Strontium Chromate from Austria and France

Investigation Nos. 731-TA-1422 and 731-TA-1423 (Final)

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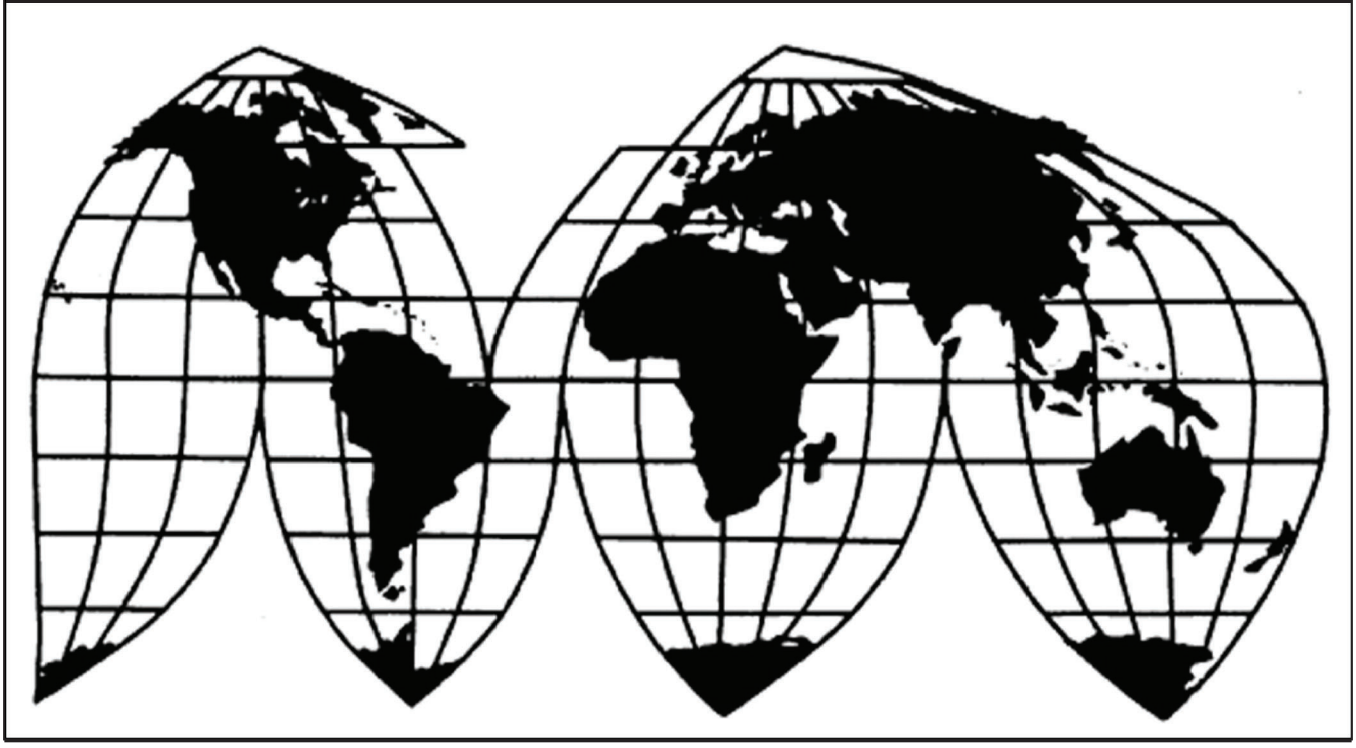
U.S. International Trade Commission



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UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation Nos. 731-TA-1422-1423 (Final)
Strontium Chromate from Austria and France

DETERMINATIONS

On the basis of the record[1] developed in the subject investigations, the United States International Trade Commission ("Commission") determines, pursuant to the Tariff Act of 1930 ("the Act"), that an industry in the United States is materially injured by reason of imports of strontium chromate from Austria and France, provided for in subheadings 2841.50.91 and 3212.90.00 of the Harmonized Tariff Schedule of the United States, that have been found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value ("LTFV").[2]

BACKGROUND

The Commission, pursuant to section 735(b) of the Act (19 U.S.C. 1673d(b)), instituted these investigations effective September 5, 2018, following receipt of a petition filed with the Commission and Commerce by WPC Technologies, Oak Creek, Wisconsin. The Commission scheduled the final phase of the investigations following notification of preliminary determinations by Commerce that imports of strontium chromate from Austria and France were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. 1673b(b)).[3] Notice of the scheduling of the final phase of the Commission's investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of June 17, 2019 (84 FR 28069). The hearing was held in Washington, DC on October 3, 2019, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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

[2] 84 FR 53676 and 84 FR 53678 (October 8, 2019).

[3] 84 FR 22438 and 84 FR 22443 (May 17, 2019).

Views of the Commission

Based on the record in the final phase of these investigations, we determine that an industry in the United States is materially injured by reason of imports of strontium chromate from Austria and France found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value.

I. Background

These investigations resulted from petitions filed on September 5, 2018 by Lumimove Inc., d.b.a. WPC Technologies ("Petitioner" or "WPC"), a domestic producer of strontium chromate. Petitioner appeared at the hearing accompanied by counsel and submitted prehearing and posthearing briefs and final comments.

No respondent appeared at the hearing or submitted prehearing or posthearing briefs in the final phase of these investigations.[1]

U.S. industry data are based on the questionnaire response of WPC, which accounted for virtually all known domestic production of strontium chromate in its basic powder form during 2018.[2] U.S. import data are based on the questionnaire responses of eight U.S. importers of strontium chromate from France and Austria during January 1, 2016 to June 30, 2019,[3] the period of investigation ("POI"). The questionnaire responses of these eight importers accounted for virtually all of the subject imports from Austria and France in 2018.[4]

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[1] Two respondents participated in the final phase of these investigations by submitting foreign producer/exporter questionnaire responses: Habich GmbH ("Habich"), the Austrian producer/exporter of strontium chromate, and Societe Nouvelle de Couleurs Zinciques ("SNCZ"), the French producer/exporter of strontium chromate.

In the preliminary phase of these investigations, SNCZ appeared at the conference accompanied by counsel and submitted postconference comments. *See* SNCZ's Postconference Comments, EDIS Doc. No. 657365. In addition, Maroon Group LLC, a U.S. importer of subject merchandise from France, appeared at the conference. The European Commission also filed a written statement in the preliminary phase of these investigations. European Commission's Postconference Comments, EDIS Doc. No. 657886.

[2] Confidential Report, INV-RR-107 (Oct. 22, 2019) ("CR")/Public Report ("PR") at I-5. ***, WPC's exclusive toller, which converts strontium chromate powder into a paste form for sale by WPC, also submitted a questionnaire response.

[3] CR/PR at I-5.

[4] The questionnaire responses of the eight responding U.S. importers accounted for *** percent of imports from Austria and France in 2018 under HTS statistical reporting numbers 2841.50.9100 and 3212.90.0050. CR/PR at I-5 n.11. According to the Petitioner, there is only one producer in each of the subject countries, Habich in Austria and SNCZ in France, and the Commission received questionnaires from all eight U.S. importers identified by these two foreign producers as having imported strontium chromate into the United States during the POI. CR/PR at I-5. There was close alignment between the import quantities reported by the eight U.S. importers and the U.S. export quantities reported by Habich and SNCZ. CR/PR at I-5 n.11. Given that strontium chromate is imported under two HTS subheadings, each of which is a basket category, and the close alignment of U.S. import quantities and U.S. export (Continued...)

Data concerning the industries producing subject merchandise in Austria and France are based on questionnaire responses from Habich and SNCZ, the two known strontium chromate producers in Austria and France, respectively.[5]

II. Domestic Like Product

A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the "domestic like product" and the "industry."[6] 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."[7] In turn, the Tariff Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."[8]

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.[9] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[10] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[11] Although the Commission must accept

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(…Continued)
quantities in the questionnaires, the Commission used questionnaire data rather than official import statistics for data presented in its report. *Id.*

[5] CR/PR at I-5.

[6] 19 U.S.C. § 1677(4)(A).

[7] 19 U.S.C. § 1677(4)(A).

[8] 19 U.S.C. § 1677(10).

[9] *See*, *e.g.*, *Cleo Inc. v. United States*, 501 F.3d 1291, 1299 (Fed. Cir. 2007); *NEC Corp. v. Department of Commerce*, 36 F. Supp. 2d 380, 383 (Ct. Int'l Trade 1998); *Nippon Steel Corp. v. United States*, 19 CIT 450, 455 (1995); *Torrington Co. v. United States*, 747 F. Supp. 744, 749 n.3 (Ct. Int'l Trade 1990), *aff'd*, 938 F.2d 1278 (Fed. Cir. 1991) ("every like product determination 'must be made on the particular record at issue' and the 'unique facts of each case'"). The Commission generally considers a number of factors, including the following: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) customer and producer perceptions of the products; (5) common manufacturing facilities, production processes, and production employees; and, where appropriate, (6) price. *See Nippon*, 19 CIT at 455 n.4; *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int'l Trade 1996).

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

[11] *Nippon*, 19 CIT at 455; *Torrington*, 747 F. Supp. at 748-49; *see also* S. Rep. No. 96-249 at 90-91 (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that (Continued...)

Commerce's determination as to the scope of the imported merchandise that is subsidized or sold at less than fair value,[12] the Commission determines what domestic product is like the imported articles Commerce has identified.[13]

B. Product Description

Commerce defined the imported merchandise within the scope of these investigations as:

> … strontium chromate, regardless of form (including but not limited to, powder (sometimes known as granular), dispersions (sometimes known as paste), or in any solution). The chemical formula for strontium chromate is $SrCrO_4$ and the Chemical Abstracts Service (CAS) registry number is 7789–06–2.
>
> Strontium chromate that has been blended with another product or products is included in the scope if the resulting mix contains 15 percent or more of strontium chromate by total formula weight. Products with which strontium chromate may be blended include, but are not limited to, water and solvents such as Aromatic 100 Methyl Amyl Ketone (MAK)/2-Heptanone, Acetone, Glycol Ether EB, Naphtha Leicht, and Xylene. Subject merchandise includes strontium chromate that has been processed in a third country into a product that otherwise would be within the scope of this investigation if processed in the country of manufacture of the in-scope strontium chromate.
>
> The merchandise subject to this investigation is currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) under subheading 2841.50.9100. Subject merchandise may also enter under HTSUS subheading 3212.90.0050. While the HTSUS subheadings and CAS registry number are

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(…Continued)
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.").

[12] *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.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

[13] *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).

provided for convenience and customs purposes, the written description of the scope is dispositive.[14]

Strontium chromate is a chemical compound that is a yellow powder or granular solid that is insoluble in water.[15] Its chemical formula is $SrCrO_4$.[16] Strontium chromate is produced through a chemical reaction and several following processing steps to yield the final powder. The reaction portion involves a strontium source, typically strontium carbonate ($SrCO_3$), and a chromate source, usually sodium dichromate ($Na_2Cr_2O_7$), which are mixed together to precipitate strontium chromate.[17] The strontium chromate is then dried, milled, and packaged into sacks.[18] Strontium chromate powder can be combined with various solvents to make a paste (or dispersion) form of the product.[19] Strontium chromate is a very effective corrosion inhibitor, and is widely used as a corrosion-resistant pigment in paints and coatings for the protection of steel, aluminum, and alloys.[20] Reported end uses include industrial coatings, anti-corrosive paints, primers, and specialty seals for the aerospace and non-aerospace industries.[21]

C. Domestic Like Product Analysis

In its preliminary determinations, the Commission defined a single domestic like product consisting of all strontium chromate within the scope.[22] The Commission determined that both the powder and paste forms of strontium chromate have the same basic chemical composition, have the same anticorrosive properties, are used as an anticorrosive in paint and coating applications, have considerable overlap in their production processes, are generally interchangeable, are sold in the same channels of distribution, are priced within a reasonable range of one another, and generally are perceived to be the same product by market participants.[23] The Commission acknowledged that WPC uses a toller for converting strontium chromate powder into paste, but noted that WPC indicated that it intended to resume

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[14] *Strontium Chromate From Austria: Final Affirmative Determination of Sales at Less Than Fair Value*, 84 Fed. Reg. 53676, 53678 (Oct. 8, 2019); *Strontium Chromate From France: Final Affirmative Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances*, 84 Fed. Reg. 53678, 53679-80 (Oct. 8, 2019).

[15] CR/PR at I-4.

[16] CR/PR at I-4.

[17] CR/PR at I-11.

[18] CP/PR at I-12.

[19] CR/PR at I-4. To create strontium chromate in paste form, strontium chromate powder is suspended in various solvent-based systems, including: aromatic 100 methyl amyl ketone (MAK)/2-heptanone, acetone, glycol ether EB, naphtha leicht, and xylene. CR/PR at I-7, I-8 n.25.

[20] CR/PR at I-4.

[21] CR/PR at II-8.

[22] *Strontium Chromate from Austria and France*, Inv. Nos. 731-TA-1422-1423 (Preliminary), USITC Pub. 4836 (Oct. 2018) at 8 ("*Preliminary Determinations*").

[23] *Preliminary Determinations*, USITC Pub. 4836 at 8.

producing both powder and paste at the same facility by ***.[24] Hence, the Commission found that, to the extent that there are differences between some powders and pastes, there does not appear to be a "clear dividing line."[25]

The record in the final phase of these investigations does not contain any new information concerning the domestic like product factors that suggests a different definition would be warranted.[26] [27] While WPC continues to use a toller for producing strontium chromate paste, it produced paste at its previous facility[28] and intends to resume producing paste at its new facility when this makes economic sense.[29] Therefore, for the same reasons set forth in the preliminary determinations, we define a single domestic like product consisting of all strontium chromate, coextensive with the scope.

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

These investigations raise two sets of domestic industry issues. The first concerns whether WPC's toller, ***, engaged in sufficient production-related activity to be considered a member of the domestic industry.[31] The second concerns whether appropriate circumstances

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[24] *Preliminary Determinations*, USITC Pub. 4836 at 8; *Confidential Preliminary Determinations*, EDIS Doc No. 660324 at 11.

[25] *Preliminary Determinations*, USITC Pub. 4836 at 8.

[26] *See* CR/PR at I-8 to I-13, Table III-5; Transcript of October 3, 2019 Hearing ("Hearing Tr.") at 10 (St. John), 16 (Klein), and 20 (Downing).

[27] Petitioner argues that the Commission should find a single domestic like product, consisting of strontium chromate in both powder and paste form, coextensive with the scope of these investigations. It contends that no party challenged the Commission's definition in the preliminary phase of these investigations, nor is there new information that would call into question that definition. WPC's Prehearing Brief at 3-4; WPC's Posthearing Brief at 2.

[28] According to WPC, *** merely took possession of WPC's equipment to start its conversion operations. Hearing Tr. at 76 (St. John); WPC's Posthearing Brief, Response to Questions at 6-7.

[29] Hearing Tr. at 59 (St. John).

[30] 19 U.S.C. § 1677(4)(A).

[31] In defining the domestic industry, the Commission's practice has been to include tollers in the domestic industry so long as they are engaged in sufficient production-related activities. *See, e.g.*, *Saccharin from China*, Inv. No. 731-TA-1013 (Second Review), USITC Pub. 4534 at 7-8 & n.32 (May 2015) (noting that "the Commission's practice generally is to include toll producers (as opposed to tollees) in the domestic industry definition since they actually produce the domestic like product" and defining the domestic industry to include toll producer of saccharin); *Chlorinated Isocyanurates from China and Japan*, Inv. Nos. 701-TA-501 & 731-TA-1226 (Final), USITC Pub. 4494 at 4 n.3, 8-10 (Nov. 2014) (defining (Continued...)

exist to exclude WPC from the domestic industry pursuant to the related parties provision of the statute. We discuss both issues in turn below.

A. Sufficient Production-Related Activities

Petitioner contends that the Commission should continue to find, as it did in the preliminary phase of these investigations, that *** does not engage in sufficient production-related activity to be considered part of the domestic industry.[32]

In deciding whether a firm qualifies as a domestic producer of the domestic like product, the Commission generally analyzes the overall nature of a firm's U.S. production-related activities, although production-related activity at minimum levels could be insufficient to constitute domestic production.[33]

We discuss below each of the six factors that the Commission generally considers.

Source and Extent of Firm's Capital Investment. In its questionnaire response, *** reported capital expenditures of $*** in 2017 *** and *** other capital expenditures during the POI.[34] Although Petitioner claims that *** estimated capital expenditures in 2017 are overstated,[35] Petitioner also estimates that it would need to invest approximately $*** to resume its own conversion operations rather than contract for *** conversion operations.[36] WPC reported capital expenditures of $*** in 2016, $*** in 2017, $*** in 2018, $*** in interim 2018, and $*** in interim 2019.[37] Total assets reported by *** were *** in 2016, $*** in 2017, and $*** in 2018.[38] Total assets reported by WPC were $*** in 2016, $*** in 2017, and $*** in 2018.[39]

Technical Expertise Involved in U.S. Production Activities. *** does not itself combine a strontium source and a chromate source to produce the chemical reaction necessary to make

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(…Continued)
the domestic industry to include tollers that tableted granular chlorinated isocyanurates because they were engaged in sufficient production-related activities).

[32] WPC's Prehearing Brief at 7.

[33] The Commission generally considers six factors: (1) source and extent of the firm's capital investment; (2) technical expertise involved in U.S. production activities; (3) value added to the product in the United States; (4) employment levels; (5) quantity and type of parts sourced in the United States; and (6) any other costs and activities in the United States directly leading to production of the like product. No single factor is determinative and the Commission may consider any other factors it deems relevant in light of the specific facts of any investigation. *Crystalline Silica Photovoltaic Cells and Modules from China*, Inv. Nos. 701-TA-481 and 731-TA-1190 (Final), USITC Pub. 4360 at 12-13 (Nov. 2012).

[34] *** U.S. Producer Questionnaire Response at V-8. *See also* CR/PR Tables D-1 and D-8.

[35] Petitioner argues that this number is overstated since the list of capital investments that *** made includes increased expenses recorded in ***. WPC's Prehearing Brief at 8; CR/PR Table D-1 n.1.

[36] Hearing Tr. at 68 (St. John).

[37] CR/PR at Table VI-5. In the preliminary phase of these investigations, WPC reported capital expenditures of $*** in 2015 related to the construction of and move to its new facility in March 2016. *** U.S. Producer Questionnaire Response, EDIS Doc. No. 656243, at III-13.

[38] CR/PR at Table D-7.

[39] CR/PR at Table VI-6.

strontium chromate. Instead, *** receives strontium chromate powder manufactured by WPC and blends the powder with solvents to convert it to strontium chromate paste.[40] *** indicated that there is *** technical expertise for employees involved in its conversion operations, including ***.[41] According to Petitioner, the production of strontium chromate powder, which requires a chemical reaction, is a far more complicated process, requiring greater technical expertise, than simply dispersing the strontium chromate powder in a solvent.[42] A representative for WPC acknowledged that there is "some knowledge" required to convert strontium chromate powder into a dispersion, and that WPC has retained operators who know how to do this process to its "financial detriment."[43] Nevertheless, the representative claimed that "90% of {WPC's} technical knowledge is invested in how to make strontium chromate pigment, and at most 10% {is} making the dispersion product."[44] The representative also testified that WPC disclosed its strontium chromate paste production processes to *** and that *** simply took possession of WPC's equipment to start its operations.[45] WPC reported that workers producing the strontium chromate powder were paid approximately $*** per hour, and *** reported that workers involved in its tolling operations for strontium chromate paste were paid approximately $*** per hour during the POI.[46]

Value Added to the Product in the United States. Neither *** nor WPC provided estimates for the value added by converting powder to paste.[47] Based on questionnaire responses, the Commission estimates that *** costs to convert strontium chromate powder to paste were *** percent of the total costs for producing strontium chromate in paste form in 2018.[48]

Employment Levels. *** reported *** production and related workers ("PRWs") in its conversion operations during the POI.[49] By contrast, WPC reported *** PRWs in 2016, *** PRWs in 2017, *** PRWs in 2018, *** PRWs in interim 2018, and *** PRWs in interim 2019.[50]

Quantity and Type of Parts Sourced in the United States. *** reported that it sourced strontium chromate pigment *** but sources ***.[51]

Other Costs and Activities in the United States Leading to Production of the Like Product. *** did not identify any other significant costs for its conversion operations during the POI.[52] However, *** indicated that ***.[53]

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[40] CR/PR at I-12.

[41] CR/PR at Table D-1.

[42] WPC's Prehearing Brief at 8-9; Hearing Tr. at 67-68 (St. John).

[43] Hearing Tr. at 68 (St. John).

[44] Hearing Tr. at 69 (St. John).

[45] Hearing Tr. at 76 (St. John).

[46] CR/PR at Tables III-8 and D-3.

[47] *** reported the value added by its conversion operations as follows: ***. CR/PR at Table D-1. Petitioner similarly states that the only value added by ***. WPC's Prehearing Brief at 9; Hearing Tr. at 68 (St. John).

[48] CR/PR at D-4.

[49] CR/PR at Tables D-1 and D-3.

[50] CR/PR at Table III-8.

[51] CR/PR at Table D-1.

Conclusion. In the preliminary determinations, the Commission found the decision of whether *** engaged in sufficient production-related activity to qualify as a domestic producer to be a fairly close question.[54] On the one hand, the Commission considered that *** capital investments during the POI were not insignificant, particularly given that *** only converted approximately *** percent of WPC's strontium chromate into paste, that the conversion operations to produce strontium chromate paste involved some technical expertise working with hazardous materials, and that the value added by *** conversion operations ranged from *** percent to *** percent during the POI.[55] On the other hand, *** capital investments for conversion were small relative to WPC's capital investments for production, and the process to convert strontium chromate powder into strontium chromate paste is considerably simpler than the process for production of strontium chromate powder, requires less technical expertise, and entails considerably fewer employees.[56] On balance, and in the absence of party arguments to the contrary, the Commission concluded that *** does not engage in sufficient production-related operations to be considered a domestic producer.[57]

The record in the final phase of these investigations with respect to *** conversion activities has not changed significantly. *** one-time capital investments are not insignificant although it converted a lower share (*** percent) of WPC's strontium chromate into paste in 2018 than that considered in the preliminary phase.[58] The conversion operations to produce strontium chromate paste involves some technical expertise, and the value added by *** conversion operations was *** percent in 2018. *** capital investments are still relatively small compared to WPC's capital investments,[59] and the process to convert strontium chromate powder into paste continues to be considerably simpler than the process for production of strontium chromate powder, requires less technical expertise, and entails considerably fewer employees.

No party in the final phase has argued that the Commission should consider *** to be a domestic producer. On balance, based on the current record and in the absence of party

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(…Continued)

[52] CR/PR at Table D-1. *** stated only that ***. *Id.*

[53] CR/PR at Table D-1 n.1

[54] *Preliminary Determinations*, USITC Pub. 4836 at 11; *Confidential Preliminary Determinations*, EDIS Doc No. 660324 at 16.

[55] *Preliminary Determinations*, USITC Pub. 4836 at 11; *Confidential Preliminary Determinations*, EDIS Doc No. 660324 at 16-17.

[56] *Preliminary Determinations*, USITC Pub. 4836 at 11-12; *Confidential Preliminary Determinations*, EDIS Doc No. 660324 at 17.

[57] *Preliminary Determinations*, USITC Pub. 4836 at 12; *Confidential Preliminary Determinations*, EDIS Doc No. 660324 at 17.

[58] *Derived from* CR/PR at Table III-5.

[59] This is particularly true when compared to WPC's $*** capital investment in 2015, prior to the POI in the final phase of these investigations, related to the construction of and move to its new facility in March 2016.

arguments to the contrary, we conclude that *** does not engage in sufficient production-related activities to be considered a domestic producer.[60]

B. Related Parties

We next consider whether any producer of the domestic like product should be excluded from the domestic industry pursuant to section 771(4)(B) of the Tariff Act. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.[61] Exclusion of such a producer is within the Commission's discretion based upon the facts presented in each investigation.[62]

WPC imported subject merchandise from Austria in 2016.[63] Petitioner argues that, for the same reasons explained in the Commission's preliminary determinations, there is no basis to exclude WPC from the domestic industry.[64]

In the preliminary determinations, the Commission found that appropriate circumstances did not exist to exclude WPC from the domestic industry and, accordingly,

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[60] Commissioner Schmidtlein is inclined to find that *** does engage in sufficient production-related activities to be considered a domestic producer. She is persuaded by the level of value added by its conversion operations, the capital investments necessary to engage in these activities, and the *** of the hourly wages paid by *** and WPC. This *** suggests that the technical expertise that is required to conduct the conversion process, which includes handling hazardous materials, is *** to the expertise required by WPC's employees. Commissioner Schmidtlein recognizes, however, that inclusion of *** in the domestic industry has no impact on the industry's output-related data and limited impact on the industry's financial data. In light of this, and the lack of any argument to include the toller as a domestic producer, she joins the majority with respect to this finding.

[61] *See Torrington Co. v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int'l Trade 1989), *aff'd mem*., 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

[62] The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

(1) the percentage of domestic production attributable to the importing producer;

(2) the reason the U.S. producer has decided to import the product subject to investigation (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);

(3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;

(4) the ratio of import shipments to U.S. production for the imported product; and

(5) whether the primary interest of the importing producer lies in domestic production or importation.

