

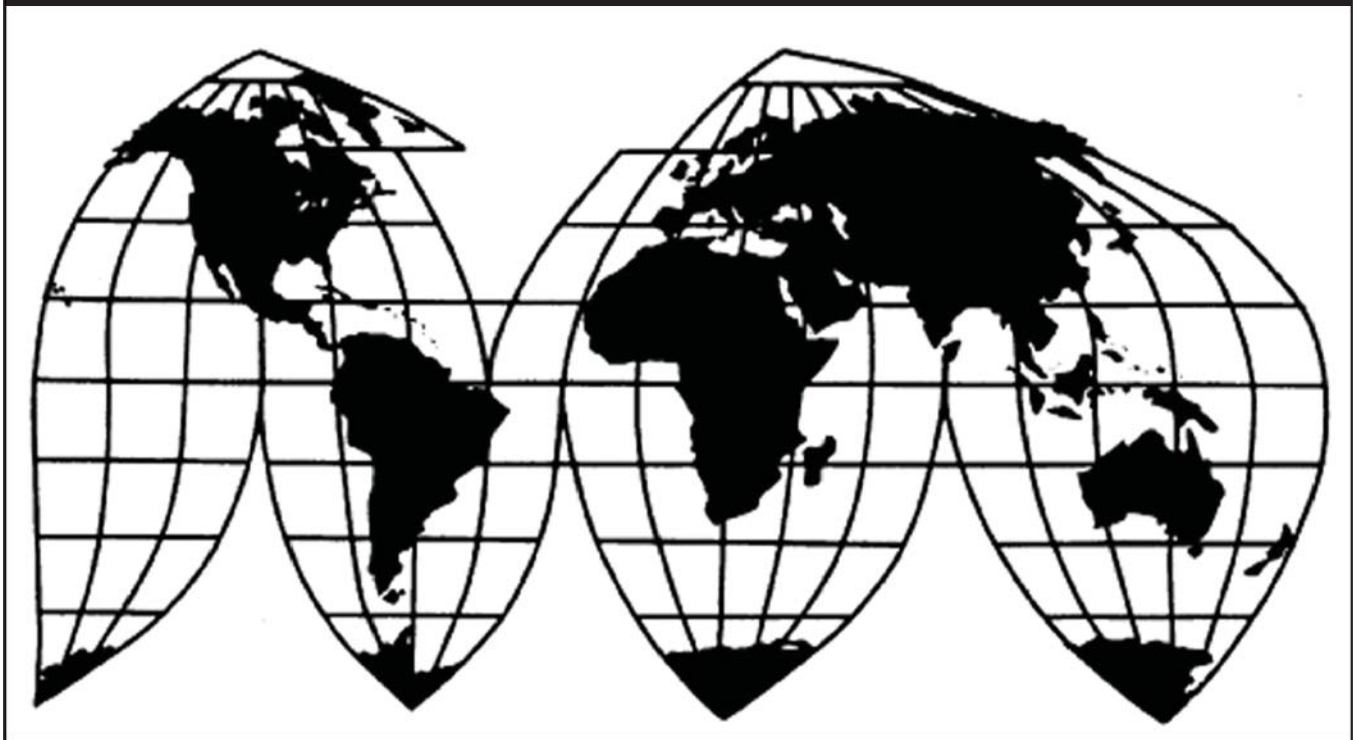
Silica Bricks and Shapes from China

Investigation No. 731-TA-1205 (Preliminary)

Publication 4369

January 2013

U.S. International Trade Commission



Washington, DC 20436

U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.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

UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-1205 (Preliminary)

SILICA BRICKS AND SHAPES FROM CHINA

DETERMINATION

On the basis of the record¹ developed in the subject investigation, the United States International Trade Commission (Commission) determines, pursuant to section 733(a) of the Tariff Act of 1930 (19 U.S.C. § 1673b(a)) (the Act), that there is a reasonable indication that an industry in the United States is materially injured by reason of imports from China of silica bricks and shapes, provided for in subheading 6902.20.10 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).

Pursuant to section 207.18 of the Commission's rules, the Commission also gives notice of the commencement of the final phase of its investigation. 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 Department of Commerce (Commerce) of an affirmative preliminary determination in the investigation under section 733(b) of the Act, or, if the preliminary determination is negative, upon notice of an affirmative final determination in that investigation under section 735(a) of the Act. Parties that filed entries of appearance in the preliminary phase of the investigation need not enter a separate appearance for the final phase of the investigation. 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 investigation.

BACKGROUND

On November 15, 2012, a petition was filed with the Commission and Commerce by Utah Refractories Corp., Lehi, UT, alleging that an industry in the United States is materially injured or threatened with material injury by reason of LTFV imports of silica bricks and shapes from China. Accordingly, effective November 15, 2012, the Commission instituted antidumping duty investigation No. 731-TA-1205 (Preliminary).

Notice of the institution of the Commission's investigation and of a public conference to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of November 23, 2012 (77 FR 70185). The conference was held in Washington, DC, on December 6, 2012, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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

IEWS OF THE COMMISSION

Based on the record in the preliminary phase of this investigation, we find that there is a reasonable indication that an industry in the United States is materially injured by reason of imports of silica bricks and shapes from China that are allegedly sold in the United States at less than fair value.

I. THE LEGAL STANDARD FOR PRELIMINARY DETERMINATIONS

The legal standard for preliminary antidumping duty 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

The petition in this investigation was filed on November 15, 2012, by Utah Refractories Corporation (“Petitioner” or “Utah Refractories”). Petitioner appeared at the staff conference and filed a postconference brief. No respondent interested parties participated in the preliminary phase of this investigation.

U.S. industry data are based on the questionnaire response of Utah Refractories, the sole producer of silica bricks and shapes in the United States during the period of investigation. Data on U.S. imports are based on the questionnaire responses of 15 firms that are believed to account for more than two-thirds of total U.S. imports of silica bricks and shapes from all sources during January 2009-September 2012.³

III. DOMESTIC LIKE PRODUCT AND DOMESTIC INDUSTRY

In determining whether 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.”⁴ 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.”⁵ In turn, the Tariff Act defines “domestic like

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, 20 CIT 353, 354-55 (1996). No party argued that the establishment of an industry is materially retarded by reason of 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 Confidential Staff Report (“CR”) at I-4, Public Staff Report (“PR”) at I-3.

⁴ 19 U.S.C. § 1677(4)(A).

⁵ 19 U.S.C. § 1677(4)(A).

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”⁶

The decision regarding the appropriate domestic like product 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.⁷ No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.⁸ The Commission looks for clear dividing lines among possible like products and disregards minor variations.⁹ Although the Commission must accept the determination of the U.S. Department of Commerce (“Commerce”) as to the scope of the imported merchandise that is subsidized or sold at less than fair value,¹⁰ the Commission determines what domestic product is like the imported articles Commerce has identified.¹¹

A. Scope Definition

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

bricks and shapes, regardless of size, containing at least 90 percent silica (also known as silicon dioxide (SiO₂)), regardless of other materials in the bricks and shapes. The products covered by the scope of this investigation are currently classified under Harmonized Tariff Schedule of the United States (“HTSUS”) subheadings 6902.20.1020 and 6902.20.5020. Imports of subject merchandise may also be entered under HTSUS subheading 6901.00.0000. Although the HTSUS subheadings are provided for

⁶ 19 U.S.C. § 1677(10).

⁷ See, e.g., Cleo Inc. v. United States, 501 F.3d 1291, 1299 (Fed. Cir. 2007); NEC Corp. v. Dep’t 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).

⁸ See, e.g., S. Rep. No. 96-249 at 90-91 (1979).

⁹ Nippon, 19 CIT at 455; Torrington, 747 F. Supp. at 748-49; see also S. Rep. No. 96-249 at 90-91 (1979) (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.”).

¹⁰ See, e.g., USEC, Inc. v. United States, 34 Fed. Appx., 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.2d 240 (Fed. Cir. 1989), cert. denied, 492 U.S. 919 (1989).

¹¹ 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); Cleo, 501 F.3d at 1298 n.1 (“Commerce’s {scope} finding does not control the Commission’s {like product} determination.”); Torrington, 747 F. Supp. at 748-52 (affirming the Commission’s determination defining six like products in investigations in which Commerce found five classes or kinds).

convenience and customs purposes, the written description of the scope of this proceeding is dispositive.¹²

We note that at this time the scope of this investigation may not be fully settled, because Petitioner has indicated that the scope was not intended to encompass certain silica products.¹³ Commerce is seeking comments from the parties to its investigation regarding the appropriate scope.¹⁴

B. Product Description

Silica bricks and shapes are light yellow refractory products made from silica rock that contain at least 90 percent silicon dioxide (silica). Silica bricks and shapes provide a high temperature resistant and non-reactive lining and are used primarily in coke ovens and glass furnaces.¹⁵ Silica bricks and shapes are also used in other applications, such as glass tank walls, acid practice electric furnaces, tunnel kilns, and regenerators.¹⁶

C. Analysis of Domestic Like Product

Petitioner advocates a domestic like product definition that is coextensive with the scope of the investigation, encompassing all silica bricks and shapes.¹⁷ As discussed below, the limited information on the record of this preliminary phase investigation supports finding a single domestic like product that is coextensive with the scope of this investigation. In defining the domestic like product, the Commission generally looks for clear dividing lines among possible like products and disregards minor variations.^{18 19}

Physical Characteristics and End Uses. Silica bricks and shapes are used primarily for lining coke ovens and glass furnace crowns.²⁰ All silica bricks and shapes are made from a minimum of 90 percent silica.²¹ Silica bricks and shapes are valued for their load bearing capabilities and resistance to spalling (the tendency to crack, chip, or flake) at high temperatures. They also retain their rigidity, are lightweight, have a good resistance to most fluxes present in coke ovens, and offer high resistance to abrasion. Silica bricks and shapes have a relatively long lifespan. Silica bricks and shapes are also

¹² Silica Bricks and Shapes From the People's Republic of China: Initiation of Antidumping Duty Investigation, 77 FR 73982 (Dec. 12, 2012).

¹³ Petitioner's Postconference Brief at 2, CR at I-4, PR at I-3.

¹⁴ Memorandum from Commerce to All Interested Parties re: Antidumping Duty Investigation of Silica Bricks and Shapes from the People's Republic of China: Scope Comments.

¹⁵ CR at I-7, PR at I-5.

¹⁶ CR at II-1, PR at II-1.

¹⁷ Petition at 9.

¹⁸ See, e.g., S. Rep. No. 249, 96th Cong., 1st Sess. 90-91 (1979); Torrington Co. v. United States, 747 F. Supp. 744, 748-749.

¹⁹ As noted above, the scope of this investigation may not be fully settled. Any change or clarification in the scope will necessarily inform our analysis of the domestic like product in any final phase investigation. Parties are reminded that should they desire the Commission to collect additional data, including data on distinct silica bricks and shapes products, in any final phase investigation, they should so indicate in written comments to draft questionnaires, pursuant to 19 C.F.R. section 207.20(b).

²⁰ CR at II-1, PR at II-1.

²¹ CR at I-7, PR at I-5.

nonreactive with the melted glass whereas other refractories, such as magnesia brick, could discolor the final product.²²

Interchangeability. The interchangeability between silica bricks and shapes and other types of refractories is limited. Substitutes for silica bricks and shapes may include cast silica blocks and fused silica shapes which are used to repair hot coke ovens and glass furnaces, fused cast mullite based brick, and alumina brick for glass furnace crowns. However, fused bricks are not used extensively in lieu of silica bricks and shapes due to expensive re-engineering requirements for coke ovens and the cost of the products for glass furnaces.²³ Magnesia bricks may also be used in regenerators rather than silica bricks and shapes. Other refractories are used in certain sections of coke ovens and glass furnaces, but these refractories do not have the same physical and chemical characteristics as silica bricks and shapes and therefore are not used interchangeably with silica bricks and shapes.²⁴

Channels of Distribution. Silica bricks and shapes are typically sold to end users. Only a small proportion may sometimes be sold to distributors.²⁵

Manufacturing Facilities, Production Processes, and Employees. The silica bricks and shapes production process begins with the mining of silica from quartzite, siliceous rock deposits, or siliceous sandstone, such as ganister. The silica material is then mechanically crushed and ground to the appropriate size to satisfy the specific requirements of the brick being produced. The crushed silica may then be washed to reduce the alumina content, thereby increasing the final silica brick refractoriness (ability to withstand greater temperatures). The silica material is screened, and 1.8 to 3.5 percent lime (calcium oxide) is added as a binder. The lime combines with the silica and other impurities of the rock to form a liquid which hardens after firing. This mix is then pressed into customized molds to form bricks. After being sent through driers, the bricks are fired to above 2,700 degrees Fahrenheit in either periodic (batch) kilns or continuous (tunnel) kilns to form the ceramic bond that gives silica brick its refractory properties.²⁶ This heating in kilns of the in-scope silica bricks and shapes distinguishes them from fused silica bricks and shapes that are not fired.²⁷

Petitioner produces these products in one manufacturing facility, with one group of employees, using essentially one manufacturing process. There are ***.²⁸

Producer and Customer Perceptions. The record of this preliminary phase investigation indicates that the domestic producer of silica bricks and shapes and its customers perceive silica bricks and shapes to be a distinct product. Petitioner testified that silica bricks and shapes are “one product that all customers recognize and understand.”²⁹

Price. Silica bricks and shapes are generally lower priced than certain other types of refractories, such as fused silica or mullite refractories.³⁰

Conclusion. Based on the limited record in this preliminary phase investigation and the lack of argument to the contrary, we define a single domestic like product, consisting of silica bricks and shapes, that is coextensive with the scope of the investigation.

²² CR at I-10, PR at I-6.

²³ Petition, p. 22. Estimates are that fused cast bricks are six to eight times the cost of the silica bricks the Petitioner produces and mullite alumina bricks are approximately three to four times the cost. Conference transcript, pp. 52-53 (Mulholland).

²⁴ CR at I-10-11, PR at I-9.

²⁵ CR/PR at Table II-1 and Conference Tr. at 63 (Mulholland).

²⁶ CR at I-11-12, PR at I-9-10.

²⁷ CR at I-7, PR at I-6.

²⁸ CR at I-12, PR at I-10, and Petitioner’s Postconference Brief at 4.

²⁹ Conference Tr. at 15 and 64-65 (Straight).

³⁰ Conference Tr. at 28 and 52-53 (Mulholland).

D. 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 a major proportion of the total domestic production of the product.”³¹ 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.

Based on our definition of the domestic like product, we define the domestic industry as consisting of Utah Refractories, the only known producer of the domestic like product. There are no related party issues in this investigation.³²

IV. REASONABLE INDICATION OF MATERIAL INJURY BY REASON OF SUBJECT IMPORTS³³

A. Legal Standard

In the preliminary phase of antidumping duty or 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.³⁴ 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 operations.³⁵ The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”³⁶ 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.³⁷ 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.”³⁸

Although the statute requires the Commission to determine whether there is a reasonable indication that the domestic industry is “materially injured by reason of” unfairly traded imports,³⁹ 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.⁴⁰ 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

³¹ 19 U.S.C. § 1677(4)(A).

³² CR at III-1, PR at III-1.

³³ Negligibility under 19 U.S.C. § 1677(24) is not an issue in this investigation. During the most recent 12-month period prior to the filing of the petition for which import data are available (October 2011-September 2012), subject imports from China accounted for *** percent of total imports. CR at IV-7, PR at IV-3.

³⁴ 19 U.S.C. §§ 1671b(a), 1673b(a).

³⁵ 19 U.S.C. § 1677(7)(B)(i). The Commission “may consider such other economic factors as are relevant to the determination” but shall “identify each {such} factor ... {a}nd explain in full its relevance to the determination.” 19 U.S.C. § 1677(7)(B).

³⁶ 19 U.S.C. § 1677(7)(A).

³⁷ 19 U.S.C. § 1677(7)(C)(iii).

³⁸ 19 U.S.C. § 1677(7)(C)(iii).

³⁹ 19 U.S.C. §§ 1671b(a), 1673b(a).

⁴⁰ Angus Chem. 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).

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.⁴¹

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 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.⁴² In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.⁴³ 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

⁴¹ The Federal Circuit, in addressing the causation standard of the statute, has 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 re-affirmed in Mittal Steel Point Lisas Ltd. v. United States, 542 F.3d 867, 873 (Fed. Cir. 2008), in which 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).

⁴² Statement of Administrative Action (“SAA”) on Uruguay Round Agreements Act (“URAA”), H.R. Rep. 103-316, Vol. I at 851-52 (1994) (“[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.

⁴³ 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 v. USITC, 266 F.3d 1339, 1345 (Fed. Cir. 2001) (“[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, Inc. v. United States, 132 F.3d 716, 722 (Fed. Cir. 1997) (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.”).

imports, which may be contributing to overall injury to an industry.⁴⁴ It is clear that the existence of injury caused by other factors does not compel a negative determination.⁴⁵

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” and the Commission “ensure{s} that it is not attributing injury from other sources to the subject imports.”^{46 47} Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed “rigid adherence to a specific formula.”⁴⁸

The Federal Circuit’s decisions in Gerald Metals, Bratsk, and Mittal Steel all involved cases in which the relevant “other factor” was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit’s guidance in Bratsk as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.⁴⁹ The additional “replacement/benefit” test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago determination that underlies the Mittal Steel litigation.

Mittal Steel clarifies that the Commission’s interpretation of Bratsk was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the Court requires the Commission to have “evidence in the record ‘to show that the harm occurred ‘by reason of’ the LTFV imports,’” and requires that the Commission not attribute

⁴⁴ S. Rep. 96-249 at 74-75; H.R. Rep. 96-317 at 47.

⁴⁵ 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.”).

⁴⁶ Mittal Steel, 542 F.3d at 877-78; 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.

