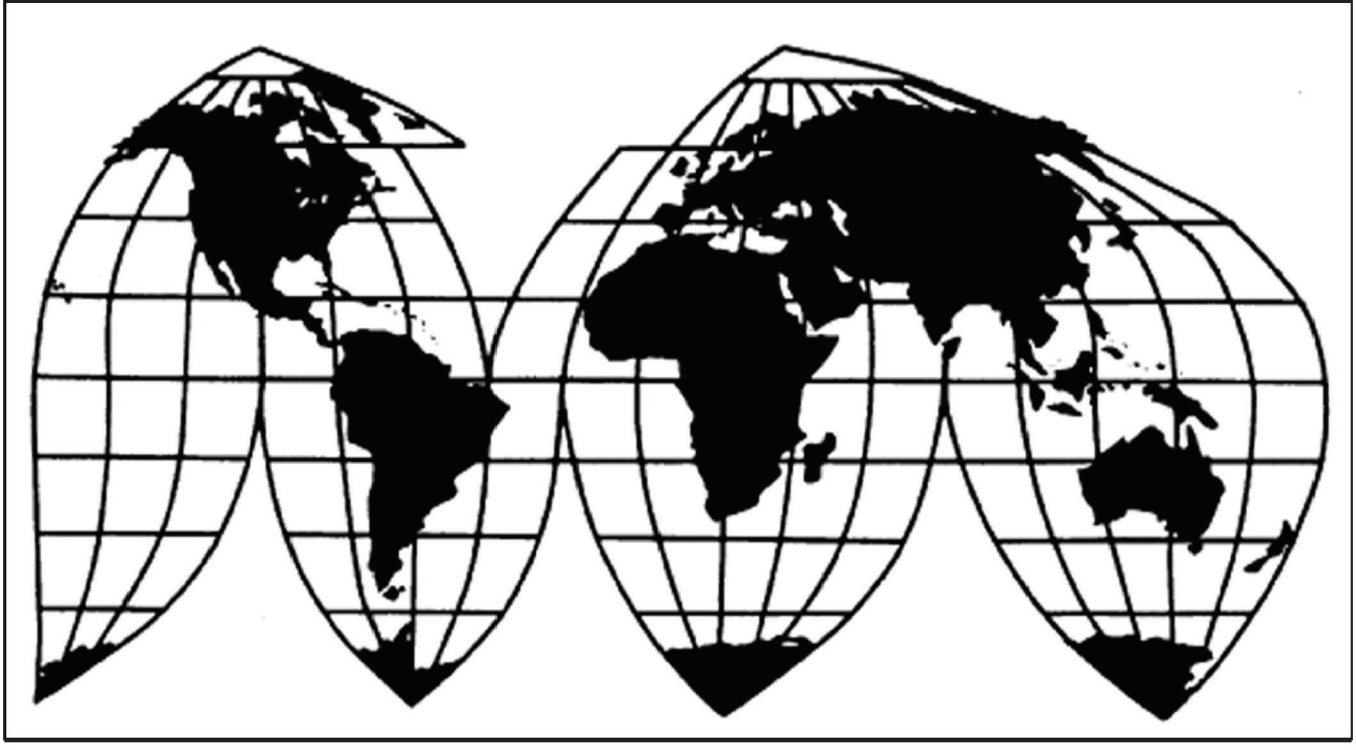
U.S. International Trade Commission



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May 2020

CONTENTS

Page

CONTENTS

Page

CONTENTS

Page

CONTENTS

Page

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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 701-TA-644 and 731-TA-1494 (Preliminary)

Non-Refillable Steel Cylinders from China

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of non-refillable steel cylinders from China, provided for in subheadings 7310.29.00 and 7311.00.00 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") and to be subsidized by the government of China.[2]

COMMENCEMENT OF FINAL PHASE INVESTIGATIONS

Pursuant to section 207.18 of the Commission's rules, the Commission also gives notice of the commencement of the final phase of its investigations. The Commission will issue a final phase notice of scheduling, which will be published in the *Federal Register* as provided in section 207.21 of the Commission's rules, upon notice from the U.S. Department of Commerce ("Commerce") of affirmative preliminary determinations in the investigations under sections 703(b) or 733(b) of the Act, or, if the preliminary determinations are negative, upon notice of affirmative final determinations in those investigations under sections 705(a) or 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigations need not enter a separate appearance for the final phase of the investigations. Industrial users, and, if the merchandise under investigation is sold at the retail level, representative consumer organizations have the right to appear as parties in Commission antidumping and countervailing duty investigations. The Secretary will prepare a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigations.

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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] 85 FR 22402 and 85 FR 22407 (April 22, 2020).

BACKGROUND

On March 27, 2020, Worthington Industries, Columbus, Ohio, filed petitions with the Commission and Commerce, alleging that an industry in the United States is materially injured or threatened with material injury by reason of subsidized and LTFV imports of non-refillable steel cylinders from China. Accordingly, effective March 27, 2020, the Commission instituted countervailing duty investigation No. 701-TA-644 and antidumping duty investigation No. 731-TA-1494 (Preliminary).

Notice of the institution of the Commission's investigations and of a conference through written testimony 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 April 2, 2020 (85 FR 18587). In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, the Commission conducted its conference through written questions, submissions of opening remarks and written testimony, written responses to questions, and postconference briefs. All persons who requested the opportunity were permitted to participate.

Views of the Commission

Based on the record in the preliminary phase of these investigations, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of non-refillable steel cylinders ("NRSCs") from China that are allegedly sold in the United States at less than fair value and subsidized by the government of China.

I. The Legal Standard for Preliminary Determinations

The legal standard for preliminary antidumping and countervailing duty determinations requires the Commission to determine, based upon the information available at the time of the preliminary determinations, whether there is a reasonable indication that a domestic industry is materially injured or threatened with material injury, or that the establishment of an industry is materially retarded, by reason of the allegedly unfairly traded imports.[1] In applying this standard, the Commission weighs the evidence before it and determines whether "(1) the record as a whole contains clear and convincing evidence that there is no material injury or threat of such injury; and (2) no likelihood exists that contrary evidence will arise in a final investigation."[2]

II. Background

Worthington Industries, Inc. ("Worthington"), the sole known U.S. producer of NRSCs, filed the petitions in these investigations on March 27, 2020. Worthington submitted opening remarks, witness testimony, responses to staff questions, and a postconference brief.[3]

One respondent entity participated in these investigations. National Refrigerants, Inc. ("National"), an importer of subject merchandise, submitted a postconference brief responding to staff questions.

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[1] 19 U.S.C. §§ 1671b(a), 1673b(a) (2000); *see also American Lamb Co. v. United States*, 785 F.2d 994, 1001-04 (Fed. Cir. 1986); *Aristech Chem. Corp. v. United States, 2*0 CIT 353, 354-55 (1996). No party argues that the establishment of an industry in the United States is materially retarded by the allegedly unfairly traded imports.

[2] *American Lamb Co*., 785 F.2d at 1001; *see also Texas Crushed Stone Co. v. United States*, 35 F.3d 1535, 1543 (Fed. Cir. 1994).

[3] In light of the restrictions on access to the Commission building due to the COVID-19 pandemic, the Commission conducted its staff conference in these investigations through written remarks, testimony, responses to questions, and post-conference briefs as set forth in procedures provided to the parties.

U.S. industry data are based on the questionnaire response of Worthington, which accounted for 100 percent of U.S. production of NRSCs during 2019.[4] U.S. import data are based on the questionnaire responses of seven importers and from proprietary *** records for ***, which together accounted for an estimated *** percent of subject imports.[5] The Commission did not receive any response to its questionnaires from foreign producers, but it did receive responses to its questionnaires from two exporters of subject merchandise, accounting for approximately *** percent of U.S. imports of subject merchandise in 2019.[6]

III. Domestic Like Product

In determining whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the "domestic like product" and the "industry."[7] Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Tariff Act"), defines the relevant domestic industry as the "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[8] In turn, the Tariff Act defines "domestic 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."[9]

By statute, the Commission's "domestic like product" analysis begins with the "article subject to an investigation," *i.e.*, the subject merchandise as determined by Commerce.[10]

[4] Confidential Report ("CR")/Public Report ("PR") at I-4.
[5] CR/PR at I-4.
[6] CR/PR at VII-3.
[7] 19 U.S.C. § 1677(4)(A).
[8] 19 U.S.C. § 1677(4)(A).
[9] 19 U.S.C. § 1677(10).
[10] 19 U.S.C. § 1677(10). The Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value. *See*, *e.g.*, *USEC, Inc. v. United States*, 34 Fed. App'x 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States,* 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

Therefore, Commerce's determination as to the scope of the imported merchandise that is subsidized and/or sold at less than fair value is "necessarily the starting point of the Commission's like product analysis."[11] The Commission then defines the domestic like product in light of the imported articles Commerce has identified.[12] The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[13] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[14] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[15] The Commission may, where appropriate, include domestic articles in the domestic like product in addition to those described in the scope.[16]

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[11] *Cleo Inc. v. United States*, 501 F.3d 1291, 1298 (Fed. Cir. 2007); *see also Hitachi Metals, Ltd. v. United States*, Case No. 19-1289, slip op. at 8-9 (Fed. Cir. Feb. 7, 2020) (the statute requires the Commission to start with Commerce's subject merchandise in reaching its own like product determination).

[12] *Cleo*, 501 F.3d at 1298 n.1 ("Commerce's {scope} finding does not control the Commission's {like product} determination."); *Hosiden Corp. v. Advanced Display Mfrs.,* 85 F.3d 1561, 1568 (Fed. Cir. 1996) (the Commission may find a single like product corresponding to several different classes or kinds defined by Commerce); *Torrington*, 747 F. Supp. at 748–52 (affirming the Commission's determination defining six like products in investigations where Commerce found five classes or kinds).

[13] *See*, *e.g.*, *Cleo*, 501 F.3d at 1299; *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996).

[14] *See*, *e.g.*, S. Rep. No. 96-249 at 90–91 (1979).

[15] *See*, *e.g.*, *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748–49*; see also* S. Rep. No. 96-249 at 90–91 (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

[16] *See*, *e.g.*, *Pure Magnesium from China and Israel*, Inv. Nos. 701-TA-403 and 731-TA-895-96 (Final), USITC Pub. 3467 at 8 n.34 (Nov. 2001); *Torrington,* 747 F. Supp. at 748-49 (holding that the Commission is not legally required to limit the domestic like product to the product advocated by the petitioner, coextensive with the scope).

In its notice of initiation, Commerce defined the imported merchandise within the scope of these investigations as follows:

> The merchandise covered by these investigations is certain seamed (welded or brazed), non-refillable steel cylinders meeting the requirements of, or produced to meet the requirements of, U.S. Department of Transportation (USDOT) Specification 39, TransportCanada Specification 39M, or United Nations pressure receptacle standard ISO 11118 and otherwise meeting the description provided below (non-refillable steel cylinders). The subject non-refillable steel cylinders are portable and range from 300-cubic inch (4.9 liter) water capacity to 1,526-cubic inch (25 liter) water capacity. Subject non-refillable steel cylinders may be imported with or without a valve and/or pressure release device and unfilled at the time of importation.
>
> Specifically excluded are seamless nonrefillable steel cylinders.
>
> The merchandise subject to this investigation is properly classified under statistical reporting numbers 7311.00.0060 and 7311.00.0090 of the Harmonized Tariff Schedule of the United States (HTSUS). The merchandise may also enter under HTSUS statistical reporting numbers 7310.29.0025 and 7310.29.0050. Although the HTSUS statistical reporting numbers are provided for convenience and customs purposes, the written description of the merchandise is dispositive.[17]

NRSCs are portable, non-reusable steel containers designed to store, transport, and dispense compressed or liquefied gases or liquid materials for a wide variety of end-use applications. Some common contents and end uses include: (1) refrigerant gases for refrigeration and air-conditioning applications; (2) helium for inflating retail and commercial balloons; (3) gases for medical and industrial applications; and (4) various liquid chemical mixtures such as foam insulations, sealants, and adhesives for residential and commercial

[17] *Certain Non-Refillable Steel Cylinders From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 85 Fed. Reg. 22402, 22406-7 (Dep't Commerce Apr. 22, 2020); *Certain Non-Refillable Steel Cylinders From the People's Republic of China: Initiation of Countervailing Duty Investigation,* 85 Fed. Reg. 22407, 22410 (Dep't Commerce Apr. 22, 2020). Although Worthington's proposed scope in its petitions included both unfilled and filled cylinders, Commerce initiated these investigations only for unfilled non-refillable cylinders, subject to further clarification, as warranted. CR/PR at I-7 n. 16.

construction applications. Generally, the empty cylinders are sold to customers who fill them with gases or liquid chemical mixtures that are then sold to end users for each specific application. The record indicates that both domestically produced and imported NRSCs are manufactured by similar processes to meet the same technical specifications required for the U.S. market.[18]

A. Arguments of the Parties

Worthington argues that the Commission should define a single domestic like product, coextensive with the scope.[19] National does not dispute Worthington's proposed definition of the domestic like product.

B. Analysis and Conclusion

Based on the record, we define a single domestic like product consisting of NRSCs, coextensive with the scope.

Physical Characteristics and Uses. As described above, all NRSCs are portable, non-reusable steel containers, which are designed to store, transport, and dispense compressed or liquefied gases or other liquid materials, including refrigerant gases for refrigeration and air-conditioning applications, helium for inflating retail and commercial balloons, gases for medical and industrial applications, various liquid chemical mixtures such as foam insulations, sealants, and adhesives for residential and commercial construction applications. NRSCs consist of a two-piece welded tank that features two ports, for the one-way dispensing valve and a pressure-release device, along with a double-handled handling collar on top, and they are coated with a liquid paint. In the U.S. market, NRSCs are typically designed to U.S. Department of Transportation ("USDOT") Specification 39 but may alternatively be designed to meet

[18] CR/PR at I-9 – I-10.

[19] Petitioner Postconference Br. at 12. Worthington notes that the scope of these investigations included in Commerce's initiation differs from the scope that it proposed in the petitions, which included all NRSCs, whether filled or unfilled. For purposes of the preliminary phase of these investigations, Worthington contends that the Commission should define the domestic like product coextensive with the scope and does not expressly urge the Commission to expand its definition; however, it indicates that it will seek to have filled NRSCs included in the scope for any final phase of these investigations. Petitioner Postconference Br. at 6. At times, Worthington erroneously states that the scope includes both filled and unfilled NRSCs, and, in doing so, contends that they comprise a single domestic like product; nonetheless, Worthington does not explicitly address the like product factors regarding filled and unfilled NRSCs. Petitioner Postconference Br., Exh. 1 at 36-39. In any final phase of these investigations, we intend to consider any properly raised domestic like product arguments – including whether filled NRSCs should be included in the definition of the domestic like product.

TransportCanada ("TC") Specification 39M or United Nations pressure receptacle standard International Standards Organization ("UNISO") 11118 for hazardous material packaging.[20] NRSCs can range in size but the 9.5-inch (822 cubic inches) cylinder is the most commonly available size both in the United States and worldwide.[21]

These physical characteristics and end uses distinguish NRSCs from other products. As Worthington explains, refillable cylinders, such as those filled with propane gas, are distinct from NRSCs because they are designed to be re-used over long periods of time, have sturdy collars, foot rings, two-way valves, and are finished with powder coating instead of liquid paint. In addition, NRSCs have different end uses because the nature of refrigerant gases and other liquid chemical mixtures precludes the re-use as required by USDOT Specification 39. Although other cylinders might also be non-refillable, they differ in terms of their smaller size (less than 300-cubic inch capacity), different design (elongated bodies with only one port), and different end uses, *i.e.,* to contain and ignite gases such as propane, propylene, or butane to be used as a hand-held flame source for camping and other purposes. In addition, seamless cylinders are also distinguishable from NRSCs because they do not have the weld combining two tank-body halves and typically have thicker tank walls to accommodate higher pressures for industrial and medical gases such as argon, nitrogen, or oxygen. Further, certain cylinders are produced from different material (*e.g.,* aluminum) than NRSCs in order to contain reactive gases that cannot be stored in a steel container, such as ammonia, ethylene oxide, hydrogen sulfide, nitric oxide, nitrogen dioxide, or sulfur dioxide.[22]

Manufacturing Facilities, Production Processes and Employees. According to Worthington, all NRSCs are produced using flat-rolled, cold-rolled steel in the same basic manufacturing process. Other cylinders are made using different production processes, on different lines and/or in different facilities, and made by different employees. In particular, the manufacturing process for a seamless cylinder – typically the extrusion and drawing of a steel or aluminum blank – is different from the production process for welded NRSCs. Moreover, the

[20] USDOT Specification 39 provides the steel specification for the tank body, welding or brazing requirements, wall thickness, markings, testing, and other technical requirements; it also specifies that the cylinders be non-reusable (*i.e.*, non-refillable). CR/PR at I-9.

[21] CR/PR at I-10. NRSCs can range in size from 300 cubic inches to 1,526 cubic inches of water capacity. In the U.S. market, common NRSC sizes are 7.5-inch diameter (438 cubic inches of water capacity), 9-inch diameter (739 cubic inches), 9.5-inch diameter (822 cubic inches), and 12-inch diameter (1,378 cubic inches), although they are also available in other sizes. *Id.*

[22] CR/PR at I-11; Petition at 13 & Exh. GEN-3, USDOT Specification 39 (39 C.F.R. § 178.65); Petitioner Postconference Br. at 9-10 & Exhs. 3, 11, Testimony of Powers at 2.

production equipment and finishing steps to produce aluminum cylinders also differ from the equipment and steps required to manufacture NRSCs.[23]

Channels of Distribution. The record indicates that domestically produced NRSCs are all sold through the same channels of distribution to customers that fill the cylinders with a gas or liquid chemical mixture.[24]

Interchangeability. The record in the preliminary phase of these investigations indicates that domestically produced NRSCs are interchangeable. All NRSCs must be produced to meet certain safety standards for authorized storage and transport of hazardous gas or liquid chemicals in the United States, such as USDOT Specification 39, TC Specification 39M, or UNISO 11118. In addition, although NRSCs are produced in different sizes and pressure ratings, the record in the preliminary phase of these investigations indicates that there are no clear dividing lines among the different types of NRSCs. According to Worthington, while customers have come to expect one or more common sizes for their particular end-use application, NRSCs are all interchangeable with each other and may be used across the full range of end uses.[25]

By contrast, the record indicates that NRSCs are not interchangeable with other types of cylinders. Smaller non-refillable cylinders are not interchangeable with NRSCs due to differences in physical characteristics and design. Similarly, NRSCs cannot be used in certain end uses that require seamless steel or aluminum cylinders. Welded NRSCs may only be used for low-pressure applications up to approximately 500 pounds per square inch ("psi") due to the cylinder design and the potential for failure or rupture at higher pressures. Aluminum cylinders are mandated for storage of reactive specialty gases that react adversely with carbon steel.[26]

Producer and Customer Perceptions. According to Worthington, its customers and end users perceive all NRSCs to be the same product due to their size, their design to store, transport, and deliver gases (particularly refrigerants) and liquid chemical mixtures for certain applications, and their certification to USDOT Specification 39 or other standards. By contrast, Worthington and its customers do not perceive refillable, non-steel, or smaller cylinders to be similar or interchangeable with NRSCs.[27]

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[23] Petitioner Postconference Br. at 9-10 & Exh. 3.
[24] Petitioner Postconference Br. at 11.
[25] Petitioner Postconference Br. at 10-11 & Exhs. 2, 3.
[26] Petitioner Postconference Br. at 9 & Exh. 3 at 2.
[27] Petitioner Postconference Br. at 11-12.

Price. The record indicates that all NRSCs are sold within a range of similar prices that vary based on differences in sizes and pressure ratings, which impact the cost of production. Smaller non-refillable cylinders are sold at different prices due to their size and different production process; seamless and aluminum cylinders vary significantly in price due to their more costly input materials, manufacturing processes, and specialized end uses.[28]

Conclusion. For the purposes of the preliminary phase of these investigations, we define a single domestic like product, coextensive with the scope in these investigations. All NRSCs are portable, non-reusable steel containers designed to store, transport, and dispense compressed or liquefied gases or other liquid materials. They share the same physical design and must meet specified safety standards for sale in the U.S. market. In addition, all domestically produced NRSCs are interchangeable, sold through the same channels of distribution, and perceived by producers and customers to be the same product. Although they can be produced in a range of sizes and prices, with a variety of end-use applications, there are no clear dividing lines among different NRSCs. By contrast, the record indicates that there are clear dividing lines that distinguish NRSCs from other types of cylinders in terms of physical characteristics, end uses, manufacturing processes, and prices, which preclude NRSCs and other types of cylinders from being used interchangeably in the same end uses. For the foregoing reasons and in the absence of contrary argument, for purposes of the preliminary phase of these investigations we define a single domestic like product, coextensive with the scope.[29]

IV. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes

[28] Petitioner Postconference Br. at 12.