Changzhou Trina Solar Energy Co. v. USITC, 100 F. Supp. 3d 1314, 1326-31 (Ct. Int'l. Trade 2015); *see also Torrington Co. v. United States*, 790 F. Supp. at 1168.

[63] CR/PR at Table III-7; Hearing Tr. at 11-12 (St. John).

[64] WPC's Prehearing Brief at 7.

defined the domestic industry as all U.S. producers of strontium chromate, namely WPC.[65] The Commission reasoned that WPC is the sole U.S. producer and its exclusion would result in the lack of any domestic industry data, no party argued for its exclusion, and the *** volume of WPC's imports relative to its domestic production indicated that its principal interest lies in domestic production.[66]

The record in the final phase of these investigations does not contain any new information that warrants a different finding. WPC is the petitioner and continues to be the sole confirmed domestic producer of strontium chromate.[67] WPC imported *** pounds of strontium chromate from Austria in 2016 and *** for the remainder of the POI.[68] WPC's imports were equivalent to *** percent of its domestic production in 2016.[69] WPC stated that it ***.[70] No party has argued that WPC should be excluded from the domestic industry. Based on this record, we find that appropriate circumstances do not exist to exclude WPC from the domestic industry.

We consequently define the domestic industry as all U.S. producers of strontium chromate, namely WPC.

IV. Cumulation[71]

For purposes of evaluating the volume and effects for a determination of material injury by reason of subject imports, section 771(7)(G)(i) of the Tariff Act requires the Commission to cumulate subject imports from all countries as to which petitions were filed and/or investigations self-initiated by Commerce on the same day, if such imports compete with each

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[65] *Preliminary Determinations*, USITC Pub. 4836 at 13.

[66] *Preliminary Determinations*, USITC Pub. 4836 at 13; *Confidential Preliminary Determinations*, EDIS Doc No. 660324 at 19.

[67] CR/PR at Table III-1

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

[69] CR/PR at Table III-7.

[70] CR/PR at Table III-7.

[71] Pursuant to Section 771(24) of the Tariff Act, imports from a subject country of merchandise corresponding to a domestic like product that account for less than three percent of all such merchandise imported into the United States during the most recent 12 months for which data are available preceding the filing of the petition shall be deemed negligible. 19 U.S.C. §§ 1671b(a), 1673b(a), 1677(24)(A)(i), 1677(24)(B). The statute further provides that subject imports from a single country which comprise less than three percent of total such imports of the product may not be considered negligible if there are several countries subject to investigation with negligible imports and the sum of such imports from all those countries collectively accounts for more than seven percent of the volume of all such merchandise imported into the United States. 19 U.S.C. § 1677(24)(A)(ii).

During the 12-month period (September 2017 to August 2018) preceding the filing of the petitions, subject imports from Austria accounted for *** percent of total U.S. imports of strontium chromate by quantity, and subject imports from France accounted for *** percent of total U.S. imports of strontium chromate by quantity. CR/PR at Table IV-3. As imports from each subject country are clearly above negligible levels, we find that subject imports from Austria and France are not negligible.

other and with the domestic like product in the U.S. market. In assessing whether subject imports compete with each other and with the domestic like product, the Commission generally has considered four factors:

(1) the degree of fungibility between subject imports from different countries and between subject imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;

(2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;

(3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and

(4) whether the subject imports are simultaneously present in the market.[72]

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for determining whether the subject imports compete with each other and with the domestic like product.[73] Only a "reasonable overlap" of competition is required.[74]

Petitioner argues that the Commission should continue to cumulate subject imports in the final phase of these investigations for the same reasons that it cumulated subject imports in the preliminary phase.[75]

In the preliminary determinations, the Commission found that there is a reasonable overlap of competition between the domestic like product and imports from each subject country and between imports from each subject country.[76] Accordingly, the Commission cumulated subject imports from Austria and France for its present material injury analysis.[77]

The statutory threshold for cumulation is satisfied in these investigations because the Petitioner filed the antidumping duty petitions with respect to subject imports from Austria and

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[72] *See Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan*, Inv. Nos. 731-TA-278-280 (Final), USITC Pub. 1845 (May 1986), *aff'd*, *Fundicao Tupy, S.A. v. United States*, 678 F. Supp. 898 (Ct. Int'l Trade), *aff'd*, 859 F.2d 915 (Fed. Cir. 1988).

[73] *See*, *e.g.*, *Wieland Werke, AG v. United State*s, 718 F. Supp. 50 (Ct. Int'l Trade 1989).

[74] The Statement of Administrative Action (SAA) to the Uruguay Round Agreements Act (URAA), expressly states that "the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition." H.R. Rep. No. 103-316, Vol. I at 848 (1994) (*citing Fundicao Tupy, S.A. v. United States*, 678 F. Supp. at 902); *see Goss Graphic Sys., Inc. v. United States*, 33 F. Supp. 2d 1082, 1087 (Ct. Int'l Trade 1998) ("cumulation does not require two products to be highly fungible"); *Wieland Werke, AG*, 718 F. Supp. at 52 ("Completely overlapping markets are not required.").

[75] WPC's Prehearing Brief at 10; WPC's Posthearing Brief at 2-3.

[76] *Preliminary Determinations*, USITC Pub. 4836 at 16.

[77] *Preliminary Determinations*, USITC Pub. 4836 at 16.

France on the same day, September 5, 2018.[78] We thus examine whether there is a reasonable overlap of competition between subject imports from Austria and France and between subject imports from each source and the domestic like product.

Fungibility. Purchasers were asked to rate the importance of 15 factors in their purchasing decisions and to compare strontium chromate from different sources.[79] Most purchasers reported that the domestic like product as compared to strontium chromate from Austria or France, and strontium chromate from Austria compared to strontium chromate from France, were comparable in 14 of 15 factors.[80] Of the five factors that the majority of purchasers regarded as very important,[81] most purchasers reported that the domestic like product and strontium chromate from Austria were comparable with respect to four of the five very important factors.[82] Most purchasers reported that the domestic like product and strontium chromate from France were comparable with respect to all five of the very important factors.[83] Finally, most purchasers reported that strontium chromate from both Austria and France were comparable with respect to four of the five very important factors.[84]

Furthermore, the U.S. producer and the vast majority of responding U.S. importers and purchasers reported that the domestic like product and subject imports from both subject countries as well as between subject sources are "always" or "frequently" interchangeable.[85] Lastly, most responding purchasers (12 of 14) reported that the domestic like product and subject imports from Austria and France "always" met minimum quality specifications.[86]

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[78] CR/PR at I-1. None of the statutory exceptions to cumulation apply.

[79] CR/PR at Tables II-7 and II-9.

[80] CR/PR at Table II-9. The only factor where a majority or plurality of responses reported that strontium chromate from domestic and subject sources was not comparable was price, as to which purchasers reported that U.S. product was inferior (*i.e.*, higher priced) to the product from Austria. *Id.*

[81] The factors rated as very important by more than half of responding purchasers were availability and reliability of supply (9 firms each), product consistency (8 firms), quality meets industry standards (7 firms), and price (6 firms). CR/PR at Table II-7.

[82] CR/PR at Table II-9. Three of five responding purchasers reported that U.S.-produced strontium chromate was inferior in price when compared to strontium chromate from Austria. *Id*.

[83] CR/PR at Table II-9.

[84] CR/PR at Table II-9. One of two purchasers reported that the price of strontium chromate from Austria was superior to strontium chromate from France, while the other firm reported that the price was comparable. *Id.*

[85] CR/PR at Table II-10. Two purchasers reported that the domestic like product and subject imports from France are "never" interchangeable, but one of these purchasers acknowledged that it is restricted to product that has been qualified for specific formulation and chemical attributes, and the other purchaser acknowledged that it never evaluated subject imports from France. *See* *** U.S. Purchaser Questionnaire Response at IV-2; *** U.S. Purchaser Questionnaire Response at IV-1; *** U.S. Importer Questionnaire Response at III-19.

[86] CR/PR at Table II-11. Eight of nine purchasers reported that strontium chromate produced in the United States always met minimum quality specifications, two of two purchasers reported that strontium chromate produced in Austria "always" met minimum quality specifications, and two of three purchasers reported that strontium chromate produced in France "always" met minimum quality specifications. *Id.*

The U.S. producer reported that non-price differences are "***" significant in comparisons of the domestic like product and subject imports from both subject countries, as well as in comparison of subject imports from Austria with subject imports from France.[87] However, the responses of U.S. importers and purchasers were mixed.[88]

Channels of Distribution. During the POI, the domestic like product and subject imports from both sources were shipped primarily or exclusively to end users. With the exception of a small amount of strontium chromate imported from Austria shipped to distributors in 2016, *** has been the *** firm to ship *** strontium chromate to distributors during the POI.[89] Furthermore, the majority of U.S. shipments of the domestic like product and subject imports from both sources to end users were for non-aerospace applications, although there were also smaller volumes of U.S. shipments for aerospace applications.[90]

With respect to shipments of subject imports from Austria, the vast majority of such shipments were consumed internally by importers that are themselves paint or coating manufacturers (***).[91] Overall, the vast majority of U.S. shipments of strontium chromate from Austria in 2018 were to end users that manufacture paint or coatings for non-aerospace applications.[92]

Geographic Overlap. Strontium chromate from all sources was sold in overlapping geographic regions. The domestic like product was sold in *** regions of the contiguous United States except the *** region.[93] Subject imports from both Austria and France were present in the *** regions of the United States during the POI.[94] Subject imports from France were also present in the *** region.[95] In 2018, subject imports from Austria and France exclusively entered the United States through U.S. ports in the East and North regions, with the majority of subject imports from both countries entering through U.S. ports in the North region.[96]

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[87] CR/PR at Table II-12.

[88] CR/PR at Table II-12.

[89] CR/PR at Table II-1. During the POI, WPC sold *** percent of its U.S. shipments to end users and *** percent of its U.S. shipments to distributors. *Id.*

[90] CR/PR at Table II-1. During the POI, *** percent of WPC's U.S. shipments were for non-aerospace applications and *** percent of its shipments were for aerospace applications. *Id.* During the POI, *** percent of U.S. shipments of subject imports from France were for non-aerospace applications and *** percent of shipments were for aerospace applications. *Id.* During the POI, *** percent of U.S. shipments of subject imports from Austria were for non-aerospace applications and *** percent of shipments were for aerospace applications. *Id.*

[91] CR/PR at II-2. During the POI, internal consumption accounted for *** percent of U.S. shipments of subject imports from Austria. CR/PR at Table II-1 note. In contrast, WPC's U.S. shipments of strontium chromate as well as those by importers of strontium chromate from France were *** commercial shipments (*i.e.*, shipments made within the United States as a result of an arm's length commercial transaction in the ordinary course of business). CR/PR at II-2.

[92] CR/PR at Table II-1.

[93] CR/PR at Table II-2.

[94] CR/PR at Table II-2.

[95] CR/PR at Table II-2.

[96] CR/PR at Table IV-5.

Simultaneous Presence in Market. Subject imports from Austria were present in the U.S. market in each month of the POI (January 2016 to June 2019).[97] Subject imports from France were present in the U.S. market in 32 of 42 months of the POI.[98] The domestic like product was also present in the U.S. market throughout the POI.[99]

Conclusion. The record in the final phase of these investigations continues to support a finding that subject imports from each subject country are fungible with the domestic like product and each other, that subject imports from each subject country and the domestic like product are sold in similar channels of distribution and in similar geographic markets, and that strontium chromate from each source has been simultaneously present in the U.S. market. With respect to fungibility, as discussed above, market participants generally perceive products from different sources to be interchangeable and comparable across purchasing factors. There is substantial overlap in shipments of strontium chromate powder in the U.S. market by subject imports from Austria, subject imports from France, and the domestic like product.[100] Although there are some differences in channels of distribution, the record shows that the domestic like product and subject imports from each source were primarily shipped to and competed for sales to end users for non-aerospace applications throughout the POI. In light of the foregoing, we find that there is a reasonable overlap of competition between the domestic like product and imports from each subject country as well as between imports from each subject country. Accordingly, we analyze subject imports from Austria and France on a cumulated basis for our analysis of whether the domestic industry is materially injured by reason of subject imports.

V. Material Injury by Reason of Subject Imports

Based on the record in the final phase of these investigations, we find that an industry in the United States is materially injured by reason of imports of strontium chromate from Austria and France that Commerce has found to be sold in the United States at less than fair value.

[97] CR/PR at Table IV-6.

[98] CR/PR at Table IV-6.

[99] CR/PR at Tables V-3 to V-5.

[100] CR/PR at Table IV-4. U.S. producers and importers were asked to report their 2018 U.S. shipments by product type, with specific breakouts requested for powder and dispersion/paste. During 2018, *** percent of U.S. shipments of subject imports from Austria, *** percent of U.S. shipments of subject imports from France, and *** percent of U.S. shipments of the domestic like product were of powder product. *Id.* Conversely, during 2018, *** percent of U.S. shipments of subject imports from Austria, *** percent of U.S. shipments of subject imports from France, and *** percent of U.S. shipments of the domestic like product were of dispersion/paste product. *Id.* The Commission's pricing data confirm that there was head-to-head competition between subject imports from Austria, subject imports from France, and the domestic like product with respect to pricing products 1 and 2, both of which are strontium chromate in powder form. CR/PR at Tables V-3 and V-4.

A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[101] 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.[102] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[103] In assessing whether 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.[104] 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."[105]

Although the statute requires the Commission to determine whether the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[106] 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.[107] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[108]

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[101] 19 U.S.C. §§ 1671d(b), 1673d(b).

[102] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[103] 19 U.S.C. § 1677(7)(A).

[104] 19 U.S.C. § 1677(7)(C)(iii).

[105] 19 U.S.C. § 1677(7)(C)(iii).

[106] 19 U.S.C. §§ 1671d(b), 1673d(b).

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

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

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.[109] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[110] Nor does the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[111] It is clear that the existence of injury caused by other factors does not compel a negative determination.[112]

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

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

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

[112] *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.").

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."[113] The Commission ensures that it has "evidence in the record" to "show that the harm occurred 'by reason of' the LTFV imports," and that it is "not attributing injury from other sources to the subject imports." [114] The Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[115]

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.[116] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[117]

B. Conditions of Competition and the Business Cycle

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

1. Demand Conditions

U.S. demand for strontium chromate depends on the demand for U.S.-produced paint and coating products in which it is used.[118] Reported end uses for strontium chromate include industrial coatings, anti-corrosive paints, primers, and specialty sealants for both the aerospace

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

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

[115] *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.").

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

[117] *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.").

[118] CR/PR at II-8.

and non-aerospace industries.[119] The record indicates that demand increased in the sectors in which strontium chromate is used, with total industrial production increasing by 7.4 percent, durable goods production increasing by 6.7 percent, and aerospace and miscellaneous transportation equipment production increasing by 2.7 percent from the first quarter of 2016 to the third quarter of 2019.[120]

WPC reported that U.S. demand for strontium chromate has *** since January 1, 2016.[121] WPC stated that demand strengthened for durable goods while aerospace-related demand remained basically flat during 2016 to 2018.[122] Importers and purchasers provided mixed responses, with a majority of importers and purchasers reporting that U.S. demand for strontium chromate either fluctuated or had not changed since January 1, 2016.[123]

Apparent U.S. consumption of strontium chromate declined from *** pounds in 2016 to *** pounds in 2017 and increased to *** pounds in 2018, which represented an overall increase of *** percent between 2016 and 2018.[124] Apparent U.S. consumption of strontium chromate was *** percent lower in interim 2019, at *** pounds, than in interim 2018, at *** pounds.[125]

2. Supply Conditions

The domestic industry and cumulated subject imports were the two main sources of supply to the U.S. market during the POI. The domestic industry's share of apparent U.S. consumption declined from *** percent in 2016 to *** percent in 2017 and remained the same at *** percent in 2018.[126] The domestic industry's share of apparent U.S. consumption was higher in interim 2019, at *** percent, than in interim 2018, at *** percent.[127]

As discussed above, WPC is the sole domestic producer of strontium chromate.[128] WPC closed its former plant in Milwaukee, Wisconsin, in June 2015, with plans to commence operations at its new facility in Oak Creek, Wisconsin within six months; however, permitting issues resulted in a delay in operations at the new facility until March 2016.[129] WPC built up inventory prior to the shutdown of its former plant in order to serve its customers during the

[119] CR/PR at II-8.

[120] CR/PR at II-8 to II-9, Fig. II-1.

[121] CR/PR at II-8, Table II-4.

[122] CR/PR at II-8.

[123] CR/PR at Table II-4. One importer reported that U.S. demand for strontium chromate had increased since January 1, 2016, three importers reported that demand had not changed, and three reported that demand had fluctuated. *Id.* Two purchasers reported that U.S. demand for strontium chromate had increased since January 1, 2016, two purchasers reported that demand had not changed, one reported that demand decreased, and two reported that demand fluctuated. *Id.*

[124] CR/PR at Tables IV-7 and C-1.

[125] CR/PR at Tables IV-7 and C-1.

[126] CR/PR at Table IV-9.

[127] CR/PR at Table IV-9.

[128] CR/PR at Table III-1.

[129] WPC's Prehearing Brief at 15.

lapse in production; however, due to the permitting delay, WPC imported strontium chromate from Austria to supplement its inventories.[130] Certain purchasers reported experiencing supply constraints due to ***, including the largest purchaser, ***, which reported that it incurred significant costs and major disruptions at its main manufacturing location due to lack of material from its domestic source and that it narrowly avoided a severe impact to its major customers by using alternate sources of strontium chromate.[131]

There are very few global suppliers of strontium chromate.[132] During the POI, Habich was the only known subject producer of strontium chromate in Austria and SNCZ was the only known subject producer of strontium chromate in France.[133] Cumulated subject imports were the largest source of supply to the U.S. market throughout the POI. Cumulated subject imports' share of apparent U.S. consumption increased from *** percent in 2016 to *** percent in 2017 and remained at the same level, *** percent, in 2018.[134] Cumulated subject imports' share of apparent U.S. consumption was lower in interim 2019, at *** percent, than in interim 2018, at *** percent.[135]

Nonsubject imports had a very small presence in the U.S. market during the POI. Nonsubject imports' share of apparent U.S. consumption was *** percent in 2016, and no such imports were present in the U.S. market for the remainder of the POI.[136] During the POI, *** was the only reported nonsubject source of imports of strontium chromate.[137]

3. Substitutability and Other Conditions

Based on the record in the final phase of these investigations, we find that there is a high degree of substitutability between domestically produced strontium chromate and strontium chromate imported from subject sources.[138] Most purchasers reported that the domestic like product was comparable to subject imports from both subject countries in all 15 comparison factors, including all five comparison factors that the majority of purchasers regarded as very important.[139] Furthermore, as previously mentioned, WPC and the vast majority of responding U.S. importers and purchasers reported that the domestic like product

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[130] WPC's Prehearing Brief at 15; CR/PR at II-7.

[131] CR/PR at II-7. *** reported that it *** as a supplier ***. *** U.S. Purchaser Questionnaire Response at III-21. Purchasers *** also reported that they experienced supply constraints in 2016 due to ***. CR/PR at II-7.

[132] There are eight known producers of strontium chromate outside of the United States, including Habich of Austria, SNCZ of France, Sambochemical Cl. Ltd. of Korea, Kikuchi Color & Chemicals Corporation of Japan, and two producers from China. CR/PR at I-4. There are reportedly also producers in Turkey and India. CR/PR at I-4 n.8.

[133] CR/PR at Tables VII-1 and VII-4.

[134] CR/PR at Table IV-9.

[135] CR/PR at Table IV-9.

[136] CR/PR at Table IV-9.

[137] CR/PR at II-7.

[138] CR/PR at II-10.

[139] CR/PR at Tables II-7 and II-9.

and subject imports from both subject countries are "always" or "frequently" interchangeable.[140] Lastly, the vast majority of responding purchasers reported that the domestic like product and subject imports "always" met minimum quality specifications for their own or their customers' uses.[141]

We also find that price is an important factor in purchasing decisions for strontium chromate. When asked to list the top three factors considered in purchasing decisions, responding purchasers listed price more frequently than any other factor.[142] In addition, price was one of the five factors out of 15 that the majority of purchasers regarded as very important.[143] Moreover, three of 10 responding purchasers, including the largest purchaser, ***, reported that they "always" or "usually" purchase strontium chromate that is offered at the lowest price.[144] Market participants held differing views on the importance of non-price factors in purchasing decisions.[145]

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[140] CR/PR at Table II-10.

[141] CR/PR at Table II-11. Eight of nine responding purchasers reported that domestically produced product always met minimum quality specifications for their own or customers' uses, all responding purchasers reported that strontium chromate from Austria always met minimum quality specifications for their own or customers' uses, and two of three responding purchasers reported that strontium chromate from France always met minimum quality specifications for their own or customers' uses. *Id.* Certain market participants reported that strontium chromate for aerospace customers was not interchangeable with strontium chromate from another source unless evaluated and specified by the customer. *** U.S. Importer Questionnaire Response at III-19; *see also* *** U.S. Purchaser Questionnaire Response at IV-2; Hearing Tr. at 42 (Neeley). WPC also reported that one aerospace customer did not accept subject imports from Austria that were imported by WPC during WPC's transition to its new facility due to the material not having been qualified by the customer. CR/PR at II-7. As previously discussed, the majority of U.S. shipments of the domestic like product and subject imports from both sources to end users were for non-aerospace applications. CR/PR at Table II-1. Moreover, the record does not contain any information regarding whether any domestic or subject producer sought qualification of its strontium chromate, but failed to obtain that required qualification from the potential customer.

[142] CR/PR at Table II-6. Price was identified as a top three factor six times by responding purchasers, availability/supply was identified five times, and quality was identified two times. *Id.* Purchasers ranked availability/supply as the first-most important factor more frequently than any other factor, and price as the second-most and third-most important factors more frequently than any other factor. *Id.*

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

[144] CR/PR at II-12.

[145] WPC reported that non-price differences are "***" significant in comparisons of the domestic like product and subject imports from both subject countries. CR/PR at Table II-12. Most U.S. importers reported that non-price differences are "always" or "sometimes" significant in comparisons of the domestic like product and subject imports. *Id.* A plurality of purchasers reported that non-price differences are "never" significant in comparisons of the domestic like product and subject imports from Austria but a majority reported that non-price differences are "always" or "frequently" significant in comparisons of the domestic like product and subject imports from France. *Id.*

The primary raw materials used to manufacture strontium chromate are strontium salts (typically either strontium chloride or strontium carbonate) and chromium compounds (typically sodium chromate, chromic acid flakes, or sodium dichromate).[146] Raw materials accounted for between *** to *** percent of the cost of goods sold ("COGS") for U.S. production of strontium chromate during the POI.[147] Although price indices for the raw materials of strontium chromate are not publicly available, WPC reported that the cost of sodium dichromate *** and that the cost of strontium carbonate *** between 2015 and 2018.[148]

Strontium chromate is a known human carcinogen.[149] Substitutes for strontium chromate are very limited, however, due to its superior anti-corrosion attributes.[150] Substitutes for strontium chromate are reportedly significantly more expensive.[151] Due to environmental and human health concerns, strontium chromate is regulated in the European Union ("EU") under the Regulation Concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals ("REACH"). Strontium chromate was placed on the REACH "Authorisation List" in August 2014.[152] Its placement on the list requires that use of strontium chromate in the EU be phased out by a sunset date of January 22, 2019, unless authorization for that use is granted by the European Chemicals Agency.[153] Authorization for use has been requested for the aerospace industry, but that request is still pending.[154]

The U.S. market for strontium chromate consists of a few large purchasers of strontium chromate.[155] The three largest purchasers of strontium chromate, in descending order, are ***, which accounted for *** percent of reported purchases and imports by purchasers in 2018.[156] WPC reported selling *** of its strontium chromate in the spot market.[157] The majority of imports were sold in the spot market (*** percent) in 2018, with the remainder (*** percent) sold via short-term contracts.[158]

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[146] CR/PR at V-1. The strontium material is primarily sourced from Mexico or Spain while the chromium material is primarily sourced from South Africa or Turkey. *Id.*

[147] CR/PR at Table VI-1.

[148] CR/PR at V-1.

[149] CR/PR at I-9.

[150] CR/PR at II-10; Hearing Tr. at 82-83 (Krall).

[151] Hearing Tr. at 61 (St. John) (testifying that the cost of substitute products tends to be five to six times the cost of strontium chromate).

[152] CR/PR at Table I-3. We note that, after strontium chromate was added to the REACH Authorisation List in August 2014, the volume of subject imports increased from *** pounds in 2015 to *** pounds in 2016. *Confidential Preliminary Determinations*, EDIS Doc No. 660324 at 35.

[153] CR/PR at I-9 to I-10, Table I-3.

[154] CR/PR at I-10, Table I-3; *see also* Hearing Tr. at 91-92 (St. John).

[155] CR/PR at II-1.

[156] CR/PR at II-1.

[157] CR/PR at Table V-2.

[158] CR/PR at Table V-2.