⁴⁷ Commissioner Pinkert does not join this paragraph or the following three paragraphs. He points out that the Federal Circuit, in Bratsk and Mittal, held that the Commission is required, in certain circumstances when considering present material injury, to undertake a particular kind of analysis of nonsubject imports, albeit without reliance upon presumptions or rigid formulas. Mittal explains as follows:

What Bratsk held is that “where commodity products are at issue and fairly traded, price-competitive, nonsubject imports are in the market,” the Commission would not fulfill its obligation to consider an important aspect of the problem if it failed to consider whether nonsubject or non-LTFV imports would have replaced LTFV subject imports during the period of investigation without a continuing benefit to the domestic industry. 444 F.3d at 1369. Under those circumstances, Bratsk requires the Commission to consider whether replacement of the LTFV subject imports might have occurred during the period of investigation, and it requires the Commission to provide an explanation of its conclusion with respect to that factor.

542 F.3d at 878.

⁴⁸ 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.”).

⁴⁹ Mittal Steel, 542 F.3d at 875-79.

injury from nonsubject imports or other factors to subject imports.⁵⁰ Accordingly, we do not consider ourselves required to apply the replacement/benefit test that was included in Commission opinions subsequent to Bratsk.

The progression of Gerald Metals, Bratsk, and Mittal Steel clarifies that, in cases involving commodity products where price-competitive nonsubject imports are a significant factor in the U.S. market, the Court will require the Commission to give full consideration, with adequate explanation, to non-attribution issues when it performs its causation analysis.⁵¹

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual and subject to review under the substantial evidence standard. Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.⁵²

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. Demand Conditions in the U.S. Market

Silica bricks and shapes generally are purchased by end users for use in the new construction or repair of furnaces used in the steel and glass industries.⁵³ Silica bricks and shapes are usually produced to order for a particular furnace lining or relining project.⁵⁴ Demand for silica bricks and shapes is derived from the demand for steel and glass.⁵⁵

Apparent U.S. consumption of silica bricks and shapes increased from *** short tons in 2009 to *** short tons in 2010 and *** short tons in 2011. Apparent U.S. consumption was *** short tons in interim 2011 and *** short tons in interim 2012.⁵⁶

⁵⁰ Mittal Steel, 542 F.3d at 873 (quoting from Gerald Metals, 132 F.3d at 722), 875-79 & n.2 (recognizing the Commission's alternative interpretation of Bratsk as a reminder to conduct a non-attribution analysis).

⁵¹ To that end, after the Federal Circuit issued its decision in Bratsk, the Commission began to present published information or send out information requests in final phase investigations to producers in nonsubject countries that accounted for substantial shares of U.S. imports of subject merchandise (if, in fact, there were large nonsubject import suppliers). In order to provide a more complete record for the Commission's causation analysis, these requests typically seek information on capacity, production, and shipments of the product under investigation in the major source countries that export to the United States. The Commission plans to continue utilizing published or requested information in final phase investigations in which there are substantial levels of nonsubject imports.

⁵² 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.").

⁵³ CR/PR at II-1.

⁵⁴ CR/PR at II-1. The Petitioner reported that *** percent of its commercial shipments were produced to order, and the three importers addressing this question reported that *** percent of their imports of silica bricks and shapes from China were produced to order. CR at II-9, PR at II-5.

⁵⁵ Petitioner's Postconference Brief at 1.

⁵⁶ CR/PR at Table IV-3. The interim periods in 2011 and 2012 cover January through September of each year.

2. Supply Conditions in the U.S. Market

The U.S. market is supplied by one domestic producer (Utah Refractories), subject imports, and nonsubject imports. Utah Refractories' production facilities were originally built and owned by the Federal Government during World War II as an inland national defense plant. The plant was later privatized and changed ownership several times before being acquired by its current owners in 1998. Utah Refractories has been the sole producer of silica bricks and shapes in the United States since shortly after being acquired by its current owners.⁵⁷

The Petitioner identified 10 producers of the subject merchandise in China and indicated that there are likely additional producers and exporters.⁵⁸ It stated that the Chinese silica brick industry has a "vast" capacity that is "thousands of times greater" than Petitioner's capacity.⁵⁹ No Chinese producers of the subject merchandise responded to the Commission's questionnaire.⁶⁰ The leading U.S. importers of silica bricks and shapes from China are ***.⁶¹ The largest U.S. import sources for silica bricks and shapes after China are the Czech Republic, Germany, and Belgium.⁶²

The domestic industry's share of apparent U.S. consumption, by quantity, increased from *** percent in 2009 to *** percent in 2010, then decreased to *** percent in 2011.⁶³ It was *** percent in interim 2011 and *** percent in interim 2012.⁶⁴ The market share of subject imports, based on quantity, decreased from *** percent in 2009 to *** percent in 2010, then increased to *** percent in 2011.⁶⁵ It was *** percent in interim 2011 and *** percent in interim 2012.⁶⁶ The market share of imports from nonsubject countries, based on quantity, increased from *** percent in 2009 to *** percent in 2010, then decreased to *** percent in 2011.⁶⁷ It was *** percent in interim 2011 and *** percent in interim 2012.⁶⁸

3. Substitutability and Other Conditions of Competition

The record in the preliminary phase of this investigation indicates that subject imports and domestically produced silica bricks and shapes are generally substitutable. The U.S. producer and four of the seven responding importers reported that subject imports and the domestic like product are "always" or "frequently" interchangeable.⁶⁹ The remaining three importers reported that subject imports and the domestic like product are "sometimes" interchangeable.⁷⁰

⁵⁷ Conference Tr. at 8-9 (Wiseman).

⁵⁸ CR at VII-5, PR at VII-4.

⁵⁹ CR at VII-4, PR at VII-3.

⁶⁰ CR at VII-5, PR at VII-4.

⁶¹ CR/PR at Table IV-1.

⁶² CR at VII-10, PR at VII-6.

⁶³ CR/PR at Table IV-4.

⁶⁴ CR/PR at Table IV-4.

⁶⁵ CR/PR at Table IV-4.

⁶⁶ CR/PR at Table IV-4.

⁶⁷ CR/PR at Table IV-4.

⁶⁸ CR/PR at Table IV-4.

⁶⁹ CR/PR at Table II-4.

⁷⁰ CR/PR at Table II-4.

Petitioner maintains that competition in the U.S. market between subject imports and the domestic like product is based on price and delivery time.⁷¹ Petitioner and three of seven importers reported that differences other than price were “***” important in comparing U.S. and Chinese product.⁷² The remaining responding importers reported that differences other than price were “always” important in comparing U.S. and Chinese product.⁷³ Timely delivery, quality, and durability were among the factors that these importers identified as important non-price factors.⁷⁴ Overall, the record indicates that price is an important consideration in purchasing decisions.

C. Volume of Subject Imports

Section 771(7)(C)(i) of the 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.”⁷⁵

The volume of subject import U.S. shipments, by quantity, declined from *** short tons in 2009 to *** short tons in 2010, and then rose to *** short tons in 2011. The volume of U.S. shipments of subject imports was *** short tons in interim 2011 and *** short tons in interim 2012.⁷⁶ Subject imports’ share of apparent U.S. consumption, measured by quantity, declined from *** percent in 2009 to *** percent in 2010, and then increased to *** percent in 2011. Subject imports’ share of apparent U.S. consumption was *** percent in interim 2011 and *** percent in interim 2012.⁷⁷ The ratio of subject imports to domestic production declined from *** percent in 2009 to *** percent in 2010, and then rose to *** percent in 2011. It was *** percent in interim 2011 and *** percent in interim 2012.⁷⁸

The record of this preliminary phase investigation indicates that subject imports have the ability to respond quickly to changes in demand in the U.S. market. The increase in subject imports in 2011 was in large part attributable to a single large purchase of subject imports for use in ***.⁷⁹ The subsequent significant decline in subject imports from China in interim 2012 likely reflects fluctuations in demand for silica bricks and shapes tied to the timing of the project-based nature of lining/relining activity.⁸⁰ Although subject import volume was relatively low in interim 2012, we do not find on this record that there has been a sustained withdrawal of subject imports from the U.S. market because orders for subject imports in 2012 appear to have been concentrated toward the end of the year, after the end of the period for which data were collected but before the closing of the record in this preliminary phase investigation.

⁷¹ Conference Tr. at 51 (Williams and Worthen).

⁷² CR/PR at Table II-5.

⁷³ CR/PR at Table II-5.

⁷⁴ CR at II-10, PR at II-7.

⁷⁵ 19 U.S.C. § 1677(7)(C)(I).

⁷⁶ CR/PR at Table C-1. Data on subject imports are based on data obtained from importer questionnaire responses. This dataset is preferable to Customs import data because the tariff reporting number under which silica bricks and shapes enter the United States is a relatively large basket category that includes substantial amounts of out-of-scope goods. CR at I-4, PR at I-3.

⁷⁷ CR/PR at Table IV-4.

⁷⁸ CR/PR at Table IV-5. Absent extraordinary circumstances, the Commission considers all sales by members of the domestic industry in the U.S. market in its analysis. Thus, we have not excluded or discounted in our analysis ***. See, e.g., Petition at 20.

⁷⁹ CR at V-6, PR at V-4.

⁸⁰ CR at II-7, PR at II-4.

U.S. importers reported orders for silica bricks and shapes from China in the last quarter of 2012 totaling *** short tons.⁸¹

For purposes of the preliminary phase of this investigation, we find that the volume of subject imports from China is significant both in absolute terms and relative to consumption and production in the United States.

D. Price Effects of Subject Imports

Section 771(C)(ii) of the 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.⁸²

As addressed above in the discussion of the conditions of competition, the evidence on the record indicates that there is a substantial degree of substitutability between silica bricks and shapes produced domestically and silica bricks and shapes imported from China. The record shows that price is an important – although not exclusive – consideration in U.S. purchasers’ sourcing decisions.⁸³

The Commission collected quarterly pricing data on two products.⁸⁴ These data accounted for *** percent of U.S. producers’ U.S. shipments during the period of investigation and *** percent of U.S. imports from China.⁸⁵ Pricing comparisons were possible only for Product 1, as no importers reported data for Product 2.

The subject imports were priced lower than the domestic like product in seven out of 14 quarterly pricing comparisons.⁸⁶ Underselling margins ranged from *** percent to *** percent and averaged *** percent.⁸⁷ Although the quarterly data show a mixed pattern of underselling and overselling by subject imports, we note that the underselling generally occurred in quarters in which there was a high volume of subject imports, and the overselling generally occurred in quarters in which subject imports were sold in more modest quantities.⁸⁸ The quantity of imports involved in underselling (*** short tons) was much higher than the quantity involved in overselling (*** short tons).⁸⁹ For purposes of this

⁸¹ CR/PR at Table VII-5.

⁸² 19 U.S.C. § 1677(7)(C)(ii).

⁸³ CR/PR at Table II-3.

⁸⁴ Product 1 is silica bricks or shapes with at least 90 percent silica content sold to the steel industry, and Product 2 is silica bricks or shapes with at least 90 percent silica content sold to the glass industry. CR at V-5, PR at V-3.

⁸⁵ CR at V-5 PR at V-3.

⁸⁶ CR/PR at Table V-5.

⁸⁷ CR/PR at Table V-5.

⁸⁸ CR/PR at Table V-5.

⁸⁹ CR/PR at Table V-5.

preliminary phase investigation, we find these instances of underselling at frequently high margins and in relatively large quantities to be significant.^{90 91}

We have also considered trends in prices for the domestic like product and the subject imports over the period of investigation. Prices for domestically produced Products 1 and 2 dropped sharply in 2010, remained well below 2009 levels in 2011, and rose sharply in 2012.⁹² Prices for imports of Product 1 from China fluctuated throughout the period of investigation.⁹³ It is unclear whether or to what extent the lower prices of the domestically produced product in 2010 and 2011 relative to those in 2009 and interim 2012 were caused by competition with subject imports. We will examine this issue further in any final phase investigation.⁹⁴ We also note that the ratio of the domestic industry's cost of goods sold ("COGS") to net sales increased from *** percent in 2009 to *** percent in 2010. It further increased to *** percent in 2011, when subject import volumes were at their highest levels for the period, indicating that ***.⁹⁵ We will examine the issue of price suppression by subject imports further in any final phase investigation.⁹⁶

E. Impact of the Subject Imports⁹⁷

Section 771(7)(C)(iii) of the 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."⁹⁸ These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, research and development, and factors affecting domestic prices. No single factor

⁹⁰ Commissioner Pearson and Commissioner Broadbent note that the instances of underselling *** coincided with the *** cited in the previous section. The limited record in this preliminary phase does not contain sufficient evidence regarding this *** transaction to determine the significance of the apparent underselling.

⁹¹ We examined Petitioner's allegations of lost sales and lost revenues. We were unable to confirm any of these allegations. Two of the three responding purchasers named in the lost sale allegations and the one responding purchaser named in the lost revenue allegations denied the allegations. CR/PR at Tables V-6 and V-7. The third purchaser named in the lost sale allegations stated that it was not familiar with the product named in the allegation and that it had no record of importing silica bricks and shapes. CR at V-13, PR at V-6.

⁹² CR/PR at Tables V-2 and V-3.

⁹³ CR/PR at Table V-2. As noted above, there were no sales of subject imports of Product 2.

⁹⁴ We encourage the parties to include in their written comments on draft questionnaires in any final phase investigation any suggestions they might have as to a better way to define pricing products or to collect price data.

⁹⁵ CR/PR at Table C-1.

⁹⁶ The analysis of possible price suppression is complicated by uncertainties relating to the domestic industry's reporting of its COGS and sales, general and administrative ("SG&A") expenses. These issues will need to be examined further in any final phase investigation.

⁹⁷ In its notice initiating the antidumping investigation on silica bricks and shapes from China, Commerce reported estimated dumping margins ranging from 118.47 percent to 290.12 percent. 77 Fed. Reg. at 73985 (Dec. 12, 2012).

⁹⁸ 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851, 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

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.”⁹⁹

Many of the domestic industry’s performance indicators improved between 2009 and 2011, but several remained at low levels during the period of investigation. The domestic industry’s average capacity ***.¹⁰⁰ Production rose from *** short tons in 2009 to *** short tons in 2010, then increased slightly to *** short tons in 2011.¹⁰¹ It was *** short tons in interim 2011 and *** short tons in interim 2012.¹⁰² Capacity utilization increased from *** percent in 2009 to *** percent in 2010 and *** percent in 2011.¹⁰³ It was *** percent in interim 2011 and *** percent in interim 2012.¹⁰⁴

Domestic producers’ U.S. shipments rose from *** short tons in 2009 to *** short tons in 2010 and *** short tons in 2011.¹⁰⁵ They were *** short tons in interim 2011 and *** short tons in interim 2012.¹⁰⁶ The domestic industry’s share of apparent U.S. consumption, by quantity, rose from *** percent in 2009 to *** percent in 2010 and then fell to *** percent in 2011.¹⁰⁷ It was *** percent in interim 2011 and *** percent in interim 2012.¹⁰⁸

The industry’s employment indicators also showed some improvement. The number of production and related workers rose from *** in 2009 to *** in 2010 and *** in 2011.¹⁰⁹ It was *** in interim 2011 and *** in interim 2012.¹¹⁰

The domestic industry’s net sales increased from \$*** in 2009 to \$*** in 2010 and \$*** in 2011.¹¹¹ They were \$*** in interim 2011 and \$*** in interim 2012.¹¹²

The domestic industry had an ***. It recorded *** of \$*** in 2009, \$*** in 2010, and \$*** in 2011.¹¹³ The industry had *** of \$*** in interim 2011 and an *** of \$*** in interim 2012.¹¹⁴ The

⁹⁹ 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851, 885; Live Cattle from Canada and Mexico, Invs. Nos. 701-TA-386, 731-TA-812-813 (Preliminary), USITC Pub. 3155 at 25 n.148 (Feb. 1999).

¹⁰⁰ CR/PR at Table III-1.

¹⁰¹ CR/PR at Table III-1.

¹⁰² CR/PR at Table III-1.

¹⁰³ CR/PR at Table III-1.

¹⁰⁴ CR/PR at Table III-1.

¹⁰⁵ CR/PR at Table III-2. The value of U.S. shipments rose from \$*** in 2009 to \$*** in 2010 and \$*** in 2011. CR/PR at Table III-2. The domestic industry *** inventories. CR at III-6, PR at III-3.

¹⁰⁶ CR/PR at Table III-2. The value of U.S. shipments was \$*** in interim 2011 and \$*** in interim 2012. CR/PR at Table III-2.

¹⁰⁷ CR/PR at Table IV-4.

¹⁰⁸ CR/PR at Table IV-4.

¹⁰⁹ CR/PR at Table III-3.

¹¹⁰ CR/PR at Table III-3. Hours worked rose from *** in 2009 to *** in 2010 and *** in 2011. They were *** in interim 2011 and *** in interim 2012. Id. Wages paid rose from \$*** in 2009 to \$*** in 2010 and \$*** in 2011. Wages paid were \$*** in interim 2011 and \$*** in interim 2012. Id. Productivity rose from *** tons/1,000 hours in 2009 to *** tons/1,000 hours in 2010, and then fell to *** tons/1,000 hours in 2011. Productivity was *** tons/1,000 hours in interim 2011 and *** tons/1,000 hours in interim 2012. Id.

¹¹¹ CR/PR at Table VI-1.

¹¹² CR/PR at Table VI-1.

¹¹³ CR/PR at Table VI-1.

¹¹⁴ CR/PR at Table VI-1.

industry's operating margins were *** percent in 2009, *** percent in 2010, and *** percent in 2011.¹¹⁵ They were *** percent in interim 2011 and *** percent in interim 2012.¹¹⁶

For purposes of this preliminary phase investigation, we find there is a causal nexus between the subject imports and the weak condition of the domestic industry. Significant volumes of subject imports maintained a significant market share and undersold the domestic like product, and have precluded further growth in the domestic industry's sales and revenues, leading to continuing weakness in the domestic industry's capacity utilization and profitability.

We have also considered whether there are other factors that may have had an adverse impact on the domestic industry during the period examined to ensure that we are not attributing injury from such other factors to the subject imports. In this context, we have examined the impact of nonsubject imports.¹¹⁷ The largest U.S. import sources for silica bricks and shapes after China are the Czech Republic, Germany, and Belgium.¹¹⁸ The total volume of subject imports was substantially higher than the total volume of nonsubject imports over the entire period for which data were collected, except in interim 2012.¹¹⁹ In 2011, when underselling of the domestic like product by subject imports was particularly evident, the market share of subject imports was much greater than that of nonsubject imports.¹²⁰ Thus, it does not appear based on the record of this preliminary phase of the investigation that nonsubject imports explain the performance of the domestic industry. We will explore this issue further in any final phase investigation.