[29] As explained above, the scope of these investigations included in Commerce's initiation notices differs from the scope that it proposed in the petitions, which included all NRSCs, whether filled or unfilled. For purposes of the preliminary phase of these investigations, Worthington contends that the Commission should define the domestic like product coextensive with the scope initiated by Commerce and does not expressly urge the Commission to expand its definition; however, it indicates that it will seek to have filled NRSCs included in the scope for any final phase of these investigations. Petitioner Postconference Br. at 6. In any final phase of these investigations, we invite parties to comment on the draft questionnaires with explicit proposals of the information to be collected so that the Commission may consider, using its six factor analysis, whether filled and unfilled NRSCs should be included in the same domestic like product definition, irrespective of whether or not they are included in the scope.

a major proportion of the total domestic production of the product."[30] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

There are no related party or any other domestic industry issues in the preliminary phase of these investigations. Consequently, for purposes of the preliminary phase of these investigations, we define the domestic industry as consisting of all U.S. producers of NRSCs. Worthington is the sole known U.S. producer of NRSCs.

V. Negligible Imports

Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than 3 percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible.[31]

Based on U.S. importer questionnaire responses and proprietary *** records, subject imports from China accounted for *** percent of total imports of NRSCs, by quantity, during March 2019 through February 2020, the 12-month period preceding the filing of the petitions.[32] Accordingly, the subject imports are not negligible.

VI. Reasonable Indication of Material Injury by Reason of Subject Imports

A. Legal Standard

In the preliminary phase of antidumping and countervailing duty investigations, the Commission determines whether there is a reasonable indication that an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[33] In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production

[30] 19 U.S.C. § 1677(4)(A).

[31] 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B); *see also* 15 C.F.R. § 2013.1 (developing countries for purposes of 19 U.S.C. § 1677(36)).

[32] CR/PR at Table IV-3.

[33] 19 U.S.C. §§ 1671b(a), 1673b(a).

operations.[34] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[35] In assessing whether there is a reasonable indication that the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[36] No single factor is dispositive, and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[37]

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[38] it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the Commission's reasonable exercise of its discretion.[39] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[40]

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might

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[34] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[35] 19 U.S.C. § 1677(7)(A).

[36] 19 U.S.C. § 1677(7)(C)(iii).

[37] 19 U.S.C. § 1677(7)(C)(iii).

[38] 19 U.S.C. §§ 1671b(a), 1673b(a).

[39] *Angus Chemical Co. v. United States*, 140 F.3d 1478, 1484-85 (Fed. Cir. 1998) ("{T}he statute does not 'compel the commissioners' to employ {a particular methodology}."), *aff'g,* 944 F. Supp. 943, 951 (Ct. Int'l Trade 1996).

[40] The Federal Circuit, in addressing the causation standard of the statute, observed that "{a}s long as its effects are not merely incidental, tangential, or trivial, the foreign product sold at less than fair value meets the causation requirement." *Nippon Steel Corp. v. USITC*, 345 F.3d 1379, 1384 (Fed. Cir. 2003). This was further ratified in *Mittal Steel Point Lisas Ltd. v. United States*, 542 F.3d 867, 873 (Fed. Cir. 2008), where the Federal Circuit, quoting *Gerald Metals, Inc. v. United States*, 132 F.3d 716, 722 (Fed. Cir. 1997), stated that "this court requires evidence in the record 'to show that the harm occurred "by reason of" the LTFV imports, not by reason of a minimal or tangential contribution to material harm caused by LTFV goods.'" *See also Nippon Steel Corp. v. United States*, 458 F.3d 1345, 1357 (Fed. Cir. 2006); *Taiwan Semiconductor Industry Ass'n v. USITC*, 266 F.3d 1339, 1345 (Fed. Cir. 2001).

include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material injury threshold.[41] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[42] Nor does the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[43] It is clear

[41] SAA at 851-52 ("{T}he Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports."); S. Rep. 96-249 at 75 (1979) (the Commission "will consider information which indicates that harm is caused by factors other than less-than-fair-value imports."); H.R. Rep. 96-317 at 47 (1979) ("in examining the overall injury being experienced by a domestic industry, the ITC will take into account evidence presented to it which demonstrates that the harm attributed by the petitioner to the subsidized or dumped imports is attributable to such other factors;" those factors include "the volume and prices of nonsubsidized imports or imports sold at fair value, contraction in demand or changes in patterns of consumption, trade restrictive practices of and competition between the foreign and domestic producers, developments in technology and the export performance and productivity of the domestic industry"); *accord Mittal Steel*, 542 F.3d at 877.

[42] SAA at 851-52 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports."); *Taiwan Semiconductor Industry Ass'n,* 266 F.3d at 1345 ("{T}he Commission need not isolate the injury caused by other factors from injury caused by unfair imports ... . Rather, the Commission must examine other factors to ensure that it is not attributing injury from other sources to the subject imports." (emphasis in original)); *Asociacion de Productores de Salmon y Trucha de Chile AG v. United States*, 180 F. Supp. 2d 1360, 1375 (Ct. Int'l Trade 2002) ("{t}he Commission is not required to isolate the effects of subject imports from other factors contributing to injury" or make "bright-line distinctions" between the effects of subject imports and other causes.); *see also Softwood Lumber from Canada*, Inv. Nos. 701-TA-414 and 731-TA-928 (Remand), USITC Pub. 3658 at 100-01 (Dec. 2003) (Commission recognized that "{i}f an alleged other factor is found not to have or threaten to have injurious effects to the domestic industry, *i.e*., it is not an 'other causal factor,' then there is nothing to further examine regarding attribution to injury"), *citing Gerald Metals,* 132 F.3d at 722 (the statute "does not suggest that an importer of LTFV goods can escape countervailing duties by finding some tangential or minor cause unrelated to the LTFV goods that contributed to the harmful effects on domestic market prices.").

[43] S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

that the existence of injury caused by other factors does not compel a negative determination.[44]

Assessment of whether material injury to the domestic industry is "by reason of" subject imports "does not require the Commission to address the causation issue in any particular way" as long as "the injury to the domestic industry can reasonably be attributed to the subject imports."[45] The Commission ensures that it has "evidence in the record" to "show that the harm occurred "by reason of' the LTFV imports," and that it is "not attributing injury from other sources to the subject imports." [46] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[47]

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.[48] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[49]

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[44] *See Nippon Steel Corp*., 345 F.3d at 1381 ("an affirmative material-injury determination under the statute requires no more than a substantial-factor showing. That is, the 'dumping' need not be the sole or principal cause of injury.").

[45] *Mittal Steel*, 542 F.3d at 876 &78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.") *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75. In its decision in *Swiff-Train v. United States*, 793 F.3d 1355 (Fed. Cir. 2015), the Federal Circuit affirmed the Commission's causation analysis as comporting with the Court's guidance in *Mittal*.

[46] *Mittal Steel*, 542 F.3d at 873 (quoting from *Gerald Metals*, 132 F.3d at 722), 877-79. We note that one relevant "other factor" may involve the presence of significant volumes of price-competitive nonsubject imports in the U.S. market, particularly when a commodity product is at issue. In appropriate cases, the Commission collects information regarding nonsubject imports and producers in nonsubject countries in order to conduct its analysis.

[47] *Nucor Corp. v. United States*, 414 F.3d 1331, 1336, 1341 (Fed. Cir. 2005); *see also Mittal Steel*, 542 F.3d at 879 ("*Bratsk* did not read into the antidumping statute a Procrustean formula for determining whether a domestic injury was 'by reason' of subject imports.").

[48] We provide in our discussion below a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

[49] *Mittal Steel*, 542 F.3d at 873; *Nippon Steel Corp*., 458 F.3d at 1350, *citing U.S. Steel Group*, 96 F.3d at 1357; S. Rep. 96-249 at 75 ("The determination of the ITC with respect to causation is ... complex and difficult, and is a matter for the judgment of the ITC.").

B. Conditions of Competition and the Business Cycle

The following conditions of competition inform our analysis of whether there is a reasonable indication of material injury by reason of subject imports.

1. Captive Production

The domestic industry captively consumes a portion of its production of NRSCs in the manufacture of downstream articles, ***.[50] We therefore consider the applicability of the statutory captive production provision.[51]

Worthington contends that the threshold requirement and both prongs of the captive consumption provision are met in this case. It also argues that in both the total market and merchant market,[52] subject imports' market share was significant and increasing over the period of investigation.[53] No respondent addressed the captive production issue.

Threshold Criterion. The captive production provision can be applied only if, as a threshold matter, significant production of the domestic like product is internally transferred and significant production is sold in the merchant market. In these investigations, internal

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[50] CR/PR at III-8.

[51] The captive production provision, 19 U.S.C. § 1677(7)(C)(iv), as amended by the Trade Preferences Extension Act of 2015, provides:

(iv) CAPTIVE PRODUCTION – If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that-

> (I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product, and
>
> (II) the domestic like product is the predominant material input in the production of that downstream article

then the Commission, in determining market share and the factors affecting financial performance set forth in clause (iii), shall focus primarily on the merchant market for the domestic like product.

The SAA indicates that where a domestic like product is transferred internally for the production of another article coming within the definition of the domestic like product, such transfers do not constitute internal transfers for the production of a "downstream article" for purposes of the captive production provision. SAA at 853.

[52] The "merchant market" excludes internal transfers for processing into downstream articles that do not enter the commercial market, while the "total market" includes all sales including internal transfers. *See* CR/PR at III-8 to III-9.

[53] Petitioner Postconference Br., Exh. 1 at 39-40.

consumption accounted for *** percent of the domestic industry's U.S. shipments of NRSCs in 2017, *** percent in 2018, and *** percent in 2019.[54] Commercial U.S. shipments accounted for *** percent of the domestic industry's total U.S. shipments in 2017, *** percent in 2018, and *** percent in 2019.[55] We find that both internal consumption and merchant market sales constitute significant portions of the domestic industry's production, and therefore the threshold criterion for applying the captive production provision is met.

First Statutory Criterion. The first criterion examines whether a portion of the domestic like product that is internally transferred for processing into downstream articles is instead sold in the merchant market.[56] Worthington did not report diverting NRSCs intended for internal consumption to the merchant market, stating that the internally transferred NRSCs, once *** do not enter the merchant market for the domestic like product.[57]

[54] CR/PR at Table III-5. Internal consumption was *** units in 2017, *** units in 2018, and *** units in 2019. The domestic industry's U.S. shipments of NRSCs were *** units in 2017, *** units in 2018, and *** units in 2019. *Id.*

[55] CR/PR at Table III-5. Commercial U.S. shipments were *** units in 2017, *** units in 2018, and *** units in 2019. *Id.*

[56] *See*, *e.g.*, *Hot-Rolled Steel Products from Argentina and South Africa*, Inv. Nos. 701-TA-404, 731-TA-898, 905 (Final), USITC Pub. 3446 at 15-16 (Aug. 2001); *Certain Cold-Rolled Steel Products from Argentina, Brazil, China, Indonesia, Japan, Russia, Slovakia, South Africa, Taiwan, Turkey and Venezuela*, Inv. Nos. 701-TA-393 and 731-TA-829-40 (Final) (Remand), USITC Pub. 3691 at 2 & n.19 (May 2004).

[57] CR/PR at III-9.

Second Statutory Criterion. In applying the second statutory criterion, the Commission generally considers whether the domestic like product is the predominant material input into a downstream product by referring to its share of the raw material cost of the downstream product, but has also construed "predominant" material input to mean the main or strongest element, and not necessarily a majority, of the inputs by value.[58] In these investigations, the record indicates that NRSCs reportedly comprise *** percent of the finished cost of downstream ***.[59] Therefore, we find that this criterion is satisfied in these investigations.[60]

Conclusion. We conclude that all criteria for application of the captive production provision are satisfied in these investigations and, accordingly, we focus primarily on the merchant market in analyzing the market share and financial performance of the domestic industry.[61]

2. Demand Conditions

Demand for NRSCs is derived from the downstream products in which they are used. NRSCs can be filled with a range of materials for a variety of end uses including gases for refrigeration and air conditioning applications, helium for balloons for retail or commercial use, gases for medical and industrial applications, and other materials such as foam insulation and sealant in residential and commercial sectors.[62]

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[58] *See generally*, *e.g.*, *Polyethylene Terephthalate Film, Sheet and Strip from Brazil, China, Thailand, and the United Arab Emirates*, Inv. Nos. 731-TA-1131-1134 (Final), USITC Pub. 4040 at 17 n.103 (Oct. 2008); *Polyethylene Terephthalate Film, Sheet, and Strip from India and Taiwan*, Inv. Nos. 701-TA-415 and 731-TA-933-934 (Final), USITC Pub. 3518 at 11 & n.51 (June 2002). The Commission has construed "predominant" material input to mean the main or strongest element, and not necessarily a majority, of the inputs by value. *See Polyvinyl Alcohol from Germany and Japan*, Inv. Nos. 731-TA-1015-16 (Final), USITC Pub. 3604 at 15 n.69 (June 2003).

[59] *** CR/PR at III-9 n.18; Petitioner Postconference Br., Exh. 1 at 39-40.

[60] *See Carbon and Certain Alloy Steel Wire Rod from Belarus, Russia, and the United Arab Emirates*, Inv. Nos. 731-TA-1349, 1352, and 1357 (Final), USITC Pub. 4752 at 26-27 (Jan. 2018) (finding second statutory criterion satisfied when reporting domestic producers indicated that wire rod accounted for the majority of the finished cost of a number of downstream products).

[61] In addition to the merchant market, we also have considered the market as a whole. We observe that the data trends are substantially the same for both the merchant and total markets. Further, we note that there is only one U.S. producer of NRSCs. Thus, we primarily discuss the merchant market data in our analysis and findings below. *See* CR/PR at Table C-2 ("merchant market"); *see also* CR/PR at Table C-1 ("total market").

[62] CR/PR at II-1.

During the period of investigation, demand as measured by apparent U.S. consumption, by quantity, remained relatively flat – increasing just *** percent from 2017 to 2019. In the merchant market, it was *** units in 2017, *** units in 2018, and *** units in 2019.[63]

3. Supply Conditions

During the period of investigation, Worthington was the largest source of supply to the U.S. market, although its market share declined overall by *** percentage points. In the merchant market, Worthington's market share was *** percent in 2017, *** percent in 2018, and *** percent in 2019.[64] In 2017, Worthington became the sole U.S. producer of NRSCs after it acquired the operations of Amtrol, Inc. ("Amtrol").[65]

Subject imports were the other major source of supply of NRSCs to the U.S. market, increasing their share, by quantity, overall in the merchant market during the period of investigation by *** percentage points. In the merchant market, subject import market share, by quantity, was *** percent of apparent U.S. consumption in 2017, *** percent in 2018, and *** percent in 2019.[66] Nonsubject imports were only present in the last year of the period of investigation, accounting for only *** percent, by quantity, of the merchant market.[67]

4. Substitutability and Other Conditions

The record indicates that the domestic like product and subject imports are highly substitutable. All NRSCs sold in the U.S. market are produced to meet USDOT Specification 39 or other applicable standards. Most market participants reported that NRSCs produced in the

[63] CR/PR at Table C-2. In the total market, apparent U.S. consumption was *** units in 2017, *** units in 2018, and *** in 2019. CR/PR at Table C-1. Thus, apparent U.S. consumption, by quantity, in the total market increased *** percent during the period of investigation (2017-19). Worthington believes that apparent U.S. consumption data in these investigations are likely understated due to missing importer data. Petitioner Postconference Br. at 13-14.

[64] CR/PR at Table C-2. Thus, Worthington's market share in the merchant market declined by *** percentage points, by quantity, during the period of investigation (2017-19). In the total market, Worthington's market share was *** percent in 2017, *** percent in 2018, and *** percent in 2019. CR/PR at Table C-1. Thus, Worthington's market share in the total market declined by *** percentage points, by quantity, over the period of investigation.

[65] CR/PR at Tables III-1, III-3. In 2018, Worthington shut down one of the production lines that it acquired from Amtrol. *Id.*

[66] CR/PR at Table C-2. In the total market, subject import market share was *** percent in 2017, *** percent in 2018, and *** percent in 2019. CR/PR at Table C-1. Thus, in the total market, subject import market share increased by *** percentage points during the period of investigation (2017-19).

[67] CR/PR at Table C-2. Nonsubject imports accounted for only *** percent, by quantity, of the total market in 2019. CR/PR at Table C-1.

United States and China are always or frequently interchangeable,[68] and National characterizes NRSCs from both sources as "basically interchangeable," although it identifies some differences in the products.[69]

The record also indicates that price is an important purchasing factor, although other factors are also important. Most market participants reported that differences other than price are only sometimes or never significant.[70] Quality was the most frequently reported top purchasing factor.[71] Price was the second most frequently reported top purchasing factor, although more purchasers reported availability/lead time as one of their top three purchasing factors.[72] National asserts diversity of supply, timeliness, and quality are all critical purchasing factors because the U.S. refrigerant industry cannot rely on a single supplier without risking significant supply disruptions. National reports that ***.[73] Similarly, purchaser/importer *** reported that it moved its supply chain to China ***.[74]

In 2019, *** percent of Worthington's U.S. shipments of NRSCs were sold from inventories, while the remainder was produced-to-order.[75] According to Worthington, lead times for its NRSCs sold from inventory averaged *** days, while lead times for its NRSCs produced-to-order averaged *** days.[76] U.S. importers did not report any commercial U.S. shipments of unfilled NRSCs.[77] Rather, U.S. importers ***.[78] Importer *** reported that lead time for NRSCs produced in China is 60 days while the lead time for domestically produced NRSCs is typically 90-120 days, depending on the time of year.[79] National claims that after Worthington acquired Amtrol, ***.[80]

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[68] CR/PR at Table II-7.

[69] National Postconference Br. at 1-2, 5-7.

[70] CR/PR at Table II-8.

[71] CR/PR at Table II-5. Three purchasers reported that quality was their top purchasing factor, two reported that price was their top purchasing factor, and one reported that availability/lead times was its top purchasing factor. *Id.*

[72] CR/PR at Table II-5. Seven purchasers reported quality to be among their top three purchasing factors, while six reported availability/lead times and four reported price to be among their top three purchasing factors. *Id.*

[73] National Postconference Br. at 1-2, 5-7.

[74] CR/PR at V-12. *** for moving its supply chain to China. *Id.*

[75] CR/PR at II-7.

[76] CR/PR at II-7.

[77] CR/PR at II-7, V-2 – V-3.

[78] CR/PR at V-2, V-4.

[79] CR/PR at II-8.

[80] CR/PR at II-8; National Postconference Br. at 4.

Worthington reported selling NRSCs primarily through *** in 2019.[81] Worthington reported setting prices for NRSCs through transaction-by-transaction negotiations, price lists, and other methods.[82] It also reported that it uses *** and that ***.[83] Responding U.S. importers reported selling *** on a transaction-by-transaction basis.[84]

NRSCs are typically made from cold-rolled steel.[85] During the period of investigation, ***.[86] Steel raw material costs were impacted by the additional duties imposed pursuant to section 232 of the Trade Expansion Act of 1962 ("section 232 tariffs").[87] According to Worthington, section 232 tariffs led to fluctuating and increasing prices of raw materials.[88] This prompted Worthington ***.[89] All three responding importers reported that NRSC prices did not change in response to the 232 tariffs.[90] Worthington's merchant market unit raw material costs increased from $*** in 2017 to $*** in 2019.[91] Raw materials as a share of total cost of goods sold ("COGS") in the merchant market decreased somewhat during the period of investigation from *** percent in 2017 to *** percent in 2019.[92]

Since September 2018, subject imports have been subject to additional duties ranging from 10 to 25 percent pursuant to section 301 of the Trade Act of 1974.[93] Worthington reported ***; two of three responding importers also reported that the imposition of tariffs on

[81] CR/PR at Table V-2.
[82] CR/PR at Table V-1.
[83] CR/PR at V-2 – V-3.
[84] CR/PR at V-2 – V-3 & Table V-1.
[85] CR/PR at V-1.
[86] CR/PR at V-1 & Figure V-1.
[87] 19 U.S.C. § 1862; CR/PR at V-1.
[88] CR/PR at V-1, V-10.
[89] CR/PR at V-1, V-10 – V-11, VI-5 n.8.
[90] CR/PR at V-11. Thus, raw materials as share of total COGs decreased *** percentage points during the period of investigation (2017-19). CR/PR at V-1.
[91] *Derived from* April 27, 2020 Email from ***, EDIS Doc. 709505. Worthington's total market unit raw material costs rose from $*** in 2017 to $*** in 2019. CR/PR at Table VI-1. Worthington's raw material costs comprised *** percent of the cost of goods sold in the merchant market in 2019 while other factory costs comprised *** percent and direct labor comprised *** percent. *Derived from* April 27, 2020 Email from ***, EDIS Doc. 709505. Worthington's raw material costs comprised *** percent of the cost of goods sold in the total market in 2019 while other factory costs comprised *** percent and direct labor comprised *** percent. CR/PR at Table VI-1.
[92] *Derived from* April 27, 2020 Email from ***, EDIS Doc. 709505. Raw materials as a share of total COGS in the total market decreased somewhat during the period of investigation from *** percent in 2017 to *** percent in 2019. CR/PR at V-1.
[93] 19 U.S.C. § 2411; CR/PR at I-5, I-8 – I-9.