C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[159]

Cumulated subject imports had a substantial and increasing presence in the U.S. market from 2016 to 2018. The volume of subject imports increased from *** pounds in 2016 to *** pounds in 2017 and *** pounds in 2018, a level *** percent above that of 2016.[160] Cumulated subject imports were *** percent lower in interim 2019, at *** pounds, than in interim 2018, at *** pounds.[161]

Cumulated subject imports gained significant market share at the expense of the domestic industry. Cumulated subject imports' share of apparent U.S. consumption increased from *** percent in 2016 to *** percent in 2017 and 2018, an overall increase of *** percentage points.[162] By contrast, the domestic industry's market share declined by *** percentage points from 2016 to 2018.[163] Cumulated subject imports as a share of U.S. production also increased from 2016 to 2018. This ratio increased from *** percent in 2016 to *** percent in 2017 and was *** percent in 2018.[164]

In light of the foregoing, we find that the volume of cumulated subject imports and the increase in that volume are significant in absolute terms and relative to U.S. production and consumption.

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[159] 19 U.S.C. § 1677(7)(C)(i).

[160] CR/PR at Table IV-2.

[161] CR/PR at Table IV-2. Petitioner argues that the lower cumulated subject import volume and share of apparent U.S. consumption in interim 2019 as compared to interim 2018 were the result of the filing of the petitions in these investigations on September 5, 2018 and the consequent threat of antidumping duties. WPC's Prehearing Brief at 18. We recognize that subject imports were lower in interim 2019 than in interim 2018, but give less weight to the lower volume of cumulated subject imports in interim 2019, which was after the filing of the petitions on September 5, 2018, and accord greater weight to the significant increase in the volume of cumulated subject imports from 2016 to 2018.

[162] CR/PR at Tables IV-9 and C-1. Cumulated subject imports' share of apparent U.S. consumption was *** percentage points lower in interim 2019, at *** percent, than in interim 2018, when it was *** percent. *Id.* Again, we give less weight to subject imports' lower market share in interim 2019, which was after the filing of the petitions, and accord greater weight to the increase in subject import market share from 2016 to 2018.

[163] CR/PR at Tables IV-9 and C-1. The domestic industry's share of apparent U.S. consumption was *** percent in 2016, *** percent in 2017, and *** percent in 2018. *Id.* The domestic industry's share of apparent U.S. consumption was *** percentage points higher in interim 2019, at *** percent, than in interim 2018, at *** percent. *Id.*

[164] CR/PR at Table IV-2. Cumulated subject imports as a share of U.S. production were lower in interim 2019, at *** percent, than in interim 2018, at *** percent. *Id.*

D. Price Effects of the Subject Imports

Section 771(7)(C)(ii) of the Tariff Act provides that, in evaluating the price effects of the 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.[165]

As addressed in section V.B.3. above, the record indicates a high degree of substitutability between domestically produced product and subject imports and that price is an important consideration in purchasing decisions.

The Commission collected quarterly data for the total quantity and f.o.b. value of three pricing products shipped by U.S. producers and importers to unrelated U.S. customers between January 2016 and June 2019.[166] WPC and three importers provided usable pricing data for sales of the requested products, although not all firms reported pricing data for all products for all quarters.[167] Cumulated subject imports consisting of *** pounds of strontium chromate undersold the domestic like product in 14 of 67 quarterly comparisons, at margins ranging from *** percent to *** percent.[168] Cumulated subject imports consisting of *** pounds of strontium chromate oversold the domestic like product in 53 of 67 quarterly comparisons, at margins ranging from *** percent to *** percent.[169]

The Commission also collected purchase cost data for the same three pricing products imported from Austria directly by importers for internal use by the importer,[170] and three

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[165] 19 U.S.C. § 1677(7)(C)(ii).

[166] CR/PR at V-4. The three pricing products are: Product 1 - Strontium chromate powder, chemical formula $SrCrO_4$ conductivity (micro Siemens) 1500 maximum, packaged in small bags (ranging between 20 kg and 30 kg per bag), sold to end users; Product 2 - Strontium chromate powder, chemical formula $SrCrO_4$ conductivity (micro Siemens) 1500 maximum, packaged in large bags (ranging between 450 kg and 500 kg per bag), sold to end users; and Product 3 - Strontium chromate dispersed/slurried in a solvent (also known as a Paste/Dispersion), packaged in drums (ranging in between 200 kg and 300 kg per drum), sold to end users. *Id.*

[167] CR/PR at V-4. While reported pricing data accounted for approximately *** percent of U.S. commercial shipments of strontium chromate from Austria, U.S. commercial shipments accounted for only *** percent of total U.S. shipments of strontium chromate from Austria in 2018 (total U.S. shipments include U.S. commercial shipments plus shipments that were consumed internally by importers). CR/PR at V-4 n.8. In contrast, U.S. commercial shipments of strontium chromate from France accounted for *** U.S. shipments of strontium chromate from France. *Id.* Reported pricing data accounted for approximately *** percent of WPC's U.S. commercial shipments and *** percent of U.S. commercial shipments of strontium chromate from France. CR/PR at V-4.

[168] CR/PR at Table V-10.

[169] CR/PR at Table V-10.

importers provided usable import purchase cost data for the requested products.[171] The volume of subject imports reported in the import purchase cost data was significantly larger than the volume reported in the importers' pricing data for U.S. commercial shipments.[172] The record shows that the average purchase costs of cumulated subject imports were lower than the average sales prices for the domestically produced product in all 35 quarterly comparisons, or 100 percent of comparisons, accounting for *** pounds of strontium chromate imported directly from Austria by end users.[173] The average differential between purchase costs of subject imports and domestic like product prices for the 35 quarters in which import purchase costs were lower than domestic like product prices was *** percent.[174]

We recognize that import purchase cost data may not reflect the total cost of importing. Consequently, the questionnaires also requested that importers provide additional estimated costs above the landed duty paid ("LDP") value associated with their importing activities. These additional costs ranged between *** and *** percent of the LDP value.[175] In addition, importers reported an estimated margin saved by directly importing strontium chromate ranging from *** percent to *** percent, for an average of *** percent of the LDP value.[176] As noted above, the average differential between import purchase costs and prices for the domestic like product is *** percent. The differential between purchase cost data for subject imports and prices for the domestic like product indicates that subject imports were generally priced lower than the domestic like product.

Information collected in response to lost sales allegations further supports a finding that cumulated subject imports were often priced lower than the domestic like product. Six of 10 responding purchasers reported that, since 2016, they had purchased subject merchandise instead of the domestic like product.[177] Five of these six purchasers reported that subject import prices were lower than domestic like product prices, and two of these purchasers

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(…Continued)

[170] The import purchase cost data pertain only to imports of strontium chromate from Austria. Imports for internal consumption accounted for *** percent of total U.S. shipments of strontium chromate from Austria in 2018. CR/PR at Table II-1 note. There were no imports of strontium chromate from France imported by end users during the POI.

[171] CR/PR at V-11. These importers were ***. CR/PR at V-11 n.10.

[172] Importers reported import purchase cost data on a total of *** pounds of strontium chromate, and sales pricing data on a total of *** pounds of strontium chromate. *Derived from* CR/PR at Tables V-3 to V-8.

[173] *Derived from* CR/PR at Tables V-6 to V-8.

[174] *Derived from* CR/PR at Tables V-6 to V-8.

[175] CR/PR at V-18. *** estimated that the additional costs not already included in the LDP value of imported strontium chromate as a ratio to the LDP value were *** percent due to *** and *** stated that the additional costs were ***. *Id.* Neither *** or *** provided further breakout of their import service costs by type of cost. CR/PR at V-18 n.13.

[176] CR/PR at V-18. *** and *** reported that the estimated margin saved by directly importing strontium chromate was *** percent and *** percent, respectively. *Id.*

[177] CR/PR at Table V-12.

reported that price was a primary reason for the decision to purchase subject imports rather than the domestic like product.[178] Thus, a majority of purchasers that purchased subject imports rather than domestically produced product reported that subject imports were lower priced, and some specifically cited the lower price of subject imports as a primary reason for buying subject imports instead of domestic product.

Considering the available pricing data and purchase cost data, information collected in response to lost sales allegations, the high degree of substitutability between the domestic like product and the subject imports, and the importance of price in purchasing decisions, we find that there has been significant underselling of the domestic like product by subject imports.

We have also considered price trends for the domestic like product and cumulated subject imports. During the POI, prices declined for two of the three domestically produced pricing products (Products 1 and 2), including the domestic industry's highest volume product (Product 2).[179] These price declines occurred as the cumulated volume of low priced subject imports steadily increased from 2016 to 2018,[180] even during periods when demand increased (with apparent U.S. consumption increasing by *** percent from 2017 to 2018 and increasing by *** percent overall from 2016 to 2018).[181] Moreover, the *** purchaser in the U.S. market, ***, reported that the domestic producer lowered prices to compete with the lower priced subject imports.[182] Accordingly, based on the record, we find that cumulated subject imports had significant price depressing effects on domestic prices for strontium chromate.

We have also examined whether subject imports prevented price increases, which would have otherwise occurred, to a significant degree. As discussed above, apparent U.S. consumption increased *** percent overall from 2016 to 2018.[183] The domestic producer's net sales average unit values ("AUV") declined steadily over this

[178] CR/PR at Table V-12. Four purchasers identified non-price reasons for purchasing subject imports rather than the domestic like product, including security of supply and technical requirements. *Id.* The largest purchaser, ***, indicated that it purchased subject imports instead of the domestic like product for non-price reasons, but also reported purchasing subject imports due to the ***. *Id.*

[179] CR/PR at Table V-9. During the POI, domestic prices declined by *** percent for Product 1 and *** percent for Product 2. *Id*. Domestic prices for Product 3 increased by *** percent. *Id.* In contrast to Products 1 and 2, both of which are strontium chromate in powder form, Product 3, which is strontium chromate in paste form, accounted for only a small fraction of the volume of subject imports reported in the import purchase cost data (*** percent), and the volume of direct imports of Product 3 was *** in six of the 14 quarterly comparisons. *Derived from* CR/PR at Tables V-6 to V-8.

[180] CR/PR at Tables IV-2. The volume of cumulated subject imports increased from *** pounds in 2016 to *** pounds in 2017 and *** pounds in 2018, for an overall increase of *** percent. *Id.*

[181] CR/PR at Tables IV-7 and C-1. Apparent U.S. consumption increased from *** pounds in 2017 to *** pounds in 2018. *Id.* It increased overall from *** pounds to *** pounds from 2016 to 2018. *Id.*

[182] CR/PR at Table V-14. *** reported that WPC had reduced prices in order to compete with subject imports from Austria, with an estimated price reduction of *** percent. *Id.*

[183] CR/PR at Tables IV-7 and C-1.

period,[184] while its raw material average unit costs steadily increased.[185] Accordingly, the domestic industry's COGS as a ratio to net sales increased steadily from *** percent in 2016 to *** percent in 2017 and *** percent in 2018.[186] Consequently, the domestic industry was unable to price its strontium chromate at levels that permitted it to cover its rising costs during a period of increasing demand. Given these considerations, and the increasing volume of low priced cumulated subject imports in the U.S. market, we find that subject imports prevented price increases for the domestic like product, which otherwise would have occurred, to a significant degree and thereby had significant price suppressing effects.[187]

In light of the foregoing, we find that there was a significant and increasing volume of cumulated subject imports that significantly undersold the domestic like product. Moreover, these imports had significant price depressing effects and also prevented price increases that would otherwise have occurred to a significant degree. We consequently find that the cumulated subject imports had significant adverse price effects.

E. Impact of the Subject Imports[188]

Section 771(7)(C)(iii) of the Tariff Act provides that examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on

[184] Net sales AUVs declined from $*** per pound in 2016 to $*** per pound in 2017 and $*** per pound in 2018, or by $*** per pound from 2016 to 2018. CR/PR at Tables VI-1 and VI-2.

[185] Raw material average unit costs increased from $*** per pound in 2016 to $*** per pound in 2017 to $*** per pound in 2018, or by $*** per pound from 2016 to 2018. CR/PR at Tables VI-1 and VI-2. As previously discussed, raw materials accounted for between *** to *** percent of the COGS for U.S. production of strontium chromate during the POI. CR/PR at Table VI-1.

[186] CR/PR at Table VI-1.

[187] The record indicates as well that substitutes for strontium chromate are very limited, further indicating that the U.S. producer would have increased its prices to cover its costs during a period of increasing demand if subject imports had not prevented it from doing so. CR/PR at II-10; Hearing Tr. at 82-83 (Krall).

[188] The statute instructs the Commission to consider the "magnitude of the dumping margin" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determinations of sales at less than fair value, Commerce found dumping margins of 25.90 percent for imports from Austria, and 32.16 percent for imports from France. *Strontium Chromate From Austria: Final Affirmative Determination of Sales at Less Than Fair Value*, 84 Fed. Reg. 53676, 53677 (Oct. 8, 2019); *Strontium Chromate From France: Final Affirmative Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances*, 84 Fed. Reg. 53678, 53679 (Oct. 8, 2019). We take into account in our analysis the fact that Commerce has made final findings that all subject producers in Austria and France are selling subject imports in the United States at less than fair value. In addition to this consideration, our impact analysis has considered other factors affecting domestic prices. Our analysis of the significant price effects of subject imports, described in both the price effects discussion and below, is particularly probative to an assessment of the impact of the subject imports.

the state of the industry."[189] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, gross profits, net profits, operating profits, cash flow, return on investment, return on capital, ability to raise capital, ability to service debts, research and development, and factors affecting domestic prices. 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."[190]

Despite an overall increase in apparent U.S. consumption from 2016 to 2018, the domestic industry's output-related indicators generally declined overall during this time. Due to WPC's shutdown in 2015 and restart of production at its new facility in March 2016, the domestic industry's capacity increased by *** percent from 2016 to 2017 and remained the same in 2018.[191] However, all of the other output-related indicators for the domestic industry declined overall from 2016 to 2018: production declined by *** percent,[192] capacity utilization declined by *** percentage points,[193] U.S. shipments (by quantity) declined by *** percent,[194] and U.S. market share decreased by *** percentage points.[195] The domestic industry's capacity remained constant between the interim periods,[196] and its production,[197] capacity utilization,[198] U.S. shipments (by quantity),[199] and U.S. market share[200] were all higher in interim 2019 than in

[189] 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 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.").

[190] 19 U.S.C. § 1677(7)(C)(iii). This provision was amended by the Trade Preferences Extension Act of 2015, Pub. L. 114-27.

[191] CR/PR at Table C-1. Capacity was *** pounds in 2016, *** pounds in 2017, and *** pounds in 2018. CR/PR at Table III-3.

[192] CR/PR at Table C-1. Production was *** pounds in 2016, *** pounds in 2017, and *** pounds in 2018. CR/PR at Table III-3.

[193] CR/PR at Table C-1. Capacity utilization was *** percent in 2016, *** percent in 2017, and *** percent in 2018. CR/PR at Table III-3.

[194] CR/PR at Table C-1. U.S. shipments (by quantity) were *** pounds in 2016, *** pounds in 2017, and *** pounds in 2018. CR/PR at Table III-4.

[195] CR/PR at Table C-1. U.S. market share was *** percent in 2016, *** percent in 2017, and *** percent in 2018. CR/PR at Table IV-9.

[196] Capacity was *** pounds in interim 2018 and interim 2019. CR/PR at Table III-3.

[197] Production was *** pounds in interim 2018 and *** pounds in interim 2019. CR/PR at Table III-3.

[198] Capacity utilization was *** percent in interim 2018 and *** percent in interim 2019. CR/PR at Table III-3.

[199] U.S. shipments (by quantity) were *** pounds in interim 2018 and *** pounds in interim 2019. CR/PR at Table III-4.

[200] U.S. market share was *** percent in interim 2018 and *** percent in interim 2019. CR/PR at Table IV-9.

interim 2018. Inventories increased overall from 2016 to 2018 and were higher in interim 2019 than in interim 2018.[201]

The domestic industry's employment indicators were mixed. From 2016 to 2018, the domestic industry's number of PRWs increased overall by *** percent,[202] hours worked declined overall by *** percent,[203] wages paid increased overall by *** percent,[204] hourly wages increased overall by *** percent,[205] and worker productivity decreased overall by *** percent.[206] The domestic industry's number of PRWs[207] and hours worked[208] were lower in interim 2019 than in interim 2018. Wages paid,[209] hourly wages,[210] and worker productivity[211] were higher in interim 2019 than in interim 2018.

The domestic industry's financial performance was generally poor during the POI, as the industry experienced *** throughout the period. The domestic industry's net sales revenue declined overall by *** percent from 2016 to 2018,[212] and its gross profits declined by *** percent.[213] Its operating income was *** and decreased overall from 2016 to 2018.[214] Its operating income margin also was *** and decreased steadily during the full years of the POI,

[201] End-of-period inventories were *** pounds in 2016, *** pounds in 2017, and *** pounds in 2018. CR/PR at Table III-6. They were *** pounds in interim 2018 and *** pounds in interim 2019. *Id.* Petitioner states that WPC's historically normal production level is approximately *** pounds per year and a normal inventory level would be approximately *** pounds, which would represent about 30 days of inventory. WPC's Posthearing Brief, Response to Questions at 10.

[202] CR/PR at Table C-1. The number of PRWs was *** in 2016, *** in 2017, and *** in 2018. CR/PR at Table III-8.

[203] CR/PR at Table C-1. Hours worked were *** in 2016, *** in 2017, and *** in 2018. CR/PR at Table III-8.

[204] CR/PR at Table C-1. Wages paid were $*** in 2016, $*** in 2017, and $*** in 2018. CR/PR at Table III-8.

[205] CR/PR at Table C-1. Hourly wages were $*** per hour in 2016, $*** per hour in 2017, and $*** per hour in 2018. CR/PR at Table III-8.

[206] CR/PR at Table C-1. Worker productivity was *** pounds per hour in 2016, *** pounds per hour in 2017, and *** pounds per hour in 2018. CR/PR at Table III-8.

[207] The number of PRWs was *** in interim 2018 and *** in interim 2019. CR/PR at Table III-8.

[208] Hours worked were *** in interim 2018 and *** in interim 2019. CR/PR at Table III-8.

[209] Wages paid were $*** in interim 2018 and $*** in interim 2019. CR/PR at Table III-8.

[210] Hourly wages were $*** per hour in interim 2018 and $*** per hour in interim 2019. CR/PR at Table III-8.

[211] Worker productivity was *** pounds per hour in interim 2018 and *** pounds per hour in interim 2019. CR/PR at Table III-8.

[212] CR/PR at Table C-1. Net sales revenue was $*** in 2016, $*** in 2017, and $*** in 2018. CR/PR at Table VI-1.

[213] CR/PR at Table C-1. Gross profits were $*** in 2016, $*** in 2017, and $*** in 2018. CR/PR at Table VI-1.

[214] CR/PR at Table C-1. Operating income was *** in 2016, *** in 2017, and *** in 2018. CR/PR at Table VI-1.

with an overall decline of *** percentage points.[215] The industry's net income was *** but its *** somewhat overall from 2016 to 2018.[216] Similarly, its net income margin was *** but improved overall by *** percentage points during the full years of the POI.[217] The domestic industry's capital expenditures,[218] total assets, and return on assets all decreased overall from 2016 to 2018.[219] In the interim period, however, the industry experienced some improvements. The domestic industry's net sales revenue,[220] gross profits,[221] operating income,[222] operating income margin,[223] net income,[224] net income margin,[225] and capital expenditures[226] were all higher in interim 2019 than in interim 2018.

In sum, we find that the volume of low priced cumulated subject imports, which were highly substitutable with the domestic like product, increased significantly in absolute terms and relative to U.S. production and consumption and significantly undersold the domestic like product, taking sales and market share from the domestic industry. Moreover, we find that the significant and increasing volume of low priced cumulated subject imports caused domestic prices for strontium chromate to decline and prevented the domestic industry from increasing prices to sufficiently recover its rising costs. As a result, the domestic industry's production, U.S. shipments, revenues, and profits were lower than they would have been otherwise throughout the full years of the POI.

We recognize that the domestic industry's output-related indicators and financial performance were higher in interim 2019 as compared to interim 2018. These indicators improved between the interim periods, even though apparent U.S. consumption was lower, as the volume of cumulated subject imports declined in the U.S. market after the petitions were filed, as discussed in Section V.C. This lends further support to our conclusion that subject imports had a significant adverse impact on the domestic industry during the 2016 to 2018

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[215] CR/PR at Table C-1. Operating income margin was *** percent in 2016, *** percent in 2017, and *** percent in 2018. CR/PR at Table VI-1.

[216] CR/PR at Table C-1. Net income was *** in 2016, *** in 2017, and *** in 2018. CR/PR at Table VI-1.

[217] CR/PR at Table C-1. Net income margin was *** percent in 2016, *** percent in 2017, and *** percent in 2018. CR/PR at Table VI-1.

[218] Capital expenditures were $*** in 2016, $*** in 2017, and $*** in 2018. CR/PR at Table VI-5.

[219] Total assets were $*** in 2016, $*** in 2017, and $*** in 2018. CR/PR at Table VI-6. Return on assets was *** percent in 2016, *** percent in 2017, and *** percent in 2018. *Id.*

[220] Net sales revenue was $*** in interim 2018 and $*** in interim 2019. CR/PR at Table VI-1.

[221] Gross profits were $*** in interim 2018 and $*** in interim 2019. CR/PR at Table VI-1.

[222] Operating income was *** in interim 2018 and *** in interim 2019. CR/PR at Table VI-1.

[223] Operating income margin was *** percent in interim 2018 and *** percent in interim 2019. CR/PR at Table VI-1.

[224] Net income was *** in interim 2018 and *** in interim 2019. CR/PR at Table VI-1.

[225] Net income margin was *** percent in interim 2018 and *** percent in interim 2019. CR/PR at Table VI-1.

[226] Capital expenditures were $*** in interim 2018 and $*** in interim 2019. CR/PR at Table VI-5.

period. Given these considerations, we find that cumulated subject imports had a significant adverse impact on the domestic industry.

We have also considered whether there are other factors that may have had an impact on the domestic industry during the POI to ensure that we are not attributing injury from such other factors to subject merchandise. As discussed in Section V.B, apparent U.S. consumption increased overall during the POI and nonsubject imports maintained a very small presence in the U.S. market. Their market share ranged from *** percent to *** percent and the total volume of nonsubject imports was *** pounds throughout the POI.[227] Therefore, neither demand trends nor nonsubject imports explain the domestic industry's sales and market share losses throughout the POI or the magnitude of the declines in the domestic industry's output and financial performance.

We recognize that some customers reported supply disruptions in the aftermath of WPC's shutdown and delay in opening its new facility and that, as a result, some customers purchased subject merchandise.[228] Petitioner counters that, to the extent that there was a supply shortage in the U.S. market caused by WPC's shutdown and relocation, it lasted for only three months of the POI and ended by March 2016 when WPC resumed production at its new facility and, thus, cannot explain why subject imports continued to increase over the next two years.[229]

The record in the final phase of these investigations shows that increasing volumes of low priced cumulated subject imports continued to enter the U.S. market, resulting in lower domestic production and capacity utilization for most of the POI, even after WPC resumed strontium chromate production at its new facility in March 2016. Moreover, any disruption in supply caused by WPC's shutdown and restart in 2016 does not explain why cumulated subject imports were imported at lower prices than the domestic like product, which caused the domestic producer to lose sales and market share even after it resumed operations, as well as depressed domestic prices and rendered the domestic producer unable to raise prices to cover rising costs at a time of increasing demand. In addition, notwithstanding the fact that some purchasers reported supply disruptions in 2016 due to WPC's shutdown, the majority of responding purchasers indicated that strontium chromate produced in the United States and subject countries was comparable with respect to availability and reliability of supply.[230] Thus, WPC's shutdown in early 2016 does not explain the injury WPC experienced.

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[227] CR/PR at Tables IV-9 and IV-2.

[228] CR/PR at II-7, II-14. Respondent SNCZ argued in the preliminary phase of these investigations that WPC was unable to supply customers in 2015 and 2016 due to a supply shortfall from the closure of its Milwaukee facility and delays in opening its new facility in Oak Creek, Wisconsin. It also claimed that the harm to WPC's reputation from the supply shortage and the desire for dual sourcing led various U.S. customers to continue sourcing cumulated subject imports in 2017 and 2018. Conf. Tr. at 57-58, 85-87 (Esselin) & 67 (Levinson).

[229] WPC's Prehearing Br. at 15-16. Petitioner further argues that claims by two purchasers (***) of purchasing subject imports instead of the domestic like product due to "security of supply" or "dual sourcing" do not explain why these two purchasers purchased much larger percentages of subject imports at lower prices than of the domestic like product. WPC's Prehearing Br. at 23.

[230] CR/PR at Table II-9.

VI. Conclusion

For the reasons stated above, we determine that an industry in the United States is materially injured by reason of subject imports of strontium chromate from Austria and France that are sold in the United States at less than fair value.