We therefore conclude, for purposes of the preliminary phase of this investigation, that subject imports have had an adverse impact on the domestic industry.

¹¹⁵ CR/PR at Table VI-1. Capital expenditures declined from \$*** in 2009 to \$*** in 2010, and to \$*** in 2011. CR/PR at Table VI-3.

¹¹⁶ CR/PR at Table VI-1.

¹¹⁷ Based on the record evidence in the preliminary phase of this investigation, Commissioner Pinkert finds that price competitive, nonsubject imports were a significant factor in the U.S. market for silica bricks and shapes during the period of investigation. CR/PR at Table C-1. Commissioner Pinkert further finds, however, that, regardless of whether silica bricks and shapes are commodity products, the record does not warrant a conclusion that nonsubject imports would have replaced the subject imports during the period without benefit to the domestic industry if the subject imports had exited the U.S. market. The available information indicates that China is by far the largest source of world exports of silica bricks and shapes, CR/PR at Table VII-1, and there is no record information regarding the ability or propensity of nonsubject suppliers to replace the subject imports. See CR at VII-10, PR at VII-6. If one assumes for the sake of discussion, however, that nonsubject imports would have replaced the subject imports, Commissioner Pinkert notes that there is insufficient information in this preliminary phase upon which to consider whether antidumping relief would nevertheless have benefited the domestic industry through higher prices. See CR at V-5 n.20, PR at V-3 n.20 (only one importer provided price data, which covered a small volume and value of nonsubject imports).

¹¹⁸ CR at VII-10, PR at VII-6.

¹¹⁹ CR/PR at Table IV-2.

¹²⁰ CR/PR at Table IV-4. Given the paucity of information on the record of this preliminary phase investigation regarding nonsubject import prices, CR at V-5 n.20, PR at V-3 n.20, it is unclear how price competitive such imports were in the U.S. market. Although the average unit values ("AUVs") of nonsubject imports were lower than those of both subject imports and the domestic product throughout the period of investigation, we note that silica bricks and shapes are generally produced to order and in a wide variety of sizes and shapes depending upon the purchasers' needs, and thus AUVs may not be an accurate measure of price differences.

CONCLUSION

For the above-stated reasons, and based on the record in the preliminary phase of this investigation, we find that there is a reasonable indication that an industry in the United States is materially injured by reason of allegedly dumped imports of silica bricks and shapes from China.

PART I: INTRODUCTION

BACKGROUND

This investigation results from a petition filed with the U.S. Department of Commerce (“Commerce”) and the U.S. International Trade Commission (“USITC” or “Commission”) by counsel on behalf of Utah Refractories Corp., Lehi, UT, on November 15, 2012, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value (“LTFV”) imports of silica bricks and shapes¹ from China. Information relating to the background of the investigation is provided below.²

Effective date	Action
November 15, 2012	Petition filed with Commerce and the Commission; institution of Commission investigation (77 FR 70185, November 23, 2012)
December 6, 2012	Commission’s conference ¹
December 12, 2012	Commerce’s notice of initiation (77 FR 73982)
December 28, 2012	Scheduled date for the Commission’s vote
December 31, 2012	Commission determination due to Commerce
January 8, 2013	Commission views due to Commerce

¹ A list of witnesses that appeared at the conference is presented in app. B.

STATUTORY CRITERIA AND ORGANIZATION OF THE 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--

In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any

¹ See the section entitled “The Subject Merchandise” in *Part I* of this report for a complete description of the merchandise subject to this investigation.

² *Federal Register* notices cited in the tabulation are presented in app. A.

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 declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (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.

Organization of the Report

Part I of this report presents information on the subject merchandise, alleged 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.

U.S. MARKET SUMMARY

Silica bricks and shapes generally are used to line coke oven walls and construct glass furnace domes and regenerators. The petitioner, Utah Refractories Corp., claims to be the sole domestic producer of silica bricks and shapes in the United States. Leading producers of silica bricks and shapes in China named by petitioner are Zhengzhou Chengtong Refractory Co., Ltd.; Zibo Tashan Refractory Material Factory; Zibo Hitech Material Co., Ltd.; Zhengzhou Sunrise Technology, Co., Ltd.; Luoyang Zhongte Refractories, Co., Ltd.; Yangquan Rising Commercials Ltd.; Zibo Xindi Refractory Material, Co., Ltd.; Zibo Tashan Refractory Material Factory; Smetal Group Co., Ltd.; and Zibo Yonganda Industry and Trade Co., Ltd. The leading U.S. importers of silica bricks and shapes from China that responded to the

Commission's questionnaire, are ***, while the leading importer of silica bricks and shapes from nonsubject countries (i.e., ***) is ***.³

Apparent U.S. consumption of silica bricks and shapes totaled \$*** in 2011. The U.S. producer's U.S. shipments of silica bricks and shapes totaled \$*** in 2011, and accounted for *** percent of apparent U.S. consumption by quantity (in short tons) and *** percent by value. Subject U.S. imports from China totaled \$*** in 2011 and accounted for *** percent of apparent U.S. consumption by quantity (in short tons) and *** percent by value. U.S. imports from nonsubject sources totaled \$*** in 2011 and accounted for *** percent (in short tons) of apparent U.S. consumption by quantity and *** percent by value.

SUMMARY DATA AND DATA SOURCES

A summary of data collected in the investigation is presented in appendix C, table C-1. U.S. industry data are based on the questionnaire response of petitioner Utah Refractories Corp. U.S. imports are based on the questionnaire responses of 15 firms that are believed to account for more than two-thirds of total U.S. imports of silica bricks and shapes from all sources during January 2009-September 2012.⁴ The data submitted by five additional firms that reported U.S. imports of items that petitioner has indicated are not part of the scope of the investigation⁵ are not included in the aggregate presentation of import data in the body of this report, but are presented separately in appendix D.

PREVIOUS AND RELATED INVESTIGATIONS

Silica bricks and shapes have not been the subject of any prior antidumping or countervailing duty investigations in the United States.

³ In addition, non-responding U.S. importer *** is believed to be a leading U.S. importer of subject silica bricks and shapes from China and non-responding U.S. importers *** are believed to be leading U.S. importers of silica bricks and shapes from nonsubject countries (primarily from the Czech Republic, Hungary, and Germany).

⁴ According to the petition, the primary Harmonized Tariff Schedule ("HTS") statistical reporting number under which subject silica bricks and shapes are imported into the United States appears to be HTS 6902.20.1020. Based on individual importer information provided by Customs, staff estimates that roughly one-half of the items entered into the United States under HTS statistical reporting number 6902.20.1020 during the period examined in this investigation are silica bricks and shapes that meet the intended scope language definition. Because this HTS number is a relatively large basket category, the import data presented in this report are based on Commission questionnaire responses.

⁵ *** U.S. imports of high-purity, semiconductor-grade crucibles, which are used to manufacture semiconductors and/or solar wafers and to conduct research and development; *** U.S. imports of silica refractory castable shapes that are specifically engineered into boiler components; and *** U.S. imports of fused silica cement-bonded shapes used to repair hot coke ovens. Subsequent to the filing of the petition and the issuance of questionnaires, the petitioner notified the Commission of its intent to exclude these items from the scope of the investigation and noted that it was working with Commerce to amend the scope language. Petitioner's postconference brief, Responses to Questions Posed to Petitioner, no. 1; Email from ***, December 11, 2012.

NATURE AND EXTENT OF ALLEGED SALES AT LTFV

On December 12, 2012, Commerce published a notice in the *Federal Register* of the initiation of its antidumping duty investigation on silica bricks and shapes from China.⁶ Commerce has initiated an antidumping duty investigation based on estimated dumping margins ranging from 118.47 percent to 290.12 percent for silica bricks and shapes from China.

THE SUBJECT MERCHANDISE

Commerce's Scope

Commerce has defined the scope of this investigation as follows:

The products covered by the scope of this investigation are bricks and shapes, regardless of size, containing at least 90 percent silica (also known as silicon dioxide (SiO₂)), regardless of other materials in the bricks and shapes. The products covered by the scope of this investigation are currently classified under Harmonized Tariff Schedule of the United States ("HTSUS") subheadings 6902.20.1020 and 6902.20.5020. Imports of subject merchandise may also be entered under HTSUS subheading 6901.00.0000. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of this proceeding is dispositive.⁷

U.S. Tariff Treatment

The products subject to this petition are classifiable in HTS heading 6901.00.00 and subheadings 6902.20.10 (statistical reporting number 6902.20.1020) and 6902.20.50 (statistical reporting number 6902.20.5020). Merchandise enters the United States under all three of these provisions at a general duty rate of "Free" (table I-1). Heading 6901.00.00 is not subdivided for statistical reporting purposes. The original scope of this product was amended by Commerce on December 4, 2012 to add HTS statistical reporting numbers 6901.00.0000 {sic.} and 6902.20.5020, under which silica refractory brick may be imported into the United States.⁸

⁶ *Silica Bricks and Shapes From the People's Republic of China: Initiation of Antidumping Duty Investigation*, 77 FR 73982, December 12, 2012.

⁷ *Silica Bricks and Shapes From the People's Republic of China: Initiation of Antidumping Duty Investigation*, 77 FR 73982, December 12, 2012. As explained in the following section of this report, the petition, as originally filed, included only HTS statistical reporting number 6902.20.1020, but was later amended by the petitioner to include additional HTS numbers. Letter to the Secretary of Commerce, Samuel Straight, Counsel, Ray Quinney & Nebeker P.C., December 4, 2012.

⁸ Letter to the Secretary of Commerce, Samuel Straight, Counsel, Ray Quinney & Nebeker P.C., December 4, 2012.

**Table I-1
Silica Refractory Brick: U.S. tariff treatment, 2012**

HTS provision	Article description	General ¹	Special ²	Column 2 ³
		Rates (percent ad valorem)		
6901.00.0000	Bricks, blocks, tiles and other ceramic goods of siliceous fossil meals (for example, kieselguhr, tripolite or diatomite) or of similar siliceous earths.....	Free	(⁴)	30%
6902	Refractory bricks, blocks, tiles and similar refractory ceramic constructional goods, other than those of siliceous fossil meals or similar siliceous earths:			
6902.20	Containing by weight more than 50 percent of alumina (Al ₂ O ₃), of silica (SiO ₂) or of a mixture or compound of these products:			
6902.20.10	Bricks.....	Free	(⁴)	25%
6902.20.1010	Alumina.....			
6902.20.1020	Other.....			
6902.20.50	Other.....	Free	(⁴)	30%
6902.20.5010	Alumina.....			
6902.20.5020	Other.....			

¹ Normal trade relations, formerly known as the most-favored-nation duty rate.
² Special rates not applicable when General rate is free.
³ Applies to imports from a small number of countries that do not enjoy normal trade relations duty status.
⁴ General note 3(c)(1) to the HTS lists the programs related to the enumerated special duty rate symbols. No special duty rate applies to products of China.

Source: Harmonized Tariff Schedule of the United States (2012) revision 1 to supplement 1.

THE DOMESTIC LIKE PRODUCT

Description and Applications

Silica refractory bricks and shapes are light yellow refractory products made from silica rock and contain at minimum 90 percent silicon dioxide (silica).⁹ This refractory provides a high temperature resistant and non-reactive lining primarily in coke ovens and in glass furnaces. Silica refractories, the most widely used refractories,¹⁰ are produced in different types. The type included in the scope of this investigation is formed objects, commonly referred to as “bricks and shapes.” These in-scope bricks and

⁹ Conference transcript, p. 10 (Straight). Silica bricks and shapes are defined by ASTM classification C416. This standard designates silica bricks have an aluminum oxide content of less than 1.5 percent, a titanium oxide content of less than 0.2 percent, an iron oxide content of less than 2.5 percent, and a calcium oxide content of less than 4 percent. The presence of these impurities can have an effect on the resulting refractoriness of the silica bricks and therefore different industries have different specifications for their brick. For example, the glass industry requires a very high-purity silica brick with a lower alumina content, whereas the coke industry requests higher alumina content in their brick to increase the brick’s thermal shock resistance. <http://www.astm.org/Standards/C416.htm>, retrieved December 6, 2012; conference transcript, p. 46 (Mulholland).

¹⁰ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 23.

shapes are kiln-fired and mortared together into various constructions,¹¹ unlike fused silica bricks and shapes that are not fired.¹²

The majority of silica bricks and shapes are used to line coke oven walls (figure I-1) and construct glass furnace domes and regenerators¹³ (figure I-2).¹⁴ They are used in these applications because of their unique properties. Silica bricks and shapes are excellent for load bearing situations, even near their melting point of 3,000 degrees Fahrenheit. Besides their load bearing capabilities at high temperatures, silica bricks and shapes may also be heated rapidly (i.e., after first being heated past 1,200 degrees Fahrenheit) and have low spalling¹⁵ at temperatures between 1,200 and 3,000 degrees Fahrenheit. This is particularly important for structural applications, as spalling could cause walls or domes to fail.¹⁶ Silica bricks and shapes retain their rigidity, are light weight, have a good resistance to most fluxes present in coke ovens,¹⁷ and offer high resistance to abrasion.¹⁸ Silica bricks and shapes have a relatively long lifespan, which is especially important for glass furnace domes and crowns, as those sections determine the lifespan of the glass furnace.¹⁹ Silica bricks and shapes have a lifespan of 20-40 years in a coke oven²⁰ and 12 to 18 years in a glass furnace.²¹ Silica brick is also nonreactive with the melted glass, whereas other refractories, such as magnesia brick, could discolor the final product.²²

¹¹ Some bricks and shapes may be produced from fused, non-crystalline silica mixed with a cement binding agent and dried without the same heat treatment. The petitioner testified that these items are not intended to be included in the scope of this investigation. Conference transcript, pp. 52-53 (Mulholland); petitioner's postconference brief, Responses to Questions Posed to Petitioner, no. 1.

¹² Other out-of-scope silica refractories include "monolithics." Monolithic silica refractories, which include gunning mixes, castables, and ramming mixes, among others, may be installed and cured in place without being first fired and are frequently used to repair operating furnaces. Environmental Protection Agency, "Refractory Manufacturing," AP 42, Fifth Edition, v.1, January 1995 p. 5-1, <http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s05.pdf>, retrieved December 10, 2012; Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 90.

¹³ Regenerative furnaces are fired on one side and the gases exit the opposite side to heat the checkerboard brick of the side regenerator. This reduces heat lost through the exhaust and heats the new wave of gas as the airflow is reversed. Silica bricks are excellent for this application as they do not risk spalling despite the periodic change in temperature because the regenerative furnace range is never below 1,200 degrees Fahrenheit. <http://gpi.org/glassresources/education/manufacturing/section-33-furnace-operations.html>, retrieved December 4, 2012; Norton, Frederick, Refractories, McGraw-Hill, 1931, pp. 340-341. Typically the glass produced in these furnaces is for downstream products, including flat glass for building and automotive windows, glass bottles and containers, fluorescent light bulb tubes, fiberglass, and niche markets, such as stained glass. Conference transcript, pp. 36 and 53 (Mulholland).

¹⁴ Conference transcript, p. 10 (Straight). Silica bricks and shapes used for these purposes generally need to be dense rather than lightweight. Dense silica bricks typically contain at least 95 percent silica. <http://www.pd-refractories.com/en/products/silica-products/dense-silica-products>, retrieved December 11, 2012.

¹⁵ Spalling is the tendency to crack, chip, or flake.

¹⁶ Conference transcript, p. 10 (Straight).

¹⁷ Conference transcript, p. 10 (Straight).

¹⁸ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, pp. 22 and 88.

¹⁹ Norton, Frederick, Refractories, McGraw-Hill, 1931, pp. 340-341.

²⁰ Conference transcript, p. 10 (Straight); petition, p. 7.

²¹ Conference transcript, p. 35 (Mulholland).

²² Petition, p. 7.