Chinese-origin products under section 301 did not have an impact on overall U.S. demand for NRSCs.[94]

C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[95]

The volume of subject imports increased overall during the period of investigation, initially falling from *** units in 2017 to *** units in 2018 before rising to *** units in 2019, representing a total increase of *** percent.[96] Subject imports also increased their market share during the period of investigation by *** percentage points; subject imports accounted for *** percent of the U.S. merchant market in 2017, *** percent in 2018, and *** percent in 2019.[97]

Thus, for purposes of the preliminary phase of these investigations, we find that the volume of subject imports, and the increase in that volume, are significant in absolute terms and relative to apparent U.S. consumption.

D. Price Effects of the Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of subject imports, the Commission shall consider whether –

> (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and
>
> (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[98]

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[94] CR/PR at II-4 – II-5. Worthington reported that section 301 tariffs had no impact on its costs for and availability of raw materials ***. CR/PR at V-1 n.2, VI-5 n.8.

[95] 19 U.S.C. § 1677(7)(C)(i).

[96] CR/PR at Tables C-1, C-2.

[97] CR/PR at Table C-2. In the total market, subject import market share was *** percent in 2017, *** percent in 2018, and *** percent in 2019. CR/PR at Table C-1. Thus, in the total market, subject import market share increased *** percentage points over the period of investigation (2017-19).

[98] 19 U.S.C. § 1677(7)(C)(ii).

As discussed above, the record indicates that the domestic like product and subject imports are highly substitutable and that price is an important consideration in purchasing decisions, although other factors are also important.

We have examined several sources of data for our underselling analysis. The Commission asked U.S. producers and importers to provide quarterly data for the f.o.b. value of two NRSC products shipped to unrelated customers during the period of investigation.[99] Worthington provided usable pricing data for sales of the requested pricing products, accounting for approximately *** percent of its U.S. shipments of NRSCs in 2019.[100] No importer of subject merchandise provided usable pricing data for sales to unrelated customers for any of the requested pricing products.[101]

An important characteristic of this market is that importers import subject merchandise for internal use. Accordingly, the Commission also collected import purchase cost data for the same two pricing products from firms that imported NRSCs from China for their use in the production of their downstream product, *i.e.,* filled NRSCs. Seven importers provided usable purchase cost data for the pricing products, accounting for approximately *** percent of imports from China in 2019.[102]

Based on the purchase cost data obtained by the Commission, landed duty-paid ("LDP") costs for subject imports were below the sales price for U.S. produced NRSCs in all 22 quarterly comparisons involving *** units of subject imports, at price-cost differentials ranging from *** to *** percent.[103] We also observe that the price-cost differentials were greatest, ranging from

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[99] The pricing products are as follows:

Product 1.-- Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Product 2.-- Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

CR/PR at V-4.

[100] CR/PR at V-4.

[101] CR/PR at V-4.

[102] CR/PR at V-4.

[103] CR/PR at V-11 & Tables V-3, V-4, V-6.

*** to *** percent, for pricing product 2, which involved a large proportion of the total volume of subject imports.[104]

We recognize that the import purchase cost data may not reflect the total cost of importing and therefore requested that direct importers provide additional information regarding the costs and benefits of directly importing NRSCs. Five out of seven responding importers reported that their firms did not incur any additional costs by importing NRSCs rather than purchasing from Worthington or other importers.[105] Two importers reported that there were logistical or supply chain costs, ranging from *** to *** percent of LDP value, and warehousing/inventory carrying costs, ranging from *** to *** percent of LDP value.[106] One of those importers also reported two additional costs – financial carrying costs for early payment of approximately *** percent of LDP value, and costs for traveling to China for quality checks of approximately *** percent of LDP value.[107] Four importers estimated that they saved between *** percent of LDP value by importing directly rather than purchasing from U.S. producer Worthington, and five importers reported that the cost of purchasing directly from Chinese producers was lower than purchasing from Worthington, even when including additional costs of importing.[108]

We have also considered purchaser responses to lost sales and lost revenue allegations. The Commission contacted *** purchasers and received responses from seven firms.[109] Purchasers were asked about changes in their purchasing patterns. Five purchasers reported fluctuating or decreasing purchases from Worthington, citing inventory stock levels and demand, poor valve quality, and long lead times; four purchasers reported increasing or fluctuating purchases of NRSCs from China, citing on-time delivery and price; and purchaser/importer *** reported that it moved its supply chain to China ***.[110] In total, the seven responding purchasers reported decreasing purchases of domestic NRSCs by *** percentage points and increasing purchases of subject imports by *** percentage points.[111] In

[104] CR/PR at Table V-4.

[105] CR/PR at V-9.

[106] CR/PR at V-9.

[107] CR/PR at V-9. Importers also identified other non-price benefits of directly importing subject merchandise instead of purchasing NRSCs from Worthington or importers. Three importers emphasized the importance of maintaining diversity of supply for their own operations' production continuity, while two reported benefits in terms of availability and lead times. *Id.*

[108] CR/PR at V-10.

[109] CR/PR at V-11.

[110] CR/PR at V-12.

[111] CR/PR at Table V-7.

addition, of the seven responding purchasers, four reported purchasing subject imports instead of the domestic like product.[112] All four of these purchasers also reported that subject imports were priced lower than domestically produced NRSCs, although only one reported that price was the primary reason that it purchased *** units of subject imports instead of the domestic like product.[113]

Based on the foregoing, we find, for purposes of the preliminary phase of these investigations, that there has been significant underselling by the subject imports. Additionally, given that the domestic like product and subject imports are highly substitutable and that price is an important factor in purchasing decisions, the record in the preliminary phase of these investigations suggests that the availability of lower prices for subject imports contributed to their obtaining an increasing proportion of market share at the expense of the domestic industry during the period of investigation.

We have examined available data on price and purchase cost trends. During the period of investigation, prices for the domestically produced pricing products increased, with increases ranging from *** to *** percent, and prices for subject imports also increased, with increases ranging between *** percent.[114]

We also have considered whether subject imports prevented price increases for the domestic like product which otherwise would have occurred to a significant degree. Worthington's COGS to net sales ratio increased during the period of investigation, rising in the merchant market from *** percent in 2017 to *** percent in 2018 and *** percent in 2019.[115] Worthington's unit COGS in the merchant market increased from $*** in 2017 to $*** in 2018 and $*** in 2019, representing an increase of $*** (or *** percent) during the period of

[112] CR/PR at Table V-8.

[113] CR/PR at V-12 – V-13 & Table V-8. Purchasers identified ***, availability, lead times, and diversity of supply as non-price reasons for purchasing subject imports rather than the domestic like product. CR/PR at V-12 – V-13 & Table V-8. No purchaser reported that Worthington had reduced prices of the domestic like product to compete with lower priced subject imports. CR/PR at Table V-9.

[114] CR/PR at V-10 & Table V-5.

[115] CR/PR at Table C-2. Thus, petitioner's COGS to net sales ratio in the merchant market increased by *** percentage points over the period of investigation (2017-19). In the total market, Worthington's ratio of COGS to net sales increased from *** percent in 2017 to *** percent in 2018 and *** percent in 2019. CR/PR at Table C-1. Thus, Worthington's COGS to net sales ratio in the total market increased by *** percentage points over the period of investigation.

investigation.[116] Its unit sales value in the merchant market increased by $*** during the period of investigation, rising from $*** in 2017 to $*** in 2018 and $*** in 2019.[117] Worthington's merchant market unit raw material costs increased from $*** in 2017 to $*** in 2018 and $*** in 2019, for a total increase of $***.[118] Thus, while Worthington appears to have experienced some cost-price squeeze, based on these differences in per-unit values, the firm also appears to have been able to recover increases in raw material costs. In any final phase of these investigations, we will further explore the relationship between movement in Worthington's COGS and any price suppressing effects of the low-priced subject imports.

Accordingly, based on the record in the preliminary phase of these investigations, we find that subject imports significantly undersold the domestic like product, which enabled the subject imports to gain market share at the expense of the domestic industry.

E. Impact of the Subject Imports[119]

Section 771(7)(C)(iii) of the Tariff Act provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debt, research and development, and factors affecting domestic prices.

[116] CR/PR at Table C-2. Worthington's unit COGS in the total market increased from $*** in 2017 to $*** in 2018 and $*** in 2019, representing an increase of $*** or *** percent during the period of investigation. CR/PR at Table C-1.

[117] CR/PR at Table C-2. Thus, unit sales value in the merchant market increased *** percent over the period of investigation (2017-19). Worthington's unit sales value in the total market increased from $*** in 2017 to $*** in 2018 and $*** in 2019, representing an increase of $*** or *** percent during the period of investigation. CR/PR at Table C-1.

[118] *Derived from* April 27, 2020 Email from ***, EDIS Doc. 709505. Thus, petitioner's merchant market unit raw material costs increased *** percent over the period of investigation (2017-19). Worthington's total market unit raw material costs increased from $*** in 2017 to $*** in 2018 and $*** in 2019, for a total increase of $***. CR/PR at Table VI-1. Thus, Worthington's total market unit raw material costs increased *** percent over the period of investigation. Worthington's unit other factory costs in the merchant market rose over the period of investigation, from $*** to $***, an increase of $***. Derived from April 27, 2020 Email from ***, EDIS Doc. 709505. Worthington's unit other factory costs in the total market also rose over the period of investigation, from $*** to $***, an increase of $***. CR/PR at Table VI-1. Worthington cited ***. CR/PR at VI-5.

[119] In its notice initiating the antidumping duty investigation on NRSCs from China, Commerce initiated investigations based on estimated dumping margins of 53.76 percent. *Certain Non-Refillable Steel Cylinders From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*, 85 Fed. Reg. 22402, 22405 (Dep't Commerce Apr. 22, 2020).

No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[120]

From 2017 to 2019, while apparent U.S. consumption was relatively stable, the domestic industry's output and financial indicators generally declined each year. Worthington reduced its capacity from *** units in 2017 to *** units in 2018 and *** units in 2019.[121] Production also declined from *** units in 2017 to *** units 2018 and *** units in 2019.[122] As a result, Worthington's capacity utilization rate was *** percent in 2017, *** percent in 2018, and *** percent in 2019.[123] Its end of period inventories also fluctuated, initially falling from *** units in 2017 to *** in 2018 before increasing to *** units in 2019.[124] Worthington's U.S. shipments in the merchant market declined from *** units in 2017 to *** units in 2018 and *** units in 2019.[125] As its U.S. shipments steadily declined, Worthington lost market share to subject imports. As discussed above, Worthington's share of the merchant market was *** percent in 2017, *** percent in 2018, and *** percent in 2019.[126]

Worthington's employment-related indicators for the domestic industry mostly increased during the period of investigation. The number of production related workers ("PRWs") increased from *** in 2017 to *** in 2018 and *** in 2019.[127] Total hours worked increased from *** hours in 2017 and 2018 to *** hours in 2019; and total wages paid

[120] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[121] CR/PR at Table III-4. Thus, domestic capacity declined *** percent over the period of investigation (2017-19).

[122] CR/PR at Table III-4. Accordingly, domestic production declined *** percent over the period of investigation.

[123] CR/PR at Table III-4. Thus, domestic capacity utilization declined by *** percentage points during the period of investigation.

[124] CR/PR at Table C-1. Thus, domestic end of period inventories increased *** percent over the period of investigation (2017-19).

[125] CR/PR at Table C-2. Accordingly, U.S. shipments in the merchant market declined *** percent during the period of investigation.

[126] CR/PR at Table C-2. Thus, domestic producer's share of the merchant market declined *** percentage points over the period of investigation (2017-19). In the total market, Worthington's market share was *** percent in 2017, *** percent in 2018, and *** percent in 2019. CR/PR at Table C-1. Thus, domestic producer's share of the total market declined *** percentage points over the period of investigation.

[127] CR/PR at Table III-7. Accordingly, the number of PRWs increased *** percent over the period of investigation (2017-19).

increased from $*** in 2017 to $*** in 2018 to $*** in 2019.[128] Productivity, however, fell from *** units per hour in 2017 to *** units per hour in 2018 and *** units per hour in 2019.[129] According to Worthington, although many of its labor indicators showed increases during the period of investigation, these increasing labor costs contributed to rising costs of production.[130] Unit labor costs increased from $*** in 2017 to $*** in 2018 and $*** in 2019.[131]

During the period of investigation, Worthington's financial indicators generally declined each year. While net sales by value in the merchant market initially increased slightly from $*** in 2017 to $*** in 2018, they then declined to $*** in 2019.[132] Profitability fell consistently each year by every measure. In the merchant market, gross profits fell from $*** in 2017 to $*** in 2018 and $*** in 2019, while operating income fell from $*** in 2017 to $*** in 2018 and $*** in 2019, and net income fell from $*** in 2017 to $*** in 2018 and $*** in 2019.[133] Worthington's capital expenditures increased from $*** in 2017 to $*** in 2018 and $*** in 2019, while research and development ("R&D") expenses increased from *** in 2017 to $*** in 2018 and $***.[134] According to Worthington, the increase in capital expenditures reflects ***, and the R&D expenses reflect ***.[135]

As discussed above, the record in the preliminary phase of these investigations indicates that significant and increasing volumes of low-priced subject imports that were highly substitutable with the domestic like product undersold the sole domestic producer's prices, increasing their market share at the direct expense of the domestic industry. Consequently, the domestic industry's production, shipments, and revenues were lower than they would have been otherwise during the period of investigation.

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[128] CR/PR at Tables III-7, C-1. Thus, total hours worked increased *** percent and the total wages increased *** percent over the period of investigation (2017-19). Worthington stated that it ***. CR/PR at VI-6.

[129] CR/PR at Tables III-7, C-1. Accordingly, productivity (units per hour) declined *** percent during the period of investigation.

[130] Petitioner Postconference Br. at 28.

[131] CR/PR at Table III-7. Thus, unit labor costs increased *** percent over the period of investigation (2017-19).

[132] CR/PR at Table C-2. Accordingly, net sales by value declined *** percent over the period of investigation.

[133] CR/PR at Table C-2. Thus, gross profits declined *** percent, operating income declined *** percent, and net income declined *** percent over the period of investigation.

[134] CR/PR at Tables VI-4, C-1. Thus, capital expenditures increased *** percent over the period of investigation (2017-19), while R&D expenses increased *** percent from 2018 to 2019.

[135] CR/PR at VI-7.

We have considered whether there are other factors that may have had an impact on the domestic industry during the period of investigation to ensure that we are not attributing injury from other factors to subject imports. As discussed above, the record shows that demand, as measured by apparent U.S. consumption, was relatively stable during the period of investigation and, therefore, does not explain the domestic industry's declines in production and shipments or the domestic industry's loss of market share. Moreover, nonsubject imports, which were present only in the final year of the period of investigation, accounting for only *** percent of the merchant market, also do not explain the domestic industry's decline in market share over the period.[136] Finally, although we have considered importers' assertions that non-price reasons, particularly lead times, quality concerns, and supply chain security, explain subject imports increasing volume and market share, we observe that these reasons do not explain the significant price cost differentials observed above. In any final phase of these investigations, we intend to explore further these allegations of distinctions in quality and availability between subject imports and the domestic like product and the importance of such distinctions, if any, in purchasing decisions.

Accordingly, for purposes of the preliminary phase of these investigations, we conclude that subject imports had a significant adverse impact on the domestic industry.

VII. Conclusion

For the reasons stated above, we determine that there is a reasonable indication that an industry in the United States is materially injured by reason of subject imports of NRSCs from China that are allegedly sold in the United States at less than fair value and subsidized by the government of China.

[136] CR/PR at Table C-2. Nonsubject imports accounted for only *** percent of the total market in 2019. CR/PR at Table C-1.

Part I: Introduction

Background

These investigations result from a petition filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Worthington Industries ("Worthington"), Columbus, Ohio, on March 27, 2020, alleging that an industry in the United States is materially injured and threatened with material injury by reason of subsidized and less-than-fair-value ("LTFV") imports of non-refillable steel cylinders ("NRSCs")[1] from China. The following tabulation provides information relating to the background of these investigations.[2] [3]

Effective date	Action
March 27, 2020	Petition filed with Commerce and the Commission; institution of Commission investigations (85 FR 18587, April 2, 2020)
April 16, 2020	Commerce's notices of initiation of AD and CVD investigations (85 FR 22402 and 85 FR 22407, April 22, 2020)
April 17, 2020	Commission's conference (conducted through written statements, testimony, questions, and responses, April 15-April 22, 2020)
May 8, 2020	Scheduled date for the Commission's vote
May 11, 2020	Scheduled date for the Commission's determinations
May 18, 2020	Scheduled date for the Commission's views

[1] See the section entitled "The subject merchandise" in Part I of this report for a complete description of the merchandise subject in this proceeding.

[2] Pertinent *Federal Register* notices are referenced in appendix A, and may be found at the Commission's website (www.usitc.gov).

[3] A list of witnesses that participated in the conference via written submission is presented in appendix B of this report.

Statutory criteria

Section 771(7)(B) of the Tariff Act of 1930 (the "Act") (19 U.S.C. § 1677(7)(B)) provides that in making its determinations of injury to an industry in the United States, the Commission--

> *shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*

Section 771(7)(C) of the Act (19 U.S.C. § 1677(7)(C)) further provides that--[4]

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

[4] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

In addition, Section 771(7)(J) of the Act (19 U.S.C. § 1677(7)(J)) provides that—[5]

(J) EFFECT OF PROFITABILITY.—The Commission may not determine that there is no material injury or threat of material injury to an industry in the United States merely because that industry is profitable or because the performance of that industry has recently improved.

Organization of report

Part I of this report presents information on the subject merchandise, alleged subsidy and dumping margins, and domestic like product. Part II of this report presents information on conditions of competition and other relevant economic factors. Part III presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. Parts IV and V present the volume of subject imports and pricing of domestic and imported products, respectively. Part VI presents information on the financial experience of the U.S. producer. Part VII presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

Market summary

NRSCs are portable, non-refillable steel tanks used to contain liquefied or compressed gases such as refrigerant or helium, or other materials such as insulating foam sealant or adhesive. The only known U.S. producer of NRSCs is Worthington.[6] Leading producers of NRSCs outside the United States include *** of China.[7] The leading U.S. importers of NRSCs from China are ***. The leading importer of NRSCs from nonsubject sources (***) is ***. U.S. purchasers of NRSCs are generally firms that fill NRSCs with refrigerants, other gases such as helium, or foam adhesives or sealants for sale to HVAC,

[5] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

[6] Petition, p. 3; Petitioner's postconference brief, p. 9.

[7] Email from ***. These companies were also identified in importer questionnaires as sources of imports from China.

construction, or retail industries. Of the purchasers that bought NRSCs produced in China, many import the product themselves. Large responding purchasers include ***.

Apparent U.S. consumption of NRSCs totaled approximately *** units ($***) in 2019. U.S. producer Worthington's U.S. shipments of NRSCs totaled *** units ($***) in 2019, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. importers' U.S. shipments from subject sources totaled *** units ($***) in 2019 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. imports from nonsubject sources totaled *** units ($***) in 2019 and accounted for *** percent of apparent U.S. consumption by quantity and value.

Summary data and data sources

A summary of data collected in these investigations is presented in appendix C. U.S. industry data are based on the questionnaire response of Worthington, which accounted for 100 percent of U.S. production of NRSCs during 2019. U.S. import data are based on the questionnaire responses of seven importers and from proprietary *** records for *** that accounted for an estimated *** percent of total imports, *** percent of subject imports, and *** percent of nonsubject imports of NRSCs in 2019.

Previous and related investigations

Commission proceedings

NRSCs have not been the subject of prior countervailing or antidumping duty investigations in the United States.

Worthington was a petitioner for investigations on steel propane cylinders. As a result of petitions filed on May 22, 2018, by Worthington, Columbus, Ohio, and Manchester Tank and Equipment, Franklin, Tennessee, the Commission instituted antidumping and countervailing duty investigations on steel propane cylinders from China, Taiwan, and Thailand (investigation Nos. 701-TA-607 and 731-TA-1417-1419).[8] On June 18, 2019, Commerce terminated the antidumping investigation on Taiwan.[9] On August 5, 2019, the Commission determined that an industry in the United States was materially injured by reason of imports of steel propane

[8] 83 FR 24491, May 29, 2018.
[9] 83 FR 29748, June 26, 2018.

cylinders from China and Thailand, that were found by Commerce to be sold in the United States at less than fair value (''LTFV''), and to be subsidized by the government of China.[10]

Section 301 proceedings

Section 301 of the Trade Act of 1974, as amended ("Trade Act"),[11] authorizes the Office of the U.S. Trade Representative ("USTR"), at the direction of the President, to take appropriate action to respond to a foreign country's unfair trade practices. Following investigations by USTR into "China's acts, policies, and practices related to technology transfer, intellectual property, and innovation," NRSCs were included among the USTR's third enumeration of products from China that became subject to additional duties beginning in September 2018.[12] See the section in this reported entitled "Tariff treatment" for further information on duties related to 301 proceedings.