Part I: Introduction

Background

These investigations result from petitions filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Lumimove Inc., d.b.a. WPC Technologies ("WPC"), Oak Creek, Wisconsin, on September 5, 2018, 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 strontium chromate[1] from Austria and France. The following tabulation provides information relating to the background of these investigations.[2] [3]

Effective date	Action
September 5, 2018	Petitions filed with Commerce and the Commission; institution of the Commission's investigations (83 FR 46189, September 12, 2018)
September 25, 2018	Initiation of Commerce's investigations (83 FR 49543, October 2, 2018)
October 22, 2018	Commission's preliminary determinations (83 FR 54139, October 26, 2018)
May 17, 2019	Commerce's preliminary determinations (84 FR 22438 and 84 FR 22443, May 17, 2019); scheduling of final phase of Commission investigations (84 FR 28069, June 17, 2019)
October 8, 2019	Commerce's final determinations (84 FR 53676, October 8, 2019, and 84 FR 53678, October 8, 2019)
October 3, 2019	Commission's hearing
October 31, 2019	Commission's vote
November 21, 2019	Commission's views

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

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

[3] A list of witnesses appearing at the hearing is presented in appendix B of this report.

Statutory criteria

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

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

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

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

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

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.

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

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

Organization of report

Part I of this report presents information on the subject merchandise, 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 U.S. producers. 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.

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

Market summary

Strontium chromate is a chemical compound that is a yellow powder or granular solid and insoluble in water. Its chemical formula is $SrCrO_4$. Strontium chromate powder can also be combined with various solvents to make dispersion, or paste, products. Strontium chromate is a very effective corrosion inhibitor, and is widely used as a corrosion-resistant pigment in paints and coating for the production of steel, aluminum, and alloys. As the most effective pigment grade corrosion inhibitor, chromium-based corrosion inhibitive pigments for coil, aircraft, and general primer coating applications are very common.[6]

Petitioner WPC accounts for all confirmed production of strontium chromate in its basic powder form. *** processes a portion of the strontium chromate that WPC produces into a dispersion or paste on a toll basis.[7] There are eight known producers of strontium chromate outside of the United States, including Habich GmbH ("Habich") of Austria, Société Nouvelle des Couleurs Zinciques ("SNCZ") of France, Sambochemical Cl. Ltd. of Korea, Kikuchi Color & Chemicals Corporation of Japan, and two producers from China.[8] The leading U.S. importers of strontium chromate from Austria are ***, while the leading U.S. importers of strontium chromate from France are ***. Only one firm, ***, reported importing strontium chromate from a nonsubject source since 2016.

Apparent U.S. consumption of strontium chromate totaled approximately *** dry pounds, valued at $***, in 2018. Petitioner WPC's U.S. shipments of strontium chromate totaled *** dry pounds ($***) in 2018, and accounted for *** percent of U.S. consumption by quantity and *** percent by value in that year. Shipments of U.S. imports from subject countries totaled *** dry pounds ($***) in 2018 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. There were no reported U.S. imports from nonsubject sources in 2018.[9]

[6] Petition, pp. 5-6.

[7] Appendix D presents data reported by *** regarding its processing operations.

[8] Reportedly, there are also producers in Turkey and India. Petition, exh. II-16; Wietlisbach et al, "Chromium Compounds, Inorganic," February 2019, pp. 136 and 180.

[9] In 2016, U.S. imports from nonsubject sources totaled *** dry pounds ($***), and accounted for *** percent of U.S. apparent consumption by quantity and *** percent by value.

Summary data and data sources

A summary of data collected in these investigations is presented in appendix C. Except as noted, U.S. industry data are based on questionnaire responses of WPC, which accounted for all confirmed production of strontium chromate in its basic powder form during 2018. [10]

Data on U.S. imports are based on questionnaire responses of eight firms that accounted for *** of U.S. imports of strontium chromate in 2018 from France and Austria.[11] According to the petition, there is one producer in each of the subject countries, Austria and France,[12] and staff received importer questionnaires from all U.S. importers identified by these foreign producers as having imported strontium chromate into the United States during the period for which data were collected. Foreign industry data are based on questionnaire responses from Habich and SNCZ, the two known strontium chromate producers in Austria and France.

As noted previously, there were no U.S. imports of strontium chromate from nonsubject sources in 2018.[13] According to the petition, the subject producers in Austria and France are the only two foreign producers active in the U.S. market. While there are six known producers in Asia (Sambochemical Co. Ltd. of Korea, Kikuchi Color & Chemicals Corporation of Japan, Sanayii AS of Turkey, Raveshia Colours PVT of India, and two producers from China[14]), they have sold

[10] Select data from WPC's toller, ***, are presented in Appendix D.

[11] Given that strontium chromate is imported under two HTSUS subheadings, each of which is a broad category, and importer coverage is high, staff used questionnaire data rather than official import statistics for data presented in Part IV. Further, there was close alignment between the import quantities reported by U.S. importers and the U.S. export quantities reported by foreign producers. For 2018, U.S. imports of strontium chromate from Austria and France reported in questionnaire responses were equivalent to *** percent of imports from Austria and France under HTS 2841.50.9100 and HTS 3212.90.0050 per official import statistics.

[12] Petition, p. 9 and exh. I-9.

[13] According to official import statistics, 237,515 dry pounds of strontium chromate were imported in 2018 from nonsubject sources under HTS number 2841.50.9100, however, ***.

[14] ***. See email from ***, October 3, 2018.

little to date in the U.S. market.[15] Staff surveyed a number of importers, but only one indicated that it imported strontium chromate from a nonsubject source during the period for which data were collected.[16]

Previous and related investigations

Strontium chromate has not been the subject of any prior or related countervailing or antidumping duty investigations in the United States.[17]

Nature and extent of sales at LTFV

On October 8, 2019, Commerce published a notice in the *Federal Register* of its final determination of sales at LTFV for imports of strontium chromate from Austria[18] and France. [19] Tables I-1 and I-2 present Commerce's dumping margins.

Table I-1
Strontium chromate: Commerce's final weighted-average LTFV margins with respect to imports from Austria

Exporter	Producer	Final dumping margin (percent)
Habich, GmbH	Habich, GmbH	25.90

Source: 84 FR 53676, October 8, 2019.

Table I-2
Strontium chromate: Commerce's final weighted-average LTFV margins with respect to imports from France

Exporter	Producer	Final dumping margin (percent)
Société Nouvelle des Couleurs Zinciques	Société Nouvelle des Couleurs Zinciques	32.16

Source: 84 FR 53678, October 8, 2019.

[15] Petition, p. 1 and exh. II-16.

[16] *** reported in its importers' questionnaire response that it imported *** pounds of strontium chromate in 2016 produced by ***.

[17] Petition, p. 4.

[18] *Strontium Chromate from Austria: Final Affirmative Determination of Sales at Less Than Fair Value*, 84 FR 53676, October 8, 2019.

[19] *Strontium Chromate from France: Final Affirmative Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances,* 84 FR 53678, October 8, 2019.

The subject merchandise

Commerce's scope

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

> *The merchandise covered by these investigations is strontium chromate, regardless of form (including but not limited to, powder (sometimes known as granular), dispersions (sometimes known as paste), or in any solution). The chemical formula for strontium chromate is $SrCrO_4$ and the Chemical Abstracts Service (CAS) registry number is 7789-06-2.*
>
> *Strontium chromate that has been blended with another product or products is included in the scope if the resulting mix contains 15 percent or more of strontium chromate by total formula weight. Products with which strontium chromate may be blended include, but are not limited to, water and solvents such as Aromatic 100 Methyl Amyl Ketone (MAK)/2-Heptanone, Acetone, Glycol Ether EB, Naphtha Leicht, and Xylene. Subject merchandise includes strontium chromate that has been processed in a third country into a product that otherwise would be within the scope of these investigations if processed in the country of manufacture of the in scope strontium chromate.*
>
> *The merchandise subject to these investigations is currently classified in the Harmonized Tariff Schedule of the United States (HTSUS) under subheading 2841.50.9100. Subject merchandise may also enter under HTSUS subheading 3212.90.0050. While the HTSUS subheadings and CAS registry number are provided for convenience and customs purposes, the written description of the scope is dispositive.*[20]

Tariff treatment

Based upon the scope set forth by the Department of Commerce, information available to the Commission indicates that the merchandise subject to these investigations is imported

[20] 84 FR 53676, October 8, 2019.

under statistical reporting numbers 2841.50.9100 (if imported as a powder) or subheading 3212.90.00 (statistical reporting number 3212.90.0050, if the product is imported as a dispersion) of the Harmonized Tariff Schedule of the United States ("HTS"). The column 1 general rate of duty is 3.1 percent ad valorem under subheadings 2841.50.91 and 3212.90.0050.[21] Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

The product

Description and applications

The imported product subject to these investigations is strontium chromate, available as either a powder or a dispersion.[22] Strontium chromate is a yellow powder that is ground to a particle size of 25–50 micrometers.[23] The compound is a salt, composed of positively charged strontium ions (Sr^{2+}) and negatively charged chromate ions (CrO_4^{2-}) in equal proportion. Commercially available strontium chromate powder exhibits pH values between 7–9 and conductivity of 700–1,700 microsiemens per centimeter (µS/cm) under standard test conditions.[24] Commercial dispersions of strontium chromate are mixtures of the powder and one of a number of potential solvents.[25]

[21] HTS subheadings 2841.50.91 and 3212.90.00 are currently under China section 301 tariffs. These tariffs were part of 'tranche three,' which went into effect on September 24, 2018. The additional rate of duty is 25 percent ad valorem. 83 FR 47974, September 21, 2018.

[22] Chemical formula $SrCrO_4$, Chemical Abstracts Service (CAS) number 7789-06-2, Color Index Pigment Yellow 32. The term "dispersion" is used interchangeably with "paste" by industry and in this report. The core product is the powdered form of strontium chromate, and dispersions are created using that powder. WPC's postconference brief, p. 3.

[23] Within the range of 4–6 on the Hegman Fineness scale used to measure pigments. WPC's prehearing brief, p. 4.

[24] Chromate coatings are electrically conductive and help maintain an electrically conductive metal surface. Non-conductive metal surfaces can cause grounding issues on electronic equipment. However, delineations of strontium chromate based on specific conductivities is reportedly not a primary concern of consumers. Kaehr Coatings, "Chromate – Clear and Yellow," http://www.kaehr.com/chromate-conversion-coatings.cfm, retrieved August 20, 2019; hearing transcript, p. 63 (Klein).

[25] Representative examples from WPC include, but are not limited to: glycol ether EB (CAS number 111-76-2), naphtha leicht (CAS number 64742-95-6), and xylene. WPC's postconference brief, pp. 3–4.

The primary end use of strontium chromate, both powder and dispersions, is in corrosion protection coatings for metal surfaces such as aluminum and stainless steel.[26] A substantial market is the aerospace industry, where it is used in areas at risk of corrosion.[27] The anti-corrosive behavior of strontium chromate pigments arise from the chromate ion's chemical properties.[28] When a failure occurs in the coating, such as a scratch or chip, the chromate ion leaches into the gap and reduces to chromium(III) oxide (Cr_2O_3), which forms a protective layer over the exposed metal.[29] Alternative anti-corrosion systems have been developed, but according to the Petitioner, they do not match the performance of strontium chromate.[30]

The chromium atom exists in the hexavalent oxidation state in this compound, and it is, therefore, classified as a Group A human carcinogen when exposed through inhalation.[31] Some customers have been reported to prefer dispersions to reduce the risk for workers who might otherwise be exposed to dust.[32] Environmental and human health concerns have led to regulatory controls on strontium chromate in the European Union under the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH) program enacted in 2006.[33] Habich and SNCZ both registered for strontium chromate in 2008, allowing these companies to continue to sell strontium chromate in the European Union at the onset of the REACH program.[34] Strontium chromate was added to the Candidate List of Substances of Very High

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[26] WPC sells both powder and dispersion forms based on the needs of the customer, although demand is higher for the powder. Hearing transcript, p. 10 (St. John) and p. 16 (Klein); WPC's prehearing brief, p. 12.

[27] AKZO Nobel Car Refinishes B.V. et al, "Analysis of Alternatives," December 20, 2016, pp. 1–4.

[28] Industry standards for strontium chromate pigments are detailed in ASTM D1649-01(2012) Standard Specification for Strontium Chromate Pigment; ASTM D1845-86(2014) Standard Test Methods for Chemical Analysis of Strontium Chromate Pigment; and ISO 2040:1972 Strontium Chromate Pigments for Paints.

[29] Gharbi et al, "Chromate Replacement: What Does the Future Hold?" April 12, 2018, https://www.nature.com/articles/s41529-018-0034-5.

[30] Hearing transcript, pp. 60-61 (St. John); AKZO Nobel Car Refinishes B.V. et al, "Analysis of Alternatives," December 20, 2016, pp. 4–7.

[31] Gharbi et al, "Chromate Replacement: What Does the Future Hold?" April 12, 2018, https://www.nature.com/articles/s41529-018-0034-5.

[32] Conference transcript, p. 48 (Klein) and hearing transcript, p. 10 (St. John).

[33] Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006.

[34] European Chemicals Agency, "Pre-registered Substances," https://echa.europa.eu/information-on-chemicals/pre-registered-substances/-/dislist/substance/100.029.220, retrieved October 7, 2019; European Chemicals Agency, "Pre-registration,"

(continued...)

Concern for Authorization on June 20, 2011 due to its carcinogenicity and potential environmental impact, and it was thus targeted as such for long-term replacement (Table I-3).[35] It was found to meet the criteria for classification under Annex XIV of the REACH regulation on August 14, 2014, placing it on the Authorisation List.[36] As it is on the Authorisation List, strontium chromate cannot be placed on the market after a defined sunset date (January 22, 2019) unless authorization by the European Chemicals Agency (ECHA) is granted.[37] Application for authorization has been made by the aerospace sector because there are no viable alternatives that can adequately replicate its function for that industry, despite continued research into other chemicals.[38] As of this report, the Authorisation Decision is listed as "PENDING ADOPTION" by the European Commission.[39]

(…continued)

https://echa.europa.eu/regulations/reach/registration/data-sharing/pre-registration, retrieved October 7, 2019; European Chemicals Agency, "Pre-registration Q&Ss," https://echa.europa.eu/support/qas-support/browse/-/qa/70Qx/view/scope/REACH/Pre-registration, retrieved October 7, 2019.European Chemicals Agency, "Strontium Chromate General Information," https://echa.europa.eu/registration-dossier/-/registered-dossier/14603, retrieved October 7, 2019.

[35] European Chemicals Agency, "Strontium Chromate," https://echa.europa.eu/substance-information/-/substanceinfo/100.029.220, retrieved September 11, 2019; European Chemicals Agency, "Candidate List of Substances of Very High Concern for Authorisation," https://echa.europa.eu/candidate-list-table/-/dislist/details/0b0236e1807da708, retrieved October 7, 2019.

[36] Commission Regulation (EU) No 895/2014 of 14 August 2014.

[37] European Chemicals Agency, "Authorisation," https://echa.europa.eu/substances-of-very-high-concern-identification-explained, retrieved September 11, 2019; European Chemicals Agency, "Authorisation List," https://echa.europa.eu/authorisation-list, retrieved September 11, 2019; European Commission, "How REACH Works," https://ec.europa.eu/growth/sectors/chemicals/reach/about_en, retrieved October 7, 2019.

[38] AKZO Nobel Car Refinishes B.V. et al, "Analysis of Alternatives," December 20, 2016, pp. 4–7; conference transcript, p. 46 (St. John) and p. 51–52 (Krall); hearing transcript, pp. 82 (St. John and Krall) and 83 (St. John).

[39] European Commission, "REACH Authorisation Decisions," September 26, 2019, p. 18; European Chemicals Agency, "Adopted Opinions and Previous Consultation on Applications for Authorisation," https://echa.europa.eu/applications-for-authorisation-previous-consultations/-/substance-rev/12467/del/50/col/synonymDynamicField_302/type/asc/pre/2/view, retrieved October 7, 2019.

Table I-3
Strontium chromate: Timeline of REACH regulation of strontium chromate usage in the European Union

Action	Date
Added to the Candidate List of Substances of Very High Concern for Authorization	June 20, 2011
Placed on the Authorisation List	August 14, 2014
Last date sold in EU without specific authorization (sunset)	January 22, 2019
Date of authorization for specific uses	Pending

Source: European Chemicals Agency, "Candidate List of Substances of Very High Concern for Authorisation," https://echa.europa.eu/candidate-list-table/-/dislist/details/0b0236e1807da708, retrieved October 7, 2019; Commission Regulation (EU) No 895/2014 of 14 August 2014; European Chemicals Agency, "Authorisation List," https://echa.europa.eu/authorisation-list, retrieved September 11, 2019; European Commission, "REACH Authorisation Decisions," September 26, 2019, p. 18.

The number of European producers of chromium pigments, as a general category of chemicals, has decreased since the REACH regulation was implemented.[40] The implementation of restrictions on strontium chromate by REACH has reportedly led to decreased demand within the European Union, with only a small aerospace market remaining.[41]

Manufacturing processes

The manufacture of strontium chromate is based on a one-step chemical reaction and several following processing steps to yield the final powder. The reaction portion involves a strontium source, typically strontium carbonate ($SrCO_3$), and a chromate source, usually sodium dichromate ($Na_2Cr_2O_7$), which are mixed together to precipitate strontium chromate.[42] The United States does not produce strontium carbonate, importing it primarily from Mexico and Germany.[43] There is some domestic production of sodium dichromate, which is derived from

[40] Wietlisbach et al, "Chromium Compounds, Inorganic," February 2019, pp. 111–112.

[41] *** questionnaire response, question IV-13; *** questionnaire response, question II-10; *** questionnaire response, question II-10; hearing transcript, pp. 7 (Neeley), 12 (St. John), and 31 (St. John).

[42] Precipitate here means that the strontium chromate becomes a solid material floating in solution rather than being dissolved (e.g., the difference between sand and sugar when placed in water). Strontium chloride ($SrCl_2$) is an alternative strontium source, while chromium trioxide (CrO_3) and sodium chromate (Na_2CrO_4) are alternative chromium sources. The chromium content of the product, measured as CrO_3 equivalent concentration, ranges from 40–50 percent. Petition, Vol. I, p. 7; conference transcript, p. 31 (St. John) and p. 68 (Esselin).

[43] The United States does not produce the parent ore, Celestite, either, which is imported from Mexico. Strontium carbonate is imported under HTS subheading 2836.92.0000 and has a column 1 duty rate of 4.2 percent ad valorem. U.S. Geological Survey, "Strontium," February 2019.

imported chromite ore.[44] The strontium chromate is then dried, milled, and packaged into sacks ranging from 50–1,000 pounds.[45] While the precise production method and equipment used will vary by manufacturer, the overall production methods are the same and the product is reportedly substitutable between petitioner and respondents.[46]

Processing powder into dispersions requires additional equipment, which is not necessarily co-located with powder production. All of WPC's strontium chromate dispersions currently are processed by *** under a toll arrangement.[47] Respondent SNCZ does not produce strontium chromate dispersions at all.[48] The blending process to create the dispersion requires an explosion-proof, high-speed dispenser that is analogous to a large blender.[49] A portion of the solvent is first added to the dispenser and stirred at low speed while strontium chromate powder is added. Additional solvent is added to reach the final volume along with an additive to keep the powder suspended.[50] Finally, the tank is emptied into steel drums and returned to WPC for sale and shipment to its customers.[51] Customers may prefer receiving dispersions because they are easier to handle and pose less risk to workers because they do not create hazardous dust.[52]

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[44] Sodium dichromate is imported under HTS subheading 2841.30.0000 and has a column 1 duty rate of 2.4 percent ad valorem. Approximately 4.5 percent of sodium dichromate is used to produce pigments like strontium chromate. U.S. Geological Survey, "Chromium," February 2019; Elementis, "Sodium Dichromate," retrieved August 22, 2019; Wietlisbach et al, "Chromium Compounds, Inorganic," February 2019, p. 12.

[45] Petition, Vol. I, p. 7.

[46] WPC utilizes a proprietary manufacturing process based on the general steps described here. Respondents agree that there are slight differences due to proprietary methods that are unique to each company. Products are not always substitutable within the aerospace industry, as each supplier of strontium chromate must be "spec'd-in" for a given application before it can be used by a consumer. Conference transcript, p. 41 (St. John) and p. 75 (Esselin); hearing transcript, pp. 20 (Downing), 23 (Rumfola), 42 (Neeley) and 85 (St. John).

[47] WPC's prehearing brief, p. 6; hearing transcript, p. 59 (St. John).

[48] Hearing transcript, pp. 20–21 (Downing).

[49] The vessel is typically constructed of stainless steel or other non-magnetic material, and its volume is typically at least *** times the anticipated final volume. It is also grounded to prevent static discharge. WPC's postconference brief, Response to staff questions, p. 1; hearing transcript, p. 67 (St. John).

[50] WPC's postconference brief, Response to staff questions, p. 1.

[51] Drum sizes include 200, 272, and 300 kilograms (1 kg = 2.21 lb). Conference transcript, p. 45 (St. John) and 48 (Klein).

[52] Hearing transcript, pp. 11 (St. John) and 16 (Klein)

Domestic like product issues

The Commission's decision regarding the appropriate domestic product(s) that are "like" the subject imported product is based on a number of factors including: (1) physical characteristics and uses; (2) interchangeability; (3) channels of distribution; (4) common manufacturing facilities, production processes, and production employees; (5) customer and producer perceptions; and (6) price.

Petitioner WPC proposed that the Commission should find a single domestic like product, coextensive with the scope of the investigations.[53] Respondents did not contest the proposed like product definition.[54] In the preliminary phase of these investigations, the Commission determined that there is a single domestic like product consisting of both powder and paste and defined a single domestic like product for all strontium chromate that is coextensive with Commerce's scope.[55] No party proposed gathering information or data regarding an alternative domestic like product when commenting upon the Commission's draft questionnaires for the final phase of these investigations.

[53] Petition, p. 11 and WPC's prehearing brief, p. 2.

[54] Conference transcript, p. 63 (Levinson).

[55] *Strontium Chromate from Austria and France*, *Inv. Nos. 731-TA-1422 and 731-TA-1423 (Preliminary)*, USITC Publication 4836, October 2018, p. 8.

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

U.S. market characteristics

Strontium chromate is a corrosion inhibitor that is widely used as corrosion-resistant pigment in paints and coatings, including as a coating for the protection of steel, aluminum, and their alloys.[1] Strontium chromate is specified in many commercial and military applications, with no direct substitutes.[2] It is sold primarily in powder form, but can be sold as a dispersion/paste.[3]

Strontium chromate is produced in the United States in its primary form, powder, by petitioner WPC. A portion of this powder is then toll-processed into paste. Other actual or potential suppliers of strontium chromate include one Austrian producer (Habich), one French producer (SNCZ), and six producers in Asia.[4] The U.S. strontium chromate market consists of a few large purchasers of strontium chromate, with no new reported entrants into the market.[5] The three largest purchasers/importers are, in descending order, ***, which accounted for *** percent of reported purchases and imports by purchasers in 2018.

WPC shut down production during June 2015-March 2016 while it relocated its plant. WPC built up inventories from January-June 2015 in anticipation of the move, but imported strontium chromate from Habich to maintain volume when the plant did not come back online when expected.[6] During this timeframe, larger purchasers, such as *** began importing strontium chromate themselves.[7]

Apparent U.S. consumption of strontium chromate fluctuated during 2016-18. Overall, apparent U.S. consumption in 2018 was *** percent higher than in 2016, with a *** percent decrease from 2016 to 2017 and a *** percent increase from 2017 to 2018. Apparent U.S. consumption was lower (*** percent) in January-June 2019 compared to January-June 2018.

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[1] Petition, p. 6.

[2] Petition, p. 21. Petitioner WPC stated that they produce an environmentally-friendly alternative to strontium chromate that is 80 percent as effective as strontium chromate but is prohibitively expensive. Conference transcript, p. 39 (St. John).

[3] The terms dispersion and paste are used interchangeably in the strontium chromate industry.

[4] Petition, p. 9.

[5] Conference transcript, pp. 35-36 (St. John), p. 56 (Esselin).

[6] Hearing transcript, pp. 53-54 (Krall).

[7] See U.S. importers' questionnaire, question III-3b.

U.S. purchasers

The Commission received 11 usable questionnaire responses from firms that had purchased strontium chromate.[8] Four responding purchasers are distributors and seven are end users. Out of the seven end users, five reported purchasing strontium chromate for both aerospace and non-aerospace paint/coating applications. *** reported being exclusively in the aerospace manufacturing industry while *** reported being exclusively in the non-aerospace manufacturing industry. In general, responding U.S. purchasers were located in the Midwest, Northeast, and Pacific regions. The responding purchasers represented firms in mainly the pigment and coating industry. Large purchasers of strontium chromate include ***.

Channels of distribution

As shown in table II-1, WPC and U.S. importers ship strontium chromate primarily to end users. Indeed, since 2016, *** has been the *** firm to ship *** strontium chromate to distributors. With respect to imports of strontium chromate from Austria, the vast majority (*** percent of importers' U.S. shipments in 2018) was consumed internally by importers that are themselves paint/coating manufacturers (***). Overall, *** percent of U.S. shipments of strontium chromate from Austria was to end users that manufacture paint or coatings for non-aerospace applications in 2018. In contrast, WPC's U.S. shipments of strontium chromate as well as those by importers of strontium chromate from France were *** commercial shipments. Although the largest share of such shipments in 2018 were to end users for non-aerospace applications (*** percent for WPC and *** percent for imports from France), they also included U.S. shipments to end users for aerospace applications (*** percent for WPC and *** percent for imports from France). As noted above, WPC's U.S. shipments also included shipments to distributors (*** percent in 2018).