Figure I-1
Silica refractory brick use: Otto coke oven

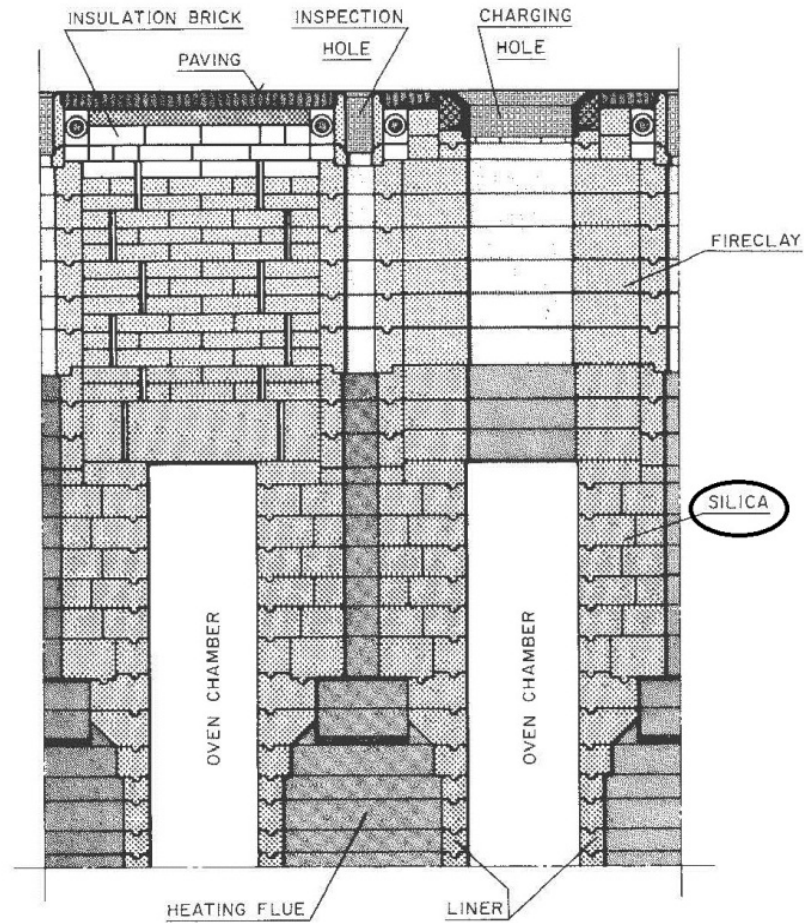
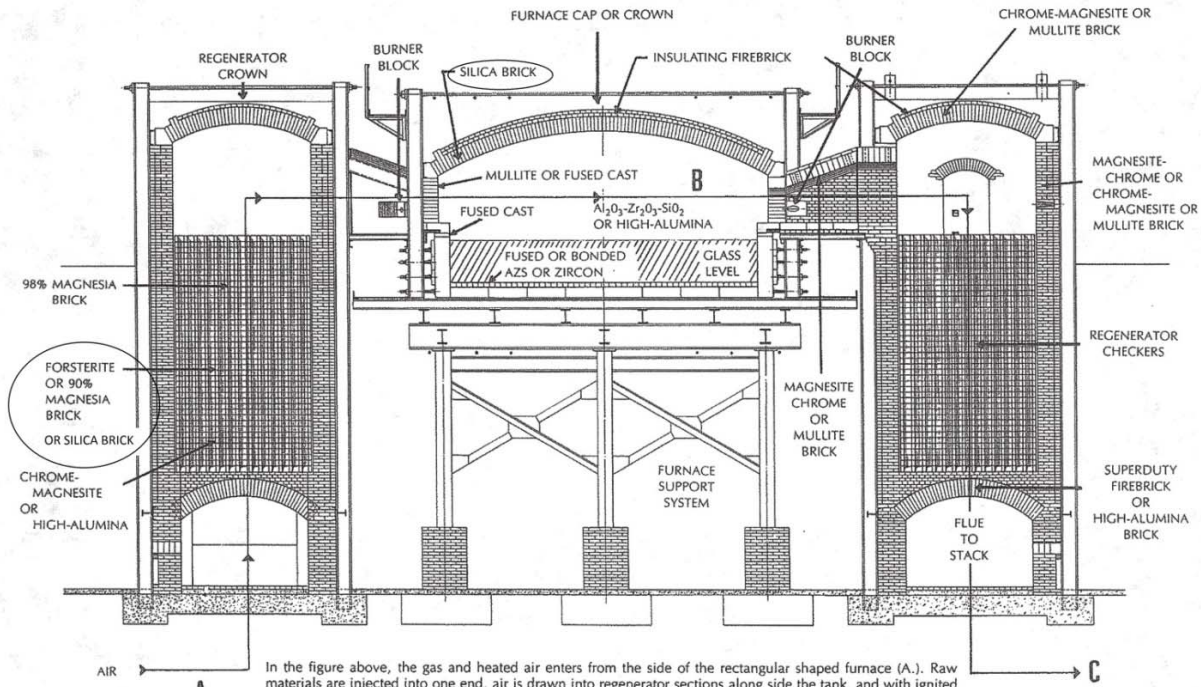


FIG. 4—6I. Cross-section of battery brickwork in an Otto underjet oven. (Courtesy Dr. C. Otto and Company.)

Source: United States Steel, The Making, Shaping and Treating of Steel, 10th ed., 1984, p. 214.

Figure I-2
Silica refractory brick use: Glass regenerative furnace



In the figure above, the gas and heated air enters from the side of the rectangular shaped furnace (A.). Raw materials are injected into one end, air is drawn into regenerator sections along side the tank, and with ignited gas, enters the furnace through burner blocks. The flame goes into the furnace across the top of the glass batch (B.), and exhaust gases are withdrawn via the port through the regenerator (C.), and out the chimney flue. After about 15-20 minutes of this cycle, the direction of the gas and air is renewed in the opposite direction. The cycle continues to repeat itself, and the alternating burning cycles keep the air mixture heated, allowing more efficient use of the gas in the furnace.

CROSS-SECTION OF A TYPICAL
 REGENERATIVE SIDEPORT GLASS TANK MELTING FURNACE

Source: Petition, exh. III-33.

The refractory brick market reportedly is a mature industry, as there have not been any significant changes in silica brick production or markets in recent years.²³ Substitutes for silica bricks and shapes may include cast silica blocks and fused silica shapes which are used to repair hot coke ovens and glass furnaces, fused cast mullite based brick (alumina-silica crystalline compound typically used at door flues and in the fiberglass industry),²⁴ and alumina brick for glass furnace crowns. Magnesite bricks may also be used in glass regenerator furnaces in the place of silica bricks and shapes, as shown in figure I-2.²⁵ Fused bricks are produced differently than the silica bricks and shapes produced by the petitioner, being first melted in an electric arc furnace and then poured into sand-forming molds without a final firing,²⁶ and are not used extensively due to expensive re-engineering requirements for coke ovens and the cost of the products for glass furnaces.²⁷ Other refractories serve similar purposes and are also used in other sections of coke ovens and glass furnaces (see figures I-1 and I-2), but these refractories do not have the same physical and chemical characteristics and therefore are not used interchangeably with the subject silica bricks and shapes.²⁸

Manufacturing Process

Silica suitable for use as silica bricks and shapes is mined from quartzite, siliceous rock deposits, such as mica schists,²⁹ or siliceous sandstone,³⁰ such as ganister.³¹ In the United States, ganister has historically been mined in Wisconsin, Pennsylvania, Alabama, Ohio, North Dakota, Montana, Colorado, California, and Utah.³² Currently, ganister is mined by Utah Refractories for use in the production of silica bricks and shapes in Utah.³³

After mining, the silica material must be mechanically crushed and ground to the appropriate size to satisfy the specific requirements of the brick being produced. The crushed ganister may then be washed to reduce the alumina content, thereby increasing final silica brick “refractoriness” (ability to withstand greater temperatures).³⁴ In any case, the silica material is screened, and subsequently, 1.8 to 3.5

²³ Conference transcript, p. 74 (Worthen). It was noted that Utah Refractories has not significantly changed its production process since the 1940s when the manufacturing plant was opened.

²⁴ Conference transcript, pp. 25-26, 53 (Mulholland); <http://intersource.com/coke.shtml>, retrieved December 10, 2012.

²⁵ Conference transcript, p. 62 (Mulholland).

²⁶ Environmental Protection Agency, “Refractory Manufacturing,” AP 42, Fifth Edition, v.1, January 1995, p. 5-1, <http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s05.pdf>, retrieved December 10, 2012.

²⁷ Petition, p. 22. Estimates are that fused cast bricks are six to eight times the cost of the silica brick the petitioner produces and mullite alumina bricks are approximately three to four times the cost. Conference transcript, pp. 52-53 (Mulholland).

²⁸ Conference transcript, p. 13 (Straight).

²⁹ Sinha, R.K., Industrial Minerals, 2nd ed, India, 1986, p. 311.

³⁰ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, pp. 303-304. The quartz rock used typically contains 1.0 to 1.3 percent alumina (aluminum oxide), titania (titanium oxide), alkali (potassium oxide), and 0.8 percent ferric oxide.

³¹ Ganister is a hard, dense, fine-grained, unmetamorphosed sandstone with a high silica content. Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 260.

³² Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 22; and conference transcript, p. 9 (Wiseman).

³³ Conference transcript, p. 9 (Wiseman).

³⁴ Norton, Frederick, Refractories, McGraw-Hill, 1931, p. 29.

percent lime (calcium oxide) is added as a binder.³⁵ The lime combines with the silica and impurities of the rock to form a liquid which hardens after firing.³⁶ This mix is then pressed into customized molds, which are typically made of either tool steel or carbides for large pieces.³⁷ According to the petitioner, ***.³⁸ Next, the bricks are sent through driers and are finally fired to above 2,700 degrees Fahrenheit in either periodic (batch) kilns or continuous (tunnel) kilns to form the ceramic bond that gives silica brick its refractory properties.³⁹ In the United States, silica bricks and shapes are manually loaded and unloaded into periodic beehive kilns (figure I-3).⁴⁰ Varying amounts of silica bricks and shapes are stacked within these kilns; ***.⁴¹

Firing up to 1,200 degrees Fahrenheit transforms the quartz, first from alpha to beta quartz, during which time there is a sharp increase in volume and, therefore, risk of spalling, and then to the more stable high temperature crystalline phases of silica after firing above 1,200 degrees Fahrenheit.⁴² Once fired, there is very low residual quartz as it has been transformed into the more stable high temperature crystalline phase of silica, mostly tridymite and cristobalite.⁴³ Silica bricks and shapes usually contain 45 to 60 percent tridymite, 30 to 40 percent cristobalite, and up to 5 percent residual quartz. The remainder consists of a highly siliceous glass, either with or without finely crystalline material.⁴⁴ Altogether, production of silica bricks and shapes in the United States takes *** on average, from receipt of the order to shipping of the final product. The time sequence is broken down as follows: ***.⁴⁵

The ultimate quality of the silica bricks and shapes is determined by the input material, namely the amount of silica present in the mined siliceous rock and the process of screening and testing before the inclusion of carefully selected additives.⁴⁶ The strength of the ceramic bond is dependent upon the character of the brick mix as well as upon the time and temperature of firing.⁴⁷

³⁵ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 295.

³⁶ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, pp. 303-304.

³⁷ Conference transcript, p. 78 (Worthen). Petitioner also notes that they have over 30,000 molds at their manufacturing plant to produce customized silica brick and shapes. Conference transcript, p. 32 (Wiseman).

³⁸ Petitioner's postconference brief, p. 9.

³⁹ Environmental Protection Agency, "Refractory Manufacturing," AP 42, Fifth Edition, v. 1, January 1995, p. 5-1, <http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s05.pdf>, retrieved December 10, 2012.

⁴⁰ Conference transcript, p. 78 (Worthen).

⁴¹ Petitioner's postconference brief, p. 10.

⁴² Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 260; Remmey Jr., G. Bickley, Firing Ceramics, 1994, pp. 12-13.

⁴³ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 295.

⁴⁴ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 306.

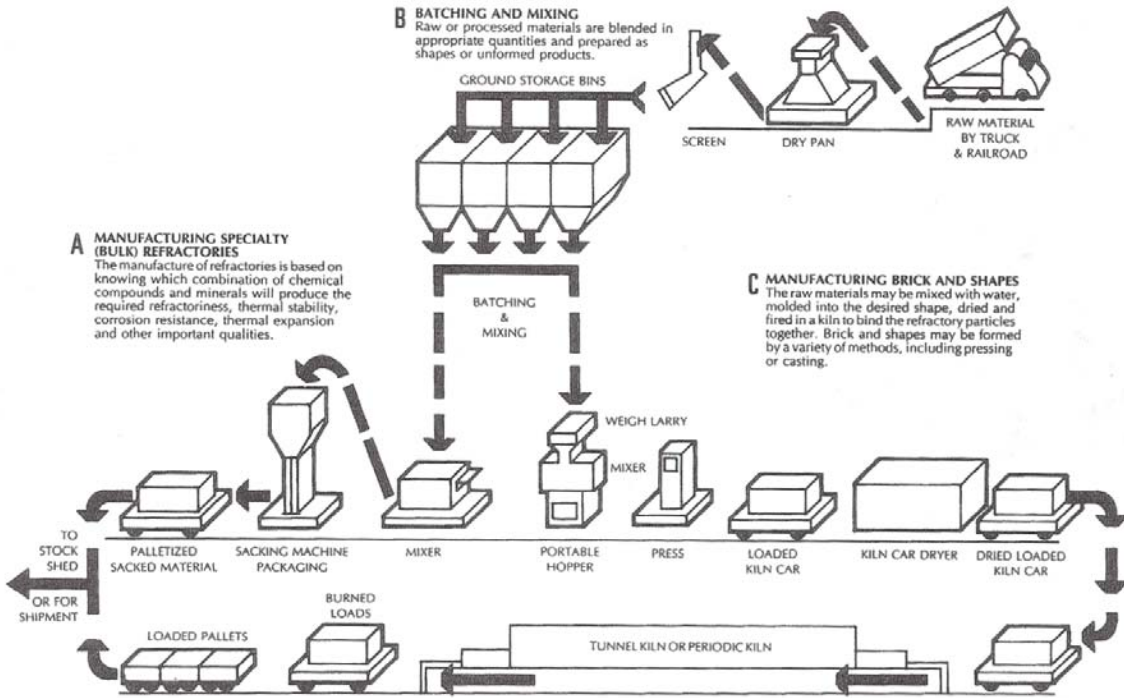
⁴⁵ Email from ***, December 7, 2012.

⁴⁶ Conference transcript, p. 76 (Worthen).

⁴⁷ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 295.

Figure I-3
Silica refractory brick: Manufacturing process

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Appendix 6
Typical Refractory Manufacturing Flow Sheet

Silica bricks and shapes can be sold individually or in packages produced-to-order for different applications. Some items might even be pre-assembled at the kiln and then shipped to the customer. Silica bricks are held together for their end use in furnaces or other applications by either a silica- or chrome-based mortar.⁴⁸ Because coke ovens and glass furnaces are company-specific and may each require hundreds of shapes, silica bricks are generally made on a per order basis and little inventory is held.⁴⁹ Completed individual silica bricks and shapes are palletized (stacked on shipping pallets) for transportation by truck or ocean freight container to their final destination.⁵⁰

DOMESTIC LIKE PRODUCT ISSUES

No issues with respect to domestic like product and domestic industry have been raised by parties in this investigation concerning silica bricks and shapes from China. The petitioner proposes that the domestic like product should be defined to include only silica bricks and shapes coextensive with the scope of the investigation.⁵¹

Although two respondent firms filed entries of appearance and provided importer questionnaire responses in this investigation (ANH Refractories, Inc. (“ANH”) and McKeown International, Inc.), neither appeared at the preliminary phase conference, submitted a postconference brief, or otherwise commented on the appropriate domestic like product and domestic industry in this investigation. *** the subject merchandise as described throughout the petition is physically different, is not suitable for use in the same applications as fused silica bricks (i.e., to repair hot coke ovens), and is much lower in price than fused silica bricks. In addition, since the process involved in the production of fused silica bricks is different from that of “conventional” silica bricks, the items are not produced in the same manufacturing facilities with the same production employees.⁵²

The petitioner indicated that its scope description was not intended to include fused silica products, nor was it intended to include high-quality, silica crucibles used for production of semiconductor wafers and solar panel chips or silica-based refractories engineered into boiler components or castable shapes specific to boiler designs. The petitioner noted that it is currently working with Commerce to amend the scope language to properly reflect the foregoing.⁵³

⁴⁸ Harbison-Walker Refractories Co., Modern Refractory Practice, Silica Refractories, 1950, p. 90.

⁴⁹ Conference transcript, pp. 31-33 (Wiseman). Petitioner notes that Utah Refractories has over 30,000 molds in stock to customize silica bricks and shapes for orders.

⁵⁰ Conference transcript, p. 78 (Worthen).

⁵¹ Petition, p. 9.

⁵² ***.

⁵³ Conference transcript, pp. 26-27 (Straight); petitioner’s postconference brief, Responses to Questions Posed to Petitioner, no. 1; Email from ***, December 11, 2012.

PART II: CONDITIONS OF COMPETITION IN THE U.S. MARKET

U.S. MARKET CHARACTERISTICS

U.S. producers and importers generally sell silica bricks and shapes directly to the end user for use in new construction or repair of furnaces used in the steel and glass industry (see figures I-1 and I-2). The major applications for silica bricks and shapes are coke ovens and glass furnace crowns. Minor applications include, but are not limited to, glass tank walls, acid practice electric furnaces, tunnel kilns, and regenerators.¹

Silica bricks and shapes are produced in a wide variety of sizes and shapes depending on the purchaser's needs.² Silica bricks and shapes are usually produced to order due to the various very specific shapes required for a particular project, which includes both initial construction and repair.³ Molds for silica bricks and shapes used in the glass industry are often standard sizes and can be machine-made; however, silica bricks and shapes used in coke oven applications often require hundreds of shapes, many of which are hand molded by impact press or hand-formed.⁴ Petitioner reported that it has more than 30,000 molds in stock to manufacture different shapes and that it reuses molds for different projects.⁵ Pricing for silica bricks and shapes depends on a number of factors, including complexity of the shapes, quantity of shapes, total number of bricks, quality of the silica, delivery deadlines, and availability of the molds required to produce the product.⁶

Firm concentration is high for domestic producers and less so for import sources as a whole. Utah Refractories claims to be the sole U.S. producer during the period of investigation. Fourteen importers reported importing silica bricks and shapes during the period of investigation.⁷ Leading importers varied year-to-year. ***, an importer of silica bricks and shapes from China, accounted for 47.9 percent of total imports in 2009 and 30.0 percent of total imports in 2010; ***, an importer of nonsubject silica bricks and shapes, accounted for 45.9 percent of total imports in 2010; and *** an importer of Chinese silica bricks and shapes accounted for 60.2 percent of total imports in 2011. These fluctuations in import rankings most likely reflect specific glass or coke furnace projects. Six of the 14 importers that provided data reported that they import directly and exclusively for internal consumption.

Channels of Distribution

Silica bricks and shapes are produced for individual projects that have a unique bill of materials that specifies the number and size of shapes for each individual project. Therefore, as shown in table II-1, the U.S. producer and importers ship silica bricks and shapes ***.

Table II-1
Silica bricks and shapes: Channels of distribution for commercial shipments of domestic product and subject imports sold in the U.S. market, by year and by source, 2009-11, January-September 2011, and January-September 2012

* * * * *

¹ Petition, p. 6.

² Petition, exhibit 1, p. 2.

³ Conference transcript, p. 31 (Wiseman).

⁴ Conference transcript, p. 48 (Mulholland), and petitioner's postconference brief, p. 9.

⁵ Conference transcript, pp. 32-33 and 49 (Straight and Wiseman).

⁶ Email from ***, December 7, 2012, and petitioner's postconference brief, p. 9.

⁷ An additional importer reported imports of silica bricks and shapes only during December 2012.