Nature and extent of alleged subsidies and sales at LTFV

Alleged subsidies

On April 22, 2020, Commerce published a notice in the *Federal Register* of the initiation of its countervailing duty investigation on NRSCs from China.[13] Commerce determined that there is sufficient information to initiate a CVD investigation on the following government programs:[14]

Preferential Lending

- Policy Loans to the Non-Refillable Steel Cylinders Industry
- Export Loans from Chinese State-Owned Banks
- Export Seller's Credits
- Export Buyer's Credits
- Export Credit Guarantees

Income Tax and Direct Tax Programs

- Income Tax Reduction for High or New Technology Enterprises
- Income Tax Deductions for Research and Development Expenses Under the EITL

[10] 84 FR 39371, August 9, 2019.
[11] 19 U.S.C. § 2411.
[12] 83 FR 47974, September 21, 2018.
[13] 84 FR 22407, April 22, 2020.
[14] CVD Initiation Checklist, April 16, 2020.

- Income Tax Exemption for Research and Development Expenses in Shenjia Economic Development Zone
- Preferential Income Tax Policy for Enterprises in the Northeast Region

Indirect Tax Programs

- Import Tariff and Value-Added Tax (VAT) Exemptions for Foreign-Invested Enterprises (FIEs) and Certain Domestic Enterprises Using Imported Equipment in Encouraged Industries
- VAT Refunds for FIEs Purchasing Domestically-Produced Equipment

Government Provision of Goods and Services for Less Than Adequate Remuneration (LTAR)

- Provision of Land to State-Owned Enterprises (SOEs) for LTAR
- Provision of Land for LTAR in Shenjia Economic Development Zone
- Provision of Hot-Rolled Steel (HRS) for LTAR
- Provision of Cold-Rolled Steel (CRS) for LTAR
- Provision of Electricity for LTAR

Grant Programs

- GOC and Sub-Central Government Subsidies for the Development of Famous Brands and China World Top Brands
- Special Fund for Energy Saving Technology Reform
- Small and Medium-Sized Enterprise (SME) International Market Exploration/Development Fund
- SME Technology Innovation Fund
- Export Assistance Grants

Alleged sales at LTFV

On April 22, 2020, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigation on NRSCs from China.[15] Commerce has initiated antidumping duty investigations based on estimated dumping margins of 53.76 percent for NRSCs from China.

[15] 85 FR 22402, April 22, 2020.

The subject merchandise

In the current proceeding, Commerce has defined the scope as follows:[16]

> *The merchandise covered by these investigations is certain seamed (welded or brazed), non-refillable steel cylinders meeting the requirements of, or produced to meet the requirements of, U.S. Department of Transportation (USDOT) Specification 39, TransportCanada Specification 39M, or United Nations pressure receptacle standard ISO 11118 and otherwise meeting the description provided below (non-refillable steel cylinders). The subject non-refillable steel cylinders are portable and range from 300-cubic inch (4.9 liter) water capacity to 1,526-cubic inch (25 liter) water capacity. Subject non-refillable steel cylinders may be imported with or without a valve and/or pressure release device and unfilled at the time of importation.*
>
> *Specifically excluded are seamless nonrefillable steel cylinders.*

[16] 85 FR 22402 and 84 FR 22407, April 22, 2020.

Although the petitioner's proposed scope included both unfilled/empty and filled cylinders, Commerce initiated these investigations only for unfilled non-refillable cylinders, subject to further clarification, as warranted. Commerce indicated that filled cylinders are properly classified under the HTSUS subheading for the contents of the cylinder, rather than the HTSUS subheading for the cylinder itself. According to Commerce, this could create challenges related to administrability because: (1) there are many substances these cylinders can contain; (2) the cylinders could be filled in a third country before being exported to the United States, thereby complicating the identification of the country of origin; and (3) it could be difficult, without time-consuming physical examination, to determine whether filled cylinders are subject to duties. In addition, Commerce stated that there are legal issues related to the inclusion of imports of filled cylinders given that such cylinders are non-refillable. For these reasons, Commerce removed filled cylinders from the scope that the petitioner provided. Commerce is also setting aside a period for interested parties to raise issues regarding the scope, and it has indicated that it will consider comments, and if necessary, consult with parties prior to the issuance of the preliminary determination. 85 FR 22403, 22406-22407; 85 FR 22407-22408, 22410, April 22, 2020.

Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to these investigations is imported under the following provisions of the Harmonized Tariff Schedule of the United States ('HTSUS" or "HTS"): 7311.00.0060 for NRSCs for compressed or liquefied gasses that are certified at the producing plant prior to exportation, 7311.00.0090 for those not so certified prior to exportation, and 7310.29.0025 for NRSCs for non-gaseous materials. The 2020 general rate of duty is "Free" for HTS subheadings 7311.00.00 and 7310.29.00.[17] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

Section 301 tariff treatment

HTS subheadings 7311.00.00 and 7310.29.00 were included in the USTR's third enumeration ("Tranche 3" or "List 3") of products imported from China that became subject to the additional 10 percent *ad valorem* duties (annexes A and C of 83 FR 47974, on or after September 24, 2018) under Section 301 of the Trade Act of 1974.[18] Escalation of this duty to 25 percent ad valorem was rescheduled from January 1, 2019 (annex B of 83 FR 47974)[19] to March 2, 2019 (83 FR 65198),[20] but was subsequently postponed until further notice,[21] and then was implemented effective May 10, 2019 (84 FR 20459).[22] A subsequent modification was provided for subject goods exported from China prior to May 10, 2019 not to be subject to the escalated 25 percent duty as long as such goods entered into the United States prior to June 1, 2019 (84 FR 21892).[23] [24] See also U.S. notes 20(e), 20(f), and 20(l) to subchapter III of HTS chapter 99.[25] On February 5, 2020, USTR announced its determination to grant certain exemption requests.[26]

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[17] *HTSUS (2020) Revision 9*, USITC publication 5051, April 2020, p. 73-25.
[18] 83 FR 47974, September 21, 2018.
[19] *Ibid*.
[20] 83 FR 65918, December 19, 2018.
[21] 84 FR 7966, March 5, 2019.
[22] 84 FR 20459, May 9, 2019.
[23] 84 FR 21892, May 15, 2019.
[24] USTR proposed raising this additional duty from 25 percent to 30 percent on such products imported from China, on or after October 1, 2019 (Annex C – (List 3 - $200 Billion Action), Part 1, of 84 FR 46212). 84 FR 46212, September 3, 2019.
[25] *HTSUS (2020) Revision 9*, April 2020, pp. 99-III-23 to 99-III-24, 99-III-42, 99-III-54, 99-III-183.
[26] 85 FR 6674, February 5, 2020.

Effective April 29, 2020, no exemptions have been granted for in-scope NRSCs originating in China.[27]

The product

Description and applications[28]

NRSCs are portable, non-reusable steel containers designed to store, transport, and dispense compressed or liquefied gases, or liquid materials for a wide variety of end-use applications. Some common contents and end-uses include: (1) refrigerant gases for refrigeration and air-conditioning applications; (2) helium for inflating retail and commercial balloons; (3) gases for medical and industrial applications; and (4) various liquid chemical mixtures such as foam insulations, and sealants and adhesives for residential and commercial construction applications. Generally, the empty cylinders are sold to customers who fill them with gases or liquid chemical mixtures that are then sold to end users for each specific application.[29]

The two-piece welded tank of an NRSC features two ports, for the one-way[30] dispensing valve and pressure-release device, along with a double-handled handling collar on top (table I-1). NRSCs for use in the U.S. market are typically designed to meet the requirements of USDOT Specification 39,[31] which provides the steel specification for the tank body, welding or brazing requirements, wall thickness, markings, testing, and other technical requirements; as well as specifying that the cylinders be non-reusable (i.e., non-refillable).[32] Alternatively, to qualify for use in the U.S. market, NRSCs can also be designed to meet the requirements of Transport Canada ("TC") Specification 39M or United Nations pressure receptacle standard International

[27] See U.S. notes 20(p), 20(w), 20(ll), 20(mm), 20(nn), 20(oo), 20(pp), 20(qq), 20(ss), 20(tt), 20(vv), and 20(xx) to subchapter III of HTS chapter 99. *HTSUS (2020) Revision 9*, April 2020, Change Record; pp. 99-III-67, 99-III-105, 99-III-118 to 99-III-119, 99-III-122 to 99-III-123, 99-III-125 to 99-III-127, 99-III-129 to 99-III-130, 99-III-133, 99-III-135, 99-III-140 to 99-III-141, 99-III-143 to 99-III-144, 99-III-148, 99-III-154 to 99-III-156, 99-III-183 to 99-III-187. USITC, "About Harmonized Tariff Schedule," no date, https://www.usitc.gov/harmonized_tariff_information, retrieved May 1, 2020.

[28] Unless specified otherwise, information in this section is compiled from the Petition, pp. 4 to 5, 13 to 14.

[29] Petitioner's postconference brief, Exh. 4, Testimony of James R. Bowes, p. 1.

[30] Petitioner's postconference brief, p. 8.

[31] Petition, Exh. GEN-3, DOT Specification 39 (39 C.F.R. § 178.65). Certification to USDOT Specification 39 is typically undertaken in facilities either certified by the USDOT or a USDOT-approved third-party certifying organization.

[32] Petitioner's postconference brief, Exh. 3, Testimony of Wayne L. Powers, p. 1.

Standards Organization ("UNISO") 11118 for hazardous material packaging. Because Chinese NRSCs must also meet these specifications, they are made with similar if not identical designs.[33]

Table I-1
NRSCs: Appearance, dimensions, and pressure specifications for selected common cylinder sizes

Model	7.5 inch	9.5 inch	12 inch
Appearance			
Dimensions:			
Height (inches)	14.6	16.4	17.6
Water capacity (pounds)	15.8	29.7	49.6
Diameter (inches)	7.5	9.5	12
Volume (cubic inches)	438	822	1,378
Standard specification:			
Service pressure (PSIG)	260	260	260
Test pressure (PSIG)	325	325	325
Optional specification:			
Service pressure (PSIG)	400	320 or 400	320
Test pressure (PSIG)	500	400 or 500	400

Note.--Pressure is specified as "pounds per square-inch gauge" ("PSIG").

Source: Petition, Exh. GEN-4, Certain Non-Refillable Steel Cylinders Brochures (Worthington Industries).

NRSCs range in size from 300 cubic inches to 1,526 cubic inches of water capacity. Common NRSC sizes by diameter, are 7.5 inch (438 cubic inches of water capacity), 9 inch (739 cubic inches), 9.5 inch (822 cubic inches), and 12 inch (1,378 cubic inches), although they are also available in other sizes. The 9.5-inch (822 cubic inches) cylinder is the most commonly available size both in the United States and worldwide.[34] ***

[33] Petitioner's postconference brief, Exh. 3, Testimony of Powers, p. 3.

[34] Petitioner's postconference brief, Exh. 1, Answers to ITC Staff Questions, p. 12; Exh. 2, Testimony of Bowes, p. 6.

***.[35] [36] The smaller 7.5-inch cylinder is considered an economical size for holding refrigerant R-1234yf, due to the small charge size for automotive air-conditioning systems and the high cost of this refrigerant. The 7.5-inch cylinder can also hold refrigerant gas R-402B for charging ice-making machines.[37] NRSCs are produced to meet the service pressure ratings required for the gaseous or liquid content,[38] with common service-pressure ratings for in-scope NRSCs of 260, 320, and 400 pounds per square inch ("PSI").[39] The subject NRSCs can be imported either with or without a dispensing valve, pressure-release device, or both.[40]

These physical characteristics distinguish NRSCs from refillable cylinders (not allowed by the DOT-39 specification), such as those for propane gas with sturdy handling collars, foot rings, and two-way valves;[41] smaller "hand torch" non-refillable cylinders (containing propane, propylene, or butane) having elongated bodies and only one port; aluminum cylinders for reactive gasses (e.g., ammonia, ethylene oxide, hydrogen sulfide, nitric oxide, nitrogen dioxide, or sulfur dioxide); or seamless, higher pressure steel cylinders for industrial and medical gasses (argon, nitrogen, or oxygen).[42]

[35] ***. Petitioner's postconference brief, Exh. 1, Answers to ITC Staff Questions, pp. 1 to 2; Exh. 2, Testimony of Bowes, p. 6.

[36] Moreover, for the larger 12-inch diameter NRSC previously held the mostly widely available refrigerant gas R-22, that was phased out as an ozone-depleting gas, demand has been declining over time and is now extremely low. Respondent National Refrigerants postconference brief, pp. 2 to 3.

[37] Respondent National Refrigerants postconference brief, p. 3.

[38] Petitioner's postconference brief, Exh. 3, Testimony of Powers, p. 2.

[39] Depending on the type of refrigerant gas, the required cylinder pressure rating can be either 260, 320, or 400 psi. Helium typically requires a pressure rating of 260 psi, while foam and adhesive mixtures generally require a pressure rating of 400 psi. Petitioner's postconference brief, p. 13.

[40] According to Petitioner, it is not common for NRSCs to be produced or imported without a dispensing valve and pressure-release device, but it is possible to import the components and complete the cylinder in the United States. Petitioner's postconference brief, Exh. 1, Answers to ITC Staff Questions, p. 4.

[41] Petitioner's postconference brief, p. 9.

[42] Petition, p. 13; Exh. GEN-3, DOT Specification 39 (39 C.F.R. § 178.65); Petitioner's postconference brief, p. 10; Exh. 3, Testimony of Power, p. 2.

Manufacturing processes[43]

According to the Petitioner and Respondent National Refrigerants, a U.S. importer of the subject merchandise, both domestically produced and imported NRSCs are manufactured by similar processes to meet the same technical specifications required for the U.S. market.[44]

NRSCs are produced using low-carbon, flat-rolled (usually cold-rolled) steel.[45] First, a collar press stamps the handling collar from cut-to-length strips of steel. Next, round disks of steel are press cut from flat-rolled steel coils. These circular disks are then drawn through a die to create cup-shaped hemispheric shells that become the top and bottom halves of the cylinder. The shell edges are trimmed to produce a precise line for welding and then holes are punched into the top shell for the dispensing valve and pressure-release device.[46] The shells are then washed to remove any grit or particles that might impede painting or welding. The pressure-release device is added to the top shell prior to both the top and bottom cylinder shells are conveyed to a welding station where the valve and handling collar are welded onto the top half of the cylinder (figure I-1a).[47] The two shells are then cooled prior to being placed together into the welding lathe, which creates a precise weld between them to bond the two pieces together (figure I-1b). Each cylinder is tested to ensure it meets government specifications, including a dry-air leak test to ensure that the tank can be filled and pressurized without either leaking or rupturing.[48]

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[43] Unless specified otherwise, information in this section is compiled from Petition, pp. 5 to 7, 14 to 15. Petitioner also provided a hyperlink to an online video showing the NRSC production process. Worthington Industries, "How It's Made - Balloon Time," Vimeo, no date, https://vimeo.com/106184683, retrieved April 8, 2020. Petition, p. 57.

[44] Petitioner's postconference brief, Exh. 1, Answers to ITC Staff Questions, p. 1; Respondent National Refrigerants postconference brief, p. 1.

[45] For the maximum contents of carbon, phosphorous, sulfur, and manganese specified by each of these standards, see Petitioner's postconference brief, Exh. 1, Answers to ITC Staff Questions, p. 2; Exh. 2, Testimony of Bowes, p. 5.

[46] The subject product from China includes a reusable screw-on cap to cover the valve outlet while the U.S. supplier only provides a push-on dust cap. According to National, the valve outlet is the most common cause of a defect for NRSCs. Respondent National Refrigerants postconference brief, pp. 1 to 2.

According to Petitioner, physical defects to the valve outlet, such as burrs, weld slag, or other debris, can be serious, but are extremely infrequent. ***. Petitioner's postconference brief, p. 16; Exh. 2, Testimony of Bowes, p. 4.

[47] Petitioner's postconference brief, Exh. 3, Testimony of Powers, p. 3.

[48] To the best of Petitioner's knowledge, all imported NRSCs certified to meet the USDOT-39 specification must be tested by the manufacturer prior to shipment. For the specific test requirements to meet USDOT-39 specifications, see: Petitioner's postconference brief, Exh. 1, Answers to ITC Staff Questions, pp. 2 to 3; Exh. 2, Testimony of Bowes, p. 5.

Figure I-1
NRSCs: Cross sections of an assembled cylinder and the weld-joint detail

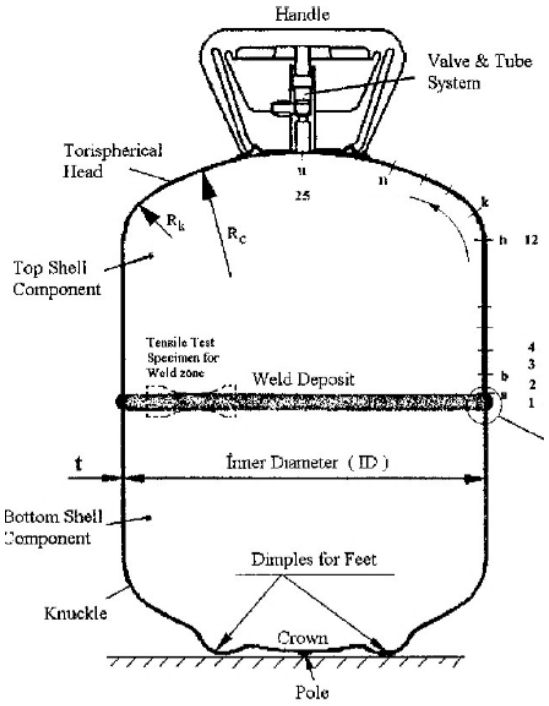

Figure I-1a: Cylinder cross-section with components and features labeled

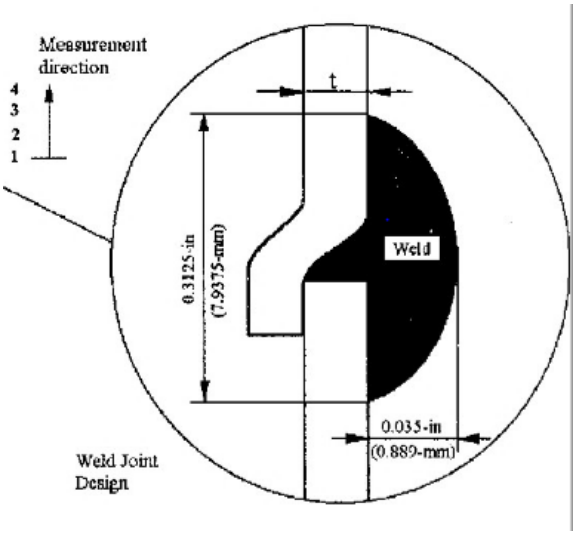

Figure I-1b: Weld-joint cross-section for joining together the top and bottom shells

Source: Petition, Exh. GEN-5, Certain Non-Refillable Steel Cylinder Parts Drawing.

Cylinders that pass inspections move on to the painting line, where they are coated with a liquid paint that is cured under infrared light.[49] Prior to January 2020, the paint color was selected to indicate the gas content of the cylinder according to industry standards or for aesthetic appeal. As of January 2020, the Air-Conditioning, Heating, and Refrigeration Institute ("ACHRI") guideline now recommends that all NRSCs containing refrigerant gas be painted the

[49] Petition, p. 6; Petitioner's postconference brief, p. 8. National Refrigerants claims that the U.S. producer uses powder-coat and lead-free paint on its cylinders while those originating in China use a low-volatile organic compound/aqueous paint. According to National Refrigerants's estimates, powder coating is a more expensive process, requiring twice the energy, but does not necessarily produce a discernably higher quality product. Respondent National Refrigerants postconference brief, p. 1.

same standard gray-green color.[50] A silkscreened label is added to the cylinder with required identifying information, including the (USDOT, TC, or UNISO) specification number, service pressure, test pressure, manufacturer's registration number, date of manufacture and/or lot number, operating instructions, and specific penalty language against refilling the cylinder in violation of federal law.[51] NRSCs typically are packaged in an unsealed cardboard carton specified by the customer.[52] These cartons are purchased by the NRSC's customers from corrugated-cardboard suppliers and shipped directly to the NRSC producer's facilities.[53] The customer later fills the cylinders while in the carton and seals the box prior to shipment.