[8] Of the 11 responding purchasers, 10 purchased domestically produced strontium chromate, 4 purchased imports of the subject merchandise from Austria, 3 purchased imports of the subject merchandise from France, and 1 purchased imports of strontium chromate from other sources. Only one purchaser, ***, reported using strontium chromate from both Austria and France.

Table II-1

Strontium chromate: U.S. producer's and importers' U.S. shipments, by sources and channels of distribution, 2016-18, January to June 2018, and January to June 2019

Item	Period				
	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Share of reported shipments (percent)				
U.S. producers' U.S. shipments of strontium chromate:					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
of which, aerospace	***	***	***	***	***
of which, non-aerospace	***	***	***	***	***
U.S. importers' U.S. shipments of strontium chromate from Austria:					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
of which, aerospace	***	***	***	***	***
of which, non-aerospace	***	***	***	***	***
U.S. importers' U.S. shipments of strontium chromate from France:					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
of which, aerospace	***	***	***	***	***
of which, non-aerospace	***	***	***	***	***
U.S. importers' U.S. shipments of strontium chromate from subject sources:					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
of which, aerospace	***	***	***	***	***
of which, non-aerospace	***	***	***	***	***
U.S. importers' U.S. shipments of strontium chromate from nonsubject sources:					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
of which, aerospace	***	***	***	***	***
of which, non-aerospace	***	***	***	***	***
U.S. importers' U.S. shipments of strontium chromate from all countries:					
Distributors	***	***	***	***	***
End users	***	***	***	***	***
of which, aerospace	***	***	***	***	***
of which, non-aerospace	***	***	***	***	***

Note.-- U.S. shipments include U.S. commercial shipments (shipments made within the United States as a result of an arm's length commercial transaction in the ordinary course of business); internal consumption (product consumed internally by a firm); and transfers to related firms (shipments made to related firms). With respect to U.S. shipments of strontium chromate from Austria, internal consumption accounted for *** percent of such shipments in 2016; *** percent in 2017; *** percent in 2018; *** percent in January-June 2018; and *** percent in January-June 2019.

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

Geographic distribution

WPC reported selling strontium chromate to *** (table II-2). Importers of product from Austria and France reported selling strontium chromate mainly to the Midwest, Southeast, and Pacific Coast. For WPC, *** percent of sales were within 100 miles of their production facility, *** percent were between 101 and 1,000 miles, and *** percent were over 1,000 miles. Importers sold 21.5 percent within 100 miles of their U.S. point of shipment, 68.3 percent between 101 and 1,000 miles, and 10.2 percent over 1,000 miles.

Table II-2
Strontium chromate: Geographic market areas in the United States into which U.S. producer WPC and U.S. importers have sold strontium chromate since January 1, 2016

Region	U.S. producers	Subject importers		
		Austria	France	Total
Northeast	***	***	***	1
Midwest	***	***	***	4
Southeast	***	***	***	3
Central Southwest	***	***	***	2
Mountain	***	***	***	---
Pacific Coast	***	***	***	3
Other[1]	***	***	***	---
All regions (except Other)	***	***	***	---
Reporting firms	1	2	3	5

[1] All other U.S. markets, including AK, HI, PR, and VI.

Note.--During this period internal consumption accounted for *** percent of U.S. shipments of strontium chromate from Austria.

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

Supply and demand considerations

U.S. supply

Table II-3 provides a summary of the supply factors regarding strontium chromate from U.S. producer WPC and from subject countries. Foreign producers Habich and SNCZ had *** capacity utilization and *** inventories than U.S. producer WPC in 2018.

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

	Capacity (1,000 dry pounds)		Capacity utilization (percent)		Ratio of inventories to total shipments (percent)		Shipments by market, 2018 (percent)		Able to shift to alternate products
Country	2016	2018	2016	2018	2016	2018	Home market shipments	Exports to non-U.S. markets	No. of firms reporting "yes"
United States	***	***	***	***	***	***	***	***	*** of 2
Austria	***	***	***	***	***	***	***	***	*** of 1
France	***	***	***	***	***	***	***	***	*** of 1

Note.--Responding U.S. producer WPC accounted for virtually all of U.S. production of strontium chromate in 2018. Responding foreign producer/exporter firms accounted for all of U.S. imports of strontium chromate from Austria and France during 2018. For additional data on the number of responding firms and their share of U.S. production and of U.S. imports from each subject country, please refer to Part I, "Summary Data and Data Sources."

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

Domestic production

Based on available information, WPC has the ability to respond to changes in demand with large changes in the quantity of shipments of U.S.-produced strontium chromate to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the availability of unused capacity and inventories. Factors mitigating responsiveness of supply include limited ability to shift shipments from alternate markets and an inability to shift production to or from alternate products.

WPC's capacity *** while production *** from 2016 to 2018, an ***. WPC stated that it exports strontium chromate to ***. WPC added that it cannot export into the EU because of the EU's REACH regulations (EC 1907/2006) that make transportation and sale of strontium

chromate uneconomical.[9] [10] [11] WPC reported that it *** produce other products on the same equipment as it produces strontium chromate ***. *** reported that ***.

Subject imports from Austria

Based on available information, the Austrian producer of strontium chromate, Habich, has the ability to respond to changes in demand with small-to-moderate changes in the quantity of shipments of strontium chromate to the U.S. market. The main contributing factors to this degree of responsiveness of supply are the ability to shift shipments from alternate markets. Factors mitigating responsiveness of supply include limited availability of unused capacity, limited ability to shift shipments from inventories, and limited ability to shift production to or from alternate products.

Habich's production *** while capacity *** during 2016-18. Habich reported that it exports to ***. Habich added that it has *** ability to shift production capacity between products ***.

Subject imports from France

Based on available information, the French producer of strontium chromate, SNCZ, has an ability to respond to changes in demand with moderate-to-large changes in the quantity of shipments of strontium chromate to the U.S. market. The main contributing factors to this degree of responsiveness of supply are available capacity utilization, the ability to shift shipments from alternate markets, and the ability to shift production to or from alternate products. A limited ability to shift shipments from inventories mitigates responsiveness.

SNCZ's capacity *** while production *** during 2016-18. SNCZ reported that it exported to ***. Other products that it reportedly can produce on the same equipment as strontium chromate are ***

[9] Petition, p. 22.

[10] Hearing transcript, p. 47 (St. John).

[11] REACH requires the approval and subsequent registration of WPC to be able to sell strontium chromate into the EU. According to SNCZ, REACH regulations in the EU have led to a phase out of the use of strontium chromate in applications other than aerospace. Conference transcript, pp. 71-72 (Esselin).

. Factors affecting the SNCZ's ability to shift production include ***.

Imports from nonsubject sources

There were no nonsubject imports of strontium chromate in 2017 and 2018. Nonsubject imports from *** accounted for *** percent of total imports in 2016.

Supply constraints

WPC stated that, when it moved its plant from Milwaukee, Wisconsin, to Oak Creek, Wisconsin in 2015, it built up inventory to cover a 9 month period.[12] WPC imported strontium chromate from *** to supplement its inventories during ***, when it took longer than anticipated to resume production.[13] WPC reported that one customer did not accept the imported *** material as a substitute due to the material not being qualified by the customer.[14]

Importer *** stated that it incurred significant costs and major disruptions at its main manufacturing location due to lack of material from its domestic source and that it narrowly avoided severe impact to its major customers by using alternate sources of strontium chromate. Importer *** reported higher total product cost as a reason of a supply constraint in 2019. Other importers reported experiencing no supply constraints of their own.

Purchasers *** reported they experienced supply constraints in 2016. They reported ***.

New suppliers

Eight of 10 purchasers reported that no new suppliers entered the market since January 1, 2016. Purchaser *** reported that SNCZ and Habich were new suppliers in the market.

U.S. demand

Based on available information, the overall demand for strontium chromate is likely to experience small changes in response to changes in price. The main contributing factors are the

[12] Conference transcript, pp. 24-25 (St. John).
[13] Petition, p. 28.
[14] Hearing transcript, p. 42 (Klein).

lack of appropriate substitute products and the moderately small cost share of strontium chromate in most of its end-use products.

End uses and cost share

U.S. demand for strontium chromate depends on the demand for U.S.-produced paint and coatings in which strontium chromate is used.[15] Reported end uses include industrial coatings, anti-corrosive paints, primers, and specialty sealants for both the aerospace industry and non-aerospace industries. WPC stated that customers integrate strontium chromate into their coating products to protect metals for use in coil, durable goods, aircraft, and other items requiring corrosion protection.[16]

Strontium chromate accounts for a small-to-moderate share of the cost of the end-use products in which it is used. WPC estimated that strontium chromate accounts for *** percent of the total end-use product while importers *** estimated that it accounts for 19-20 percent. Purchasers reported a wider range, between 6-51 percent, as the share of the cost of the end-use products. *** reported the share of the cost of strontium chromate in their *** for the aerospace industry as *** percent, respectively.

Business cycles

***, six of seven importers, and 7 of 10 responding purchasers indicated that the U.S. strontium chromate market was not subject to business cycles or conditions of competition. Importer *** stated that the market is seasonal based on the construction season and market trends. Purchaser *** stated that business volumes vary by season. Purchaser *** reported lower prices were a distinct condition of competition since 2016.

Demand trends

WPC reported that U.S. demand for strontium chromate has *** while importers reported that demand either has not changed or fluctuated since January 1, 2016 (table II-4). Responding purchasers provided mixed responses regarding demand.

WPC stated that demand strengthened for durable goods while aerospace-related demand remained basically flat during 2016-18.[17] Total industrial production increased by 7.4

[15] Petition, p. 18.
[16] Petition, p. 14.
[17] Petition, pp. 18-19.

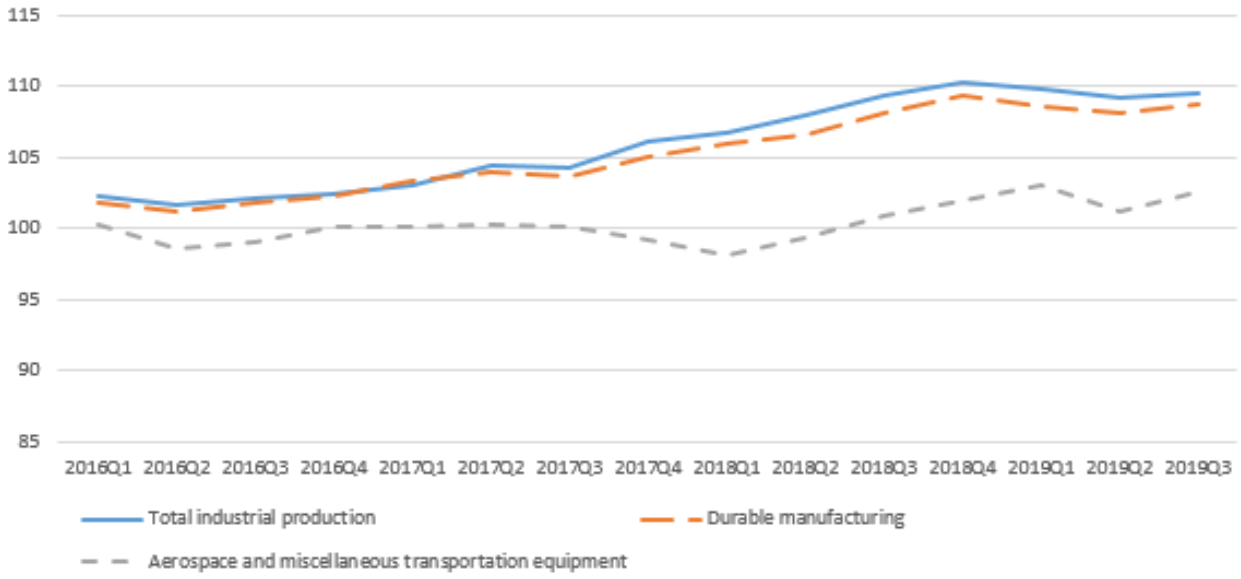
percent, durable goods production increased by 6.7 percent, and aerospace and miscellaneous transportation equipment production increased 2.7 percent from the first quarter of 2016 to the third quarter of 2019 (figure II-1).

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

Item	Number of firms reporting			
	Increase	No change	Decrease	Fluctuate
Demand inside the United States: U.S. producer	***	***	***	***
Importers	1	3	---	3
Purchasers	2	2	1	2
Demand outside the United States: U.S. producer	***	***	***	***
Importers	2	---	1	1
Purchasers	1	1	1	---
Demand for end use product(s): Purchasers	2	---	3	2

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

Figure II-1
Industrial production, durable goods production, and aerospace and miscellaneous transportation equipment production indices, Q1 2016 to Q3 2019, Base index 2012=100



Source: Federal Reserve, https://www.federalreserve.gov/releases/g17/Current/default.htm, accessed October 21, 2019.

REACH regulation

Most importers (6 of 8) and purchasers (8 of 9) reported no impact on the strontium chromate market from the EU REACH regulations. WPC and importer *** and purchaser *** reported being impacted by the EU REACH regulation. *** stated that implementation of REACH regulations has effectively constrained any exports to the EU due to the high registration costs and prolonged registration process while *** stated that due to regulatory changes in Europe, usage of strontium chromate in the EU market for coil coatings has gone down since 2016. Purchaser *** stated that ***.[18]

Substitute products

Substitutes for strontium chromate are very limited. Virtually all responding firms reported that there are no substitutes from strontium chromate. *** importers, and 9 of 10 purchasers reported that there were no substitutes. Purchaser *** reported chromate-free coatings as substitutes for coil and extrusion products.

Substitutability issues

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

Lead times

Strontium chromate is primarily sold from inventory. WPC reported that *** percent of its shipments are from inventory, with lead times of *** days. Importers reported that *** percent of their commercial shipments were from U.S. inventory, with lead times averaging *** days. The *** percent of shipments of U.S. importers from foreign inventories had a lead time averaging *** days.

[18] Staff telephone interview with ***.

Knowledge of country sources

All 11 purchasers indicated they had marketing/pricing knowledge of domestic product, 4 of Austrian product, and 4 of French product. No purchasers reported having pricing knowledge of nonsubject countries.

As shown in table II-5, most purchasers and their customers never make purchasing decisions based on the producer or country of origin. Of the three purchasers that reported that they always make decisions based on the manufacturer, one firm *** cited quality assurance and ISO registration requirements for its suppliers, and its commitment to their company's supplier. One firm, ***, reported that it sometimes bases its decision on the producer for supply availability and REACH compliance reasons.

Table II-5
Strontium chromate: Purchasing decisions based on producer and country of origin

Decision	Always	Usually	Sometimes	Never
Purchases based on producer:				
Purchaser's decision	3	---	1	6
Purchaser's customer's decision	---	---	1	7
Purchases based on country of origin:				
Purchaser's decision	2	---	1	7
Purchaser's customer's decision	---	---	1	7

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

Factors affecting purchasing decisions

The most often cited top three factors firms consider in their purchasing decisions for strontium chromate were price (6 firms), availability/supply (5 firms), and quality (2 firms), as shown in table II-6. Availability/supply was the most frequently cited first-most important factor (cited by 4 firms), followed by price and quality (1 firm each); price was the most frequently reported second-most important factor (2 firms); and price was the most frequently reported third-most important factor (3 firms each).

Table II-6
Strontium chromate: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by factor

Item	1st	2nd	3rd	Total
	Number of firms (number)			
Price / Cost	1	2	3	6
Availability / Supply	4	1	---	5
Quality	1	1	---	2
All other factors	4	2	3	9

[1] Other factors include approved by firm laboratory, distribution contracts, REACH compliant supplier, traditional supplier, and consumer approved specifications.

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

Half of responding purchasers (5 of 10) reported that they never purchase the lowest-priced product. Only one firm (***) reported always purchasing strontium chromate that is offered at the lowest price.[19] Purchasers *** reported that they usually purchase the lowest price product while purchasers *** reported that they sometimes purchase strontium chromate that is offered at the lowest price.

[19] Purchaser *** accounted for *** percent of reported purchases in 2018, and only purchased strontium chromate from ***.

Importance of specified purchase factors

Purchasers were asked to rate the importance of 15 factors in their purchasing decisions (table II-7). The factors rated as very important by more than half of responding purchasers were availability and reliability of supply (9 firms each); product consistency (8 firms); quality meets industry standards (7 firms); and price (6 firms).

Table II-7
Strontium chromate: Importance of purchase factors, as reported by U.S. purchasers, by factor

Factor	Very important	Somewhat important	Not important
Availability	9	1	---
Delivery terms	2	5	3
Delivery time	5	4	1
Discounts offered	1	2	7
Minimum quantity requirements	1	5	4
Packaging	3	4	3
Payment terms	1	6	3
Price	6	3	1
Product consistency	8	2	---
Product range	4	1	5
Quality meets industry standards [1]	7	2	1
Quality exceeds industry standards [1]	2	4	4
Reliability of supply	9	1	---
Technical support/service	3	5	2
U.S. transportation costs	2	2	6

[1] Standards include, but not limited to, ASTM D-153, D-1208, D-2448, D-280, D-281, D-4164, D-1210 and ISO 787/9, 787/10, and 2040.

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

Supplier certification

Nearly half of responding purchasers (5 of 11), including ***, require their suppliers to become certified or qualified to sell strontium chromate to their firm. Purchasers reported that the time to qualify a new supplier ranged from 60 to 365 days. One purchaser (***) reported that a foreign supplier from a nonsubject source failed in its attempt to qualify strontium chromate, and it has not purchased from that supplier since then.

Changes in purchasing patterns

Purchasers reported changes in their purchasing patterns from different sources since 2016, as shown in table II-8. Of the responding purchasers, four reported no change, four reported fluctuating purchases, three reported decreasing purchases from domestic producers, one reported increasing purchases, and one reported no purchasing of domestic product.

*** explained that it increased purchases of domestic product because of supply issues with imported products. Distributor *** stated that market price declines explain the decrease in purchases of domestic strontium chromate. *** reported that its purchases of strontium chromate decreased because demand decreased. Firms that stated that their purchase patterns fluctuated cited customer needs, demand, and market price. *** reported that it increased purchases from Austria because a new supplier qualified. Most purchasers (7 of 10) reported that they had not changed suppliers since 2016. Purchasers *** did report changes in suppliers. *** stated that it needed to include a REACH compliant supplier. *** stated that it changed *** when WPC was unable to supply product in 2016. *** described allocation changes as the reasons for changing suppliers.

Table II-8
Strontium chromate: Changes in purchase patterns from U.S., subject, and nonsubject countries

Source of purchases	Did not purchase	Decreased	Increased	Constant	Fluctuated
United States	1	3	1	4	4
Austria	4	1	2	---	---
France	4	1	---	2	---
All other sources	5	1	---	---	---
Sources unknown	6	---	---	---	---

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

Importance of purchasing domestic product

Eight of nine purchasers reported that most or all of their purchases did not require purchasing U.S.-produced product. No firm reported that domestic product was required by law, while three firms reported it was required by their customers (the responses ranged from 0.4 to 100 percent of their purchases), and no firm reported other preferences for domestic product.

Comparisons of domestic products, subject imports, and nonsubject imports

Purchasers were asked a number of questions comparing strontium chromate produced in the United States and subject countries. First, purchasers were asked to compare country-by-country the 15 factors (table II-9) for which they were asked to rate the importance.

Most purchasers reported that U.S. and Austrian strontium chromate were comparable in 14 of the 15 factors. Of the five responding purchasers, three reported that U.S. product was comparable in terms of availability and reliability of supply which were rated very important by most purchasers. Three of five responding purchasers reported that U.S. produced strontium

chromate was inferior in price when compared to Austrian strontium chromate. Five purchasers compared strontium chromate from the United States with that from France and reported that strontium chromate was comparable on 14 of the 15 factors. Two out of 4 purchasers rated U.S. product as superior to French product in U.S. transportation costs, while the other two firms reported such costs as comparable. Purchasers reported that Austrian and French strontium chromate were comparable with each other on all 15 factors, with the exception of price, for which one purchaser reported that price of Austrian strontium chromate was superior to strontium chromate from France.

In general, the domestic, Austrian, and French product were rated superior to nonsubject strontium chromate with respect to availability, delivery terms and time, quality, and product consistency.

Table II-9
Strontium chromate: Purchasers' comparisons between U.S.-produced and imported product

Factor	U.S. vs. Austria			U.S. vs. France			Austria vs. France		
	S	C	I	S	C	I	S	C	I
Availability	1	3	1	---	5	---	---	2	---
Delivery terms	1	4	---	---	5	---	---	2	---
Delivery time	1	4	---	1	4	---	---	2	---
Discounts offered	---	4	1	---	3	1	---	2	---
Minimum quantity requirements	---	5	---	---	4	---	---	2	---
Packaging	---	5	---	---	5	---	---	2	---
Payment terms	---	4	1	---	5	---	---	2	---
Price[1]	---	2	3	1	3	1	1	1	---
Product consistency	1	4	---	---	5	---	---	2	---
Product range	1	4	---	---	4	---	---	2	---
Quality meets industry standards[2]	---	5	---	---	5	---	---	2	---
Quality exceeds industry standards[2]	---	5	---	---	4	---	---	2	---
Reliability of supply	1	3	1	---	5	---	---	2	---
Technical support/service	1	3	1	1	3	---	---	2	---
U.S. transportation costs[1]	2	3	---	2	2	---	---	2	---

Table continued on next page.

Table II-9--Continued
Strontium chromate: Purchasers' comparisons between U.S.-produced and imported product

Factor	United States vs. Nonsubject			Austria vs. Nonsubject			France vs. Nonsubject		
	S	C	I	S	C	I	S	C	I
Availability	2	---	---	1	---	---	1	---	---
Delivery terms	1	1	---	1	---	---	1	---	---
Delivery time	2	---	---	1	---	---	1	---	---
Discounts offered	---	2	---	---	1	---	---	1	---
Minimum quantity requirements	1	1	---	---	1	---	---	1	---
Packaging	---	2	---	---	1	---	---	1	---
Payment terms	---	2	---	---	1	---	---	1	---
Price[1]	---	1	1	---	1	---	---	---	1
Product consistency	---	1	---	1	---	---	1	---	---
Product range	---	2	---	1	---	---	1	---	---
Quality meets industry standards[2]	1	1	---	1	---	---	1	---	---
Quality exceeds industry standards[2]	1	1	---	1	---	---	1	---	---
Reliability of supply	2	---	---	1	---	---	1	---	---
Technical support/service	1	1	---	1	---	---	1	---	---
U.S. transportation costs[1]	2	---	---	1	---	---	1	---	---

[1] A rating of superior means that price/U.S. transportation cost is generally lower. For example, if a firm reported "U.S. superior," it meant that the U.S. product was generally priced lower than the imported product.
[2] Standards include, but not limited to, ASTM D-153, D-1208, D-2448, D-280, D-281, D-4164, D-1210 and ISO 787/9, 787/10, and 2040.

Note.--S=first listed country's product is superior; C=both countries' products are comparable; I=first list country's product is inferior.

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

Comparison of U.S.-produced and imported strontium chromate

In order to determine whether U.S.-produced strontium chromate can generally be used in the same applications as imports from Austria and France, U.S. producers, importers, and purchasers were asked whether the products can always, frequently, sometimes, or never be used interchangeably. As shown in table II-10, WPC reported that its domestically produced strontium chromate was *** interchangeable with strontium chromate from any other source. Most importers reported that domestically produced strontium chromate was always or frequently interchangeable with strontium chromate imported from Austria and France. Most purchasers (4 of 6) reported that domestically produced strontium chromate was frequently interchangeable with strontium chromate imported from Austria, and 3 of 7 responding purchasers reported that the domestic product was always interchangeable with French product.

Only one importer and two purchasers stated that the strontium chromate from France was never interchangeable with the domestic product. Importer *** stated that it has never evaluated the French product. Purchaser *** stated that it is restricted to product that has been qualified for specific formulation and chemical attributes. It continued that, domestically produced strontium chromate and strontium chromate imported from France are distinct and separate with respect to their formulations, and thus are not interchangeable.

Table II-10
Strontium chromate: Interchangeability between strontium chromate produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. Austria	***	***	***	***	2	3	1	---	2	4	---	---
U.S. vs. France	***	***	***	***	2	2	---	1	3	2	---	2
Subject countries comparisons:												
Austria vs. France	***	***	***	***	2	2	1	---	2	1	---	---
Nonsubject countries comparisons:												
U.S. vs. nonsubject	***	***	***	***	---	1	1	---	---	---	1	---
Austria vs. nonsubject	***	***	***	***	---	1	1	---	---	---	1	---
France vs. nonsubject	***	***	***	***	---	1	1	---	---	---	1	---

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

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

As can be seen from table II-11, most (8 of 9) responding purchasers reported that domestically produced product always met minimum quality specifications. All responding purchasers reported that the Austria strontium chromate always met minimum quality specifications. Two of three purchasers reported that French strontium chromate always met minimum quality specifications.