Utah Refractories reported that its overall sales of silica bricks and shapes to the steel making business have declined due to the lower priced imports of Chinese silica bricks and shapes. It reported that it has shifted its sales of silica bricks and shapes that would otherwise have been made to the steel industry to glass producers.⁸ In the glass industry, the vast majority of Utah Refractories' products have been sold as replacement materials for existing facilities and not for new furnace construction. With respect to the steel industry, all of the products sold by the petitioner since 1998 have been for the replacement of materials in existing facilities.⁹

GEOGRAPHIC DISTRIBUTION

U.S. producer's and importers' sales of silica bricks and shapes are concentrated in different regions of the United States. The U.S. producer, three importers from China (***) and one importer of product from nonsubject sources (***) reported their 2011 U.S. commercial shipments by geographical areas; their shipment shares, based on f.o.b. sales values, are shown in table II-2. U.S. sales of imports from China are highly concentrated in the Northeast region of the country.

Table II-2

Silica bricks and shapes: Share of U.S. commercial shipment values by geographical market areas in the United States served by the domestic producer and importers, 2011

* * * * *

SUPPLY AND DEMAND CONSIDERATIONS

U.S. Supply

Domestic Production

Based on available information, the U.S. producer has the ability to respond to changes in demand with large changes in the quantity of shipments of U.S. produced silica bricks and shapes to the U.S. market. The main contributing factors to the high degree of responsiveness of supply are unused capacity and alternative markets; supply responsiveness is somewhat constrained due to the fact that silica bricks and shapes are mostly produced-to-order and not held in inventory.

Industry Capacity

Utah Refractories' capacity utilization, by short tons, for silica bricks and shapes increased from *** percent in 2009 to *** percent in 2010 and to *** percent in 2011.¹⁰ U.S. production of silica bricks and shapes increased by more than *** percent from *** short tons in 2009 to *** short tons in 2011. Utah Refractories' capacity *** short tons during the period of investigation.

⁸ Conference transcript, pp. 19-21 (Straight).

⁹ Petitioner's postconference brief, p. 10.

¹⁰ Capacity utilization was *** percent and *** percent in interim 2011 and interim 2012, respectively.

Inventory Levels

Utah Refractories reported *** end-of-period inventories of silica bricks and shapes for the entire period of investigation.

Alternative Markets

Exports accounted for a large share of reported U.S. production of silica bricks and shapes over the period of investigation. Exports by Utah Refractories, as a share of total shipments of silica bricks and shapes, by short tons, decreased from *** percent in 2009 to *** percent in 2010 and then decreased to *** percent in 2011; the share of exports of silica bricks and shapes decreased from *** percent to *** percent between interim 2011 and interim 2012. Principal export markets include ***.

Production Alternatives

Utah Refractories reported that it also produces bond/cement using the same machinery and equipment used in the production of silica bricks and shapes. This product is used by Utah Refractories to bond silica bricks together in end-use constructions and is not sold separately.¹¹

Supply Constraints

Utah Refractories indicated that it *** silica bricks and shapes since January 2009. It reported that it has *** due to extensive mold work and low piece counts. It also has ***. Utah Refractories also stated that it “***.”¹²

Supply of Subject Imports

The Commission received no questionnaire responses from Chinese producers in this investigation.

Supply Constraints

Ten responding importers reported that their firm had not refused, declined, or been unable to supply silica bricks and shapes since January 2009.

U.S. Demand

Based on available information, it is likely that changes in the price level of silica bricks and shapes would result in a moderate change in the quantity of silica bricks and shapes demanded. The main contributing factor is the limited availability of substitute products and the high cost share of silica bricks and shapes in their end uses.

Apparent Consumption

Apparent U.S. consumption of silica bricks and shapes, by value, increased by *** percent from 2009 to 2011 increasing from \$*** in 2009 to \$*** in 2011. Apparent consumption was \$*** in interim 2011 compared to \$*** in interim 2012.

¹¹ Conference transcript, pp. 64-65 (Worthen).

¹² U.S. producer questionnaire response, section IV-16, p. 23.

Business Cycles and Incentives

Utah Refractories and the majority of responding importers (9 of 11) reported that silica bricks and shapes *** distinctive business cycles or conditions of competition. One importer reported that “Glass repairs are major projects which by nature have historic cycles, and tend to be done in the first and fourth quarters of the year to match end customer product demand. With respect to silica bricks and shapes in the steel industry, this market is not subject to particular business cycles.” Of the two importers who reported that silica bricks and shapes are subject to distinctive business cycles and conditions of competition, one indicated that there had been changes in the business cycles or conditions of competition for silica bricks and shapes since January 2009.

Demand Characteristics

Demand trends

Utah Refractories reported that demand within the United States had *** since 2009. Importer responses were split as shown in table II-3. Utah Refractories reported that the closing of glass plants and coke ovens as well as several new coke oven projects are factors that have affected these changes in demand. It noted that although the coke industry has seen a number of plants close due to environmental regulations, new plants are being built in the United States which has increased the demand for silica bricks and shapes.¹³

One importer stated that “both the glass and steel making industries were seriously impacted by the financial downturn beginning in 2008, resulting in an overall decrease in demand for related refractory products. Demand for silica bricks and shapes in the glass industry tends to fluctuate as demand is project timing based.”

Utah Refractories reported that demand outside the United States had ***. Importer responses were varied; none of the responding importers provided an explanation for their perception of demand outside the United States.

Table II-3

Silica bricks and shapes: U.S. producer and importer responses regarding the demand for silica bricks and shapes since 2009

Item	Number of firms reporting			
	Increase	No Change	Decrease	Fluctuate
Demand within the United States				
U.S. producer	***	***	***	***
Importers	0	3	4	3
Demand outside the United States				
U.S. producer	***	***	***	***
Importers	1	3	2	3

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

Substitute products

Utah Refractories and 3 of 11 responding importers indicated that there were substitute products for silica bricks and shapes. Utah Refractories and *** reported that cast silica blocks were substitutes for silica bricks and shapes in coke oven applications; however, the product requires extensive re-engineering. Utah Refractories and importer *** also reported that fused cast and alumina bricks were

¹³ Conference transcript, p. 34 (Mulholland).

substitutes that could be used in glass furnace crowns although these two substitutes were approximately three times the cost of silica bricks. Utah Refractories and *** reported that mullite brick was a substitute for glass furnace walls and domes; however, they indicated that mullite brick is higher priced than silica brick.¹⁴ Utah Refractories reported that the cost of these three substitutes *** the price for silica bricks and shapes.

End uses and cost share

The primary end use for silica bricks and shapes are coke ovens and glass furnaces (see *Part I* for more information). The U.S. producer and 8 importers provided cost-share information. Utah Refractories reported that silica bricks and shapes accounted for *** percent of the total cost of the end use product for both coke ovens and glass furnaces. Utah Refractories stated that for an oven rebuilding, the typical construction costs would be 80 percent silica bricks and shapes, and 20 percent fire clay; however, the cost of labor for installing the product would be more than the refractory costs.¹⁵ Cost shares reported by importers varied greatly from 3 to 100 percent of the cost of a coke oven and 14 to 90 percent of the cost of a glass furnace. *** reported for the construction of a coke oven, silica bricks and shapes account for 3.3 percent of the entire project contract value, with engineering and equipment for the coke oven plant (inter alia coke oven service machines, various mechanical and electrical equipment, steel structures, etc.) accounting for the remaining 96.7 percent.

SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported silica bricks and shapes depends on such factors as relative prices, quality, and conditions of sale (e.g., price discounts, lead times between order and delivery, payment terms). Based on available data, staff believes that there is a high degree of substitutability between domestically produced silica bricks and shapes and those imported from China.

Factors Affecting Purchasing Decisions

Petitioner indicated that price and delivery time were the two most important factors that influence purchaser's decisions when buying silica bricks and shapes. Petitioner also noted that purchasers require ASTM certifications for both the steel and glass applications.¹⁶ It also reported that many purchasers have their own specifications that they request (such as density) in their bill of materials.¹⁷

Lead times

Silica bricks and shapes are primarily produced-to-order. The U.S. producer reported that *** percent of its commercial shipments were produced-to-order, with lead times averaging *** days. The remaining *** percent of its commercial shipments came from inventories, with lead times averaging *** days. Of the 3 responding importers, 100.0 percent of silica bricks and shapes from China were produced-to-order, with lead times ranging from 180 to 300 days.

¹⁴ Conference transcript, pp. 52-53 (Mulholland).

¹⁵ Conference transcript, p. 58 (Mulholland).

¹⁶ Conference transcript, p. 51 (Williams and Worthen).

¹⁷ Conference transcript, p. 81 (Mulholland).

Comparison of U.S.-Produced and Imported Products

The U.S. producer and 4 of 7 responding importers reported that domestic and Chinese products are “always” or “frequently” interchangeable (table II-4).¹⁸ *** noted that product interchangeability is highly dependent on the quality of the product. *** stated that “SRBs manufactured for the steel industry and imported from China are frequently interchangeable with goods manufactured in the U.S. As to SRBs manufactured for use in the glass making industry, SRBs made in the U.S. are sometimes interchangeable with those manufactured in China and frequently interchangeable with those manufactured in the Czech Republic. SRBs manufactured in China for the glass making industry are also sometimes interchangeable with those manufactured in the Czech Republic. It must be noted however that specific brands and chemistry are not an exact match, and that chemistry and its impact on density and thermal conductivity can preclude one from direct interchangeability and deter or otherwise limit use.”

Table II-4

Silica bricks and shapes: Perceived interchangeability of products produced in the United States and in other countries, by country pairs

Country pair	U.S. producers				U.S. importers			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries								
U.S. vs. China	***	***	***	***	4	0	3	0
U.S. vs. nonsubject countries								
U.S. vs. Czech Republic	***	***	***	***	1	0	1	0
U.S. vs. Mexico	***	***	***	***	0	0	1	0
U.S. vs. United Kingdom	***	***	***	***	0	0	1	0
U.S. vs. other nonsubject	***	***	***	***	2	0	1	1
China vs. other countries								
China vs. Czech Republic	***	***	***	***	1	0	1	0
China vs. Mexico	***	***	***	***	0	0	1	0
China vs. United Kingdom	***	***	***	***	0	0	1	0
China vs. other nonsubject	***	***	***	***	1	0	1	0
Nonsubject countries								
Czech Republic vs. Mexico	***	***	***	***	0	0	1	0
Czech Republic vs. United Kingdom	***	***	***	***	0	0	1	0
Czech Republic vs. other nonsubject	***	***	***	***	1	0	1	0
Mexico vs. United Kingdom	***	***	***	***	0	0	1	0
Mexico vs. other nonsubject	***	***	***	***	0	0	1	0
United Kingdom vs. other nonsubject	***	***	***	***	0	0	1	0
Note.-- A = Always, F = Frequently, S = Sometimes, N = Never.								
Source: Compiled from data submitted in response to Commission questionnaires.								

¹⁸ In its questionnaire response, Utah Refractories indicated that the domestic product and the Chinese product were *** interchangeable; however, at the conference, it stated that the domestic and Chinese product were 100 percent interchangeable in both applications. Petitioner was unable to compare Chinese product with any nonsubject sources. Conference transcript, pp. 15 and 42 (Mulholland and Straight).

The domestic producer and 3 of 7 importers reported that differences other than price were “***” important in comparing U.S. and Chinese product (table II-5). The remaining responding importers reported that differences other than price were “always” important in comparing U.S. and Chinese product. *** reported that timely delivery is a main concern. *** stated that quality and durability of the product are the most significant factors. *** noted that some orders are so large that they cannot be produced in the United States. *** stated that “*** had entered into an engineering and procurement contract with ***. The contract provides for engineering, delivery of equipment and provision of services for *** construction of a new coke oven plant (***). Among the deliveries, which were to be made under this contract, is the above mentioned quantity of silica bricks. The bricks were procured by *** through its technology partner ***, which sources silica bricks in China through strategic suppliers. These products in various shapes have been extensively tested and qualified for this technology. All silica bricks imported into the U.S. by *** were designated to the contract with *** for *** construction of a new coke oven plant in ***.”

Table II-5

Silica bricks and shapes: Perceived significance of differences other than price between products produced in the United States and in other countries, by country pairs

Country pair	U.S. producers				U.S. importers			
	A	F	S	N	A	F	S	N
U.S. vs. subject countries								
U.S. vs. China	***	***	***	***	4	0	3	0
U.S. vs. nonsubject countries								
U.S. vs. Czech Republic	***	***	***	***	1	0	1	0
U.S. vs. Mexico	***	***	***	***	0	0	1	0
U.S. vs. United Kingdom	***	***	***	***	0	0	1	0
U.S. vs. other nonsubject	***	***	***	***	2	0	1	1
China vs. other countries								
China vs. Czech Republic	***	***	***	***	1	0	1	0
China vs. Mexico	***	***	***	***	0	0	1	0
China vs. United Kingdom	***	***	***	***	0	0	1	0
China vs. other nonsubject	***	***	***	***	1	0	1	0
Nonsubject countries								
Czech Republic vs. Mexico	***	***	***	***	0	0	1	0
Czech Republic vs. United Kingdom	***	***	***	***	0	0	1	0
Czech Republic vs. other nonsubject	***	***	***	***	1	0	1	0
Mexico vs. United Kingdom	***	***	***	***	0	0	1	0
Mexico vs. other nonsubject	***	***	***	***	0	0	1	0
United Kingdom vs. other nonsubject	***	***	***	***	0	0	1	0
Note.-- A = Always, F = Frequently, S = Sometimes, N = Never.								
Source: Compiled from data submitted in response to Commission questionnaires.								

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 alleged margin of dumping was presented earlier in this report and information on the volume and pricing of imports of the subject merchandise is presented in Parts IV and V. Information on the other factors specified is presented in this section and/or Part VI and is based on the questionnaire response of the petitioner, Utah Refractories Corp.¹

U.S. PRODUCER

Petitioner Utah Refractories Corp., located in Lehi, UT, is an independent silica brick refractory manufacturer, wholly-owned by Ray Worthen and Dennis Williams.² It claims to have been the sole domestic producer of silica bricks and shapes since 1998, when the only other silica brick plant in the United States at that time (Harbison-Walker) shut down.³ Utah Refractories reported ***.

U.S. CAPACITY, PRODUCTION, AND CAPACITY UTILIZATION

Utah Refractories’ domestic production capacity, production, and capacity utilization data for silica bricks and shapes are presented in table III-1.

Table III-1
Silica bricks and shapes: U.S. capacity, production, and capacity utilization, 2009-11, January-September 2011, and January-September 2012

* * * * *

The data presented in table III-1 show that the company’s annual overall plant capacity to produce silica bricks and shapes has remained constant at *** short tons during the period examined in this investigation. Domestic production, however, increased by *** percent from *** short tons in 2009 to *** short tons in 2011 and was *** percent higher during the first nine months of 2012 than in the comparable period in 2011. For comparison, U.S. imports of the subject merchandise from China increased overall from *** short tons in 2009 to *** short tons in 2011, but were only *** short tons during January-September 2012.

Utah Refractories pointed out that its production facility has operated well below the capacity at which it could have operated.⁴ Petitioner’s facilities were operating at *** percent of capacity in 2009, *** percent in 2010, *** percent in 2011, and *** percent during the first nine months of 2012. The company indicated that these levels of capacity utilization are “well below its historical operations and far

¹ Petition, p. 5; conference transcript, pp. 16 and 30.

² Utah Refractories company web page, <http://www.utah-refractories-corp.com/aboutUs.aspx>, retrieved December 11, 2012.

³ Conference transcript, pp. 8-9.

⁴ Conference transcript, p. 18 (Straight).

below the appropriate level for most efficient use of its facilities.”⁵ It alleged that the inefficient use of its capacity is due to dumped imports from China.⁶

Utah Refractories does not currently make any other types of refractories in the same facilities, using the same employees. The company explained that prior to 1996, it operated two shifts, one of which was devoted to the production of alumina-based refractories and the other devoted to silica bricks and shapes. After 1996, the Utah Refractories’ plant began operating only one shift that produced only silica bricks and shapes.⁷ The producer reported that, in addition to silica bricks, it also currently manufactures silica cements, or mortars, that are used to bond silica bricks together in the end-use application.⁸ These silica cements accounted for *** of the company’s overall production of all products in terms of quantity (in short tons) during the period examined in this investigation. The Commission’s questionnaire asked Utah Refractories to describe the constraints that set the limit on its production capacity for silica bricks and shapes. Utah Refractories reported ***.

In the Commission’s questionnaire, Utah Refractories was asked if it had experienced any plant openings, relocations, expansions, acquisitions, consolidations, closures, or prolonged shutdowns because of strikes or equipment failure; curtailment of production because of shortages of materials; or any other change in the character of their operations or organization relating to the production of silica bricks and shapes since January 1, 2009. The petitioner reported ***.

Utah Refractories also reported ***.

U.S. PRODUCER’S SHIPMENTS

Data on the U.S. producer’s shipments of silica bricks and shapes are presented in table III-2.

Table III-2

Silica bricks and shapes: U.S. producer’s shipments, by types, 2009-11, January-September 2011, and January-September 2012

* * * * *

The domestic commercial market accounted for *** of the U.S. producer’s U.S. shipments of silica bricks (***) and for a growing share of the U.S. producer’s total shipments of silica bricks throughout the period for which data were collected in this investigation. As a share of total shipments (in terms of quantity in short tons), the petitioner’s domestic shipments increased from *** percent in 2009, to *** percent in 2011, and were *** percent during January-September 2012. On the other hand, the petitioner’s export shipments fell as a share of total shipments from *** percent in 2009 to *** percent in 2011. Export shipments accounted for *** percent of total shipments during the first nine months of 2012. Utah Refractories’ export markets were ***.

The domestic producer’s U.S. shipments of silica bricks and shapes increased, in terms of quantity (in short tons), in each period examined in this investigation. Reported export shipment quantities fluctuated somewhat throughout the period, increasing from 2009 to 2010 and falling in 2011 to a level above that reported in 2009. Export shipment quantities were lower during January-September 2012 than reported for the comparable period in 2011. The unit value of U.S. shipments fell from \$*** per short ton in 2009 to \$*** per short ton in 2010, but climbed to \$*** per short ton in 2011. The unit value of exports experienced a similar trend, falling from 2009 to 2010, but increasing in 2011. In

⁵ Petition, p. 20.