Domestic like product issues

The petitioner proposes a domestic like product comprising all NRSCs consistent with the scope of the petition.[54] However, the scope published by Commerce on April 22, 2020 does not include filled cylinders as proposed in the petition's scope definition.[55] The petitioner intends to argue that filled cylinders should be included in the scope for the final investigation.[56] No issues with respect to domestic like product have been raised by respondents in these investigations.

[50] Prior to January 1, 2020, the AHRI required specific cylinder colors for ready identification of specific refrigerant gases. After that date, AHRI's "Guideline N, Assignment of Refrigerant Container Colors" requires all refrigerant cylinders are to be painted a gray-green color (designated as "RAL 7044"). Petitioner's postconference brief, Exh. 3, Testimony of Powers, p. 3.

[51] Petitioner's postconference brief, Exh. 3, Testimony of Powers, p. 3.

The Petitioner's cylinders also include a "Stamp of Authenticity" along with more printing and additional markings on the collar and valve to identify its cylinders. Respondent National Refrigerants postconference brief, p. 1.

[52] To the best of Petitioner's knowledge, ***. Petitioner's postconference brief, Exh. 1, Answers to Staff Questions, p. 4; Exh. 2, Testimony of Bowes, p. 4.

[53] Petitioner's postconference brief, Exh. 1, Answers to Staff Questions, p. 5.

[54] Petition, p. 15; Petitioner's postconference brief, p. 7.

[55] 85 FR 22402 and 84 FR 22407, April 22, 2020.

[56] Petitioner's postconference brief, p. 6.

Part II: Conditions of competition in the U.S. market

U.S. market characteristics

NRSCs are portable, non-refillable steel tanks that can hold liquified or compressed gases. NRSCs can contain a range of materials for a variety of end uses including gases for refrigeration and air conditioning applications, helium for balloons for retail or commercial use, gases for medical and industrial applications, and other materials such as foam insulation and sealant in residential and commercial sectors.[1] Petitioner states that demand for NRSCs follows the strength of the U.S. economy.[2] U.S. producer Worthington[3] is the sole U.S. producer, and importers primarily import NRSCs to fill with gas or sealant and then go on to sell the NRSCs and their contents to their customers.

Apparent U.S. consumption of NRSCs increased during January 2017-December 2019. Overall, apparent U.S. consumption in 2019 was *** percent higher than in 2017.

In 2017, Worthington acquired the only other U.S. producer, Amtrol's, operations.[4] When asked if there were significant changes in the product range, product mix, or marketing of NRSCs, importer and purchaser *** reported that when there were two U.S. producers, there was a variety of available valve styles and cylinder handles, but now there is only one style available, and importer and purchaser *** reported that it transitioned to a smaller-sized high compression cylinder with a 400 PSIG service pressure rating, which is not offered by the U.S. producer. U.S. producer Worthington reported that *** to product mix or marketing since 2017, but indicated separately that the product mix ***.[5]

Respondent National Refrigerants stated that it *** and because it cannot accept the risk of solely relying on one U.S. supplier for NRSCs, ***.[6]

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[1] Petition, pp. 4-5; Petitioner's postconference brief, p. 13 and Answers to Staff Questions, pp. 7-8.
[2] Petitioner's postconference brief, Answers to Staff Questions, p. 8.
[3] Worthington ***submitted a U.S. importers' questionnaire in addition to its U.S. producers
[4] Petitioner's postconference brief, Answers to Staff Questions, p. 3.
[5] Email correspondence with ***, April 21, 2020.
[6] Respondent National Refrigerants' postconference brief, p. 7.

Channels of distribution

U.S. producer Worthington sold *** unfilled NRSCs to ***.[7] U.S. importers of NRSCs from China and from nonsubject sources *** reported that *** unfilled NRSCs were sold to ***, as shown in table II-1. Petitioner Worthington stated that while U.S. purchasers may or may not manufacture or process the gas or chemical contents, they all have filling operations, and that these filled NRSCs are sold into commercial or retail channels for a variety of applications.[8]

Table II-1
NRSCs: U.S. producers' and importers' U.S. shipments of unfilled NRSCs, by sources and channels of distribution, January 2017-December 2019

Item	Calendar year		
	2017	2018	2019
	Share of U.S. shipments (percent)		
U.S. producers: to Distributors or retailers	***	***	***
to Fillers or end users	***	***	***
U.S. importers: China to Distributors or retailers	***	***	***
to Fillers or end users	***	***	***
U.S. importers: Nonsubject to Distributors or retailers	***	***	***
to Fillers or end users	***	***	***
U.S. importers: All sources: to Distributors or retailers	***	***	***
to Fillers or end users	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Petitioner stated that its 2019 sales ***. Petitioner stated that ***.[9]

[7] ***.

[8] Petitioner's postconference brief, p. 11.

[9] Petitioner's postconference brief, Answers to Staff Questions, p. 8.

Geographic distribution

*** importers reported selling NRSCs to all regions in the contiguous United States (table II-2). [10] For the U.S. producer, *** percent of sales were within 100 miles of its production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers did not sell unfilled NRSCs, and thus did not report detailed information on the geographic shipments of NRSCs.

Table II-2
NRSCs: Geographic market areas in the United States served by U.S. producers and importers

Region	U.S. producers	Subject U.S. importers
Northeast	***	***
Midwest	***	***
Southeast	***	***
Central Southwest	***	***
Mountains	***	***
Pacific Coast	***	***
Other[1]	***	***
All regions (except Other)	***	***
Reporting firms	1	2

Note: All other U.S. markets, including AK, HI, PR, and VI.

Source: Compiled from data submitted in response to Commission questionnaires.

Supply and demand considerations

U.S. supply

Table II-3 provides a summary of the supply factors regarding NRSCs from U.S. producer Worthington. One foreign exporter of NRSCs from China responded, and no Chinese producers of NRSCs responded.

[10] Data were collected for all NRSCs, both filled and unfilled. ***.

Table II-3
NRSCs: Supply factors that affect the ability to increase shipments to the U.S. market

	Capacity (units)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments by market, 2019 (percent)		Able to shift to alternate products
Country	2017	2019	2017	2019	2017	2019	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	***	***	***	***	***	***	***	***	0 of 1
China	***	***	***	***	***	***	***	***	0 of 1

Note: Responding U.S. producer Worthington accounted for all of U.S. production of NRSCs in 2019. There were no responding foreign producers or exporters that provided capacity, inventory, or shipment data. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, "Summary Data and Data Sources."

Source: Compiled from data submitted in response to Commission questionnaires.

Domestic production

Based on available information, U.S. producers of NRSCs have the ability to respond to changes in demand with large changes in the quantity of shipments of U.S.-produced NRSCs to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and some available inventories. Factors mitigating responsiveness of supply include a limited ability to shift shipments from alternate markets and *** to shift production to or from alternate products. Worthington reported that it ***. U.S. importer *** reported that "Worthington has had shortages in supply that would have created an inability to supply product if not for Chinese imports" and that lead times have increased significantly since Worthington merged with Amtrol.

Firms were asked if the imposition of tariffs on Chinese-origin NRSCs under section 301 had an impact on the NRSCs market in the United States. U.S. producer Worthington reported that supply of NRSCs from China had *** and two of three responding importers reported that the supply of NRSCs from China had remained constant. Similarly, firms reported that the supply of NRSCs from other countries remained unchanged.

Petitioner stated that ***

***. Importer *** reported that it had ***.[11]

Subject imports from China

No questionnaire data were received from Chinese producers of NRSCs. Petitioners stated that there are at least 15 Chinese producers of NRSCs, and that these producers maintain significant export business with the United States being a primary export market.[12]

Imports from nonsubject sources

Nonsubject imports accounted for *** percent of total U.S. imports in 2019. The largest and only source of nonsubject imports during January 2017-December 2019 was ***.

U.S. demand

Based on available information, the overall demand for NRSCs is likely to experience moderate changes in response to changes in price. The main contributing factors are the lack of available substitute products and the small-to-moderate cost share of NRSCs in most of its end-use products. *** importers *** reported that the imposition of tariffs on Chinese-origin products under section 301 did not have an impact on overall U.S. demand for NRSCs.

Petitioner stated that there has been a global shortage of helium during the period of investigation and that this ***.[13]

End uses and cost share

U.S. demand for NRSCs depends on the demand for the products that fill NRSCs, such as helium, refrigerants, and foam adhesives. Reported end uses include applications such as in HVAC systems and construction. NRSCs accounts for a small to moderate share of the cost of the end-use products in which it is used. Reported cost shares for some end uses were as follows:

[11] Staff telephone interview with ***, April 16, 2020.
[12] Petition, pp. 24-25; Petitioner's postconference brief, pp. 38-39.
[13] Petitioner's postconference brief, Answers to Staff Questions, p. 6.

- Helium storage (50-60 percent)[14]
- HFC R410A (17-24 percent)
- Refrigerants (21 percent)
- HFC R134A (10-17 percent)
- HFC blends (9-15 percent)
- HCFC R22 (3-6 percent)
- HVAC systems (5 percent)
- Construction applications (3 percent)

Business cycles

U.S. producer Worthington reported that NRSCs ***. Six of eight importers indicated that the market was subject to business cycles or conditions of competition. Specifically, U.S. importers and purchasers *** reported that demand for NRSCs used for refrigerants is seasonal based on cooling needs, and importer *** reported that demand for *** is seasonal because there tend to be more *** in the summer ***.

Three importers reported that the NRSCs market is subject to distinct conditions of competition, citing the fact that there is only one domestic producer of NRSCs. Importer *** reported that until 2017, there were two U.S. producers of NRSCs, but since Worthington acquired the other, the "elimination" of U.S. competition led to price increases and extended lead times.

Demand trends

A plurality firms reported an increase in U.S. demand for NRSCs since January 1, 2017 (table II-4). Two importers reported that U.S. demand remained unchanged, and one importer reported that U.S. demand had fluctuated. When asked about the impact of section 301 tariffs on the NRSCs market, all responding firms reported that U.S. demand had remained unchanged.

[14] Includes ***.

Table II-4
NRSCs: Firms' responses regarding U.S. demand and demand outside the United States

Item	Number of firms reporting			
	Increase	No change	Decrease	Fluctuate
Demand inside the United States: U.S. producers	***	***	***	***
Importers	2	2	---	1
Demand outside the United States: U.S. producers	***	***	***	***
Importers	2	1	---	---

Source: Compiled from data submitted in response to Commission questionnaires.

Substitute products

Substitutes for NRSCs are limited. U.S. producer *** reported that there *** substitutes, and most importers reported that there are no substitutes for NRSCs. Two importers reported that refillable cylinders are a substitute, but importer *** reported that there is no market for refillable containers in the United States. Importer *** reported that refillable cylinders can be used in industrial and commercial applications but that price changes of refillable cylinders have not affected the price of NRSCs. Respondent National Refrigerants stated that for refillable cylinders to be viable substitutes for NRSCs, ***.[15]

Substitutability issues

The degree of substitution between domestic and imported NRSCs depends upon such factors as relative prices, quality (e.g., grade standards, defect rates, etc.), and conditions of sale (e.g., price discounts/rebates, lead times between order and delivery dates, reliability of supply, product services, etc.). Based on available data, staff believes that there is a high degree of substitutability between domestically produced NRSCs and NRSCs imported from China.

Lead times

In 2019, *** percent of U.S. commercial shipments of domestically produced NRSCs were sold from U.S. inventories, while the remaining share was produced-to-order. Importers did not report any commercial shipments of NRSCs. U.S. producer Worthington reported that lead times for NRSCs sold from inventory had lead times averaging ***while NRSCs that were produced-to-order had lead times averaging ***.

[15] Respondent National Refrigerants' postconference brief, p. 5.

Importer *** reported that lead time for NRSCs produced in China is 60 days while the lead time for domestically produced NRSCs is typically 90-120 days, depending on the time of year. Respondent National Refrigerants stated that after Worthington acquired Amtrol, ***.[16]

Petitioner stated that ***.[17]

Factors affecting purchasing decisions

Purchasers responding to lost sales lost revenue allegations[18] were asked to identify the main factors their firm considered in their purchasing decisions for NRSCs. Factors identified by firms include quality, availability or lead time, and price (table II-5). Purchaser *** noted that all three of its listed factors, quality, cost, and reliability, were equally important. Other factors listed include diversity of suppliers, supply chain availability and order fulfillment, on-time delivery, reliability, and manufacturing capacity.

Table II-5
NRSCs: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Item	1st	2nd	3rd	Total
	Number of firms (number)			
Quality	3	3	1	7
Availability / Lead time	1	3	2	6
Price / Cost	2	1	1	4
All other factors	1	0	3	NA

Source: Compiled from data submitted in response to Commission questionnaires.

Respondent National Refrigerants stated that diversity of supply, timeliness of supply, and quality are critical purchasing factors, and added that the U.S. refrigerant industry cannot rely on one supplier of NRSCs without significant risk of a major supply disruption.[19]

Purchasing patterns reported by responding firms varied (table II-6). Two importers, ***, reported that their purchases of U.S.-produced NRSCs decreased and their purchases of NRSCs from China increased since 2017. Three of six

[16] Respondent National Refrigerants' postconference brief, p. 4.

[17] Petitioner's postconference brief, Answers to Staff Questions, p. 22.

[18] This information is compiled from responses by purchasers identified by Petitioners to the lost sales lost revenue allegations. See Part V for additional information.

[19] Respondent National Refrigerants' postconference brief, pp. 4-5.

purchasers reported that their purchases of U.S.-produced NRSCs had fluctuated, and two of six purchasers reported that their purchases of NRSCs produced in China had fluctuated (table II-6). Most responding purchasers reported that they did not purchase NRSCs from other sources, known or unknown.

Table II-6
NRSCs: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	1	2	---	1	3
China	---	1	2	1	2
All other sources	3	---	---	1	1
Sources unknown	3	---	---	1	---

Source: Compiled from data submitted in response to Commission questionnaires.

Comparison of U.S.-produced and imported NRSCs

In order to determine whether U.S.-produced NRSCs can generally be used in the same applications as imports from China, the U.S. producer and importers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-7, most firms reported that U.S.-produced NRSCs and NRSCs produced in China are always interchangeable. Respondent National Refrigerants stated that, since all NRSCs are manufactured in accordance with DOT requirements,[20] both U.S.-produced and Chinese NRSCs meet the same technical requirements, and cylinders from both sources perform well.[21]

Table II-7
NRSCs: Interchangeability between NRSCs produced in the United States and in other countries, by country pair

Country pair	U.S. producers				U.S. importers			
	A	F	S	N	A	F	S	N
United States vs. China	***	***	***	***	4	1	2	---
United States vs. Other	***	***	***	***	1	---	1	---
China vs. Other	***	***	***	***	1	---	---	---

Note: A=Always, F=Frequently, S=Sometimes, N=Never.

Source: Compiled from data submitted in response to Commission questionnaires.

[20] Petitioners state that all imported cylinders must be tested by the manufacturer of record prior to shipment. The DOT specification testing requires internal pressure and leakage testing, hydrostatic testing, and flattening testing. Petitioner's postconference brief, Answers to Staff Questions, p. 3.

[21] Respondent National Refrigerants' postconference brief, p. 6.

Petitioner stated that NRSCs of different sizes can be used interchangeably, but as a matter of practice, end users have come to expect certain NRSCs sizes, such as 9.5-inch NRSCs which are the most common-sized product in the U.S. market.[22] Pressure ratings of NRSCs are specific to pressure requirements of the NRSCs content, but there is a common set of ratings that overlap in their applications.[23]

In addition, U.S. producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of NRSCs from the United States, subject, or nonsubject countries. As seen in table II-8, most firms reported that differences other than price are only sometimes or never significant. Respondent National Refrigerants stated that U.S.-produced NRSCs may have some characteristics that add cost but "do not discernably improve the value of the cylinder," including certain powder coatings, stamping, and packaging.[24]

Table II-8
NRSCs: Significance of differences other than price between NRSCs produced in the United States and in other countries, by country pair

Country pair	U.S. producers				U.S. importers			
	A	F	S	N	A	F	S	N
United States vs. China	***	***	***	***	1	1	3	2
United States vs. Other	***	***	***	***	---	---	1	1
China vs. Other	***	***	***	***	---	---	1	1

A = Always, F = Frequently, S = Sometimes, N = Never.

Source: Compiled from data submitted in response to Commission questionnaires.

[22] Petitioner's postconference brief, Answers to Staff Questions, p. 12.

[23] Petitioner's postconference brief, Answers to Staff Questions, p. 13. Petitioner states that helium typically requires a pressure rating of 260 psi while foam and adhesive mixtures typically require a pressure rating of 400 psi.

[24] Respondent National Refrigerants' postconference brief, pp. 6-7. Petitioner states that *** the product is highly interchangeable. Petitioner's postconference brief, Answers to Staff Questions, p. 15.

Part III: U.S. producer's production, shipments, and employment

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the subsidies and dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and is based on the questionnaire response of one firm, Worthington, that accounted for 100 percent of U.S. production of NRSCs during 2019.[1]

U.S. producer

The Commission issued a U.S. producer questionnaire to one firm, Worthington, based on information contained in the petition. Staff believes that Worthington's response represents all known U.S. production of NRSCs. Table III-1 lists Worthington's production locations, position on the petition, and share of total production.

Table III-1
NRSCs: U.S. producer Worthington's position on the petition, production locations, and share of reported production, 2019

Firm	Position on petition	Production location(s)	Share of production (percent)
Worthington	Petitioner	Columbus, OH and Paducah, KY	100.0
Total			100.0

Source: Compiled from data submitted in response to Commission questionnaires.

[1] In 2017, Worthington acquired former U.S. producer Amtrol's NRSC production facilities in West Warwick, Rhode Island, and Paducah, Kentucky, becoming the last remaining domestic producer of NRSCs. Petitioner's postconference brief, p. 3 and p. 9; and Respondent National Refrigerants' postconference brief, p. 3.

Table III-2 presents information on Worthington's ownership, related and/or affiliated firms.

Table III-2
NRSCs: U.S. producer Worthington's ownership, related and/or affiliated firms

Item / Firm	Firm Name	Affiliated/Ownership
Related producers:		
***	***	***
***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

As indicated in table III-2, Worthington is not related to an exporter or U.S. importer of the subject merchandise.[2] In addition, Worthington did not import[3] *** the subject merchandise from U.S. importers.

Table III-3 presents Worthington's reported changes in operations since January 1, 2017.

Table III-3
NRSCs: U.S. producer Worthington's reported changes in operations, since January 1, 2017

Item / Firm	Reported changed in operations
Acquisitions:	
Worthington	In 2017, Worthington acquired Amtrol, Inc.'s operations. As part of that transaction, Worthington acquired Amtrol's facilities in Paducah, Kentucky, and West Warwick, Rhode Island, including their NRSC production lines.
Plant Closings:	
Worthington	In 2018, Worthington shut down the NRSC production line at the West Warwick, Rhode Island, facility that was acquired from Amtrol in 2017.

Source: Petitioner's postconference brief, exh. 4, p. 2 and p. 4.

U.S. production, capacity, and capacity utilization

Table III-4 and figure III-1 present Worthington's production, capacity, and capacity utilization.[4] Capacity decreased by *** percent from 2017 to 2018, and by *** percent from 2018 to 2019, for an overall decrease of *** percent from 2017 to 2019.[5] Worthington's production decreased by *** percent from 2017 to 2018, and by *** percent from 2018 to

[2] Petitioner's postconference brief, p. 12, fn. 11.
[3] Ibid.
[4] Worthington calculated its capacity by ***. U.S. Producers' Questionnaire response, question II-3c.
[5] ***. Petitioner's postconference brief, p. 15.

2019, for an overall decrease of *** percent from 2017 to 2019. Production decreased more than capacity from 2017 to 2018, causing capacity utilization to decrease by *** percentage points. Capacity decreased more than production from 2018 to 2019, causing capacity utilization to increase by *** percentage points. Capacity utilization decreased by *** percentage points from 2017 to 2019. Worthington's constraints to production include the ***.[6]

Table III-4
NRSCs: U.S. producer Worthington's production, capacity, and capacity utilization, 2017-2019

Item	Calendar year		
	2017	2018	2019
	Quantity (units)		
Capacity	***	***	***
Production	***	***	***
	Ratio (percent)		
Capacity utilization (percent)	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Figure III-1
NRSCs: U.S. producer Worthington's production, capacity, and capacity utilization, 2017-2019

* * * * * * *

Source: Compiled from data submitted in response to Commission questionnaires.

[6] U.S. Producers' Questionnaire response, question II-3d.

Alternative products

Worthington reported that it cannot produce alternative products on the same equipment as NRSCs ***.[7] Worthington explained that ***.[8]

U.S. producer's U.S. shipments and exports

Table III-5 presents U.S. producer Worthington's U.S. shipments, export shipments, and total shipments. From 2017 to 2019, Worthington's total shipments consisted of approximately *** commercial shipments, *** internal consumption, and between *** percent export shipments,[9] by quantity.