Table II-11
Strontium chromate: Ability to meet minimum quality specifications, by source[1]

Source	Always	Usually	Sometimes	Rarely or never
United States	8	1	---	---
Austria	2	---	---	---
France	2	1	---	---

[1] Purchasers were asked how often domestically produced or imported strontium chromate meets minimum quality specifications for their own or their customers' uses.

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

In addition, U.S. producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of strontium chromate from the United States, subject, or nonsubject countries. As seen in table II-12, WPC reported that there were *** significant factors other than price in sales from any source while importers and purchasers responses were mixed. Importer *** stated that strontium chromate for its aerospace market customers was not interchangeable with strontium chromate imported from any other country unless evaluated and specified by the customer because ***. Purchaser *** stated that in addition to price, the availability of the product was a factor. Purchaser *** stated that REACH compliance was necessary for some of its formulations.

Table II-12
Strontium chromate: Significance of differences other than price between strontium chromate produced in the United States and in other countries, by country pair

Country pair	Number of U.S. producers reporting				Number of U.S. importers reporting				Number of purchasers reporting			
	A	F	S	N	A	F	S	N	A	F	S	N
U.S. vs. subject countries:												
U.S. vs. Austria	***	***	***	***	2	1	2	1	1	2	---	3
U.S. vs. France	***	***	***	***	2	---	2	1	2	1	---	2
Subject countries comparisons:												
Austria vs. France	***	***	***	***	2	1	1	1	1	1	---	1
Nonsubject countries comparisons:												
U.S. vs. nonsubject	***	***	***	***	1	---	2	---	---	---	---	---
Austria vs. nonsubject	***	***	***	***	1	---	2	---	---	---	---	---
France vs. nonsubject	***	***	***	***	1	---	2	---	---	---	---	---

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

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

Elasticity estimates

This section discusses elasticity estimates; parties were encouraged to comment on these estimates. No parties commented on these elasticities.

U.S. supply elasticity

The domestic supply elasticity[20] for strontium chromate measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of strontium chromate. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced strontium chromate. Analysis of these factors above, particularly of the ***, indicates that the U.S. industry has the ability to greatly increase or decrease shipments to the U.S. market; an estimate in the range of 8 to 12 is suggested.

U.S. demand elasticity

The U.S. demand elasticity for strontium chromate measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of strontium chromate. This estimate depends on factors discussed above such as the existence, availability, and commercial viability of substitute products, as well as the component share of the strontium chromate in the production of any downstream products. Based on the available information, the aggregate demand for strontium chromate is likely to be very inelastic; a range of -0.3 to -0.6 is suggested.

Substitution elasticity

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[21] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms/ discounts/ promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced strontium chromate and imported strontium chromate is likely to be in the range of 6 to 10.

[20] A supply function is not defined in the case of a non-competitive market.

[21] The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and the domestic like products to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject products (or vice versa) when prices change.

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 dumping margins was presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire response of petitioner WPC, which has accounted for all confirmed U.S. production of strontium chromate in its basic powdered form since 2016.

U.S. producer

The Commission issued a U.S. producer questionnaire to three firms based on information contained in the petition.[1] Petitioner WPC provided usable data on its productive operations, as did ***.[2] Staff believes that these responses represent all confirmed U.S. production of strontium chromate.

Table III-1 presents WPC's production location, position on the petition, and share of total production.

Table III-1
Strontium chromate: U.S. producer WPC's position on the petition, production locations, and shares of reported production, 2018

Firm	Position on petition	Production location	Share of production (percent)
WPC	Petitioner	Oak Creek, WI	100.0
Total			100.0

Note. – ***.

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

[1] The Commission issued U.S. producer questionnaires to WPC, ***, and ***. ***. However, *** was identified in the petition as a company that may only produce small amounts of lab samples of strontium chromate from time to time, but has not been seen by WPC in the marketplace. Petition, p. 3.

[2] *** processing operations and its trade data are presented in Appendix D.

WPC is not related to or affiliated with any foreign producers of strontium chromate or U.S. importers of strontium chromate. As discussed in greater detail below, WPC directly imported strontium chromate from *** in ***, but has not purchased strontium chromate from U.S. importers.

Table III-2 presents WPC's reported changes in operations since January 1, 2016. In March 2016, WPC started production at its Oak Creek, Wisconsin location. WPC closed its former plant in Milwaukee, Wisconsin, in June 2015, with a plan to relocate to a new plant in Oak Creek, Wisconsin, within six months.[3] According to WPC, a delay in obtaining an air permit from the Wisconsin Department of Natural Resources caused a one-quarter delay in the opening of the new Oak Creek plant, which began operations in March 2016.[4]

Table III-2
Strontium chromate: U.S. producer WPC's reported changes in operations, since January 1, 2016

Item / Firm	Reported changed in operations
Plant openings:	
***	***
Prolonged shutdowns or curtailments:	
***	***

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

WPC had planned to install production equipment required to transform powder into other forms, such as dispersions and pastes, at the new Oak Creek facility, as it had at its former Milwaukee facility.[5] This process was subcontracted out initially in December 2015, with an original plan to bring it back in-house within 12 months.[6] However, WPC reports that it has been unable to implement this plan and that it still subcontracts the dispersion/paste process.[7]

[3] Hearing transcript, p. 59 (St. John).
[4] Hearing transcript, p. 11 (St. John).
[5] Petition, pp. 15-16 and hearing transcript, p. 59 (St. John).
[6] Petition, pp. 15-16 and hearing transcript, p. 59 (St. John).
[7] Hearing transcript, p. 59 (St. John).

U.S. production, capacity, and capacity utilization

Table III-3 and figure III-1 present WPC's production, capacity, and capacity utilization over the annual periods of 2016 through 2018, January-June 2018 ("interim 2018"), and January-June 2019 ("interim 2019"). WPC's production capacity, *** dry pounds per year, has been steady since 2017; it was lower in 2016, *** pounds, while WPC completed its relocation. Despite operating for three additional months in 2017, production decreased by *** percent between 2016 and 2017, with capacity utilization decreasing from *** to *** percent. In 2018, production was *** percent higher than in 2017, with capacity utilization *** percent points higher. Production in interim 2019 was *** percent higher than in interim 2018, with capacity utilization *** percentage points higher.

Table III-3
Strontium chromate: U.S. producer WPC's production, capacity, and capacity utilization, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
Capacity	***	***	***	***	***
Production	***	***	***	***	***
	Ratio (percent)				
Capacity utilization	***	***	***	***	***

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

Figure III-1
Strontium chromate: U.S. producer WPC's production, capacity, and capacity utilization, 2016-18, January to June 2018, and January to June 2019

* * * * * * *

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

Alternative products

WPC produces products such as zinc chromates or calcium chromates at its Oak Creek facility, but they require different machines and different production areas within the facility.

The production of the strontium chromate is distinct and does not share any part of the production process with these products.[8]

U.S. producer's U.S. shipments and exports[9]

Table III-4 presents WPC's U.S. shipments, export shipments, and total shipments. *** of WPC's U.S. shipments are commercial shipments, as it reported *** internal consumption or transfers to related firms.[10] U.S. shipments declined from 2016 to 2018 by *** percent, but were *** percent higher in interim 2019 than interim 2018, by quantity. Export shipments increased by *** percent between 2016 and 2018, by quantity. Export shipments were *** percent lower in interim 2019 than in interim 2018. Unit values for U.S. shipments declined by *** percent from 2016 to 2018 and were *** percent lower in interim 2018 than in interim 2019. Unit values for exports decreased by *** percent from 2016 to 2018 and were *** percent lower in interim 2018 than in interim 2019. WPC's export shipments ranged from a high of *** percent of total shipments in interim 2018 to a low of *** percent in 2016. WPC's principal export markets are ***.

[8] Petition, p. 15.
[9] U.S. producer's historical U.S. shipments (2012-15) are presented in Appendix E.
[10] See email from ***, August 27, 2019.

Table III-4
Strontium chromate: U.S. producer WPC's U.S. shipments, exports shipments, and total shipments, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Value (1,000 dollars)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Unit value (dollars per dry pound)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of quantity (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***
	Share of value (percent)				
U.S. shipments	***	***	***	***	***
Export shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

U.S. producer's U.S. shipments by product form, 2018

Table III-5 presents WPC's U.S. shipments by product form (i.e., powder/granular with a maximum conductivity of 1,500 microsiemens; powder/granular of more than 1,500 microsiemens; and dispersion/paste) for 2018. The two powder/granular forms combined accounted for *** percent of WPC's shipments by quantity, with dispersions accounting for the remaining *** percent. However, the dispersion form has a higher unit value than the powder/granular form, *** compared to *** per dry pound, respectively, and accounted for *** percent of shipments by value during 2018.

Table III-5
Strontium chromate: U.S. producer WPC's U.S. shipments by product form, 2018

	Quantity (1,000 dry pounds)	Value (1,000 dollars)	Unit value (dollars per dry pound)
U.S. shipments.-- Powder ≤ 1,500 microsiemens	***	***	***
Powder > 1,500 microsiemens	***	***	***
Powder form	***	***	***
Dispersion form	***	***	***
All forms	***	***	***

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

U.S. producer's inventories

Table III-6 presents WPC's end-of-period inventories and the ratio of these inventories to WPC's production, U.S. shipments, and total shipments**.** WPC's 2016 end-of-period inventories stood at *** pounds, equivalent to *** percent of total annual shipments for the year. Inventories increased by *** percent between 2016 and 2018, and were *** percent higher in June 2019 than in June 2018.

Table III-6
Strontium chromate: U.S. producer WPC's inventories, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
U.S. producer's end-of-period inventories	***	***	***	***	***
	Ratio (percent)				
Ratio of inventories to.-- U.S. production	***	***	***	***	***
U.S. shipments	***	***	***	***	***
Total shipments	***	***	***	***	***

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

U.S. producer's imports and purchases

WPC's direct imports of strontium chromate are presented in table III-7. WPC did not report any purchases of strontium chromate from U.S. importers.[11]

Table III-7
Strontium chromate: U.S. producer WPC's U.S. production and imports, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
WPC's U.S. production	***	***	***	***	***
WPC'S U.S. imports from subject sources (Austria)	***	***	***	***	***
	Ratio (percent)				
WPC's ratio to U.S. production of imports from subject sources (Austria)	***	***	***	***	***
	Narrative				
WPC's reason for importing	***				

Source: Compiled from data submitted in response to Commission questionnaires. See also Hearing Tr. at 11-12 (St. John).

[11] WPC specified that it began importing from *** when it realized its inventory was getting low in the fall of 2015. It stated that it wanted to keep one of its biggest customers in supply, so it purchased product from a competitor. WPC was the importer of record and air freighted the product incurring ***. WPC re-bagged the product in its own bags and shipped it to the customer. Hearing transcript, pp. 11-12 and 58 (St. John and Klein).

U.S. employment, wages, and productivity

Table III-8 shows WPC's employment-related data. Production and related workers increased from *** workers in 2016 to *** workers in 2018, and stood at *** in interim 2019. Wages paid and hourly wages increased irregularly between 2016 and 2018 by *** percent and *** percent, respectively. WPC explained in its questionnaire response that ***. Unit labor costs increased irregularly by *** percent between 2016 and 2018, while productivity declined by *** percent.

Table III-8
Strontium chromate: U.S producer WPC's average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***
Hourly wages (dollars per hour)	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***
Unit labor costs (dollars per pound)	***	***	***	***	***

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

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

U.S. importers

The Commission issued importer questionnaires to 17 potential importers of subject strontium chromate, as well as to all U.S. producers of strontium chromate.[1] Usable questionnaire responses were received from eight importers.[2] As in the preliminary phase of these investigations, these firms are believed to account for all or nearly all imports of strontium chromate. *** U.S. importers identified by the two manufacturers of subject merchandise are included among the responding importers.

Table IV-1 lists all responding U.S. importers of strontium chromate from Austria, France, and other sources, their locations, and their shares of U.S. imports, in 2018.

Table IV-1
Strontium chromate: U.S. importers, their headquarters, and share of total imports by source, 2018

Firm	Headquarters	Share of imports by source (percent)				
		Austria	France	Subject sources	Nonsubject sources	All import sources
Akzo	Chicago, IL	***	***	***	***	***
Beckers	Elgin, IL	***	***	***	***	***
Lintech	Macon, GA	***	***	***	***	***
Maroon	Avon, OH	***	***	***	***	***
Sherwin-Williams	Cleveland, OH	***	***	***	***	***
Specialty Chemical	Cleveland, OH	***	***	***	***	***
Trans Western	Fullerton, CA	***	***	***	***	***
WPC	Oak Creek, WI	***	***	***	***	***
Total		***	***	***	***	***

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

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by U.S. Customs and Border Protection ("Customs"), may have accounted for more than one percent of total imports under HTS subheading 2841.50.9100 in 2018. Questionnaires were also sent to firms that imported under HTS 3212.90.00, a broad category, from the subject countries that, based on Customs data, may have accounted for more than one percent of total imports in 2018. Questionnaires were also sent to firms that imported large quantities under HTS subheading 3212.90.00 from nonsubject countries known to have producers of strontium chromate (China, India, Japan, and Korea) and Germany (a potential transit destination for strontium chromate of Austrian origin).

[2] Three of the 17 firms signed certification pages indicating that they had not been an importer of record for any strontium chromate imported into the U.S. since January 1, 2016.

U.S. imports[3]

Petitioner stated they believed virtually all strontium chromate in powder form from Austria and France had been properly classified under HTSUS statistical reporting number 2841.50.9100, and dispersion/paste forms are most commonly imported under HTSUS subheading 3212.90.00. Given that strontium chromate is imported under two HTSUS categories, each of which is a broad category, and that staff believes importer coverage is high with questionnaire responses for reasons discussed in Part I, staff used questionnaire data rather than official import statistics for data presented in Part IV. Further, there was close alignment between the import quantities reported by U.S. importers and the U.S. export quantities reported by foreign producers.

Table IV-2 presents data for U.S. imports of strontium chromate from Austria, France, and all other sources. U.S. imports by quantity increased from 2016 to 2018 by *** percent from Austria, decreased by *** percent from France, and increased by *** percent from all import sources. Import quantities were lower in interim 2019 than interim 2018 for both subject countries and for all import sources.

Unit values, on the other hand, declined between 2016 and 2018 by *** percent for imports from Austria and by *** percent for imports from France. The unit values for imports from Austria were lower than the unit values for imports from France during all time periods. Unit values for imports from Austria were *** percent lower in 2016, *** percent lower in 2017, *** percent lower in 2018, *** percent lower in interim 2018, and *** percent lower in interim 2019 than unit values for imports from France.

More than *** percent of U.S. imports of strontium chromate, by quantity, came from subject sources, Austria and France, during the period for which data were collected. Only one importer reported importing strontium chromate from a nonsubject source in 2016.[4] As a ratio to U.S. production, imports from subject sources increased from *** percentage in 2016 to *** percent in 2018. In each full and partial year, the combined level of imports from Austria and France exceeded U.S. production.

---

[3] Historical U.S. imports (2012-15) of strontium chromate from Austria and France are presented in Appendix E.

[4] *** reported in its importers' questionnaire response that it imported *** pounds of strontium chromate in 2016 produced by ***, a *** manufacturer.

Table IV-2
Strontium chromate: U.S. imports by source, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
U.S. imports from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Value (1,000 dollars)				
U.S. imports from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Unit value (dollars per dry pound)				
U.S. imports from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

Table continued on next page.

Table IV-2—Continued
Strontium chromate: U.S. imports by source, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Share of quantity (percent)				
U.S. imports from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Share of value (percent)				
U.S. imports from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Ratio to U.S. production				
U.S. imports from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

Table continued on next page.

Table IV-2--Continued
Strontium chromate: Change in U.S. imports, by source, 2016-18, January to June 2018, and January to June 2019

Item	Between calendar years			Between partial year periods
	2016-18	2016-17	2017-18	2018-19
	Change in quantity (percent)			
U.S. imports from.--				
Austria	▲***	▲***	▲***	▼***
France	▼***	▼***	▲***	▼***
Subject sources	▲***	▲***	▲***	▼***
Nonsubject sources	▼***	▼***	***	***
All import sources	▲***	▲***	▲***	▼***
	Change in value (percent)			
U.S. imports from.--				
Austria	▲***	▲***	▼***	▼***
France	▼***	▼***	▲***	▼***
Subject sources	▲***	▲***	▲***	▼***
Nonsubject sources	▼***	▼***	***	***
All import sources	▲***	▲***	▲***	▼***
	Change in unit value (percent)			
U.S. imports from.--				
Austria	▼***	▼***	▼***	▼***
France	▼***	▼***	▼***	▲***
Subject sources	▼***	▼***	▼***	▼***
Nonsubject sources	▼***	▼***	***	***
All import sources	▼***	▼***	▼***	▼***
	Change in share of quantity (percentage points)			
U.S. imports from.--				
Austria	▲***	▲***	▼***	▲***
France	▼***	▼***	▲***	▼***
Subject sources	▲***	▲***	***	***
Nonsubject sources	▼***	▼***	***	***
	Change in share of value (percentage points)			
U.S. imports from.--				
Austria	▲***	▲***	▼***	▲***
France	▼***	▼***	▲***	▼***
Subject sources	▲***	▲***	***	***
Nonsubject sources	▼***	▼***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. ▲ represents an increase. ▼ represents a decrease.

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

Figure IV-1
Strontium chromate: U.S. imports by source, 2016-18, January to June 2018, and January to June 2019

* * * * * * *

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

Negligibility

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[5] Negligible imports are generally defined in the Act, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. Imports from Austria and France accounted for *** percent and *** percent, respectively, of total imports of strontium chromate from September 2017 to August 2018.

[5] 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)).

Table IV-3
Strontium chromate: U.S. imports in the twelve month period preceding the filing of the petition, September 2017 through August 2018

Item	September 2017 through August 2018	
	Quantity (1,000 dry pounds)	Share quantity (percent)
U.S. imports from.--		
Austria	***	***
France	***	***
Subject sources	***	***
Nonsubject sources	***	***
All import sources	***	***

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

Cumulation considerations

In assessing whether imports should be cumulated, the Commission determines whether U.S. imports from the subject countries compete with each other and with the domestic like product and has generally considered four factors: (1) fungibility, (2) presence of sales or offers to sell in the same geographical markets, (3) common or similar channels of distribution, and (4) simultaneous presence in the market. Information regarding channels of distribution, market areas, and interchangeability appear in Part II. Additional information concerning fungibility, geographical markets, and simultaneous presence in the market is presented below.

Fungibility

Table IV-4 and figure IV-2 present data for the U.S. producers' and U.S. importers' shipments by product type for 2018. U.S. shipments by product type data are categorized by powder/granular up to 1,500 microsiemens (µS) conductivity; powder/granular greater than 1,500 microsiemens conductivity; or dispersion/paste.

For U.S. producers and U.S. importers, powder/granular was the most common type of strontium chromate shipment, representing *** percent of WPC's U.S. shipments in 2018, *** percent of U.S. shipments from Austria, and *** percent of U.S. shipments from France. For the U.S. producer and all U.S. importers combined, strontium chromate powder/granular accounted for *** percent of all U.S. shipments in 2018. Reportedly *** percent of all U.S. shipments of dispersion/paste in 2018 came from WPC, with the remaining *** percent coming from Austria. For the granular/powder form, *** percent of 2018 U.S. shipments came from Austria, *** percent came from WPC, and *** percent came from France.

Table IV-4
Strontium chromate: U.S. producer WPC's and U.S. importers' U.S. shipments by form, 2018

Item	U.S. producer	U.S. importers					U.S. producer and U.S. importers
		Austria	France	Subject sources	Nonsubject sources	All import sources	
	Quantity (1,000 dry pounds)						
U.S. shipments.--Powder ≤ 1,500 microsiemens	***	***	***	***	***	***	***
Powder > 1,500 microsiemens	***	***	***	***	***	***	***
Powder	***	***	***	***	***	***	***
Dispersion	***	***	***	***	***	***	***
All items	***	***	***	***	***	***	***
	Share across (percent)						
U.S. shipments.--Powder ≤ 1,500 microsiemens	***	***	***	***	***	***	***
Powder > 1,500 microsiemens	***	***	***	***	***	***	***
Powder	***	***	***	***	***	***	***
Dispersion	***	***	***	***	***	***	***
All items	***	***	***	***	***	***	***
	Share down (percent)						
U.S. shipments.--Powder ≤ 1,500 microsiemens	***	***	***	***	***	***	***
Powder > 1,500 microsiemens	***	***	***	***	***	***	***
Powder	***	***	***	***	***	***	***
Dispersion	***	***	***	***	***	***	***
All items	***	***	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.
Source: Compiled from data submitted in response to Commission questionnaires.

Figure IV-2
Strontium chromate: U.S. producer WPC's and U.S. importers' U.S. shipments by Item, 2018

* * * * * * *

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

Geographical markets

As illustrated in table IV-5, U.S. Customs districts located in the North[6] accounted for the largest share of imports entering under HTS statistical reporting number 2841.50.9100[7] during 2018, at 81.8 percent. Approximately 83.5 percent of imports from Austria and 73.4 percent of imports from France classified under HTS statistical reporting number 2841.50.9100 entered from U.S. Customs districts in the North.

[6] The "North" includes the following Customs entry districts: Chicago, Illinois; Cleveland, Ohio; Detroit, Michigan; Duluth, Minnesota; Great Falls, Montana; Milwaukee, Wisconsin; Minneapolis, Minnesota; and Pembina, North Dakota.

[7] U.S. imports under HTS statistical reporting number 2841.50.9100, a broad category, primarily include, but are not limited to, strontium chromate in its principal form, powder.

The East[8] was the second most common border of entry in 2018, with 18.2 percent of imports entering under HTS statistical reporting number 2841.50.9100.[9] During 2018, no strontium chromate was imported from U.S. Customs districts located in the South or West.

Table IV-5

Strontium chromate: U.S. imports by border of entry, 2018

Item	Border of entry				
	East	North	South	West	All borders
	Quantity (1,000 dry pounds)				
U.S. imports from.--					
Austria	560	2,825	---	---	3,385
France	173	477	---	---	650
Subject sources	733	3,302	---	---	4,035
	Share across (percent)				
U.S. imports from.--					
Austria	16.5	83.5	---	---	100.0
France	26.6	73.4	---	---	100.0
Subject sources	18.2	81.8	---	---	100.0
	Share down (percent)				
U.S. imports from.--					
Austria	76.4	85.6	---	---	83.9
France	23.6	14.4	---	---	16.1
Subject sources	100.0	100.0	---	---	100.0

Source: Compiled from official statistics of the U.S. Department of Commerce, using HTS number 2841.50.9100, accessed August 28, 2019.

Presence in the market

Table IV-6 and figure IV-3 present monthly U.S. imports under HTS statistical reporting number 2841.50.9100 from January 2016 to August 2019.[10] U.S. imports from Austria entered the U.S. market in each of the 44 months, while U.S. imports from France entered the U.S. market in 32 of the 44 months.

[8] The "East" includes the following Customs entry districts: Baltimore, Maryland; Boston, Massachusetts; Buffalo, New York; Charleston, South Carolina; Charlotte, North Carolina; New York, New York; Norfolk, Virginia; Ogdensburg, New York; Philadelphia, Pennsylvania; Portland, Maine; San Juan, Puerto Rico; Savannah, Georgia; St. Albans, Vermont; and Washington, District of Columbia.

[9] According to official import statistics, 237,517 pounds of product were imported from nonsubject countries in 2018 under HTS statistical reporting number 2841.50.9100, however, ***.

[10] U.S. imports under HTS statistical reporting number 2841.50.9100 primarily include, but are not limited to, strontium chromate in its principal form, powder.