⁶ Ibid.

⁷ Petition, p. 21.

⁸ Conference transcript, pp. 64-65.

comparing the partial-year periods, the unit values of U.S. shipments were higher in the first three quarters of 2012 than they were in the first three quarters of 2011, but the unit values of exports were lower.

The petitioner indicated that its U.S. shipments are currently comprised of sales primarily to the domestic glass industry and that its sales to the U.S. steel industry “have all but vanished.”⁹ It stated that “the imports from China are, without question, the cause of why Utah Refractories has suffered, has lost its business almost entirely to the steel industry and is in a real threat of losing its business to the glass making industry.”¹⁰ The petitioner added that it was able to shift some sales that would have otherwise been made to the steel industry to the glass industry, but sales to the glass industry are also falling.¹¹ It argued that Chinese producers of silica bricks have aggressively targeted both the steel industry and the glassmaking refractories in the United States and “without action against the dumped imports, {it} will most likely be unable to continue operations.”¹²

U.S. PRODUCER’S INVENTORIES

Utah Refractories reported *** inventories of silica bricks during the period examined in this investigation. It noted that quantities of silica bricks are produced to fulfill actual sales orders and that it ***. The petitioner indicated that sometimes a single project for which silica bricks are produced requires hundreds of different types of shapes and that it would be difficult for a producer to keep such a diverse number of finished items in inventory for a diverse range of customers and projects. In fact, Utah Refractories testified that it manufactures about 30,000 different shapes of silica brick and that it would be impractical to keep inventories on hand.¹³

U.S. PRODUCER’S IMPORTS AND PURCHASES

Utah Refractories reported in its questionnaire response submitted in this investigation that ***.

U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Utah Refractories’ employment data are presented in table III-3.

Table III-3
Silica bricks and shapes: U.S. producer’s employment-related data, 2009-11, January-September 2011, and January-September 2012

* * * * *

These data show that there was an increase in the number of production and related workers employed in the manufacture of silica bricks and shapes from *** employees in 2009 to *** employees in 2011. During the first nine months of 2012, Utah Refractories employed *** workers in the production of silica bricks and shapes. The number of hours worked by these employees, as well as the total wages paid, also generally increased throughout the period examined in this investigation. Hourly wages paid, however,

⁹ Conference transcript, p. 20 (Straight).

¹⁰ Conference transcript, p. 17 (Straight).

¹¹ Conference transcript, p. 20 (Straight).

¹² Petition, p. 19.

¹³ Conference transcript, pp. 31-33 (Wiseman).

were lower during the partial-year period of 2012 than reported in the prior periods. Productivity and unit labor costs fluctuated throughout the period examined.

Utah Refractories operated two, eight-hour shifts for five days a week at its facilities prior to 1996. As indicated previously, one shift was devoted to the production of alumina-based refractories and the other shift was devoted to the production of silica brick. After 1996, Utah Refractories ceased production of the alumina-based refractories and operated only one, ten-hour shift producing silica brick for four days per week. The company had planned to fill the second available shift with increased production of silica brick but reported that it was unable to do so because of a decline in production orders. Utah Refractories argues that it currently does not receive the level of silica brick orders to justify one full shift and has been forced to operate its only shift with production of silica brick solely for the glass industry. The petition stated, “{a}bsent Chinese dumping of {silica brick}, petitioner would likely be running two or three shifts with one or two shifts devoted to the production of coke oven {silica brick}.”¹⁴

The petitioner testified that “from 2005 to 2011, the number of hours worked decreased by 67 percent if you exclude the repair project, but even including the repair project, they decreased by 38 percent.”¹⁵ The petitioner added that it is currently “operating nowhere near capacity” and that it “could certainly increase the number of shifts, the number of hours worked and produce a greater number of bricks if we had a fair playing field and a market into which we could sell them.”¹⁶

¹⁴ Petition, p. 21.

¹⁵ Conference transcript, p. 21 (Straight). Petitioner reported that the number of hours worked producing silica brick *for domestic sales* fell *** percent from approximately *** hours worked per year in 2005 to about *** hours in 2011. The 2011 amount is net of the Repair Project, a one-time project conducted to repair the failure of Chinese silica brick purchased by a major U.S. steel producer. With the Repair Project included, the number of hours worked producing silica brick *for domestic sales and repairs* fell *** percent to about *** hours in 2011. Petition, p. 20.

¹⁶ Conference transcript, p. 22 (Straight).

PART IV: U.S. IMPORTS, APPARENT U.S. CONSUMPTION, AND U.S. MARKET SHARES

U.S. IMPORTERS

The Commission sent questionnaires to two firms (CeramSource, Inc. (“CeramSource”) and Intersource) identified in the petition as possible U.S. importers of the subject merchandise from China,¹ along with 183 additional firms that, based on a review of data provided by ***, imported merchandise under HTS statistical reporting number 6902.20.1020 since January 1, 2009.² Fifty-nine firms *** responded to the Commission’s questionnaire by indicating that they did not import silica bricks and shapes into the United States from any source since January 1, 2009. Usable questionnaire responses were received from 15 companies that imported silica bricks and shapes.³ Staff believes that the responding firms represented more than two-thirds of total U.S. imports of silica bricks and shapes from all sources during January 2009-September 2012.⁴ Table IV-1 lists the 15 U.S. importers of silica bricks and shapes from China and other sources that provided usable questionnaire responses, their locations, and their shares of *reported* U.S. imports. As the table illustrates, *** are the largest responding importers of subject merchandise from China, together accounting for *** percent of total *reported* subject U.S. imports from China during the period for which data were collected in this investigation. *** is the largest responding importer of silica bricks and shapes from a nonsubject source (***), accounting for *** percent of total *reported* U.S. imports from nonsubject countries during the period examined in this investigation.⁵

¹ Petition, p. 17.

² The original scope of this product was amended by Commerce on December 4, 2012 to add HTS statistical reporting numbers 6901.00.0000 and 6902.20.5020, under which silica refractory brick may be imported into the United States. Letter to the Secretary of Commerce, Samuel Straight, Counsel, Ray Quinney & Nebeker P.C., December 4, 2012. Additional firms that may have imported the subject merchandise under HTS statistical reporting numbers 6901.00.0000 and 6902.20.5020 were not sent a questionnaire since the scope was amended at a point in this preliminary phase that would not have allowed adequate time for companies to respond to the Commission’s request for information.

³ One of the 15 responding importers (***) imported subject merchandise from China only during December 2012. One additional firm, ***, provided a response to the Commission’s request but did not provide a complete response in the units of quantity requested. The firm reported imports of silica bricks from Japan during 2011 and 2012. Based on Customs data, *** is estimated to have accounted for *** of U.S. imports from all sources during January 2009-September 2012.

⁴ The coverage estimate by staff is based on an examination of the import company listing obtained from *** for HTS statistical reporting number 6902.20.1020. Staff excluded from consideration as possible importers on *** list the 59 firms that indicated in their questionnaire response that they were not importers of silica bricks. Staff also conducted internet searches for the remaining 110 firms that reported imports under HTS statistical reporting number 6902.20.1020 and additional firms were excluded from consideration as possible importers based on company and product information obtained from company websites. Additional companies that were excluded from the coverage calculation handle products such as fused silica brick, crucibles used to make semiconductors and solar wafers, shapes for boiler components, paving bricks, and pizza oven bricks.

⁵ Based on information provided by Customs, non-responding U.S. importer *** may have imported substantial amounts of subject merchandise from China since January 1, 2009. Non-responding U.S. importers *** may have imported substantial amounts of silica bricks and shapes primarily from the Czech Republic, Hungary, and Germany during the period examined in this investigation.

**Table IV-1
Silica bricks and shapes: U.S. importers, sources of imports, U.S. headquarters, and shares of reported imports during January 2009-September 2012**

* * * * *

In addition to the 15 companies listed in the table IV-1, 5 firms (***) provided responses to the Commission’s questionnaire concerning their imports of silica bricks and shapes that appear to them to fall within the physical description of the scope of the product as originally proposed in the petition. *** reported U.S. imports of high-purity, semiconductor-grade crucibles, which are used to manufacture semiconductors and/or solar wafers and to conduct research and development. *** reported U.S. imports of silica refractory castable shapes that are specifically engineered into boiler components. ***. Subsequent to the filing of the petition and the issuance of questionnaires, the petitioner notified the Commission of its intent to exclude these items from the scope of the investigation and noted that it was working with Commerce to amend the scope language.⁶ For purposes of this report, data provided by firms that reported U.S. imports of these items are not included in the aggregate import data, but are presented separately in appendix D, table D-1.

U.S. IMPORTS

Table IV-2 presents data for U.S. imports of silica bricks and shapes from China and all other sources combined. Because Commerce official import statistics for the primary HTS statistical reporting number under which subject silica bricks and shapes are imported into the United States is a relatively large basket category, the import data presented in this report are based on Commission questionnaire responses.⁷

**Table IV-2
Silica bricks and shapes: U.S. imports, by sources, 2009-11, January-September 2011, and January-September 2012**

* * * * *

The quantity of U.S. imports from China fell by *** percent from 2009 to 2010 but increased in 2011 to a level *** the amount reported in 2009. The quantity of U.S. imports of silica bricks and shapes from China during the first three quarters of 2012 was *** percent lower than the quantity reported in the comparable period of 2011. U.S. imports from China accounted for *** percent of the total quantity of U.S. imports of silica bricks and shapes during 2009, *** percent during 2010, and *** percent during 2011. However, during the first three quarters of 2012, China accounted for only *** percent of total

⁶ Petitioner’s postconference brief, Responses to Questions Posed to Petitioner, no. 1; Email from ***, December 11, 2012.

⁷ Based on information provided by Customs, staff estimates that roughly one-half of the items entered into the United States under HTS statistical reporting number 6902.20.1020 during the period examined in this investigation are silica bricks and shapes as defined in the scope language (excluding those items in the petitioner’s latest proposed scope amendment). Petitioner’s postconference brief, Responses to Questions Posed to Petitioner, no. 1; Email from ***, December 11, 2012. Other items entered into the United States under HTS statistical reporting number 6902.20.1020 include high-purity semiconductor-grade crucibles, which are used to manufacture semiconductors and/or solar wafers, silica refractory castable shapes that are specifically engineered into boiler components, fused silica brick used to repair hot coke ovens, paving bricks, and bricks used in the construction of pizza ovens, to name a few.

U.S. silica brick imports. The unit values of silica brick imports from China, which ranged from \$*** to \$*** per short ton, fell from 2009 to 2011, but were higher during the partial-year period of 2012 than in the comparable 2011 period.

The increase of subject imports from China during 2011 is largely explained by ***. The quantity of U.S. imports from countries other than China (primarily ***) increased by *** percent from 2009 to 2011 and were *** percent lower during the first three quarters of 2012 than the quantity reported in the comparable period of 2011. Similar to the trend exhibited by the Chinese silica brick, the unit values of silica brick imports from nonsubject sources fell overall from 2009 to 2011 but were higher during the partial-year period of 2012 than in the comparable 2011 period. The unit values reported for nonsubject imports were consistently lower than the unit values reported for the Chinese silica brick, ranging from \$*** to \$*** per short ton during the period examined.

CRITICAL CIRCUMSTANCES

No “critical circumstances” were alleged by the petitioner in this investigation.

NEGLIGENCE

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.⁸ Negligible imports are generally defined in the Tariff Act of 1930, 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. The petition in this investigation was filed on November 15, 2012. According to questionnaire data submitted in this investigation, subject imports from China accounted for *** percent of total imports of silica bricks and shapes by quantity (in terms of short tons) during the most recent 12-month period for which data are available that precedes the filing of the petition (October 2011-September 2012).⁹

APPARENT U.S. CONSUMPTION

Data concerning apparent U.S. consumption of silica bricks and shapes during the period of investigation are shown in table IV-3 and figure IV-1. Apparent U.S. consumption of silica bricks and shapes is based on the U.S. producer’s and U.S. importers’ U.S. shipments of silica bricks and shapes as compiled from Commission questionnaire responses in this investigation.

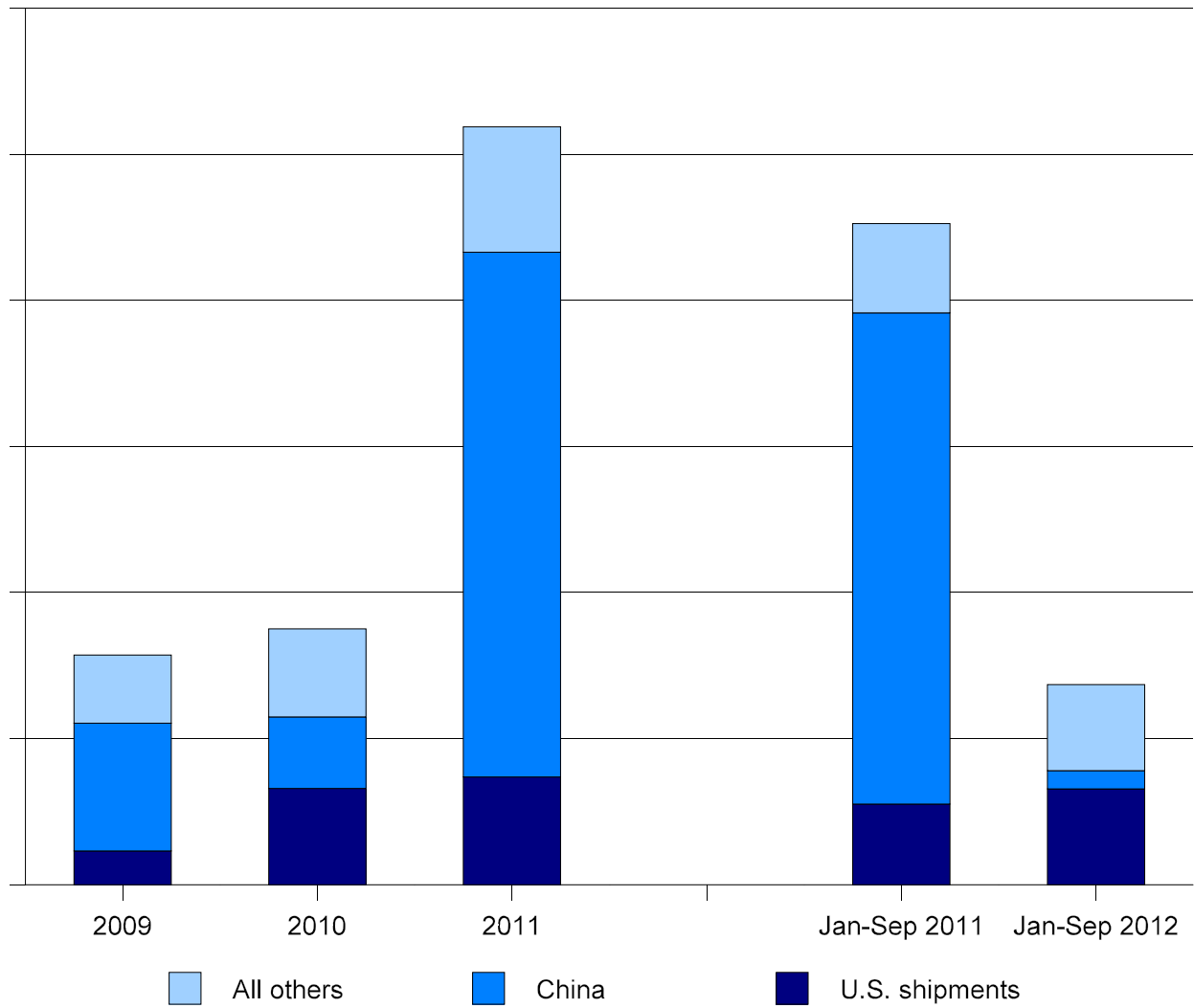
Table IV-3
Silica bricks and shapes: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2009-11, January-September 2011, and January-September 2012

* * * * *

⁸ 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)).

⁹ China accounted for *** percent of total imports of silica bricks and shapes by quantity (in terms of short tons) during calendar year 2011.

Figure IV-1
Silica bricks and shapes: Apparent U.S. consumption, by sources, 2009-11, January-September 2011, and January-September 2012



Source: Table IV-3.

Consumption for silica bricks and shapes is driven by their use in glass furnace or coke oven projects. The petitioner explains, “So as a customer either needs to repair a glass furnace, or build a new battery, or *et cetera*, you will have some spikes in consumption based on those specific requirements.”¹⁰ Calculated apparent U.S. consumption of silica bricks and shapes during 2011, in terms of quantity, was *** short tons, *** the amount consumed during 2009. However, U.S. consumption was *** percent lower during the first three quarters of 2012 than in the comparable period of 2011.

U.S. MARKET SHARES

U.S. market share data are presented in table IV-4. On the basis of quantity (in short tons), the share of the U.S. market held by subject imports of silica bricks and shapes from China fell from *** percent in 2009 to *** percent in 2010, before rising to *** percent in 2011. The share of the U.S. market held by U.S. imports from China during the first three quarters of 2012 (*** percent) was much lower than the *** percent share held in the comparable period of 2011. The U.S. producer’s share of the domestic market increased from *** percent in 2009 to *** percent in 2010, before falling to *** percent in 2011. The share of the domestic market held by the U.S. producer during the first three quarters of 2012 (*** percent) was much higher than the *** percent share held in the comparable period of 2011.

Table IV-4
Silica bricks and shapes: U.S. consumption and market shares, 2009-11, January-September 2011, and January-September 2012

* * * * * * *

RATIO OF IMPORTS TO U.S. PRODUCTION

Information concerning the ratio of imports to U.S. production of silica bricks and shapes is presented in table IV-5. Subject imports were equivalent to *** percent of U.S. production during 2009. This level fell to *** percent during 2010, but increased to *** percent of production during 2011. U.S. imports of silica bricks and shapes from China were equivalent to *** percent of production during January-September 2012 compared with *** percent reported for the comparable period in 2011.