Quantities of commercial shipments decreased by *** percent from 2017 to 2019, while the value of these commercial shipments increased by *** percent, resulting in a *** percent increase in unit values over the 2017-2019 period.[10] Conversely, quantities of internal consumption shipments[11] increased by *** percent from 2017 to 2019, while the value of these internal consumption shipments decreased by *** percent, resulting in a *** percent decrease in unit values over the 2017-2019 period.

From 2017 to 2019, export shipments decreased by *** percent in quantity and *** percent in value, and unit values increased by *** percent.

[7] Petitioner's postconference brief, p. 29.
[8] U.S. Producers' Questionnaire response, question II-4b.
[9] Worthington exports NRSCs to ***. U.S. Producers' Questionnaire, question II-7.
[10] ***. Email from *** to USITC staff, April 24, 2020.
[11] ***. Petition, p. 19; U.S. Producers' Questionnaire response, question II-8.

Table III-5
NRSCs: U.S. producer Worthington's U.S. shipments, exports shipments, and total shipments, 2017-2019

Item	Calendar year		
	2017	2018	2019
	Quantity (units)		
Commercial shipments	***	***	***
Internal consumption	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	***	***	***
	Value (1,000 dollars)		
Commercial shipments	***	***	***
Internal consumption	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	***	***	***
	Unit value (dollars per unit)		
Commercial shipments	***	***	***
Internal consumption	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	***	***	***
	Share of quantity (percent)		
Commercial shipments	***	***	***
Internal consumption	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	***	***	***
	Share of value (percent)		
Commercial shipments	***	***	***
Internal consumption	***	***	***
U.S. shipments	***	***	***
Export shipments	***	***	***
Total shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. producer's inventories

Table III-6 presents U.S. producer Worthington's end-of-period inventories and the ratio of these inventories to its production, U.S. shipments, and total shipments**.** Worthington's ratio of inventories to U.S. production, U.S. shipments, and total shipments ranged from *** percent during the 2017-2019 period. Worthington's end-of-period inventories decreased by *** percent from 2017 to 2018, then increased by *** percent from 2018 to 2019, for an overall increase of *** percent from 2017 to 2019.

Table III-6
NRSCs: U.S. producer Worthington's inventories, 2017-2019

Item	Calendar year		
	2017	2018	2019
	Quantity (units)		
U.S. producer's end-of-period inventories	***	***	***
	Ratio (percent)		
Ratio of inventories to.--			
U.S. production	***	***	***
U.S. shipments	***	***	***
Total shipments	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. producer's imports and purchases

U.S. producer Worthington did not import *** NRSCs from 2017 to 2019.[12]

[12] Worthington ***.

U.S. employment, wages, and productivity

Table III-7 shows U.S. producer Worthington's employment-related data. Production and related workers (PRWs), total hours worked, hours worked per PRW, wages paid, and hourly wages all increased from 2017 to 2019. During this same period, production decreased, resulting in decreasing productivity and increasing unit labor costs from 2017 to 2019. Worthington explained that the number of PRWs and hours worked increased from 2017 to 2019 despite decreasing production because ***.[13]

Table III-7
NRSCs: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2017-2019

Item	Calendar year		
	2017	2018	2019
Production and related workers (PRWs) (number)	***	***	***
Total hours worked (1,000 hours)	***	***	***
Hours worked per PRW (hours)	***	***	***
Wages paid ($1,000)	***	***	***
Hourly wages (dollars per hour)	***	***	***
Productivity (units per hour)	***	***	***
Unit labor costs (dollars per unit)	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[13] Email from *** to USITC staff, April 21, 2020.

Captive production

Section 771(7)(C)(iv) of the Act states that–[14]

> *If domestic producers internally transfer significant production of the domestic like product for the production of a downstream article and sell significant production of the domestic like product in the merchant market, and the Commission finds that–*
>
> *(I) the domestic like product produced that is internally transferred for processing into that downstream article does not enter the merchant market for the domestic like product,*
>
> *(II) the domestic like product is the predominant material input in the production of that downstream article, and*
>
> *then the Commission, in determining market share and the factors affecting financial performance . . ., shall focus primarily on the merchant market for the domestic like product.*

Transfers and sales

As reported in table III-5 above, internal consumption accounted for between *** and *** percent of U.S. producer Worthington's total shipments of domestically manufactured NRSCs over the period,[15] while commercial U.S. shipments accounted for between *** and *** percent of U.S. producer Worthington's total shipments of domestically manufactured NRSCs over the period.[16] Comparing the data reported in table III-5 with data reported in table VI-1, *** U.S. producer Worthington's export shipments were commercial export shipments, and they accounted for between *** and *** percent of U.S. producer Worthington's total shipments of domestically manufactured NRSCs over the period.

First statutory criterion in captive production

The first requirement for application of the captive production provision is that the domestic like product that is internally transferred for processing into that downstream article not enter the merchant market for the domestic like product. U.S. producer Worthington reported internal consumption of NRSCs for the production of ***.

---

[14] Amended by PL 114-27 (as signed, June 29, 2015), Trade Preferences Extension Act of 2015.

[15] Internal consumption accounted for between *** and *** percent of U.S. producer Worthington's U.S. shipments of domestically manufactured NRSCs over the period.

[16] Commercial U.S. shipments accounted for between *** and *** percent of U.S. producer Worthington's U.S. shipments of domestically manufactured NRSCs over the period.

Worthington did not report diverting NRSCs intended for internal consumption to the merchant market, stating that the internally transferred NRSCs, once *** do not enter the merchant market for the domestic like product.[17]

Second statutory criterion in captive production

The second criterion of the captive production provision concerns whether the domestic like product is the predominant material input in the production of the downstream article that is captively produced. With respect to the downstream articles resulting from captive production, NRSCs reportedly comprises *** percent of the finished cost of ***.[18]

[17] Petitioner's postconference brief, p. 39.
[18] *** Petitioner's postconference brief, pp. 39-40.

Part IV: U.S. imports, apparent U.S. consumption, and market shares

U.S. importers

The Commission issued importer questionnaires to 20 firms believed to be importers of subject NRSCs, and to Worthington, the sole U.S. producer of NRSCs.[1] U.S. import data are based on the usable questionnaire responses of seven importers and from proprietary *** records for ***

[1] The Commission issued U.S. importer questionnaires to firms identified in the petition. Of the 20 firms that were sent a questionnaire:

- Seven firms submitted full questionnaire responses.
- ***.
- ***.
- ***
- ***
- ***.
- ***

***.[2] These eight firms accounted for an estimated *** percent of total imports, *** percent of subject imports, and *** percent of nonsubject imports of NRSCs in 2019.[3] [4]

Table IV-1 lists all responding U.S. importers of NRSCs from China and other sources, their locations, and their shares of U.S. imports, in 2019.

Table IV-1
NRSCs: U.S. importers, their headquarters, and share of total imports by source, 2019

Firm	Headquarters	Share of imports by source (percent)		
		China	Nonsubject sources	All import sources
Hudson Technologies	Pearl River, NY	***	***	***
iGas/BMP	Tampa, FL	***	***	***
Kivlan	Clayton, NC	***	***	***
National Refrigerants	Philadelphia, PA	***	***	***
Summit Refrigerants	Humble, TX	***	***	***
Technical Chemical	Cleburne, TX	***	***	***
Unique	Philadelphia, PA	***	***	***
Weitron	Newark, DE	***	***	***
Total		***	***	***

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.

[2] Import data in proprietary *** records for major importer *** were included to provide more complete import data. ***.

[3] Using the questionnaire responses received from seven importers, volume data received from ***, and proprietary *** records for ***, USITC staff estimate *** were imported from China in 2019, and *** NRSCs were imported from all sources in 2019. The petitioner estimated *** import quantities: *** imports of NRSCs from China and *** imports from all sources in 2019. Petition, Exh. Gen 10.

[4] With the inclusion of filled cylinders in the petition's proposed scope definition, questionnaires collected import data on filled and unfilled NRSCs. In accordance with the scope published in Commerce's initiation notices, filled NRSC imports are excluded from all import data presented in the staff report. Data on filled NRSC imports can be found in Appendix D and include:

- ***
- ***

U.S. imports

Table IV-2 presents data for U.S. imports of NRSCs from China and all other sources.

By quantity, U.S. imports of NRSCs from China decreased by *** percent from 2017 to 2018, and increased by *** percent from 2018 to 2019, for an overall increase in quantity of *** percent from 2017 to 2019.[5] By value, imports from China decreased by *** percent from 2017 to 2018, and increased by *** percent from 2018 to 2019, for an overall decrease in value of *** percent from 2017 to 2019. Unit values for imports from China decreased by *** percent from 2017 to 2018 and increased by *** percent between 2018 and 2019.

The *** of U.S. imports of NRSCs were sourced from China, with *** percent sourced from nonsubject sources *** during 2017-2019.[6] Imports from nonsubject sources increased *** percent in quantity and *** percent in value from 2018 to 2019.

The ratio of U.S. imports from China to U.S. production decreased by *** percentage points from 2017 to 2018 and increased by *** percentage points from 2018 to 2019.

[5] Much of the 2017-2019 increase in quantity was driven by increased imports of subject NRSCs by ***. *** imported *** NRSCs in 2017; *** NRSCs in 2018, and *** NRSCs in 2019. *** imported *** NRSCs in 2017; *** NRSCs in 2018; and *** NRSCs in 2019.

[6] Nonsubject sources were reported by ***.

Table IV-2
NRSCs: U.S. imports by source, 2017-2019

Item	Calendar year		
	2017	2018	2019
	Quantity (units)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Value (1,000 dollars)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Unit value (dollars per unit)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Share of quantity (percent)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Share of value (percent)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Ratio to U.S. production		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.

Figure IV-1
NRSCs: U.S. import quantities and average unit values, 2017-19

* * * * * * *

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[7] Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[8] Imports from China accounted for *** percent of total imports of NRSCs by quantity during March 2019 through February 2020.

Table IV-3
NRSCs: U.S. imports in the twelve-month period preceding the filing of the petition, March 2019 through February 2020

Item	March 2019 through February 2020	
	Quantity (units)	Share quantity (percent)
U.S. imports from.--		
China	***	***
Nonsubject sources	***	***
All import sources	***	***

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.

[7] Sections 703(a)(1), 705(b)(1), 733(a)(1), and 735(b)(1) of the Act (19 U.S.C. §§ 1671b(a)(1), 1671d(b)(1), 1673b(a)(1), and 1673d(b)(1)).

[8] Section 771 (24) of the Act (19 U.S.C § 1677(24)).

Apparent U.S. consumption

Table IV-4 presents data on apparent U.S. consumption and U.S. market shares for NRSCs. Apparent U.S. consumption increased in quantity during 2017-19 by *** percent and decreased in value by *** percent.

*** U.S. importers' U.S. shipments of NRSCs were internal consumption or transfers to related firms. The quantity of U.S. shipments of imports from China increased during 2017-19 by *** percent, while the value of U.S. shipments of imports from China decreased by *** percent. U.S. producer Worthington's U.S. shipments decreased in quantity by *** percent during 2017-19 and increased in value by *** percent from 2017-19.

Market share of U.S. imports from China increased during 2017-19 by *** percentage points as a share of quantity, and decreased by *** percentage points as a share of value. Conversely, market share of U.S. producer Worthington's U.S. shipments decreased during 2017-19 by *** percentage points as a share of quantity, and increased during 2017-19 by *** percentage points as a share of value.

Table IV-4
NRSCs: Apparent U.S. consumption and market shares, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (units)		
U.S. producer's U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
Apparent U.S. consumption	***	***	***
	Value (1,000 dollars)		
U.S. producer's U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
Apparent U.S. consumption	***	***	***
	Share of quantity (percent)		
U.S. producer's U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Share of value (percent)		
U.S. producer's U.S. shipments	***	***	***
U.S. importers' U.S. shipments from.--China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.

Figure IV-2
NRSCs: Apparent U.S. consumption, 2017-19

* * * * * * *

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.

Part V: Pricing data

Factors affecting prices

Raw material costs

NRSCs are typically made from cold-rolled steel.[1] Raw materials as a share of total cost of goods sold decreased from *** percent in 2017 to *** percent in 2019. As shown in figure V-1, ***. The increase of steel raw material costs in 2018 is likely attributable to section 232 tariffs.[2] The *** reported that section 232 tariffs had led to fluctuating raw material prices, and two of three responding U.S. importers reported that there had been no change.

Figure V-1
*****, monthly, January 2017 to March 2020**

[1] Petition, p. 13.

[2] Petitioner states that section 232 tariffs did lead to an increase in steel prices, but ***, and that section 301 tariffs had no impact on its raw material costs and availability ***. Petitioner's postconference brief, Answers to Staff Questions, pp. 40-41.

Transportation costs to the U.S. market

Transportation costs for NRSCs shipped from China to the United States averaged 8.4 percent of landed duty paid value during 2019. These estimates were derived from official import data and represent the transportation and other charges on imports.[3]

U.S. inland transportation costs

*** reported that the customer usually arranges transportation, and two U.S. importers reported that they usually arrange transportation for their customers. Worthington reported that its U.S. inland transportation costs average *** percent while U.S. importers reported costs of 5.0 percent to 6.6 percent of total cost.

Importers of NRSCs from China for their own use were requested to estimate U.S. inland transportation costs (from the port of importation to the point of use). Two importers responded, reporting that U.S. inland transportation costs for own-use imports of NRSCs from China were between 1 percent and 6 percent of total cost.

Pricing practices

Pricing methods

Firms reported pricing methods including transaction-by-transaction negotiations, contracts, price lists, and other methods. Worthington reported using ***. Of the responding U.S. importers, two reported selling *** on a transaction-by-transaction basis (table V-1).[4]

[3] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2019 and then dividing by the customs value based on the HTS statistical reporting numbers 7311.00.0060, 7311.00.0090, and 7310.29.0025, accessed April 5, 2019.

[4] Data were collected for all NRSCs, both filled and unfilled. U.S. importers ***.

***.

Table V-1
NRSCs: U.S. producers' and importers' reported price setting methods, by number of responding firms

Method	U.S. producers	U.S. importers
Transaction-by-transaction	***	***
Contract	***	***
Set price list	***	***
Other	***	***
Responding firms	1	2

Note: The sum of responses down may not add up to the total number of responding firms as each firm was instructed to check all applicable price setting methods employed.

Source: Compiled from data submitted in response to Commission questionnaires.

Worthington primarily sold NRSCs through *** in 2019 (table V-2). Responding U.S. importers did not report U.S. commercial shipments of unfilled NRSCs in 2019. Worthington reported that ***, but noted that this does not allow ***.[5] Unlike ***. Petitioner Worthington argues that its spot market prices are based on supply and demand conditions at the time of sale.[6]

Table V-2
NRSCs: U.S. producers' and importers' shares of U.S. commercial shipments by type of sale, 2019

Item	U.S. producers	Subject U.S. importers
	Share (percent)	
Share of commercial U.S. shipments.-- Long-term contracts	***	***
Annual contract	***	***
Short-term contracts	***	***
Spot sales	***	***

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

Source: Compiled from data submitted in response to Commission questionnaires.

[5] Petitioner's postconference brief, Answers to Staff Questions, p. 26.
[6] Petitioner's postconference brief, Answers to Staff Questions, p. 26.

Sales terms and discounts

Worthington reported that it typically quotes prices on *** basis, and reported that it offers ***. One importer reported that it typically quotes prices on a delivered basis, and one reported that it typically quotes prices on an f.o.b. basis. These importers did not report commercial shipments of unfilled NRSCs, but for filled NRSCs with gases or adhesives.

Price and import purchase cost data

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following NRSC products shipped to unrelated U.S. customers during January 2017-December 2019, and LDP purchase costs data for the following NRSC products for internal consumption, repackaging, or retail sale.

Product 1.-- Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Product 2.-- Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

The U.S. producer Worthington provided usable pricing data for sales of the requested products.[7] Pricing data reported by Worthington accounted for approximately *** percent of its U.S. shipments of NRSCs in 2019. In addition to price data, the Commission also requested that importers provide landed duty-paid values[8] and quantities for imports of NRSCs for firms' internal use, repackaging, or retail sale. Seven importers provided usable purchase cost data for products 1 and 2. Purchase cost data reported by these importers accounted for approximately *** percent of imports from China in 2019. Price data for U.S.-produced products 1 and 2 and

[7] Per-unit pricing data are calculated from total quantity and total value data provided by U.S. producers and importers. The precision and variation of these figures may be affected by rounding, limited quantities, and producer or importer estimates.

[8] Values were reported as landed, duty-paid values at the U.S. port of entry, including ocean freight and insurance costs, brokerage charges, and import duties (i.e., all charges except inland freight in the United States).

landed duty paid purchase cost for imports of products 1 and 2 from China are presented in tables V-3 to V-4 and figures V-2 to V-3.

Table V-3
NRSCs: Weighted-average f.o.b. prices, unit LDP, and quantities of domestic and imported product 1 and price/cost differentials, by quarter, January 2017-December 2019

Period	United States		China		
	Price (dollars per unit)	Quantity (Unit)	Unit LDP Value (dollars per unit)	Quantity (Unit)	Price/cost differential (percent)
2017:					
Jan.-Mar.	***	***	***	***	***
Apr.-Jun.	***	***	***	***	***
Jul.-Sep.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018:					
Jan.-Mar.	***	***	***	***	***
Apr.-Jun.	***	***	***	***	***
Jul.-Sep.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019:					
Jan.-Mar.	***	***	***	***	***
Apr.-Jun.	***	***	***	***	***
Jul.-Sep.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***

Note: Product 1: Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Source: Compiled from data submitted in response to Commission questionnaires.

Table V-4
NRSCs: Weighted-average f.o.b. prices, unit LDP, and quantities of domestic and imported product 2 and price/cost differentials, by quarter, January 2017-December 2019

Period	United States		China		
	Price (dollars per unit)	Quantity (Unit)	Unit LDP Value (dollars per unit)	Quantity (Unit)	Price/cost differential (percent)
2017:					
Jan.-Mar.	***	***	***	***	***
Apr.-Jun.	***	***	***	***	***
Jul.-Sep.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2018:					
Jan.-Mar.	***	***	***	***	***
Apr.-Jun.	***	***	***	***	***
Jul.-Sep.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***
2019:					
Jan.-Mar.	***	***	***	***	***
Apr.-Jun.	***	***	***	***	***
Jul.-Sep.	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***

Product 2: Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Source: Compiled from data submitted in response to Commission questionnaires.

Figure V-2
NRSCs: Weighted-average f.o.b. prices, unit LDP values and quantities of domestic and imported product 1, by quarter, January 2017 through December 2019

* * * * * * *

Product 1: Non-refillable steel cylinder, 9.5-inches in diameter, with 260 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Source: Compiled from data submitted in response to Commission questionnaires.

Figure V-3
NRSCs: Weighted-average f.o.b. prices, unit LDP values and quantities of domestic and imported product 2, by quarter, January 2017 through December 2019

* * * * * * *

Product 2: Non-refillable steel cylinder, 9.5-inches in diameter, with 400 PSIG service pressure rating, unfilled, meeting the requirements of U.S. Department of Transportation specification 39.

Source: Compiled from data submitted in response to Commission questionnaires.

Importers reporting import purchase cost data were asked to provide additional information on costs beyond landed-duty paid costs incurred from directly importing from China. Five of seven responding importers reported that their firms did not incur any additional costs by importing NRSCs rather than purchasing from the U.S. producer or other importers.[9] Importers *** reported that there were logistical or supply chain costs (ranging from *** to *** percent compared to LDP value), warehousing/inventory carrying costs (ranging from *** to *** percent). Importer *** reported that the financial carrying cost of payment being required earlier was approximately *** percent compared to the LDP value, and that quality checks requiring travel to China was approximately *** percent.

Six importers, including ***,[10] identified benefits from importing NRSCs directly instead of purchasing from U.S. producers or importers. Importers *** emphasized the importance of maintaining diversity of supply for production continuity of their own operations. *** reported that it cannot provide its customers with the products they require if they rely on the only U.S. producer, and that the availability of supply is too critical to rely on only one supplier. Importers *** noted that there are benefits in availability and lead times. *** reported that lead times for NRSCs produced in China are 60 days while the lead time for domestically produced NRSCs is typically 90-120 days depending on the time of year, and *** reported that Chinese producers are able to provide flexibility in availability and lead times where Worthington is not.

*** also reported that there are quality benefits to importing from China, stating that domestic cylinders have a high rate of defective threads that cause work stoppages and customer warranty complaints.[11] Importer ***, which ***

[9] Petitioner argues that large gas and chemical companies are typically already experienced importers of other products from China. Petitioner's postconference brief, Answers to Staff Questions, p. 28.

[10] ***. ***.