Table IV-6
Strontium chromate: U.S. imports by month, January 2016 to August 2019

U.S. imports	Austria	France	Subject sources
	Quantity (1,000 dry pounds)		
2016.--			
January	39	115	154
February	351	26	378
March	358	108	466
April	282	35	316
May	256	43	299
June	240	83	323
July	320	40	360
August	240	40	280
September	215	---	215
October	120	40	160
November	200	83	283
December	120	---	120
2017.--			
January	166	40	206
February	212	40	252
March	240	40	280
April	234	40	274
May	240	43	283
June	284	40	324
July	321	40	361
August	268	80	348
September	240	---	240
October	320	47	367
November	194	40	234
December	320	---	320
2018.--			
January	200	80	280
February	280	80	360
March	240	---	240
April	348	---	348
May	359	79	438
June	160	47	207
July	440	80	520
August	284	38	322
September	160	47	207
October	240	80	320
November	199	120	319
December	476	---	476

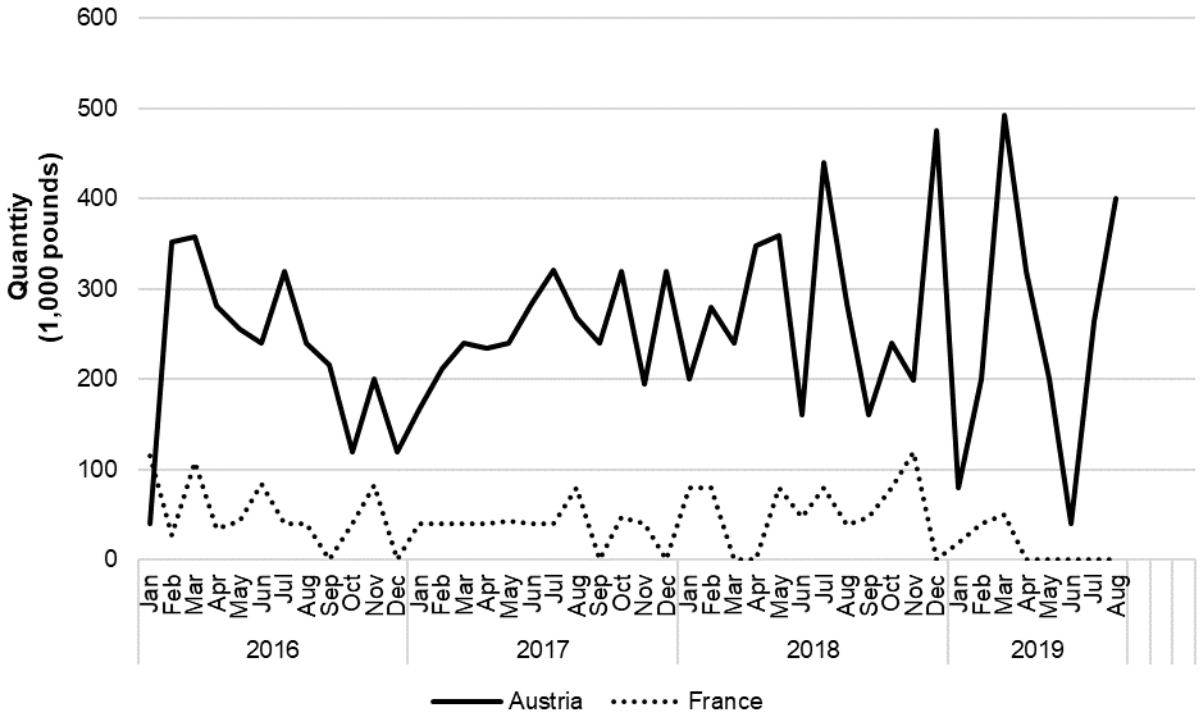
Table continued on next page.

Table IV-6—Continued
Strontium chromate: U.S. imports by month, January 2016 to August 2019

2019.--			
January	80	18	98
February	200	40	240
March	493	49	542
April	320	---	320
May	200	---	200
June	40	---	40
July	264	---	264
August	400	---	400

Source: Compiled from official statistics of the U.S. Department of Commerce, using HTS number 2841.50.9100, accessed August 28, 2019.

Figure IV-3
Strontium chromate: Monthly U.S. imports from Austria and France, January 2016 through August 2019



Apparent U.S. consumption

Table IV-7 presents data on apparent U.S. consumption and U.S. market shares for strontium chromate. Apparent consumption increased overall between 2016 and 2018 by *** percent. Apparent consumption in interim 2019 was *** percent lower than in interim 2018. Between 2016 and 2018, the U.S. producer's U.S. shipments decreased by *** percent, while subject sources' U.S. shipments increased by *** percent, with U.S. shipments of imports from Austria increasing *** percent, while U.S. shipments of imports from France decreased by *** percent. U.S. shipments from nonsubject sources were minimal in 2016 and nonexistent in 2017, 2018, and interim 2019.

Table IV-7
Strontium chromate: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***
	Value (1,000 dollars)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
Apparent U.S. consumption	***	***	***	***	***

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

U.S. market shares

U.S. market share data are presented in table IV-8. Between 2016 and 2018, market share for WPC decreased by *** percentage points by quantity and *** percentage points by value. During this same period, market share for imports from Austria increased by *** percentage points, by quantity, and market share for imports from France decreased *** percentage points, by quantity.[11] U.S. producer market share was *** percent points higher in interim 2019 than interim 2018, market share of imports from Austria was *** percent points lower, and market share of imports from France were *** percent points lower.

Table IV-8
Strontium chromate: U.S. consumption and market shares, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
Apparent U.S. consumption	***	***	***	***	***
	Share of quantity (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***
	Value (1,000 dollars)				
Apparent U.S. consumption	***	***	***	***	***
	Share of value (percent)				
U.S. producers' U.S. shipments	***	***	***	***	***
U.S. importers' U.S. shipments from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

[11] According to SNCZ, a supply shortage caused by WPC's prolonged shutdown provided an opportunity for SNCZ to introduce themselves to the U.S. market and to U.S. customers. SNCZ continued that this allowed it to enter the U.S. market in a meaningful way in 2015 and 2016 and convinced U.S. customers that it was absolutely necessary to have multiple sources of supply. Conference transcript, pp. 12-13 (Levinson).

Part V: Pricing data

Factors affecting prices

Raw material costs

Strontium chromate is produced by a chemical reaction process that combines strontium (typically either strontium chloride or strontium carbonate), chrome (typically sodium chromate, chrome acid flakes, or sodium dichromate), and various other raw materials.[1] All manufacturers of the product source raw materials globally; the strontium material is produced primarily in Mexico or Spain while the chrome material is primarily produced in South Africa and Turkey.[2] WPC's raw material costs accounted for *** percent of total cost of goods sold in 2018, compared to *** percent in 2016.[3]

WPC reported that the cost of raw materials *** since January 1, 2016. Most importers (4 of 6) reported that cost of raw materials increased, one reported no change, one reported that cost decreased, and one reported that cost fluctuated since January 2016.

Price indices for the raw materials of strontium chromate are not publically available. WPC provided the price it paid for raw materials on an annual basis. It reported that the price of sodium dichromate ***, strontium carbonate ***, and nitric acid *** between 2015 and 2018.[4] Importer *** specified that prices for strontium and chrome have increased since 2016.

Transportation costs to the U.S. market

Transportation costs for strontium chromate shipped from subject countries to the United States averaged 6 percent for Austria and 5 percent for France during 2018. These estimates were derived from official import data and represent the transportation and other charges on imports.[5]

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[1] Petition, p. 7.

[2] Petition, p. 27. Conference transcript, p. 68 (Esselin).

[3] WPC's raw material costs accounted for *** percent of total cost of goods sold from January-June 2019, compared to *** percent in January-June 2018.

[4] WPC's postconference brief, Exhibit 5.

[5] The estimated transportation costs were obtained by subtracting the customs value from the c.i.f. value of the imports for 2018 and then dividing by the customs value based on the HTS subheading 2841.50.9100.

U.S. inland transportation costs

*** four of five importers reported that their customers typically arrange transportation. WPC reported that U.S. inland transportation costs were *** percent while importers reported costs of *** percent.

Firms importing Austrian strontium chromate for their own use were requested to estimate U.S. inland transportation costs (from the port of importation to the point of use). *** reported that U.S. inland transportation costs for its imports of Austrian strontium chromate were *** percent and *** estimated that U.S. inland transportation costs were *** percent.

Pricing practices

Pricing methods

Market participants (***) sell via transaction-by-transaction negotiations as presented in table V-1.

Table V-1
Strontium chromate: U.S. producer's and importers' reported price setting methods, by number of responding firms[1]

Method	U.S. producers	U.S. importers
Transaction-by-transaction	***	5
Contract	***	---
Set price list	***	---
Other	***	---
Responding firms	***	5

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

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

WPC reported selling *** of its strontium chromate in the spot market. As shown in table V-2, the majority of imports were sold in the spot market (***) in 2018, and the remaining share of imports were sold via short-term contracts (***).

Table V-2
Strontium chromate: U.S. producer's and importers' shares of U.S. commercial shipments by type of sale, 2018

Type of sale	U.S. producers	importers
Long-term contracts	***	***
Annual contract	***	***
Short-term contracts	***	***
Spot sales	***	***
Total	***	***

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

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

Importer ***, which imports ***, was the only firm that reported using contracts to sell strontium chromate. *** reported average contract duration of 180 days for short-term contracts, and that its short-term contracts allow for price renegotiations, but generally fix quantity and price during the contract period.

A plurality of responding purchasers (4 of 10) reported purchasing strontium chromate on a monthly basis. Two purchasers reported buying strontium chromate weekly, and one purchaser each reported purchasing on a quarterly or annual basis. No purchasers reported that they purchase product daily. Seven of 10 responding purchasers reported that their purchasing frequency had not changed since 2016, and 4 of 9 reported contacting one supplier before making a purchase. In general, other purchasers reported contacting between 2 to 4 suppliers before making a purchase.

Sales terms and discounts

*** typically quote prices on an f.o.b. basis. *** responding importers do not offer discounts.

Price leadership

Purchasers reported that Habich, WPC, and Lintech were price leaders.

Price data

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following strontium chromate products shipped to unrelated U.S. end user customers during January 2016-June 2019.

Product 1.-- Strontium chromate powder, chemical formula $SrCrO_4$ conductivity (micro Siemens) 1500 maximum, packaged **in small bags** (ranging between 20 kg and 30 kg per bag), sold to end users.

Product 2.-- Strontium chromate powder, chemical formula $SrCrO_4$ conductivity (micro Siemens) 1500 maximum, packaged **in large bags** (ranging between 450 kg and 500 kg per bag), sold to end users.

Product 3.-- Strontium chromate dispersed/slurried in a solvent (also known as a Paste/Dispersion), packaged **in drums** (ranging between 200 kg and 300 kg per drum), sold to end users.

WPC and three importers provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[6] [7] Pricing data reported by these firms accounted for approximately *** percent of WPC's commercial shipments of U.S. produced strontium chromate, *** percent of U.S. commercial shipments of subject imports from Austria, and *** percent of U.S. commercial shipments of subject imports from France in 2018.[8]

Price data for products 1-3 are presented in tables V-3 to V-5 and figures V-1 to V-3.[9]

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[6] *** reported price data with respect to imports from Austria and *** reported price data with respect to imports from France.

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

[8] Commercial shipments of imports of strontium chromate from Austria accounted for *** percent of U.S. shipments from Austria whereas commercial shipments of imports of strontium chromate from France accounted for *** of U.S. shipments from France in 2018.

[9] In the final phase of these investigations, the Commission collected price data for sales to end users, the principal distribution channel for the U.S. producer and U.S. importers. As discussed in Part II of this report, WPC sells *** than do U.S. importers. (See also Petitioner's comments on draft questionnaires, page 2).

Table V-3
Strontium chromate: Weighted-average f.o.b. prices and quantities of domestic and imported product 1[1] and margins of underselling/(overselling), by quarters, January 2016-June 2019

Period	United States		Austria			France		
	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Margin (percent)	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***

[1] Product 1: Strontium chromate powder, chemical formula $SrCrO_4$ conductivity (micro Siemens) 1500 maximum, packaged in small bags (ranging between 20 kg and 30 kg per bag).

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

Table V-4
Strontium chromate: Weighted-average f.o.b. prices and quantities of domestic and imported product 2[1] and margins of underselling/(overselling), by quarters, January 2016-June 2019

Period	United States		Austria			France		
	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Margin (percent)	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***

[1] Product 2: Strontium chromate powder, chemical formula $SrCrO_4$ conductivity (micro Siemens) 1500 maximum, packaged in large bags (ranging between 450 kg and 500 kg per bag).

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

Table V-5
Strontium chromate: Weighted-average f.o.b. prices and quantities of domestic and imported product 3[1] and margins of underselling/(overselling), by quarters, January 2016-June 2019

Period	United States		Austria			France		
	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Margin (percent)	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	Margin (percent)
2016: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2017: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2018: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***
July-Sept.	***	***	***	***	***	***	***	***
Oct.-Dec.	***	***	***	***	***	***	***	***
2019: Jan.-Mar.	***	***	***	***	***	***	***	***
Apr.-June	***	***	***	***	***	***	***	***

[1] Product 3: Strontium chromate dispersed/slurried in a solvent (also known as a Paste/Dispersion), packaged in drums (ranging between 200 kg and 300 kg per drum).

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

Figure V-1
Strontium chromate: Weighted-average prices and quantities of domestic and imported product 1,[1] by quarters, January 2016-June 2019

* * * * * * *

[1] Product 1: Strontium chromate powder, chemical formula SrCrO4 conductivity (micro Siemens) 1500 maximum, packaged in small bags (ranging between 20 kg and 30 kg per bag).

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

Figure V-2
Strontium chromate: Weighted-average prices and quantities of domestic and imported product 2,[1] by quarters, January 2016-June 2019

* * * * * * *

[1] Product 2: Strontium chromate powder, chemical formula SrCrO4 conductivity (micro Siemens) 1500 maximum, packaged in large bags (ranging between 450 kg and 500 kg per bag).

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

Figure V-3
Strontium chromate: Weighted-average prices and quantities of domestic and imported product 3,[1] by quarters, January 2016-June 2019

* * * * * * *

[1] Product 3: Strontium chromate dispersed/slurried in a solvent (also known as a Paste/Dispersion), packaged in drums (ranging between 200 kg and 300 kg per drum).

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

Import purchase costs

In addition to price data, the Commission requested that importers provide landed duty-paid values ("LDP") and quantities for imports used for internal consumption. Imports for internal consumption accounted for *** percent of U.S. shipments from Austria during January 2016-June 2019. Three importers provided such data,[10] and their purchase cost data for imports of products 1, 2, and 3 are presented in tables V-6 to V-8 and figures V-4 to V-6, along with U.S. sales prices (previously presented).[11]

[10] These importers were ***.

[11] ***.

In addition, *** reported that logistical costs for freight to its *** plant were *** percent of landed duty-paid costs, inventory carrying costs were *** percent, insurance costs were *** percent, and packaging costs were *** percent. It stated that its imports were ***. It also stated that it ***.

Table V-6
Strontium chromate: Purchase costs. Weighted-average f.o.b. prices and quantities of domestic product 1 and f.o.b. landed duty-paid values and imported product 1,[1] by quarters, January 2016-June 2019

Period	United States[2]		Austria	
	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	LDPV cost (dollars per pound dry weight)	Quantity (pounds dry weight)
2016: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2017: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2018: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2019: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***

[1] Product 1: Strontium chromate powder, chemical formula SrCrO4 conductivity (micro Siemens) 1500 maximum, packaged in small bags (ranging between 20 kg and 30 kg per bag).
[2] U.S. f.o.b. price data are the same as the data for prices presented in table V-3 and figure V-1.

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

Table V-7
Strontium chromate: Purchase costs. Weighted-average f.o.b. prices and quantities of domestic product 2 and f.o.b. landed duty-paid values and imported product 2,[1] by quarters, January 2016-June 2019

Period	United States[2]		Austria	
	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	LDPV cost (dollars per pound dry weight)	Quantity (pounds dry weight)
2016: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2017: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2018: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2019: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***

[1] Product 2: Strontium chromate powder, chemical formula SrCrO4 conductivity (micro Siemens) 1500 maximum, packaged in large bags (ranging between 450 kg and 500 kg per bag).
[2] U.S. f.o.b. price data are the same as the data for prices presented in table V-4 and figure V-2.

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

Table V-8
Strontium chromate: Purchase costs. Weighted-average f.o.b. prices and quantities of domestic product 3 and f.o.b. landed duty-paid values and imported product 3,[1] by quarters, January 2016-June 2019

Period	United States[2]		Austria	
	Price (dollars per pound dry weight)	Quantity (pounds dry weight)	LDPV cost (dollars per pound dry weight)	Quantity (pounds dry weight)
2016: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2017: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2018: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***
July-Sept.	***	***	***	***
Oct.-Dec.	***	***	***	***
2019: Jan.-Mar.	***	***	***	***
Apr.-June	***	***	***	***

[1] Product 3: Strontium chromate dispersed/slurried in a solvent (also known as a Paste/Dispersion), packaged in drums (ranging between 200 kg and 300 kg per drum).
[2] U.S. f.o.b. price data are the same as the data for prices presented in table V-5 and figure V-3.

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

Figure V-4
Strontium chromate: Purchase costs. Weighted-average f.o.b. prices of domestic product 1 sold to end users and f.o.b. landed duty-paid values and quantities of imported product 1,[1] by quarters, January 2016-June 2019

* * * * * * *

Product 1: Strontium chromate powder, chemical formula SrCrO4 conductivity (micro Siemens) 1500 maximum, packaged in small bags (ranging between 20 kg and 30 kg per bag).

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

Figure V-5
Strontium chromate: Purchase costs. Weighted-average f.o.b. prices of domestic product 2 sold to end users and f.o.b. landed duty-paid values and quantities of imported product 2,[1] by quarters, January 2016-June 2019

* * * * * * *

Product 2: Strontium chromate powder, chemical formula SrCrO4 conductivity (micro Siemens) 1500 maximum, packaged in large bags (ranging between 450 kg and 500 kg per bag).

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

Figure V-6
Strontium chromate: Purchase costs. Weighted-average f.o.b. prices of domestic product 3 sold to end users and f.o.b. landed duty-paid values and quantities of imported product 3,[1] by quarters, January 2016-June 2019

* * * * * * *

Product 3: Strontium chromate dispersed/slurried in a solvent (also known as a Paste/Dispersion), packaged in drums (ranging between 200 kg and 300 kg per drum).

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

U.S. importers were asked to identify the benefits of importing strontium chromate directly as opposed to purchasing it from a U.S. producer or importer. *** stated that the benefits of importing directly was the ability of having multiple sources of strontium chromate to minimize supply disruptions. *** stated the benefit was for security of supply. *** cited overall lower prices.

*** estimated that the additional costs as the ratio to LDP not already included in their LDP value of imported strontium chromate was *** percent due to ***,[12] and *** stated costs were ***.[13] [14]

*** reported that the estimated margin saved by directly importing strontium chromate was *** percent of the landed duty paid value. The firm reported that the variation in the margin saved since 2016 comes from its ability to negotiate lower pricing from the Austrian supplier due to the required large volumes. It stated that pricing has remained stable since 2016 but that freight cost changed. *** reported that the estimated margin saved by directly importing strontium chromate was *** percent. The firm identified the reasons for its savings as global prices and ability to purchase directly from the producer rather than a distributor. *** provide an estimated percent saved by importing directly rather than purchasing.

Price trends

In general, prices decreased during January 2016-June 2019 for the U.S.-produced and French strontium chromate. Prices of strontium chromate from Austria increased, but purchase costs of Austrian strontium chromate decreased during January 2016-June 2019.

As shown in table V-9, domestic price changes ranged from a decrease of *** percent to an increase of *** percent during January 2016-June 2019. French price decreases ranged from *** percent for products 1 and 2. Purchase costs reported for strontium chromate imported from Austria declined by *** percent for product 1, *** percent for product 2, and by *** percent for product 3. Price increases of strontium chromate from Austria ranged from *** percent for all products. Figures V-7 through V-9 summarize the price and cost trends by product.

[12] ***.

[13] *** did not provide further breakout of their import service costs by type of cost.

[14] *** did not provide usable estimates therefore data is not presented.

Table V-9
Strontium chromate: Number of quarters containing observations low price, high price, and change in price over period, by product and source, January 2016 through June 2019

Item	Number of quarters	Low price (dollars per pound dry weight)	High price (dollars per pound dry weight)	Change in price[1] (percent)
Product 1:				
United States	***	***	***	***
Austria price	***	***	***	***
France price	***	***	***	***
Austria cost	***	***	***	***
Product 2:				
United States	***	***	***	***
Austria price	***	***	***	***
France price	***	***	***	***
Austria cost	***	***	***	***
Product 3:				
United States	***	***	***	***
Austria price	***	***	***	***
France price	***	***	***	***
Austria cost	***	***	***	***

[1] Percentage change from the first quarter in which data were available to the last quarter in which price data were available.

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

Figure V-7
Strontium chromate: Indexed U.S. producer prices, January 2016 through June 2019

* * * * * * *

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

Figure V-8
Strontium chromate: Indexed U.S. importer prices, January 2016 through June 2019

* * * * * * *

Note.—Product 3 price index contains only Austrian imports

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

Figure V-9
Strontium chromate: Indexed U.S. importer purchase costs, January 2016 through June 2019

* * * * * * *

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

Price comparisons

As shown in table V-10, prices for product imported from Austria were below those for U.S.-produced product in 13 of 39 instances (*** pounds dry weight); margins of underselling ranged from *** to *** percent. In the remaining 26 instances (*** pounds dry weight), prices for product from Austria were between *** and *** percent above prices for the domestic product. Prices for product imported from France were below those for U.S.-produced product in 1 of 28 instances (*** pounds dry weight); margin of underselling was *** percent. In the remaining 27 instances (*** pounds dry weight), prices for product from France were between *** and *** percent above prices for the domestic product.

Table V-10
Strontium chromate: Instances of underselling/overselling and the range and average of margins, by country, January 2016-June 2019

Source	Underselling				
	Number of quarters	Quantity[1] (pounds dry weight)	Average margin (percent)	Margin range (percent)	
				Min	Max
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Total, underselling	***	***	***	***	***
Austria	13	***	***	***	***
France	1	***	***	***	***
Total, underselling	14	***	***	***	***
Source	**(Overselling)**				
	Number of quarters	**Quantity[1] (pounds dry weight)**	**Average margin (percent)**	**Margin range (percent)**	
				Min	**Max**
Product 1	***	***	***	***	***
Product 2	***	***	***	***	***
Product 3	***	***	***	***	***
Total, overselling	***	***	***	***	***
Austria	26	***	***	***	***
France	27	***	***	***	***
Total, overselling	53	***	***	***	***

[1] These data include only quarters in which there is a comparison between the U.S. and subject product.

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

Lost sales and lost revenue

In the preliminary phase of the investigations, the Commission requested that U.S. producers of strontium chromate report purchasers with which they experienced instances of lost sales or revenue due to competition from imports of strontium chromate from Austria during January 2015-June 2018. *** allegations were with respect to strontium chromate imported from Austria and *** were of unknown origin. WPC alleged strontium chromate powder sales amounted to more than $*** in losses to ***. It also alleged that it lost *** per month of paste sales to *** and $*** per year of paste sales to ***.

In the final phase of the investigations, WPC reported that it ***.

Staff contacted 15 purchasers and received responses from 11 purchasers. Responding purchasers reported purchasing *** pounds dry weight of strontium chromate during January 2016-June 2019 (table V-11).

Table V-11
Strontium chromate: Purchasers' responses to purchasing patterns

Purchaser	Purchases in January 2016-June 2019 (1,000 pounds dry weight)			Change in domestic share[2] (pp, 2016-18)	Change in subject country share[2] (pp, 2016-18)
	Domestic	Subject	All other[1]		
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***[3]	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total	***	***	***	***	***

[1] Includes all other sources and/or unknown sources.
[2] Percentage points (pp) change: Change in the share of the firm's total purchases of domestic and/or subject country imports between first and last years.
[3] ***.

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

Out of 11 responding purchasers, 4 reported that, since 2016, they had purchased imported strontium chromate from Austria instead of U.S.-produced product. Four of these purchasers reported that Austrian import prices were lower than U.S.-produced product. One purchasers *** reported that price was a primary reason for the decision to purchase *** pounds dry weight of imported strontium chromate from Austria rather than U.S.-produced product. *** was the only firm that reported purchasing both Austrian and French product. Purchasers identified security of supply, REACH compliance, and the ability to supply high volumes consistently at a competitive price as non-price reasons for purchasing imported strontium chromate from Austria rather than U.S.-produced product (table V-12 and table V-13).

Three of the 11 responding purchasers reported that they had purchased imported strontium chromate from France instead of U.S.-produced product. Purchaser *** reported that French import prices were lower than U.S.-produced product and that price was a primary reason for the decision to purchase imported product rather than U.S.-produced strontium chromate (table V-12 and table V-13). *** estimated it purchased *** pounds dry weight of strontium chromate from France instead of domestic product. ***

*** reported purchasing *** pounds dry weight from France as well as the *** pounds dry weight of strontium chromate from Austria instead of domestic product. In general, purchasers identified security of supply and technical requirements of the raw material as non-price reasons for purchasing imported strontium chromate rather than U.S.-produced product.

Table V-12
Strontium chromate: Purchasers' responses to purchasing subject imports instead of domestic product

Purchaser	Subject imports purchased instead of domestic (Y/N)	Imports priced lower (Y/N)	If purchased imports instead of domestic, was price a primary reason		
			Y/N	If Yes, quantity purchased instead of domestic (1,000 pounds dry weight)	If No, non-price reason
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	*** ***	*** ***	*** ***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
***	***	***	***	***	***
Total[1]	Yes--6; No--4	Yes--5; No--1	Yes--2; No--4	***	

[1] Counting Austria and France yes's and no's separately given *** response total values for table V-12 become: ***

Note.--Totals represent cumulated subject responses by firms about Austria and/or France.

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

Table V-13
Strontium chromate: Purchasers' responses to purchasing subject imports instead of domestic product, by country

			If U.S. producers reduced prices	
Source	Count of purchasers reporting subject instead of domestic	Count of purchasers reported that imports were priced lower	Count of purchasers reporting that price was a primary reason for shift	Quantity subject purchased (1,000 dry pounds)
Austria	4	4	1	***
France	3	1	1	***
Any subject source	6	5	2	***

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

Of the 11 responding purchasers, one reported that U.S. producers had reduced prices in order to compete with lower-priced imports from Austria (table V-14; seven reported that they did not know). The reported estimated price reduction was *** percent.