Table IV-5
Silica bricks and shapes: U.S. production, U.S. imports, and ratios of imports to U.S. production, 2009-11, January-September 2011, and January-September 2012

* * * * * * *

¹⁰ Conference transcript, p. 33 (Straight).

PART V: PRICING AND RELATED INFORMATION

FACTORS AFFECTING PRICES

Raw Material Costs

The main raw material input for silica bricks and shapes is silica stone, also known as ganister.¹ The U.S. producer's raw material costs accounted for *** percent of its total cost of goods sold during 2011, down from *** percent in 2009.^{2 3} Raw material costs decreased from \$*** per short ton in 2009 to \$*** per short ton in 2011, while overall cost of goods sold increased by *** percent from \$*** per short ton in 2009 to \$*** per short ton in 2011 (see *Part VI* for additional information on raw material costs). Utah Refractories owns a quartzite mine located near the plant and sources all of its requirements for silica stone from this mine.⁴ Petitioner indicated that the silica bricks and shapes that it produces for use in the coke industry are similar in composition to those produced for use in the glass industry and reported that once the silica stone is crushed, less than 5 percent lime is added to act as a binder (see *Part I* for additional information on the production process).⁵

U.S. Inland Transportation

Utah Refractories reported that ***.⁶ Six of seven responding importers indicated that they typically arrange for transportation and reported that costs ranged from 4 to 6 percent.

The Commission asked firms to report the percentage of their sales shipped to various distances. One U.S. producer and five importers of product from China reported their share of sales by specified distance categories. The weighted-average data they reported on distances shipped from their U.S. shipping locations during 2011 are shown in the tabulation below.^{7 8}

Distances shipped	Shares of U.S. commercial shipment values (percent)	
	U.S.-produced	Imports from China
Within 100 miles	***	***
101 to 1,000 miles	***	***
Over 1,000 miles	***	***
Total	100.0	100.0

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

¹ Petition, p. 8.

² This value was approximately *** percent in interim 2011 and approximately *** percent in interim 2012.

³ At the staff conference, the petitioner stated that raw material costs increase one to three percent every year. The petitioner reported that these trends have been evident since 2009 and are expected to continue over the next one to two years. Conference transcript, pp. 53-54 (Worthen).

⁴ Conference transcript, p. 9 (Wiseman) and p. 54 (Worthen).

⁵ Petition, exhibit 1, p. 3; and petitioner's postconference brief, p. 9.

⁶ Petitioner based estimated transportation costs on recent sales. Staff telephone interview with ***, December 3, 2012. Based on this information and the petitioner's reported pricing data, staff estimates that shipping costs ranged from *** to *** percent of the cost of the product.

⁷ Two importers, ***, provided data for 2009 and/or 2010 only. These two importers reported that 100 percent of their shipments were shipped within 100 miles of their facility.

⁸ *** accounted for *** percent of 2011 commercial shipments and reported shipping *** percent of its U.S. commercial shipments 101 to 1,000 miles from its facility; *** accounted for 3.8 percent and less than 1 percent of 2011 commercial shipments, respectively, and both reported shipping 100 percent of U.S. commercial shipments over 1,000 miles from their facilities.

PRICING PRACTICES

Pricing for silica bricks and shapes depends on a number of factors, including complexity of the shapes, quantity of shapes, total number of bricks, quality of the silica, delivery deadlines, and availability of the molds required to produce the product.⁹ There are also different specifications for silica, such as bulk density, apparent porosity, and residual quartz, which also affect the price of silica bricks and shapes.¹⁰ Pricing is often quoted on a per-project or order basis and depends on these factors (i.e., more complex project specifications would mean a higher price). Petitioner provided quotes which ***.¹¹ Importer *** reported that silica bricks and shapes that are very common and easy-to-make are lower in price than silica bricks and shapes with more complex requirements.¹²

Pricing also differs between end uses of the product. Molds for silica bricks and shapes used in the glass industry are often standard sizes and can be machine-made.¹³ On the other hand, “coke oven batteries often require hundreds of shapes, all of which are hand molded by impact press or hand-formed.”¹⁴ In addition, Mr. Mulholland of Utah Refractories stated that coke oven repair projects also sometimes require a redesign of sections of the furnace and the shapes of the individual bricks, which also often requires more mold work.¹⁵ Due to the differences in manufacturing, silica bricks and shapes used in coke oven applications are higher in price than those used in a glass furnace.^{16 17}

Pricing Methods

Utah Refractories reported that its most commonly used pricing methods are ***. Most importers (7 of 8) reported using transaction-by-transaction negotiations. *** reported using an engineering and procurement (EP) contract and pricing silica bricks and shapes as a component of the contract price for a ***. *** reported that the EP contract covered engineering, delivery of equipment, and provision of services for the construction of the plant.¹⁸

The U.S. producer reported selling silica bricks and shapes predominantly through ***, and importers reported selling through long-term contracts and spot sales. One importer, ***, reported selling 100 percent of its silica bricks and shapes through a long-term contract,¹⁹ and two importers, ***, reported selling 100 percent of their silica bricks and shapes through spot sales. The domestic producer and three importers reported their 2011 U.S. commercial shipments of silica bricks and shapes by type of sale; their shipment shares, based on f.o.b. sales values, are shown in table V-1.

⁹ Email from ***, December 7, 2012, and petitioner’s postconference brief, p. 9.

¹⁰ Email from ***, December 7, 2012.

¹¹ Petitioner’s postconference brief, exhibit 2.

¹² Email from ***, December 7, 2012.

¹³ Conference transcript, p. 48 (Mulholland), and petitioner’s postconference brief, p. 9.

¹⁴ Petitioner’s post conference brief, p. 9.

¹⁵ Conference transcript, p. 49 (Mulholland).

¹⁶ Conference transcript, p. 48 (Mulholland), and petitioner’s postconference brief, pp. 9-10.

¹⁷ In its postconference brief, the petitioner asserts that while bricks used in coke oven applications and glass oven applications are similar in composition, there are significant differences in the manufacturing process for each type. Petitioner’s postconference brief, p. 9.

¹⁸ The silica bricks and shapes used to supply the EP contract were sourced from *** partner ***. Email from ***, December 12, 2012; and Staff telephone interview with ***.

¹⁹ “*** core business is not the sale of silica bricks, thus there are no sales contracts, neither short term nor long term, which are solely related to bricks.” The silica bricks and shapes imported and sold by *** during *** were to supply the EP contract between *** and *** for construction of *** new coke oven battery in ***. Email from ***, and importer questionnaire response, section III-19, p.22.

Table V-1

Silica bricks and shapes: U.S. producer's and importers' U.S. commercial shipments, by type of sale, 2011

* * * * *

Utah Refractories reported that its long-term contracts averaged *** in duration. It indicated that price ***. Although importer *** reported that 100 percent of its 2011 sales of silica bricks and shapes were spot sales, *** indicated that its short-term contracts for sales of silica bricks and shapes were typically 90 days in length, fixed both price and quantity, and did not contain meet or release provisions.

Sales Terms and Discounts

Utah Refractories reported selling on an ***, and all five responding importers reported selling on a delivered basis. Utah Refractories reported offering ***, and all eight responding importers reported offering no discounts. The typical sales term for the U.S. producer is ***. Importers reported a mix of sales terms. Three of six importers reported typical sales terms of net 30 days, one reported net 60 days, one reported 2/10 net 30 days, and one importer (***) reported that sales terms were part of the whole coke oven battery contract.

PRICE DATA

The Commission requested the U.S. producer and all importers of silica bricks and shapes to provide quarterly data for the total quantity and f.o.b. value of silica bricks and shapes that were shipped to unrelated customers in the U.S. market that were either produced in the United States or imported from China or nonsubject countries Czech Republic, Mexico, and United Kingdom. Data were requested for the period January 2009 to September 2012. The products for which pricing data were requested are as follows:

Product 1.—Silica bricks or shapes with at least 90 percent silica content sold to the steel industry

Product 2.—Silica bricks or shapes with at least 90 percent silica content sold to the glass making industry

The U.S. producer and six importers provided usable price data for sales of the requested products, though not all firms reported data for all products for all quarters. Price data reported by these firms accounted for approximately *** percent of reported U.S. producer shipments of silica bricks and shapes and *** percent of reported U.S. shipments of subject imports from China during the period for which data were requested in this phase of the investigation.²⁰ Two additional importers, ***, provided pricing data for imports of a fused silica product that the petitioner has indicated is not part of the scope of the investigation;²¹ these data are presented separately in appendix D (see *Part IV* for additional information on these importers and the products for which the firms provided data).

²⁰ Only one importer provided nonsubject country price data. *** reported a quantity of *** short tons and value of \$*** (calculated unit value of \$***) for product 2 from Czech Republic for the second quarter of 2010. For this one quarter of comparison, product from Czech Republic was priced *** than product from the United States and China.

²¹ Subsequent to the filing of the petition and the issuance of questionnaires, the petitioner notified the Commission of its intent to exclude these items from the scope of the investigation and noted that it was working with Commerce to amend the scope language. Petitioner's postconference brief, Responses to Questions Posed to Petitioner, no. 1; Email from ***, December 11, 2012.

Price data are shown in tables V-2 to V-3, and figures V-1 and V-2. Price trend summary data are presented in table V-4. Both the U.S. producer and importers of product from China reported data product 1. Only the U.S. producer provided price data for product 2; no importers of product from China reported data for product 2.

During 2009-12, domestic prices for products 1 and 2 fluctuated, decreasing in 2010 and 2011 before returning to 2009 levels again in 2012. Prices for imported subject product 1 increased overall during 2009-12. The quantity of product 1 imported from China increased during the second and third quarters of 2011 due to importer *** importing silica bricks and shapes to ***.

Margins of underselling and overselling for product 1 for the period are presented in table V-5. Based on these data, prices for silica bricks and shapes imported from China were below those for U.S.-produced silica bricks and shapes in seven of 14 instances; margins of underselling ranged from *** percent to *** percent, with an average margin of *** percent. In the remaining seven instances silica bricks and shapes from China were above prices for the domestic product; margins of overselling ranged from *** percent to *** percent with an average margin of *** percent.

Table V-2
Silica bricks and shapes: Weighted average f.o.b. prices and quantities of domestic and imported product 1, and margins of underselling/(overselling), by quarters, January 2009-September 2012

* * * * *

Table V-3
Silica bricks and shapes: Weighted average f.o.b. prices and quantities of domestic product 2, by quarters, January 2009-September 2012

* * * * *

Figure V-1
Silica bricks and shapes: Weighted average f.o.b. prices and quantities of domestic and imported product, by quarters, January 2009-September 2012

* * * * *

Figure V-2
Silica bricks and shapes: Weighted average f.o.b. prices and quantities of domestic product, by quarters, January 2009-September 2012

* * * * *

Table V-4**Silica bricks and shapes: Summary of weighted-average f.o.b. prices for products 1-2, from the United States and China**

Item	Number of quarters	Low price (per unit)	High price (per unit)	Change in price ¹ (percent)
Product 1				
United States	15	***	***	***
China	14	***	***	***
Product 2				
United States	15	***	***	***
¹ Percentage change (based on unrounded data) from first observed quarter to the last observed quarter of data. Thus, the percentage change is not necessarily calculated from the high and low prices shown in this table.				
Source: Compiled from data submitted in response to Commission questionnaires.				

Table V-5**Silica bricks and shapes: Instances of underselling/overselling and the range and average of margins, January 2009-September 2012**

Product	Underselling				Overselling			
	Number of instances	Range (percent)	Quantity of imports (short tons)	Average margin (percent)	Number of instances	Range (percent)	Quantity of imports (short tons)	Average margin (percent)
Product 1	7	***	***	***	7	***	***	***
Note.-- No Chinese price data were reported for Product 2 for comparison.								
Source: Compiled from data submitted in response to Commission questionnaires.								

LOST SALES AND LOST REVENUES

The petitioner provided both lost sales and lost revenues allegations in the petition. The 8 lost sales allegations totaled \$*** million and involved *** short tons and the 10 lost revenues allegations totaled \$*** and involved *** short tons of silica bricks and shapes.²² Staff contacted all purchasers named in the allegations and a summary of the information obtained follows (tables V-6 and V-7).

All four responding purchasers named in lost sale and lost revenue allegations indicated that they had not switched purchases of silica bricks and shapes from the U.S. producer to suppliers of silica bricks and shapes from China since January 2009. No purchaser reported that the U.S. producer reduced its prices of silica bricks and shapes in order to compete with prices of silica bricks and shapes imported from China since January 2009. *** indicated that the U.S. producer's prices had declined, and that it was not certain that the price decline could be attributed to competition with Chinese imports, but rather that the price decline was demand driven.

²² The petitioner provided seven additional lost sales allegations and two additional lost revenues allegations in the petition but it did not provide information on the quantities, rejected U.S. prices, and accepted U.S. prices involved in the allegations. In addition, the petitioner also provided four lost sales allegations with alleged dates that occurred prior to the period of investigation, which totaled \$*** million and involved *** short tons of silica bricks and shapes. Staff contacted the purchasers in attempt to verify these allegations. Four purchasers, ***, responded to these lost sales and lost revenue allegations, and their responses are included in the narrative following tables V-6 and V-7.

Table V-6
Silica bricks and shapes: U.S. producer's lost sales allegations

* * * * *

Table V-7
Silica bricks and shapes: U.S. producer's lost revenues allegations

* * * * *

***:
*** of *** disagreed with the lost sale allegation involving his company. He stated that *** has purchased silicon brick from China for over 20 years because of product delivery.

***:
*** of *** stated that the information provided in the one lost sale and two lost revenue allegations involving his firm was insufficient for *** to assess the allegations.

***:
*** of *** stated that he was not familiar with the product named in the allegation ***, and that his firm had no record of importing silica bricks and shapes into the United States.

***:
*** of *** disagreed with the *** lost revenue allegations involving his firm. Regarding the ***, *** stated that pricing with *** for *** from *** was pursuant to the agreed contract.²³ *** also stated that the *** were quoted prior to the *** expiration of the contract. Regarding the ***, *** reported that no Chinese supplier is *** qualified and that a supplier from Europe quoted a price for the project, but the contract with *** was extended.

***:
*** of *** disagreed with the lost sale allegation involving his company. *** stated that the price difference was minimal and the quality of the brick did not meet their requirements.

***.²⁴
*** of *** disagreed with the three lost sale allegations involving his company. *** reported that no silica bricks were purchased through a bidding process for these allegations.

***:
*** of *** agreed with the lost sale allegation for the ***, and disagreed with the lost sale allegations involving the *** and ***. Regarding the ***, *** reported that the *** does not have the capacity to supply this large project, and that his firm did place *** orders with ***. Regarding the ***, *** reported that *** placed multiple orders with the *** during ***.

²³ In the lost revenue allegations provided with the petition, the petitioner indicated that it is ***.

²⁴ Petitioner provided two additional lost sale allegations involving *** which were alleged to have occurred prior to the period of investigation. *** of *** also disagreed with these allegations. Regarding the lost sale allegation from *** referencing the ***, he reported that the alleged date was earlier than they expected to purchase bricks for the project and stated that all silica bricks were purchased for this project in ***. Regarding the lost sale allegation from *** referencing the ***, he reported that no silica bricks were purchased through a bidding process.

PART VI: FINANCIAL EXPERIENCE OF THE U.S. PRODUCER

BACKGROUND

Utah Refractories provided usable financial data on its operations producing silica bricks and shapes.¹ Utah Refractories claims to be the sole producer of silica bricks and shapes and to account for all of the production of silica bricks and shapes in the United States in 2011.²

OPERATIONS ON SILICA BRICKS AND SHAPES

Income-and-loss data for Utah Refractories on its operations on silica bricks and shapes are presented in table VI-1. Generally speaking, total net sales in both quantity and dollar terms rose between 2009 and 2011 and were higher in January-September 2012 than in January-September 2011. Total cost of goods sold (“COGS”) increased ***. Selling, general, and administrative (“SG&A”) expenses ***. Operating *** and the firm recorded a ***.³

Table VI-1

Silica bricks and shapes: Results of operations of Utah Refractories, 2009-11, January-September 2011, and January-September 2012

* * * * *

The cost of raw materials used in the production of silica bricks and shapes *** as depicted in table VI-1. Such costs also ***. Utah Refractories ***.⁴ Both direct labor and other factory costs (factory overhead) ***). Labor costs (composed of ***) and other factory costs (composed of ***, SG&A expenses (which include ***⁵***. SG&A expenses were ***.

¹ Utah Refractories is a privately held corporation owned by Ray Worthen and Dennis Williams that operates gas-fired kilns at a plant in Lehi, Utah. Separate entities, owned by the partnership of Worthen and Williams, own ***.

² Utah Refractories, which began producing in 1998, arose from an acquisition and subsequent divestiture: In 1998, Global Industrial Technologies, which produced silica refractories, acquired AP Green Industries, Inc., including its silica refractories business. Because the acquisition would potentially restrain trade, the Federal Trade Commission made the acquisition subject to the condition that Global divest AP Green’s glass-furnace silica refractories plant of at Lehi, UT together with its raw material sources. AP Green retained its silica refractory manufacturing plant at Sproul, Pennsylvania. Federal Trade Commission press release, “Global Industrial Technologies agrees to divest AP Green assets as part of FTC settlement,” June 26, 1998. Found at Internet site <http://www.ftc.gov/opa/1998/06/global.shtm>, retrieved on November 30, 2012. See also, FTC press release, “Analysis of proposed consent order to aid public comment.” Found at Internet site <http://www.ftc.gov/os/1998/06/9810173.ana.html>, retrieved on November 30, 2012. Reportedly, the other plant, identified by petitioner as Howell, MD, went out of business. Conference transcript, p. 9 (Wiseman).

³ Operating and financial data include the ***. Petition, p. 20 and ***.

⁴ EDIS document 498199, November 30, 2012.

⁵ See note 5 in table VI-1 and EDIS document 499042, December 12, 2012.

A variance analysis for the operations of Utah Refractories for silica bricks and shapes is presented in table VI-2.⁶ The information for this variance analysis is derived from table VI-1. This indicates that the *** between 2009 and 2011 was mainly due to the ***. The firm recorded *** in the January-September 2012 period because of the *** and the increase in ***.