[11] Petitioner states that it is important for NRSC use that valve outlet threads be made to appropriate specifications and that defects can be serious. It also states that ***. Petitioner's postconference brief, Answers to Staff Questions, p.16.

***. Importer *** reported that it generally purchases U.S.-produced NRSCs, with the exception of one instance that was driven by price.

Four importers estimated that they saved between *** percent of landed duty-paid value by importing themselves rather than purchasing from U.S. producer Worthington, and five importers reported that the cost of purchasing directly from Chinese producers was lower than purchasing from Worthington, even when including additional costs of importing.

Price and import purchase cost trends

In general, prices and purchase costs increased during January 2017-December 2019. Table V-5 summarizes the price trends, by country and by product. As shown in the table, domestic price increases ranged from *** percent to *** percent during January 2017-December 2019 while purchase costs for NRSCs from China increases ranged from *** percent.

Table V-5
NRSCs: Summary of weighted-average f.o.b. prices and unit LDP values for products 1-2 from the United States and China

Item	Number of quarters	Low price (dollars per unit)	High price (dollars per unit)	Change in price over period[1] (percent)
Product 1:				
United States	***	***	***	***
China (cost)	***	***	***	***
Product 2:				
United States	***	***	***	***
China (cost)	***	***	***	***

Note: Percentage change from the first quarter in which data were available in 2017 to the last quarter in which price data were available in 2019.

Source: Compiled from data submitted in response to Commission questionnaires.

U.S. producer Worthington reported that the imposition of tariffs on Chinese-origin products under section 301 *** and importers *** reported that prices had increased as a result section 301 tariffs. Importer *** reported that prices were unchanged. In regards to the section 232 tariffs, Worthington reported that prices of NRSCs ***

***. All three responding importers reported that prices did not change in response to the 232 tariffs.

Price comparisons

As shown in table V-6, purchase costs for product imported from China were below prices for U.S.-produced product in all 22 instances (*** units). The price/cost differential ranged from *** to *** percent, averaging *** percent.

Table V-6
NRSCs: Instances of underselling/overselling and the range and average of margins, by country, January 2017-December 2019

Source	Import purchase cost lower than U.S. sales price				
	Number of quarters	Quantity (Unit)	Average price/cost differential (percent)	Price/cost differential range (percent)	
				Min	Max
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Purchase cost, lower than U.S.	***	***	***	***	***

Note: These data include only quarters in which there is a comparison between the U.S. and subject product.

Source: Compiled from data submitted in response to Commission questionnaires.

Lost sales and lost revenue

The Commission requested that the U.S. producer of NRSCs report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of NRSCs from China. U.S. producer Worthington reported that ***. The U.S. producer identified *** firms with which they lost sales or revenue (*** consisting of lost sales allegations and *** consisting of both lost sales and lost revenue allegations).

Staff contacted *** purchasers and received responses from 7 purchasers. Responding purchasers reported purchasing *** units of NRSCs produced in the United States[12] and importing an additional *** units of NRSCs during January 2017-December 2019 (table V-7). Purchasers did not report making U.S. purchases of imported Chinese NRSCs since 2017.

During 2019, responding purchasers purchased or imported *** percent from U.S. producer Worthington, *** percent from China, *** percent from nonsubject countries, and *** percent from "unknown source" countries. Four of the seven responding purchasers

[12] Purchasers also reported purchasing *** units since 2017 from unknown sources.

reported that some of their purchases of NRSCs were already filled with ***, ranging from 1.5 percent to 100 percent of their purchases.[13]

Table V-7
NRSCs: Purchasers' responses to purchasing patterns

Purchaser	Purchases and imports in 2017-19 (units)			Change in domestic share[2] (pp, 2017-19)	Change in subject country share[2] (pp, 2017-19)
	Domestic	Subject	All other[1]		
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	***	***	***	***	***

Note: Includes all other sources and unknown sources.
Note: Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.

Source: Compiled from data submitted in response to Commission questionnaires.

Purchasers were asked about changes in their purchasing patterns from different sources since 2017. Of the responding purchasers, five purchasers reported fluctuating or decreasing purchases from Worthington, citing inventory stock levels and demand, poor valve quality, and long lead times. Four purchasers reported increasing or fluctuating purchases of NRSCs from China, citing on-time delivery, price, and purchaser/importer *** reported that it moved its supply chain to China ***.

Of the seven responding purchasers, four reported that, since 2017, they had purchased imported NRSCs from China instead of U.S.-produced product (table V-8). Four of these purchasers reported that subject import prices were lower than U.S.-produced product, but only one purchaser reported that price was a primary reason for the decision to purchase imported product rather than U.S.-produced product. Other purchasers cited ***

[13] Petitioner states that a purchaser's decision to buy filled or unfilled cylinders is entirely dependent on price, and if a U.S. customer can purchase filled NRSCs from China for less than the cost of importing empty cylinders and filling them domestically, the customer will likely purchase filled, rather than unfilled, cylinders from China. Petitioner's postconference brief, Answers to Staff Questions, p. 5.

***, availability, lead time, and diversity of supply.

Table V-8
NRSCs: Purchasers' responses to purchasing subject imports instead of domestic product

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased subject imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity (units)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	Yes--4; No--3	Yes--4; No--0	Yes--1; No--4	***	

Source: Compiled from data submitted in response to Commission questionnaires.

Of the seven responding purchasers, six reported that U.S. producers had not reduced prices in order to compete with lower-priced imports from China and one reported that it did not know (table V-9).

Table V-9
NRSCs: Purchasers' responses to U.S. producer price reductions

Purchaser	Producers reduced price (Y/N)	If produced reduced prices:	
		Estimated U.S. price reduction (percent)	Additional information, if available
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total / average	Yes--0; No--6	***	

Source: Compiled from data submitted in response to Commission questionnaires.

In responding to the lost sales lost revenue survey, some purchasers provided additional information on purchases and market dynamics. Purchaser/importer *** reported that the main reason for importing from China was to ensure diversity of supply: “We cannot provide our customers with the products they require while relying on only one US manufacturer. The availability of supply is critical and it is simply too risky to have only one supplier. In addition, our Chinese supplier offers smaller and more efficient packaging of the cylinder.” Purchaser *** stated “we did not see a significant attempt to reduce prices to be competitive.”

Part VI: Financial experience of the U.S. producer

Background

The petitioner, Worthington, is the sole U.S. producer of NRSCs. Worthington's fiscal year ends on May 31; however, the firm provided financial data on a calendar year basis. Worthington's financial data were prepared in accordance with generally accepted accounting principles (GAAP).[1]

As previously discussed in this report, Worthington acquired the operations of Amtrol in June 2017 which included NRSC production lines in Paducah, Kentucky, and West Warwick, Rhode Island. In September 2018, Worthington shut down the NRSC operations at the West Warwick facility.[2]

Operations on NRSCs

Table VI-1 presents data on Worthington's NRSC operations during 2017-19, while table VI-2 presents corresponding changes in average unit values ("AUVs").

[1] Worthington's NRSC operations are part of the firm's Pressure Cylinders reportable segment, which manufactures and sells "filled and unfilled pressure cylinders, tanks, hand torches, well water and expansion tanks, and oil and gas equipment along with various accessories and related products for diversified end-use market applications." The Pressure Cylinders segment represented 32.0 percent of Worthington's consolidated net sales in fiscal year 2019, and net sales of NRSCs represented *** percent of 2019 net sales within the reportable segment (calculated by USITC staff from questionnaire data reported on a calendar year basis and segment data reported on a fiscal year basis). Worthington's 2019 Form 10-K, pp. 4 and 33.

[2] Worthington's U.S. producer questionnaire, section II-2. Worthington reported that ***. Email from ***, April 20, 2020.

Table VI-1
NRSCs: Results of operations of U.S. producer Worthington, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (units)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Total net sales	***	***	***
	Value (1,000 dollars)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Total net sales	***	***	***
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Total COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Interest expense	***	***	***
All other expenses	***	***	***
All other income	***	***	***
Net income or (loss)	***	***	***
Depreciation/amortization	***	***	***
Cash flow	***	***	***
	Ratio to net sales (percent)		
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Total COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***

Table continued on next page.

Table VI-1—Continued
NRSCs: Results of operations of U.S. producer Worthington, 2017-19

Item	Calendar year		
	2017	2018	2019
	Ratio to total COGS (percent)		
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Total COGS	***	***	***
	Unit value (dollars per unit)		
Commercial sales	***	***	***
Internal consumption	***	***	***
Total net sales	***	***	***
Cost of goods sold.-- Raw materials	***	***	***
Direct labor	***	***	***
Other factory costs	***	***	***
Total COGS	***	***	***
Gross profit	***	***	***
SG&A expense	***	***	***
Operating income or (loss)	***	***	***
Net income or (loss)	***	***	***
	Number of firms reporting		
Operating losses	***	***	***
Net losses	***	***	***
Data	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-2
NRSCs: Changes in AUVs between calendar years

Item	Between calendar years		
	2017-19	2017-18	2018-19
	Change in AUVs (dollars per unit)		
Commercial sales	▲***	▲***	▲***
Internal consumption	▼***	▼***	▼***
Total net sales	▲***	▲***	▲***
Cost of goods sold.-- Raw materials	▲***	▲***	▲***
Direct labor	▲***	▲***	▲***
Other factory costs	▲***	▲***	▲***
Total COGS	▲***	▲***	▲***
Gross profit	▼***	▼***	▼***
SG&A expense	▲***	▲***	▲***
Operating income or (loss)	▼***	▼***	▼***
Net income or (loss)	▼***	▼***	▼***

Source: Compiled from data submitted in response to Commission questionnaires.

Net sales

As shown in table VI-1, the reported net sales for U.S. producer Worthington reflect ***. Total net sales quantity and value declined *** from 2017 to 2019, declining *** percent by quantity and increasing *** percent by value from 2017 to 2018 before declining *** percent by quantity and *** percent by value from 2018 to 2019. Average unit net sales values increased from $*** per unit in 2017 to $*** per unit in 2019, reflecting the larger decline in total net sales quantity (*** percent) compared to the decline in total net sales value (*** percent) during this time. [3] [4] [5]

Cost of goods sold and gross profit or (loss)

As shown in table VI-1, Worthington's total cost of goods sold ("COGS") *** increased in absolute value from 2017 to 2019, but *** increased on a per-unit basis and as a ratio to net sales. The per-unit value of total COGS increased from $*** to $***, while as a ratio to net sales total COGS increased from *** to *** percent. The trends in per-unit and ratio-to-sales values were impacted by the declines in net sales quantity and/or value in each reporting period. Details on the individual components of COGS are provided next.

Raw material costs were the *** component of total COGS, representing *** of total COGS during the period examined. Raw materials costs *** increased by *** in absolute value from 2017 to 2019; however, on a per unit basis and as a ratio to net sales these costs increased each year from $*** to $*** and from *** to *** percent, respectively.

[3] ***. Email from ***, April 20, 2020.

[4] ***. Email from ***, April 20, 2020. These *** limit the utility of the variance analysis, thus it is not presented in this report.

[5] Financial data specific to open market sales are presented in appendix C-2.

Table VI-3 presents details on specific raw material inputs as a share of total raw material costs in 2019.[6] [7] [8]

Table VI-3
NRSCs: Raw material costs reported by U.S. producer Worthington, 2019

Raw materials	Calendar year 2019		
	Value (1,000 dollars)	Unit value (dollars per unit)	Share of value (percent)
Steel	***	***	***
Other material inputs	***	***	***
Total, raw materials	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Other factory costs were the *** component of COGS, representing *** percent of total COGS in each annual period. From 2017 to 2019, other factory costs *** increased in absolute value and *** increased on a per-unit basis and as a ratio to net sales. Per unit other factory costs increased from $*** in 2017 to $*** in 2019, and also increased from *** to *** percent as a ratio to net sales during this time. ***.[9]

[6] ***. Worthington's U.S. producer questionnaire, sections III-7 and III-8.

[7] ***. Worthington's U.S. producer questionnaire, section III-9c.

[8] ***. Petitioner's postconference brief, Answers to Staff Questions, pp. 26, 40, and 41; email from ***, April 20, 2020.

[9] Email from ***, April 20, 2020. ***.

Direct labor costs were the *** component of COGS, representing *** percent of total COGS in each annual period. Similar to other factory costs, direct labor *** increased in absolute value and *** increased on a per-unit basis and as a ratio to net sales. Per unit direct labor increased from $*** in 2017 to $*** in 2019, and also increased from *** to *** percent as a ratio to net sales during this time. ***.[10]

Worthington's gross profit declined by *** percent from 2017 to 2019 (***). Gross margins *** declined, from *** percent in 2017 to *** percent in 2018 and then to *** percent in 2019. The decline in gross profits *** during this time.

SG&A expenses and operating income or (loss)

Worthington's selling, general, and administrative ("SG&A") expenses increased in absolute value, on a per-unit basis, and as a ratio to net sales in each annual period for which data were collected. As a ratio to net sales, SG&A expenses increased from *** percent in 2017 to *** percent in 2019. Selling expenses and general and administrative expenses each made up *** and *** percent, respectively, of total SG&A expenses during the period examined; however, the increase in selling expenses was the major factor behind the overall upward trend. Worthington explained that ***.[11] [12]

Worthington's operating income trended *** to gross profit, declining from $*** in 2017 to $*** in 2019. Operating margins (i.e. operating income

[10] Email from ***, April 20, 2020.

[11] Worthington's U.S. producer questionnaire, section III-18, and email from ***, April 20, 2020.

[12] Worthington's reported SG&A expenses as a ratio to net sales for NRSC operations were *** the Pressure Cylinders reportable segment. At the segment level, SG&A expenses as a ratio to net sales were 17.7, 15.7, and 15.2 percent for fiscal years 2017, 2018, and 2019, respectively. Worthington's 2019 Form 10-K, pp. 33 and 38.

divided by net sales) also *** directional pattern as gross margins, declining from *** percent in 2017 to *** percent in 2019.

All other expenses and net income or (loss)

Worthington *** related to NRSC operations from 2017 to 2019, which reflected *** percent of total reported costs and expenses during the period examined. ***, the firm's net income declined from $*** in 2017 to $*** in 2019, and net income margins also declined from *** to *** percent during this time.

Capital expenditures and research and development expenses

Table VI-4 presents Worthington's capital expenditures and research and development ("R&D") expenses related to NRSC operations. Worthington's total capital expenditures *** increased over the three years examined, which reportedly reflects ***. Worthington stated that R&D expenses reflect ***.[13]

Table VI-4
NRSCs: Capital expenditures and R&D expenses of U.S. producer Worthington, 2017-19

Item	Calendar year		
	2017	2018	2019
	Value (1,000 dollars)		
Capital expenditures	***	***	***
R&D expenses	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[13] Worthington's U.S. producer questionnaire, section III-13, and email from ***, April 20, 2020.

Assets and return on assets

Table VI-5 presents data on U.S. producer Worthington's total assets and return on assets ("ROA") related to NRSC operations.[14] Total assets increased from $*** in 2017 to $*** in 2019 and the ROA declined from *** to *** percent during this time.[15]

Table VI-5
NRSCs: Total assets and return on assets of U.S. producer Worthington, 2017-19

Firm	Calendar years		
	2017	2018	2019
	Value (1,000 dollars)		
Total assets	***	***	***
	Ratio (percent)		
Return on assets	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Capital and investment

The Commission requested the U.S. producer of NRSCs to describe any actual or potential negative effects of imports of NRSCs from China on the firm's growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-6 presents U.S. producer Worthington's responses on the impact of subject imports in each category and table VI-7 provides the narrative responses.

[14] The return on assets ("ROA") is calculated as operating income divided by total assets. With respect to a company's overall operations, staff notes that a total asset value (i.e., the bottom line value on the asset side of a company's balance sheet) reflects an aggregation of a number of current and non-current assets, which, in many instances, are not product specific. Allocation factors were presumably necessary to report total asset values specific to operations on NRSCs. The ability to assign total asset values to discrete product lines affects the meaningfulness of operating return on net assets.

[15] ***. Worthington's U.S. producer questionnaire, section III-12, and email from ***, April 27, 2020.

Table VI-6
NRSCs: Actual and anticipated negative effects of imports on investment, growth, and development reported by U.S. producer Worthington, since January 1, 2017

Item	No	Yes
Negative effects on investment	***	***
Cancellation, postponement, or rejection of expansion projects		***
Denial or rejection of investment proposal		***
Reduction in the size of capital investments		***
Return on specific investments negatively impacted		***
Other		***
Negative effects on growth and development	***	***
Rejection of bank loans		***
Lowering of credit rating		***
Problem related to the issue of stocks or bonds		***
Ability to service debt		***
Other		***
Anticipated negative effects of imports	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

Table VI-7
NRSCs: Narratives relating to actual and anticipated negative effects of imports on investment, growth, and development reported by U.S. producer Worthington, since January 1, 2017

Narrative
Denial or rejection of investment proposal:
***
Reduction in the size of capital investments:
***
Returns on specific investments negatively impacted:
***
Other effects on growth and development:
***
Anticipated effects of imports:
***

Source: Compiled from data submitted in response to Commission questionnaires.

Part VII: Threat considerations and information on nonsubject countries

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

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable 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 countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*
>
> *(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,*
>
> *(V) inventories of the subject merchandise,*

---

[1] Section 771(7)(F)(ii) of the Act (19 U.S.C. § 1677(7)(F)(ii)) provides that "The Commission shall consider {these factors} . . . as a whole in making a determination of whether further dumped or subsidized imports are imminent and whether material injury by reason of imports would occur unless an order is issued or a suspension agreement is accepted under this title. The presence or absence of any factor which the Commission is required to consider . . . shall not necessarily give decisive guidance with respect to the determination. Such a determination may not be made on the basis of mere conjecture or supposition."

(VI) the potential for product-shifting if production facilities in the foreign country, which can be used to produce the subject merchandise, are currently being used to produce other products,

(VII) 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),

(VIII) 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 domestic like product, and

(IX) any other demonstrable adverse trends that indicate the probability that there is likely to be material injury by reason of imports (or sale for importation) of the subject merchandise (whether or not it is actually being imported at the time).[2]

Information on the nature of the alleged subsidies was presented earlier in this report; information on the volume and pricing of imports of the subject merchandise is presented in *Parts IV* and *V*; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in *Part VI*. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting"; any other threat indicators, if applicable; and any dumping in third-country markets, follows. Also presented in this section of the report is information obtained for consideration by the Commission on nonsubject countries.

[2] 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 WTO 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."

The industry in China

The Commission issued foreign producers' or exporters' questionnaires to 15 firms believed to produce and/or export NRSCs from China.[3] Usable responses to the Commission's questionnaire were received from two firms: ***. These firms' exports to the United States accounted for approximately *** percent of U.S. imports of NRSCs from China in 2019.[4] *** reported that the top producers in China are ***.[5]

Table VII-1 presents the exports of NRSCs to the United States reported by the ***. Exports decreased by *** percent from 2017 to 2018, and by *** percent from 2018 to 2019.[6]

Table VII-1
NRSCs: Exports from China to the U.S., 2017-19 and projection calendar years 2020 and 2021

Item	Actual experience			Projections	
	Calendar year				
	2017	2018	2019	2020	2021
	Quantity (units)				
Total exports to the United States	***	***	***	***	***
	Ratios and shares (percent)				
Share of total exports to the United States:					
Exported by producers	***	***	***	***	***
Exported by resellers	***	***	***	***	***
Adjusted share of total shipments to the United States	***	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[3] These firms were identified through a review of information submitted in the petition.

[4] As stated in Part IV, footnote 3, USITC staff estimate *** NRSCs were imported from China in 2019. ***.

[5] Email from ***.

[6] ***.

Table VII-2 presents information available from the USDOT's Pipeline and Hazardous Materials Safety Administration ("PHMSA") about subject foreign manufacturers having received USDOT-39 approval or TC-39M registration, that are eligible to export NRSCs to the U.S. market.

Table VII-2
NRSCs: Subject foreign manufacturers of steel cylinders, USDOT approval (as of March 2020) or Transport Canada registration (as of February 2020) status

Manufacturer	Location	Specification	Status
Jiangsu Kasidi Chemical Machinery Co. Ltd.	China	DOT-39	Good standing approval
Jinhua Sinoblue Machinery Manufacturing Co. Ltd.	China	DOT-39	Good standing approval
Ningbo Runkey CGA Cylinders Co. Ltd.	China	DOT-39	Good standing approval
		TC-39M	Valid registration
Sanjiang Kaiyuan Co. Ltd.	China	DOT-39	Good standing approval
Shandong Xinhao Special Equipment Co. Ltd.	China	DOT-39	Expired approval
Shanghai Ronghua High-Pressure Vessel Co. Ltd.	China	DOT-39	Terminated approval
WuYi Xilinde Machinery Manufacture Co. Ltd.	China	DOT-39	Good standing approval
Yongkang Hua Er Cylinder Manufacturing Co. Ltd. (China Flying Eagle Group Co. Ltd.)	China	DOT-39	([1])
		TC-39M	Valid registration
Zhejiang Ansheng Mechanical Manufacture Co. Ltd.	China	DOT-39	Good standing approval
Zhejiang Huijin Machinery Manufacture Co. Ltd.	China	DOT-39	Good standing approval
Zhejiang Jucheng Cylinder Co.	China	DOT-39	Good standing approval
Zhejiang Kin-Shine Technology Co. Ltd.	China	DOT-39	Good standing approval

[1] Not provided.