Table VI-2
Silica bricks and shapes: Variance analysis on the operations of Utah Refractories, 2009-11, and January-September 2011 to January-September 2012

* * * * *

CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Capital expenditures and research and development (“R&D”) expenses are shown in table VI-3.

Table VI-3
Silica bricks and shapes: Capital expenditures and research and development expenses of Utah Refractories, 2009-11, January-June 2011, and January-June 2012

* * * * *

The reported data mostly represent the investment in *** as well as the repair and maintenance costs that led to an increase in production capacity or an improvement in the useful life of equipment.⁷

⁶ The Commission’s variance analysis is calculated in three parts: Sales variance, cost of sales variance (COGS variance), and SG&A expense variance. Each part consists of a price variance (in the case of the sales variance) or a cost or expense (cost/expense) variance (in the case of the COGS and SG&A expense variance), and a volume variance. The sales or cost/expense variance is calculated as the change in unit price or per-unit cost/expense times the new volume, while the volume variance is calculated as the change in volume times the old unit price or per-unit cost/expense. Summarized at the bottom of the table, the price variance is from sales; the cost/expense variance is the sum of those items from COGS and SG&A variances, respectively, and the volume variance is the sum of the volume components of the net sales, COGS, and SG&A expense variances. The overall volume component of the variance analysis is generally small. All things being equal, a stable overall product mix, which is assumed here for purposes of the preliminary investigation, generally enhances the utility of the Commission’s variance analysis.

⁷ Petition, exh. 11 provides balance sheet data of Utah Refractories. Changes in the category of *** accounted for most of the value of capital expenditures reported.

ASSETS AND RETURN ON INVESTMENT

Data on Utah Refractories' total assets and its return on investment ("ROI") are presented in table VI-4. Total assets declined irregularly by approximately \$*** between 2009 and 2011, accounted for by ***. This decrease was partially offset by an increase in ***.⁸ ROI followed the trend in operating income, shown earlier in table VI-1.

Table VI-4
Silica bricks and shapes: Utah Refractories' total assets and return on investment, fiscal years 2009-11

* * * * *

CAPITAL AND INVESTMENT

The Commission requested that the U.S. producer of silica bricks and shapes describe any actual or potential negative effects of imports of silica bricks and shapes from China on its growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. The response of Utah Refractories is shown as follows:

Actual Negative Effects

***.

Anticipated Negative Effects

***.

⁸ Petition, exh. 11.

PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

The Commission analyzes a number of factors in making threat determinations (see 19 U.S.C. § 1677(7)(F)(I)). 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 and the global market.

OVERVIEW

According to statistics of Global Trade Information Services Inc. ("GTIS"), the United States was neither a major world importer nor exporter of alumina or silica refractory bricks and shapes during 2009-11.¹ By contrast, China was the world's leading exporter during that same period. China's exports increased by over 45 percent from 2009 to 2011, exceeding 700,000 short tons in 2011 (table VII-1). China's exports also accounted for nearly 40 percent of the world's exports in 2011 and China's net trade surplus grew by over 45 percent to over 700,000 short tons in 2011.

¹ The global trade balance data presented are derived from GTIS, *Global Trade Atlas*, HS 6902.20. The products covered under this six-digit HS classification include all refractory bricks, blocks, tiles and similar goods not elsewhere specified or identified and containing over 50 percent (by weight) singly or combined, of alumina or silica. According to the petitioner, the majority of subject silica refractory brick is included in the data presented, as are many other products. Other products included in the data are alumina refractory brick, high purity silica brick for semiconductor wafer manufacturing, and fused silica brick, to name a few. The *Global Trade Atlas* data presented exclude the data for Colombia, Peru, and Uruguay because these data are not consistent with other data reported.

Table VII-1
Alumina and silica refractory bricks and shapes: World exports, imports, and trade balances, by country, 2009-11

Item	Calendar year		
	2009	2010	2011
	Quantity (<i>short tons</i>)		
Exports from:			
China	539,718	672,559	784,401
India	102,559	84,451	332,995
Germany	169,144	162,766	158,541
France	83,751	57,827	90,191
Spain	57,342	54,227	62,034
Ukraine	67,559	90,103	58,486
Czech Republic	40,611	53,093	54,726
Netherlands	19,435	25,202	50,484
Poland	34,855	44,131	45,418
Italy	40,783	41,305	43,807
All other countries	349,579	278,988	287,874
Total	1,505,336	1,564,652	1,968,956
Imports into:			
China	15,980	18,837	22,174
India	62,141	67,951	114,304
Germany	41,030	39,651	41,678
France	27,992	27,444	33,250
Spain	10,125	12,574	11,907
Ukraine	6,743	8,149	14,300
Czech Republic	9,160	17,691	17,381
Netherlands	14,609	19,207	16,498
Poland	29,161	30,241	16,890
Italy	41,165	38,544	40,808
All other countries	1,491,724	1,346,055	1,279,514
Total	1,749,830	1,626,343	1,608,703

Table continued on following page.

Table VII-1--Continued**Alumina and silica refractory bricks and shapes: World exports, imports, and trade balances, by country, 2009-11**

Item	Calendar year		
	2009	2010	2011
	Quantity (<i>short tons</i>)		
Trade balance:			
China	523,736	653,722	762,227
India	40,418	16,500	218,691
Germany	128,114	123,115	116,862
France	55,759	30,383	56,941
Spain	47,217	41,653	50,126
Ukraine	60,816	81,954	44,186
Czech Republic	31,451	35,402	37,345
Netherlands	4,826	5,995	33,985
Poland	5,695	13,890	28,529
Italy	(381)	2,760	2,999
All other countries	(1,142,145)	(1,067,067)	(991,640)

Note.--Positive numbers presented for "trade balance" show net exports and numbers in parentheses presented for "trade balance" show net imports. Countries presented separately are based on the top ten exporting countries to the world in 2011.

Source: Global Trade Information Services Inc., Global Trade Atlas, HS 6902.20 (Refractory Bricks, Blocks, Tiles And Similar Goods Nesoi, Containing Over 50% (Wt.) Singly Or Combined, Of Alumina Or Silica), excluding data for Colombia, Peru, and Uruguay that were not convertible to short tons, retrieved December 11, 2012.

THE INDUSTRY IN CHINA

Although there is no comprehensive public source for capacity, production, and/or shipment data for Chinese producers of silica bricks and shapes, publicly available information indicates that most Chinese manufacturers use continuous furnaces to fire silica brick, produce many types of refractories at their facilities, and have high annual production and capacity. In fact, the petitioner argues that China has a vast capacity to produce silica bricks, which amounts to "thousands of times greater" than the capacity of domestic producer Utah Refractories. The noted annual productions/capacities in table VII-2 are ***. The petitioner contends that China has strong domestic demand as exemplified by its large steel industry, which is composed primarily of integrated mills that require coke for blast furnaces, rather than mini mills that use electric arc furnaces, as well as a growing glass industry. The petitioner also notes that although there appears to be "significant" demand for silica bricks in China, especially for coke oven applications in the Chinese steel industry, the silica brick producers in China are export-oriented based on the competition for sales of silica brick in the United States.²

² Conference transcript, pp. 18 and 43 (Straight) and pp. 43-44 (Mulholland).

Table VII-2**Refractory materials: Advertised annual Chinese refractory production/capacity**

Chinese company name	Advertised annual production/capacity
Shandong Wanqiao Group Co.	120,000 tons of silica bricks
Zhengzhou Anec Industrial Co.	50,000 tons of silica products
AwayZibo Yonganda Refractory Materials Co.	50,000 tons of refractories
Zibo Zhuoyue Refractory Material Co.	50,000 tons of refractories
Zibo Yaodong Refractory Material Co.	20,000 tons of refractories
Henan Zinmi Changzing Refractory Co.	80,000 tons of refractory materials
Tangshan Kaiping Yinhai Furnace Materials Factory	60,000 tons of refractory materials
Source: Petitioner's postconference brief, exh. I.	

In its petition, Utah Refractories identified ten producers of silica bricks and shapes in China, but added that there are likely additional entities exporting the subject merchandise from China to the United States.³ The Commission sent foreign producer questionnaires to the 10 firms identified by the petitioner as possible producers/exporters of silica bricks and shapes in China, along with 23 additional facilities in China that, based on a review of data provided by ***, exported merchandise to the United States under HTS statistical reporting number 6902.20.1020 since January 1, 2009.⁴ Although no silica brick producers in China submitted a foreign producer questionnaire response in the preliminary phase of this investigation, one exporter in China (Xinyuan International, Ltd. (“Xinyuan”)) submitted a response to the Commission’s request for information.⁵

In its questionnaire response, Xinyuan indicated ***. It reported *** and estimated that *** of its total sales are represented by sales of silica bricks and shapes. ***.⁶

³ The producers in China named in the petition are as follows: Zhengzhou Chengtong Refractory Co., Ltd.; Zibo Tashan Refractory Material Factory; Zibo Hitech Material Co., Ltd.; Zhengzhou Sunrise Technology, Co., Ltd.; Luoyang Zhongte Refractories, Co., Ltd.; Yangquan Rising Commercials Ltd.; Zibo Xindi Refractory Material, Co., Ltd.; Zibo Tashan Refractory Material Factory; Smetal Group Co., Ltd.; and Zibo Yonganda Industry and Trade Co., Ltd. Petition, pp. 10-13.

⁴ An additional 31 facilities in China identified by *** as having exported merchandise to the United States under HTS statistical reporting number 6902.20.1020 since January 1, 2009 did not receive foreign producer questionnaires in the preliminary phase of this investigation because correct contact information (other than a street address) was unavailable for these firms.

⁵ Three companies in China (Refmin International Co., Ltd.; Vesuvius Zyarock Ceramics (Suzhou) Co., Ltd.; and Zhengzhou Sunrise Technology Co., Ltd.) responded to the Commission’s foreign producer questionnaire indicating that they did not produce or export silica bricks or shapes at any time since January 1, 2009. One of these firms (Zhengzhou Sunrise Technology Co., Ltd.) was named by the petitioner as a producer of the subject merchandise in China and will receive a questionnaire from Commerce in connection with its investigation. Petition, pp. 10-13; and *Silica Bricks and Shapes From the People’s Republic of China: Initiation of Antidumping Duty Investigation*, 77 FR 73982, December 12, 2012. In addition, one Chinese firm named by petitioner as being a silica brick producer (Zhengzhou Chengtong Refractory Co.) refused the Fedex delivery of the Commission’s foreign producer questionnaire.

⁶ Shandong Daqiao Refractory Plant received a foreign producer questionnaire from the Commission transmitted via Fedex but did not provide a response.

***.⁷ According to the estimate provided in Xinyuan’s questionnaire response, its exports to the United States of the subject silica bricks and shapes accounted for *** percent of total exports of the subject merchandise to the United States from China during 2011. According to the import data collected in response to Commission questionnaires in this investigation, Xinyuan’s exports to the United States accounted for *** percent of U.S. imports from China in 2009, *** percent in 2010, *** percent in 2011, and *** percent during January-September 2012. Export data provided by Xinyuan in its questionnaire response are presented in table VII-3. These data show that Xinyuan’s exports to the United States increased by *** percent from *** short tons in 2009 to *** short tons in 2011. However, the company’s projections for calendar year 2012 and 2013 indicate that exports to the United States are expected to fall by *** percent from 2011 to *** short tons in 2013.

Table VII-3
Silica bricks and shapes: Xinyuan’s exports to the United States, 2009-11, January-September 2011, January-September 2012, and projected 2012-13

* * * * *

U.S. INVENTORIES OF SILICA BRICKS AND SHAPES FROM CHINA

Data collected in this investigation on U.S. importers’ end-of-period inventories of silica bricks and shapes are presented in table VII-4.⁸ These data show that U.S. importers of silica brick typically maintain relatively low levels of U.S. inventories of the imported product. The petitioner testified that “given the very specific nature of many of the orders and the various types of bricks that are used,” little, if any, inventories of silica bricks and shapes are maintained in the United States.⁹

Table VII-4
Silica bricks and shapes: U.S. importers’ end-of-period inventories of imports, by source, 2009-11, January-September 2011, and January-September 2012

* * * * *

As shown in table VII-4, *** reported holding inventories of silica bricks and shapes imported from China during the period for which data were collected in this investigation. *** reported holding *** short tons of the subject merchandise in inventory ***. These inventories accounted for *** percent of total reported U.S. imports from China during that period. The firm indicated that ***. No other U.S. importers reported maintaining inventories of the subject merchandise during the period for which data were collected in this investigation.

*** U.S. importers from nonsubject sources (***) reported holding inventories of silica bricks and shapes in the United States. The inventories of silica bricks and shapes imports from nonsubject sources held by *** were *** short tons at yearend 2009, *** short tons at yearend 2010, *** short tons at yearend 2011, and *** short tons at the end of the third quarter of 2012. Inventories of nonsubject

⁷ CTA provided the Commission with a complete response to the U.S. importer questionnaire. According to that response, CTA’s U.S. imports of subject merchandise from China accounted for *** percent of the quantity of reported subject imports from China in 2009, *** percent in 2010, *** percent in 2011, and *** percent in January-September 2012.

⁸ Xinyuan reported in its response to the Commission’s questionnaire ***.

⁹ Conference transcript, p. 31 (Wiseman).

silica brick imports accounted for *** percent of total reported U.S. imports from nonsubject sources during 2009, *** percent in 2010, *** percent in 2011, and *** percent during January-September 2012.

U.S. IMPORTERS' CURRENT ORDERS

The Commission requested importers to indicate whether they imported or arranged for the importation of silica bricks and shapes from China after September 30, 2012. Data reported by these U.S. importers concerning their orders of imported silica bricks and shapes from China are presented in table VII-5. The following *** U.S. importers reported that they had placed orders for silica bricks and shapes from China for delivery into the United States after September 30, 2012: ***. The largest order placed, by far, was by ***. Smaller orders were placed by ***. No U.S. importer reported imports for delivery after ***.

Table VII-5

Silica bricks and shapes: U.S. importers' orders for silica bricks and shapes imports from China after September 30, 2012

* * * * *

ANTIDUMPING INVESTIGATIONS IN THIRD-COUNTRY MARKETS

Nothing on the record in this investigation suggests that there are antidumping investigations or orders in any third-country markets concerning silica bricks and shapes produced in China.

INFORMATION ON NONSUBJECT COUNTRIES

In assessing whether the domestic industry is materially injured or threatened with material injury “by reason of subject imports,” the legislative history states “that the Commission must examine all relevant evidence, including any known factors, other than the dumped imports, that may be injuring the domestic industry, and that the Commission must examine those other factors (including nonsubject imports) ‘to ensure that it is not attributing injury from other sources to the subject imports.’”¹⁰

According to the petitioner, the largest U.S. import sources for silica bricks and shapes after China are the Czech Republic, Germany, and Belgium.¹¹ Questionnaire responses *** (see Part IV of this report (tables IV-1 and IV-2)).¹² The refractory manufacturers in the European countries were described by the petitioner as large companies with the capacity to make many different types of refractory brick. Noted refractory manufacturers include PD Refractories in the Czech Republic and Germany, RHI in Germany, and Belref in Belgium.¹³ ***.¹⁴

¹⁰ Mittal Steel Point Lisas Ltd. v. United States, Slip Op. 2007-1552 at 17 (Fed. Cir., Sept. 18, 2008), quoting from Statement of Administrative Action on Uruguay Round Agreements Act, H.R. Rep. 103-316, Vol. I at 851-52; see also Bratsk Aluminum Smelter v. United States, 444 F.3d 1369 (Fed. Cir. 2006).

¹¹ Conference transcript, p. 69 (Mulholland).

¹² *** questionnaire response, section II-6.

¹³ Conference transcript, p. 40 (Mulholland).

¹⁴ *** questionnaire response, section II-6.

APPENDIX A
FEDERAL REGISTER NOTICES

Notices Published in the *Federal Register*

Silica Bricks and Shapes From China; Institution of an Antidumping Duty Investigation and Scheduling of a Preliminary Phase Investigation, 77 FR 70185, November 23, 2012

<http://www.gpo.gov/fdsys/pkg/FR-2012-11-23/pdf/2012-28419.pdf>

Silica Bricks and Shapes From the People's Republic of China: Initiation of Antidumping Duty Investigation, 77 FR 73982, December 12, 2012

<http://www.gpo.gov/fdsys/pkg/FR-2012-12-12/pdf/2012-29976.pdf>

APPENDIX B
CONFERENCE WITNESSES

CALENDAR OF PUBLIC PRELIMINARY CONFERENCE

Those listed below appeared as witnesses at the United States International Trade Commission’s preliminary conference:

Subject: Silica Bricks and Shapes from China
Inv. No.: 731-TA-1205 (Preliminary)
Date and Time: December 6, 2012 - 9:30 a.m.

Sessions were held in connection with this preliminary investigation in the ALJ Courtroom B (Room 111), 500 E Street, S.W., Washington, D.C.

OPENING REMARKS:

Petitioner (**Samuel C. Straight**, Ray Quinney & Nebeker)

**In Support of the Imposition of
Antidumping Duty Order:**

Ray Quinney & Nebeker
Salt Lake City, UT
on behalf of

Utah Refractories Corporation

Ray Worthen, President/Owner

Dennis Williams, Vice President/Owner

Tom Mulholland, Director of Sales

Samuel C. Straight)
) – OF COUNSEL
D. Zachary Wiseman)

CLOSING REMARKS:

Petitioner (**Samuel C. Straight**, Ray Quinney & Nebeker)

APPENDIX C
SUMMARY DATA

Table C-1
Silica bricks and shapes: Summary data concerning the U.S. market, 2009-11, January-September 2011, and January-September 2012

* * * * *

APPENDIX D

**DATA SUBMITTED BY U.S. IMPORTERS
FOR OTHER SILICA BRICKS AND SHAPES**

Table D-1
Other silica bricks and shapes: U.S. imports, by type of brick and source, 2009-11, January-September 2011, and January-September 2012

* * * * *

Table D-2
Other silica bricks and shapes: Weighted-average f.o.b. prices and quantities of imported fused silica brick sold to steel producers, by quarters, January 2009-September 2012

* * * * *