Source: PHMSA, "Foreign Manufacturers Listing Hazmat Approvals: Cylinders (Updated March 2020)," March 5, 2020, https://www.phmsa.dot.gov/hazmat/pressure-vessels-approvals/foreign-manufacturers-listing-hazmat-approvals-cylinders-updated; Transport Canada, "Cylinder and Tube Manufacturers – Results, TC Cylinder Specifications: TC-39M," February 6, 2020, https://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/cylinder/manufacturers.aspx.

Exports

According to GTA, the United States is the leading export market for iron or steel containers for compressed or liquefied gas, or other nongaseous materials (including NRSCs), from China (table VII-3).[7] During 2019, the United States accounted for 14.7 percent of exports, followed by Germany, accounting for 4.4 percent.

Table VII-3
Iron or steel containers for compressed or liquefied gas, or other materials: Exports from China, 2017-19

Destination market	Calendar year		
	2017	2018	2019
	Value (1,000 dollars)		
United States	199,886	188,325	180,204
Germany	35,922	40,335	53,401
Nigeria	32,438	44,726	52,986
Korea	55,239	39,652	43,882
Vietnam	32,794	37,579	42,395
Netherlands	24,059	30,531	38,653
United Kingdom	30,688	32,240	37,385
Philippines	27,866	31,030	34,148
Malaysia	28,260	39,561	33,267
All other destination markets	544,474	615,343	706,475
Total exports	1,011,626	1,099,320	1,222,798
	Share of value (percent)		
United States	19.8	17.1	14.7
Germany	3.6	3.7	4.4
Nigeria	3.2	4.1	4.3
Korea	5.5	3.6	3.6
Vietnam	3.2	3.4	3.5
Netherlands	2.4	2.8	3.2
United Kingdom	3.0	2.9	3.1
Philippines	2.8	2.8	2.8
Malaysia	2.8	3.6	2.7
All other destination markets	53.8	56.0	57.8
Total exports	100.0	100.0	100.0

Source: Official exports statistics under HS subheadings 7310.29 and 7311.00 as reported by China Customs in the Global Trade Atlas database, accessed April 7, 2020.

[7] Official exports statistics under HS subheading 7310.29 and 7311.00 are highly overinclusive of the various iron or steel containers for compressed or liquefied gas, or other materials, beyond specifically NRSCs.

U.S. inventories of imported merchandise

Table VII-4 presents data on U.S. importers' reported end-of-period inventories of NRSCs.[8] Inventories of NRSC imports from China increased by *** percent from 2017 to 2018, and increased by *** percent from 2018 to 2019, for an overall increase of *** percent during 2017-19.

Table VII-4
NRSCs: U.S. importers' end-of-period inventories of imports by source, 2017-19

Item	Calendar year		
	2017	2018	2019
	Inventories (units); Ratios (percent)		
Imports from China			
Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from nonsubject sources:			
Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***
Imports from all import sources:			
Inventories	***	***	***
Ratio to U.S. imports	***	***	***
Ratio to U.S. shipments of imports	***	***	***
Ratio to total shipments of imports	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires.

[8] ***, did not submit data on end-of-period inventories, so data are likely understated.

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of NRSCs from China after January 1, 2020. These data are presented in table VII-5.

*** of the seven firms that responded to this request reported both importing during January to March 2020 and arranged imports during April to June 2020.[9]

Table VII-5
NRSCs: Arranged imports, January 2020 through December 2020

Item	Period				
	Jan-Mar 2020	Apr-Jun 2020	Jul-Sept 2020	Oct-Dec 2020	Total
	Quantity (units)				
Arranged U.S. imports from.--China	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources:	***	***	***	***	***

Source: Compiled from data received in response to Commission questionnaires.

Antidumping or countervailing duty orders in third-country markets

There are no known trade remedy actions in third-country markets on NRSCs originating in China.[10]

[9] ***, did not submit data on arranged imports, so data are likely understated.

[10] Petitioner claimed, to the best of its knowledge, not being aware of any import-injury or safeguard actions in third-country markets on NRSCs originating in China, from consulting semi-annual antidumping and countervailing duty order reports and safeguard measures reports submitted by third countries to the World Trade Organization ("WTO"), as well as conducting further research into publicly available news sources. Petitioner's postconference brief, p. 32.

Respondent importer National Refrigerants did not provide any information about third-country trade actions. Respondent National Refrigerants postconference brief.

The petition did not provide any information about third-country trade actions. Nor did the Commission receive any such responses to its foreign-producer questionnaire. Commission staff did not encounter any readily available information from consulting WTO and Global Trade Alerts ("GTA") reports or from conducting further research into publicly available news sources.

Information on nonsubject countries

Worthington has two NRSC production facilities in Portugal: at Vale de Cambra, acquired in May 1999,[11] and at Guimaraẽs, as part of its June 2017 acquisition of Amtrol-Alfa Metalomecanica S.A.[12] Worthington reported importing *** during the POI.[13] *** reported importing NRSCs from ***[14] during the POI.[15] Ten nonsubject foreign manufacturers, have USDOT-39 or UNISO 11118 certifications or TC-39M registration, allowing them to be eligible to export their NRSCs to the U.S. market (table VII-6).

[11] American City Business Journals, "Worthington Industries expands into Portugal, Czech Republic," May 24, 1999, https://www.bizjournals.com/columbus/stories/1999/05/24/daily1.html.

[12] Worthington, "Worthington Industries Acquires AMTROL," news and events, June 2, 2017, https://worthingtonindustries.com/Company/News-And-Events/News/2017/Worthington-Industries-Acquires-Amtrol.

[13] In its importer questionnaire response, Worthington reported ***. Worthington's importer questionnaire response; Petitioner's postconference brief, p. 35; Exh. 1, Answers to ITC Staff Questions, pp. 24, 29 to 31; Exh. 2, Testimony of James R. Bowes, p. 4.

[14] *** importer questionnaire response.

[15] According to Petitioner, there is no record indicating other nonsubject cylinders imported during the POI and further claimed not being aware of any other such nonsubject imports. Petitioner's postconference brief, Exh. 1, Answers to ITC Staff Questions, p. 30.

Table VII-6
NRSCs: Nonsubject foreign manufacturers of steel cylinders, USDOT approval (as of March 2020) or Transport Canada registration (as of February 2020) status

Manufacturer	Location	Specification	Status
Gas Cylinder Technologies Inc.	Canada	DOT-39	Good standing approval
		TC-39M	Valid registration
Bruin Engineered Parts Inc.	Canada	TC-39M	Invalid registration
LBM Techno Gas GmbH	Germany	DOT-39	Expired approval
Bhiwadi Cylinder Pvt. Ltd.	India	DOT-39	Good standing approval
Inox India Ltd.	India	DOT-39	Good standing approval
Eurotre S.r.l.	Italy	UNISO 11118	Good standing approval
Gwang Sung Co. Ltd.	Korea	DOT-39	Good standing approval
Amtrol-Alfa Metalomecanica S.A.	Portugal	DOT-39	Good standing approval
Worthington Cylinders-Portugal/ Embalagens Industriais de Gas SA (EIG)	Portugal	DOT-39	Good standing approval
Advanced Material Systems Corp. (AMS)	Taiwan	UNISO 11118	Good standing approval

Source: PHMSA, "Foreign Manufacturers Listing Hazmat Approvals: Cylinders (Updated March 2020)," March 5, 2020, https://www.phmsa.dot.gov/hazmat/pressure-vessels-approvals/foreign-manufacturers-listing-hazmat-approvals-cylinders-updated; Transport Canada, "Cylinder and Tube Manufacturers – Results, TC Cylinder Specifications: TC-39M," February 6, 2020, https://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/cylinder/manufacturers.aspx.

Global exports

Data on global exports of iron or steel containers for compressed or liquefied gas, or other nongaseous materials (including NRSCs), during 2016-18 are presented in table VII-7.[16] In 2019, China (21.4 percent), the United States (9.6 percent), Germany (7.8 percent), and Italy (7.5 percent) were the largest exporters (in terms of value) of steel cylinders, together accounting for 46.4 percent of all global exports.

[16] Official exports statistics under HS subheading 7310.29 and 7311.00 are highly overinclusive of the various iron or steel containers for compressed or liquefied gas, or other materials, beyond specifically NRSCs.

Table VII-7
Iron or steel containers for compressed or liquefied gas, or other materials: Global exports by leading exporters, 2017-19

Exporter	Calendar year		
	2017	2018	2019
	Value (1,000 dollars)		
United States	532,640	550,861	548,027
China	1,011,626	1,099,320	1,222,798
Germany	442,165	491,838	444,929
Italy	384,535	429,814	428,862
Korea	291,599	288,131	286,219
Czech Republic	269,702	273,449	278,270
Thailand	269,451	283,148	245,773
United Kingdom	191,663	163,922	225,375
Turkey	147,236	167,280	208,291
Poland	138,016	173,728	168,658
Portugal	157,494	171,911	154,264
France	124,833	140,417	144,964
All other destination markets	1,612,726	1,784,357	1,353,370
Total exports	5,573,688	6,018,177	5,709,799
	Share of value (percent)		
United States	9.6	9.2	9.6
China	18.2	18.3	21.4
Germany	7.9	8.2	7.8
Italy	6.9	7.1	7.5
Korea	5.2	4.8	5.0
Czech Republic	4.8	4.5	4.9
Thailand	4.8	4.7	4.3
United Kingdom	3.4	2.7	3.9
Turkey	2.6	2.8	3.6
Poland	2.5	2.9	3.0
Portugal	2.8	2.9	2.7
France	2.2	2.3	2.5
All other destination markets	28.9	29.6	23.7
Total exports	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 7310.29 and 7311.00 reported by various national statistical authorities in the Global Trade Atlas database, accessed April 30, 2020.

APPENDIX A

FEDERAL REGISTER NOTICES

The Commission makes available notices relevant to its investigations and reviews on its website, www.usitc.gov. In addition, the following tabulation presents, in chronological order, *Federal Register* notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
85 FR 18587, April 2, 2020	*Non-Refillable Steel Cylinders From China; Institution of Anti-Dumping and Countervailing Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.govinfo.gov/content/pkg/FR-2020-04-02/pdf/2020-06912.pdf
85 FR 22402, April 22, 2020	*Certain Non-Refillable Steel Cylinders From the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation*	https://www.govinfo.gov/content/pkg/FR-2020-04-22/pdf/2020-08539.pdf
85 FR 22407, April 22, 2020	*Certain Non-Refillable Steel Cylinders From the People's Republic of China: Initiation of Countervailing Duty Investigation*	https://www.govinfo.gov/content/pkg/FR-2020-04-22/pdf/2020-08538.pdf

APPENDIX B

LIST OF STAFF CONFERENCE WITNESSES

CALENDAR OF PRELIMINARY CONFERENCE

Those listed below participated in the United States International Trade Commission's preliminary conference. The Commission conducted its preliminary conference through submissions of written testimony and postconference briefs:

Subject: Non-Refillable Steel Cylinders from China

Inv. Nos.: 701-TA-644 and 731-TA-1494 (Preliminary)

Date: April 15, 2020 (written testimony)
April 17, 2020 (staff questions)
April 22, 2020 (postconference briefs/responses to staff questions)

OPENING REMARKS:

In Support of Imposition (**Paul C. Rosenthal**, Kelley Drye & Warren LLP)

In Support of the Imposition of
Antidumping and Countervailing Duty Orders:

Kelley Drye & Warren LLP
Washington, DC
on behalf of

Worthington Industries

James R. Bowes, General Manager, Low Pressure Cylinders,
Worthington Industries

Wayne L. Powers, Product Director, Non-Refillable Cylinders,
Worthington Industries

Michael T. Kerwin, Economic Consultant, Georgetown Economic Services LLC

Paul C. Rosenthal)
R. Alan Luberda)
Brooke M. Ringel) – OF COUNSEL
Elizabeth C. Johnson)
Matthew G. Pereira)

-END-

APPENDIX C

SUMMARY DATA

Total market

Table C-1
NRSC: Summary data concerning the U.S. total market, 2017-19
(Quantity=units; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per unit; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Calendar year		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. consumption quantity (total market):						
Amount	***	***	***	▲***	▼***	▲***
producer's share (fn1)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
China	***	***	***	▲***	▼***	▲***
Nonsubject sources	***	***	***	▲***	***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. consumption value (total market):						
Amount	***	***	***	▼***	▼***	▲***
producer's share (fn1)	***	***	***	▲***	▲***	▼***
Importers' share (fn1):						
China	***	***	***	▼***	▼***	▲***
Nonsubject sources	***	***	***	▲***	***	▲***
All import sources	***	***	***	▼***	▼***	▲***
U.S. importers' U.S. shipments from:						
China:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▼***	▼***	▲***
Unit value	***	***	***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Nonsubject sources:						
Quantity	***	***	***	▲***	***	▲***
Value	***	***	***	▲***	***	▲***
Unit value	***	***	***	▲***	***	▲***
Ending inventory quantity	***	***	***	***	▲***	▼***
All import sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▼***	▼***	▲***
Unit value	***	***	***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
U.S. producer's:						
Average capacity quantity	***	***	***	▼***	▼***	▼***
Production quantity	***	***	***	▼***	▼***	▼***
Capacity utilization (fn1)	***	***	***	▼***	▼***	▲***
U.S. shipments:						
Quantity	***	***	***	▼***	▼***	▼***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Export shipments:						
Quantity	***	***	***	▼***	▼***	▼***
Value	***	***	***	▼***	▼***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Ending inventory quantity	***	***	***	▲***	▼***	▲***
Inventories/total shipments (fn1)	***	***	***	▲***	▼***	▲***
Production workers	***	***	***	▲***	▲***	▲***
Hours worked (1,000s)	***	***	***	▲***	▲***	▲***
Wages paid ($1,000)	***	***	***	▲***	▲***	▲***
Hourly wages (dollars per hour)	***	***	***	▲***	▲***	▲***
Productivity (units per hour)	***	***	***	▼***	▼***	▼***
Unit labor costs	***	***	***	▲***	▲***	▲***

Table continued on next page.

Table C-1--Continued
NRSC: Summary data concerning the U.S. total market, 2017-19
(Quantity=units; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per unit; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Calendar year		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. producer's :-- Continued						
Net sales:						
Quantity	***	***	***	▼***	▼***	▼***
Value	***	***	***	▼***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Cost of goods sold (COGS)	***	***	***	▲***	▲***	▼***
Gross profit or (loss) (fn2)	***	***	***	▼***	▼***	▼***
SG&A expenses	***	***	***	▲***	▲***	▲***
Operating income or (loss) (fn2)	***	***	***	▼***	▼***	▼***
Net income or (loss) (fn2)	***	***	***	▼***	▼***	▼***
Capital expenditures	***	***	***	▲***	▲***	▲***
Research and development expenses	***	***	***	▲***	▲***	▲***
Net assets	***	***	***	▲***	▲***	▲***
Unit COGS	***	***	***	▲***	▲***	▲***
Unit SG&A expenses	***	***	***	▲***	▲***	▲***
Unit operating income or (loss) (fn2)	***	***	***	▼***	▼***	▼***
Unit net income or (loss) (fn2)	***	***	***	▼***	▼***	▼***
COGS/sales (fn1)	***	***	***	▲***	▲***	▲***
Operating income or (loss)/sales (fn1)	***	***	***	▼***	▼***	▼***
Net income or (loss)/sales (fn1)	***	***	***	▼***	▼***	▼***

Notes:

Note.--Shares and ratios shown as "0.0" percent represent non-zero values less than "0.05" percent (if positive) and greater than " (0.05)" percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as "---". Period changes preceded by a " ▲" represent an increase, while period changes preceded by a "▼" represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.

Merchant market

Table C-2
NRSC: Summary data concerning the U.S. merchant market, 2017-19
(Quantity=units; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per unit; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year				Calendar year	
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. consumption quantity (merchant market):						
Amount	***	***	***	▲***	▼***	▲***
producer's share (fn1)	***	***	***	▼***	▲***	▼***
Importers' share (fn1):						
China	***	***	***	▲***	▼***	▲***
Nonsubject sources	***	***	***	▲***	***	▲***
All import sources	***	***	***	▲***	▼***	▲***
U.S. consumption value (merchant market):						
Amount	***	***	***	▼***	▼***	▲***
producer's share (fn1)	***	***	***	▲***	▲***	▼***
Importers' share (fn1):						
China	***	***	***	▼***	▼***	▲***
Nonsubject sources	***	***	***	▲***	***	▲***
All import sources	***	***	***	▼***	▼***	▲***
U.S. importers' U.S. shipments from:						
China:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▼***	▼***	▲***
Unit value	***	***	***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
Nonsubject sources:						
Quantity	***	***	***	▲***	***	▲***
Value	***	***	***	▲***	***	▲***
Unit value	***	***	***	▲***	***	▲***
Ending inventory quantity	***	***	***	***	▲***	▼***
All import sources:						
Quantity	***	***	***	▲***	▼***	▲***
Value	***	***	***	▼***	▼***	▲***
Unit value	***	***	***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	▲***	▲***	▲***
U.S. producer's:						
Commercial U.S. shipments:						
Quantity	***	***	***	▼***	▼***	▼***
Value	***	***	***	▲***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***

Table continued on next page.

Table C-2--Continued
NRSC: Summary data concerning the U.S. merchant market, 2017-19
(Quantity=units; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per unit; Period changes=percent--exceptions noted)

	Reported data			Period changes		
	Calendar year			Calendar year		
	2017	2018	2019	2017-19	2017-18	2018-19
U.S. producer's :-- Continued						
Commercial sales:						
Quantity	***	***	***	▼***	▼***	▼***
Value	***	***	***	▼***	▲***	▼***
Unit value	***	***	***	▲***	▲***	▲***
Cost of goods sold (COGS)	***	***	***	▲***	▲***	▼***
Gross profit or (loss) (fn2)	***	***	***	▼***	▼***	▼***
SG&A expenses	***	***	***	▲***	▲***	▲***
Operating income or (loss) (fn2)	***	***	***	▼***	▼***	▼***
Net income or (loss) (fn2)	***	***	***	▼***	▼***	▼***
Unit COGS	***	***	***	▲***	▲***	▲***
Unit SG&A expenses	***	***	***	▲***	▲***	▲***
Unit operating income or (loss) (fn2)	***	***	***	▼***	▼***	▼***
Unit net income or (loss) (fn2)	***	***	***	▼***	▼***	▼***
COGS/sales (fn1)	***	***	***	▲***	▲***	▲***
Operating income or (loss)/sales (fn1)	***	***	***	▼***	▼***	▼***
Net income or (loss)/sales (fn1)	***	***	***	▼***	▼***	▼***

Notes:

Note.--Shares and ratios shown as “0.0” percent represent non-zero values less than “0.05” percent (if positive) and greater than “ (0.05)” percent (if negative). Zeroes, null values, and undefined calculations are suppressed and shown as “---“. Period changes preceded by a “ ▲” represent an increase, while period changes preceded by a “▼” represent a decrease.

fn1.--Reported data are in percent and period changes are in percentage points.
fn2.--Percent changes only calculated when both comparison values represent profits; The directional change in profitability provided when one or both comparison values represent a loss.

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.

APPENDIX D

FILLED NRSC IMPORT DATA

Appendix D-1

NRSC: U.S. imports of filled NRSC, by source, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (units)		
U.S. imports from.--			
China	***	---	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Value (1,000 dollars)		
U.S. imports from.--			
China	***	---	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Unit value (dollars per unit)		
U.S. imports from.--			
China	***	---	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Share of quantity (percent)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Share of value (percent)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Ratio to U.S. production		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

Note: Value data do not include the value of any filled content.

Source: Compiled from data received in response to Commission questionnaires.

Appendix D-2

NRSC: U.S. imports of filled and unfilled NRSC, by source, 2017-19

Item	Calendar year		
	2017	2018	2019
	Quantity (units)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Value (1,000 dollars)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Unit value (dollars per unit)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Share of quantity (percent)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Share of value (percent)		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***
	Ratio to U.S. production		
U.S. imports from.--			
China	***	***	***
Nonsubject sources	***	***	***
All import sources	***	***	***

Note: Value data do not include the value of any filled content.

Source: Compiled from data received in response to Commission questionnaires and from proprietary *** records for *** using statistical reporting numbers 7310.29.0025, 7311.00.0060, and 7311.00.0090, accessed March 23, 2020.