Table V-14
Strontium chromate: Purchasers' responses to U.S. producer price reductions, by firm

	U.S. producers reduced priced to compete with subject imports (Y/N)	If U.S. producers reduced prices	
Purchaser		Estimated U.S. price reduction (percent)	Additional information, if available
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
***	***	***	***
Total / average	Yes--1; No--2	***	

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

In responding to the lost sales and lost revenue survey, some purchasers provided additional information on purchases and market dynamics. *** stated that its distributor had a low cost provider with material in stock. *** reported that it needs REACH compliant strontium chromate for some of their formulations and the domestic supply

is not REACH compliant. It stated that it would prefer to purchase domestic product but that supply security and compliance prevents it from doing so. *** stated that the material from Austria and the U.S. are fairly similar on a landed cost basis. It choose to procure the majority of its strontium chromate from Austria, as it believes *** is more financially stable. *** stated that it relied on imports during domestic supply shortages, and that it has maintained those commercial relationships to ensure continuous supply.

Part VI: Financial experience of U.S. producers

Background

WPC, which accounts for all confirmed production of strontium chromate in its basic powder form, provided financial data on its strontium chromate operations. In addition, one firm, ***, provided financial data on its toll processing. WPC reported financial data on a calendar year basis and both companies reported financial data on a GAAP basis.[1] WPC and *** began a tolling arrangement in ***. [2]

Staff verified the results of WPC with its corporate records. The verification adjustments were incorporated into this report.[3] WPC's U.S. producer questionnaire response was changed to revise the following sections in all periods: ***.

Operations on strontium chromate

Table VI-1 presents data on WPC's operations in relation to strontium chromate, while table VI-2 presents corresponding changes in unit values on a dry pound basis.

[1] WPC has a fiscal year end of December 31. *** provided its data based on a fiscal year end of June 30.

[2] ***'s financial data have not been included in this section. The inclusion of ***s data would result in the double-counting of net sales quantity, net sales value, and certain raw material costs. Selected data from *** related to its strontium chromate operations and selected combined WPC and *** data are included in appendix D.

[3] Staff verification report, WPC, October 3, 2019.

Table VI-1
Strontium chromate: Results of operations of WPC, 2016-18, January-June 2018, and January-June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
Total net sales	***	***	***	***	***
	Value (1,000 dollars)				
Total net sales	***	***	***	***	***
Cost of goods sold.-- Raw materials	***	***	***	***	***
Tolling fees	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Total COGS	***	***	***	***	***
Gross profit	***	***	***	***	***
SG&A expense	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***
Interest expense	***	***	***	***	***
All other expenses	***	***	***	***	***
All other income	***	***	***	***	***
Net income or (loss)	***	***	***	***	***
Depreciation/amortization	***	***	***	***	***
Cash flow	***	***	***	***	***
	Ratio to net sales (percent)				
Cost of goods sold.-- Raw materials	***	***	***	***	***
Tolling fees	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Average COGS	***	***	***	***	***
Gross profit	***	***	***	***	***
SG&A expense	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***
Net income or (loss)	***	***	***	***	***

Table continued on the next page.

Table VI-1—Continued
Strontium chromate: Results of operations of WPC, 2016-18, January-June 2018, and January-June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Ratio to total COGS (percent)				
Cost of goods sold.-- Raw materials	***	***	***	***	***
Tolling fees	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Average COGS	***	***	***	***	***
	Unit value (dollars per dry pound)				
Total net sales	***	***	***	***	***
Cost of goods sold.-- Raw materials	***	***	***	***	***
Tolling fees	***	***	***	***	***
Direct labor	***	***	***	***	***
Other factory costs	***	***	***	***	***
Average COGS	***	***	***	***	***
Gross profit	***	***	***	***	***
SG&A expense	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***
Net income or (loss)	***	***	***	***	***

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

Table VI-2
Strontium chromate: Changes in AUVs for WPC, between calendar years and between partial year periods

Item	Between calendar years			Between partial year period
	2016-18	2016-17	2017-18	2018-19
	Change in AUVs (dollars per dry pound)			
Total net sales	▼***	▼***	▼***	▼***
Cost of goods sold.-- Raw materials	▲***	▲***	▲***	▼***
Tolling fees	▼***	▼***	▼***	▼***
Direct labor	▲***	▼***	▲***	▲***
Other factory costs	▲***	▲***	▼***	▲***
Average COGS	▼***	▲***	▼***	▼***
Gross profit	▼***	▼***	▼***	▲***
SG&A expense	▼***	▼***	▼***	▼***
Operating income or (loss)	▼***	▼***	▼***	▲***
Net income or (loss)	▲***	▲***	▼***	▲***

Note.--Values shown as negative "0.00" represent values less than zero, but more than negative 0.005 percent.

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

Net sales

Net sales of strontium chromate, by both quantity and value, decreased from 2016 to 2017, but increased in 2018, and were *** higher in the first half of 2019 compared to the same period in 2018. The average unit value ("AUV") of net sales decreased from $*** per dry pound in 2016 to $*** per dry pound in 2018, and was *** lower in the first half of 2019 ($*** per dry pound) compared to the first half of 2018 ($*** per dry pound).

Cost of goods sold and gross profit or (loss)

In the preliminary phase of these investigations, WPC included the *** in its raw material costs. In the final phase questionnaire, staff requested for raw materials and *** to be reported separately. WPC's raw materials were the largest component of COGS, accounting for between *** percent and *** percent of total COGS during the period for which data were collected. On a per-dry pound basis, raw materials increased from 2016 to 2018, but were lower in the first half of 2019 compared to the same period in 2018. Tolling fees paid were the next largest component of COGS, but decreased from 2016 to 2018 as WPC's shipments of strontium chromate dispersion ***.

Table VI-3
Strontium chromate: WPC's raw material costs, 2018

Raw materials	Calendar year 2018		
	Value (1,000 dollars)	Unit value (dollars per dry pound)	Share of value (percent)
Strontium	***	***	***
Chromium	***	***	***
Other material inputs	***	***	***
Total, raw materials	***	***	***

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

Other factory costs were the next largest component of COGS. On a per-dry pound basis, other factory costs increased irregularly from 2016 to 2018, and were higher in interim 2019 compared to the same period in 2018. The last component of COGS, direct labor, accounted for the smallest share of total COGS during the period for which data were collected. On a per-dry pound basis, direct labor decreased from 2016 to 2017, but increased in 2018 and was higher during the first half of 2019 than in the first half of 2018. The 2018 increase in direct labor was the result of ***.[4]

The average unit value of COGS was essentially unchanged from 2016 to 2018, while the net sales unit value decreased (see table VI-2), which resulted in a decrease in gross profit from 2016 to 2018. WPC's gross profit declined from $*** in 2016 to $*** in 2018, but was higher during the first half of 2019 (at $***) compared to the same period in 2018 (at $***).

[4] ***, email to USITC staff, September 10, 2019.

SG&A expenses and operating income

WPC's reported SG&A expenses decreased from $*** in 2016 to $*** in 2018, but were *** higher in January-June 2019 than during the same period in 2018. WPC indicated that the decrease in SG&A expenses between 2016 and 2017 was due to the company ***.[5] As a share of sales, SG&A expenses decreased from *** percent in 2016 to *** percent in 2018, but were *** higher in the first half of 2019 than during the first half of 2018.[6] WPC's operating income worsened irregularly from *** in 2016 to *** in 2018, but improved (***) in January-June 2019 compared to the same period in 2018.

All other expenses and net income

Classified below the operating income level are interest expense, other expense, and other income. WPC's reported interest expense accounted for *** of all other expense items, and decreased from $*** in 2016 to $*** in 2018, but was higher in January-June 2019 than during January-June 2018. The company indicated that the decrease in interest expense was a result of ***.[7] Due to the decrease in interest expense, net income improved irregularly from *** in 2016 to ***. Its net income also improved (***) in January-June 2019 than during the same period in 2018.

[5] ***, email to USITC staff, September 28, 2018.
[6] ***. Ibid.
[7] ***, email to USITC staff, September 20, 2018.

Variance analysis

A variance analysis for the strontium chromate operations of WPC is presented in table VI-4.[8] The information for this variance analysis is derived from table VI-1.

Table VI-4
Strontium chromate: Variance analysis on the operations of WPC, between calendar years and between partial year periods

Item	Between calendar years			Between partial year period
	2016-18	2016-17	2017-18	2018-19
	Value (1,000 dollars)			
Net sales: Price variance	▼***	▼***	▼***	▼***
Volume variance	▼***	▼***	▲***	▲***
Net sales variance	▼***	▼***	▲***	▲***
COGS: Cost variance	▲***	▼***	▲***	▲***
Volume variance	▲***	▲***	▼***	▼***
COGS variance	▲***	▲***	▼***	▲***
Gross profit variance	▼***	▼***	▼***	▲***
SG&A expenses: Cost/expense variance	▲***	▲***	▲***	▲***
Volume variance	▲***	▲***	▼***	▼***
Total SG&A expense variance	▲***	▲***	▼***	▼***
Operating income variance	▼***	▲***	▼***	▲***
Summarized (at the operating income level) as: Price variance	▼***	▼***	▼***	▼***
Net cost/expense variance	▲***	▲***	▲***	▲***
Net volume variance	▲***	▲***	▼***	▼***

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

[8] 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 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.

The analysis shows that the decline in operating income (i.e., the ***) from 2016 to 2018 was primarily attributable to a higher unfavorable price variance despite a favorable cost/expense variance (that is, net sales AUVs decreased more than the combined change in COGS and SG&A AUVs).[9] When examining the comparable interim periods, the analysis shows that the improved operating income in interim 2019 compared to interim 2018 is primarily attributable to a favorable cost/expense variance.

Capital expenditures and research and development expenses

Table VI-5 presents WPC's capital expenditures and research and development ("R&D") expenses. WPC's capital expenditures decreased from $*** in 2016 to $*** in 2018, and were *** higher in the first half of 2019 compared to the first half of 2018. In its U.S. producer questionnaire, WPC reported ***. R&D expenses increased from $*** in 2016 to $*** in 2018, and were lower in January-June 2019 than in January-June 2018. ***.[10]

Table VI-5
Strontium chromate: WPC's capital expenditures and research and development expenses, 2016-18, January-June 2018, and January-June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Value (1,000 dollars)				
Capital expenditures	***	***	***	***	***
Research and development expenses	***	***	***	***	***

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

[9] Between 2016 and 2018 WPC experienced a ***.
[10] WPC's U.S. producer questionnaire response at III-13.

Assets and return on assets

Table VI-6 presents data on WPC's total assets and its operating return on assets (operating income divided by total assets).[11] WPC's total net assets decreased from $*** in 2016 to $*** in 2018. The company's ROA worsened from 2016 to 2018.

Table VI-6
Strontium chromate: WPC's total assets and return on assets, 2016-18

Item	Calendar year		
	2016	2017	2018
Net assets (1,000 dollars)	***	***	***
Operating ROA (percent)	***	***	***

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

[11] With respect to a company's overall operations, staff notes that total asset value (i.e., the bottom line number on the asset side of a company's balance sheet) reflects an aggregation of a number of assets which are generally not product specific. Accordingly, high level corporate allocations may be required in order to report a total asset value for strontium chromate.

Capital and investment

The Commission requested U.S. producers of strontium chromate to describe any actual or potential negative effects of imports of strontium chromate from Austria and France on their firms' growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. Table VI-7 presents which effects WPC reported experiencing in each category and table VI-8 provides its narrative responses.

Table VI-7
Strontium chromate: WPC's actual and anticipated negative effects of imports on investment, growth, and development, since January 1, 2016

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

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

Table VI-8
Strontium chromate: WPC's narratives relating to actual and anticipated negative effects of imports on investment and growth and development, since January 1, 2016

Item	Narrative
Cancellation, postponement, or rejection of expansion projects:	
	***
Denial or rejection of investment proposal:	
	***
Reduction in the size of capital investments:	
	***
Return on specific investments negatively impacted:	
	***
Other negative effects on investments:	
	***
Rejection of bank loans:	
	***
Lowering of credit rating:	
	***
Problem related to the issue of stocks or bonds:	
	***
Ability to service debt:	
	***
Other effects on growth and development:	
	***
Anticipated effects of imports:	
	***

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

Part VII: Threat considerations and information on nonsubject countries

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

> *In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors*[1]*--*
>
> *(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,*
>
> *(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,*
>
> *(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,*

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

(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,

(V) inventories of the subject merchandise,

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

(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),

(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and

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

[2] Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

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.

The industry in Austria

The Commission issued a foreign producer or exporter questionnaire to one firm, Habich GmbH ("Habich"), believed to produce and/or export strontium chromate from Austria.[3] A usable response to the Commission's questionnaire was received from this firm. Habich's exports to the United States accounted for all known U.S. imports of strontium chromate from Austria in 2018.[4] The production of strontium chromate in Austria reported in Habich's questionnaire accounts for all known production of strontium chromate in Austria. Table VII-1 presents information on the strontium chromate operations of Habich.

Table VII-1
Strontium chromate: Summary data for Austrian producer Habich, 2018

Firm	Production (1,000 dry pounds)	Share of reported production (percent)	Exports to the United States (1,000 dry pounds)	Share of reported exports to the United States (percent)	Total Shipments (1,000 dry pounds)	Share of firm's total shipments exported to the United States (percent)
Habich	***	***	***	***	***	***
Total	***	***	***	***	***	***

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

[3] This firm was identified through a review of information submitted in the petition and contained in *** records.

[4] Habich indicated in its questionnaire response that is accounted for *** percent of exports of strontium chromate from Austria into the U.S. in 2018. Exports quantities in 2018 to the U.S. reported in Habich's questionnaire response were equivalent to *** percent of 2018 imports reported in importer questionnaires and *** percent of 2018 imports reported in official import statistics for HTS statistical reporting number 2841.50.9100. Foreign producer questionnaire response, question II-6.

Changes in operations

Habich reported *** operational and organizational changes since January 1, 2016.

Operations on strontium chromate

Table VII-2 presents information on the Habich's strontium chromate operations. Annual capacity *** between 2016 and 2018. Production increased by *** percent from 2016 to 2018, but was *** percent lower in interim 2019 than interim 2018. Capacity utilization increased from *** percent in 2016 to *** percent in 2018, and was *** percent in January–June 2019.

Habich's shipments increased between 2016 and 2018, as growing sales in the United States and non-EU markets offset declining EU sales. January-June 2019 shipments were lower than in January-June 2018, with the *** reduction reflected in EU sales. Habich exported *** of its shipments during the period for which data were collected. Exports (by quantity) to the United Stated increased by *** percent between 2016 and 2018 but were *** percent lower in interim 2019 than in interim 2018. The United States was the destination market for *** percent of Habich's export shipments in 2016 and for *** percent of its exports in 2018. Exports to all the other markets, including the EU, decreased by *** percent between 2016 and 2018 and were *** lower in interim 2019 than in interim 2018. Habich's other export markets include ***.

Table VII-2
Strontium chromate: Data for Austrian producer Habich, 2016-18, January to June 2018, January to June 2019, and projection calendar years 2019 and 2020

Item	Actual experience					Projections	
	Calendar year			January to June		Calendar year	
	2016	2017	2018	2018	2019	2019	2020
	Quantity (1,000 dry pounds)						
Capacity	***	***	***	***	***	***	***
Production	***	***	***	***	***	***	***
End-of-period inventories	***	***	***	***	***	***	***
Shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
EU	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***
	Ratios and shares (percent)						
Capacity utilization	***	***	***	***	***	***	***
Inventories/production	***	***	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***	***	***
Share of shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
EU	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***

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

Alternative products

Habich *** production of other products on the same equipment and machinery used to produce strontium chromate.

Exports

According to GTA, the leading export markets for products entered under HS subheading 2841.50[5] (salts of oxometallic or peroxometallic acids: other chromates and dichromates; peroxychromates) from Austria are the United States and China (table VII-3).

Table VII-3
Strontium chromate: Exports from Austria under HS 2841.50, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (1,000 dry pounds)		
United States	2,824	3,103	3,385
China	---	317	357
Russia	95	125	137
Malaysia	119	159	119
United Arab Emirates	62	75	82
Brazil	46	76	66
France	18	58	63
Lithuania	---	0	55
South Africa	0	24	46
All other destination markets	509	583	154
Total exports	3,674	4,521	4,465
	Value (1,000 dollars)		
United States	4,302	4,570	4,996
China	---	480	546
Russia	240	286	311
Malaysia	171	232	185
United Arab Emirates	86	109	124
Brazil	102	173	153
France	37	147	169
Lithuania	---	0	105
South Africa	0	38	77
All other destination markets	837	957	324
Total exports	5,775	6,992	6,990

Table continued on next page.

[5] GTA data is only available at the HS 6-digit level, which includes out of scope products, therefore the data are not exclusively strontium chromate. Austria did not directly report its export data to GTA, and the values shown in table VII-3 are taken from the import data of the other countries.

Table VII-3 – Continued
Strontium chromate: Exports from Austria under HS 2841.50, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Unit value (dollars per dry pound)		
United States	1.52	1.47	1.48
China	---	1.51	1.53
Russia	2.52	2.28	2.27
Malaysia	1.44	1.46	1.56
United Arab Emirates	1.38	1.45	1.51
Brazil	2.21	2.28	2.31
France	2.06	2.54	2.68
Lithuania	---	53.86	1.91
South Africa	1.00	1.55	1.66
All other destination markets	1.64	1.64	2.10
Total exports	1.57	1.55	1.57
	Share of quantity (percent)		
United States	76.9	68.6	75.8
China	---	7.0	8.0
Russia	2.6	2.8	3.1
Malaysia	3.2	3.5	2.7
United Arab Emirates	1.7	1.7	1.8
Brazil	1.3	1.7	1.5
France	0.5	1.3	1.4
Lithuania	---	0.0	1.2
South Africa	0.0	0.5	1.0
All other destination markets	13.9	12.9	3.5
Total exports	100.0	100.0	100.0

Note. – Shares and ratios shown as “0.0” represent values greater than zero, but less than “0.05” percent. United States is shown at the top, all remaining top export destinations shown in descending order of 2018 data.

Source: Mirror data based on official import statistics under HS subheading 2841.50, as reported by Eurostat in the Global Trade Atlas database, accessed September 11, 2019.

The industry in France

The Commission issued foreign producers' or exporters' questionnaires to one firm, SNCZ, believed to produce and/or export strontium chromate from France. A usable response to the Commission's questionnaire was received from this firm. SNCZ's exports to the United States accounted for all known U.S. imports of strontium chromate from France in 2018.[6] The production of strontium chromate in France reported in SNCZ's questionnaire accounts for all known overall production of strontium chromate in France. Table VII-4 presents information on the strontium chromate operations of SNCZ.

Table VII-4
Strontium Chromate: Summary data for French producer SNCZ, 2018

Firm	Production (1,000 dry pounds)	Share of reported production (percent)	Exports to the United States (1,000 dry pounds)	Share of reported exports to the United States (percent)	Total Shipments (1,000 dry pounds)	Share of firm's total shipments exported to the United States (percent)
SNCZ	***	***	***	***	***	***
Total	***	***	***	***	***	***

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

Changes in operations

SNCZ reported *** operational and organizational changes since January 1, 2016.

[6] SNCZ indicated in its questionnaire response that it accounted for *** percent of exports of strontium chromate from France into the U.S. in 2018. Export quantities in 2018 to the U.S. reported in SNCZ's questionnaire response were equivalent to *** percent of 2018 imports reported in importer questionnaires and *** percent of 2018 imports reported in official import statistics for HTS statistical reporting number 2841.50.9100. Foreign producer questionnaire response, question II-6.

Operations on strontium chromate

Table VII-5 presents information on SNCZ's strontium chromate operations. Annual capacity *** between 2016 and 2018. Production decreased by *** percent from 2016 to 2018 and was *** percent lower in interim 2019 than in interim 2018. Capacity utilization peaked in 2016 at *** percent, declining to *** percent in 2018 and *** percent in interim 2019.[7]

SNCZ's shipments declined throughout the period for which data were collected. SNCZ exported more than *** percent of its total shipments in each of the years for which data were collected. Unlike with Habich, the United States is not a major export destination for SNCZ's exports of strontium chromate, although its share has increased over the period for which data were collected.[8] In 2016, *** percent of SNCZ's exports of strontium chromate were to the United States. This percentage decreased to *** percent in 2017 and increased to *** percent in 2018. Exports by quantity to the United States decreased by *** percent between 2016 and 2017 and increased by *** percent between 2017 and 2018. Exports to all markets decreased by *** percent between 2016 and 2018, and were *** percent lower in interim in 2019 than in interim 2018.

[7] SNCZ reported that it is operating at nearly full capacity and has no plan to expand strontium chromate production in its future strategy. Rather, SNCZ is focusing on new anticorrosive pigment development to eventually replace chromate pigment in the future. According to the SNCZ representative at the Conference, "there is no threat of an onslaught of massive exports from France to the United States in the imminent future." Conference transcript, p. 59 (Esselin).

[8] SNCZ reported that the United States is not one of SNCZ's primary markets. It sells 74 percent of its total production of strontium chromate to Asia Pacific. Its largest market in this region is Taiwan. Conference transcript, p. 59 (Esselin).

Table VII-5
Strontium chromate: Data for French producer SNCZ in 2016-18, January to June 2018, January to June 2019, and projection calendar years 2019 and 2020

Item	Actual experience					Projections	
	Calendar year			January to June		Calendar year	
	2016	2017	2018	2018	2019	2019	2020
	Quantity (1,000 dry pounds)						
Capacity	***	***	***	***	***	***	***
Production	***	***	***	***	***	***	***
End-of-period inventories	***	***	***	***	***	***	***
Shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
EU	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***
	Ratios and shares (percent)						
Capacity utilization	***	***	***	***	***	***	***
Inventories/production	***	***	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***	***	***
Share of shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
EU	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***

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

Alternative products

As shown in table VII-6, SNCZ produced other products on the same equipment and machinery used to produce strontium chromate. Out-of-scope products produced using the same equipment as subject production accounted for *** percent of the production during 2016-18. These other products included ***.

Table VII-6
Strontium chromate: French producer SNCZ's overall capacity and production on the same equipment as subject production, 2016-18, January to June 2018, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
Overall capacity	***	***	***	***	***
Production:					
Strontium chromate	***	***	***	***	***
Out-of-scope production	***	***	***	***	***
Total production on same machinery	***	***	***	***	***
	Ratios and shares (percent)				
Overall capacity utilization	***	***	***	***	***
Share of production:					
Strontium chromate	***	***	***	***	***
Out-of-scope production	***	***	***	***	***
Total production on same machinery	***	***	***	***	***

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

Exports

According to GTA, the leading export markets for products entered under HS subheading 2841.50 (salts of oxometallic or peroxometallic acids: other chromates and dichromates; peroxychromates) from France are Malaysia and Austria (table VII-7).[9]

[9] GTA data is only available at the HS 6-digit level, which includes out of scope products, so the data are not exclusively strontium chromate.

Table VII-7
Strontium chromate: Exports from France under HS 2841.50, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Quantity (1,000 dry pounds)		
United States	4	10	13
Malaysia	85	124	163
Austria	53	33	23
United Kingdom	15	17	14
Belgium	10	11	13
Taiwan	11	13	6
Italy	7	10	5
Indonesia	185	---	3
New Zealand	4	10	3
All other destination markets	30	60	11
Total exports	405	289	254
	Value (1,000 dollars)		
United States	8	19	26
Malaysia	144	225	300
Austria	88	58	45
United Kingdom	35	42	40
Belgium	24	27	32
Taiwan	38	53	21
Italy	18	28	16
Indonesia	286	---	8
New Zealand	13	27	8
All other destination markets	96	183	62
Total exports	750	661	558

Table VII-7 – Continued
Strontium chromate: Exports from France under HS 2841.50, 2016-18

Destination market	Calendar year		
	2016	2017	2018
	Unit value (dollars per dry pound)		
United States	1.81	1.92	1.96
Malaysia	1.69	1.82	1.84
Austria	1.66	1.74	1.98
United Kingdom	2.25	2.44	2.88
Belgium	2.33	2.44	2.56
Taiwan	3.59	3.98	3.81
Italy	2.67	2.79	3.07
Indonesia	1.55	---	2.32
New Zealand	2.91	2.64	2.63
All other destination markets	3.23	3.07	5.74
Total exports	1.85	2.29	2.20
	Share of quantity (percent)		
United States	1.1	3.4	5.2
Malaysia	21.1	43.0	64.4
Austria	13.1	11.6	8.9
United Kingdom	3.8	5.9	5.5
Belgium	2.5	3.9	4.9
Taiwan	2.6	4.6	2.2
Italy	1.7	3.5	2.0
Indonesia	45.7	---	1.3
New Zealand	1.1	3.5	1.2
All other destination markets	7.3	20.7	4.3
Total exports	100.0	100.0	100.0

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. United States is shown at the top, all remaining top export destinations shown in descending order of 2018 data.

Source: GTIS/GTA database.

Subject countries combined

Table VII-8 presents summary data on strontium chromate operations of the reporting subject producers in Austria and France.

Table VII-8
Strontium chromate: Data on the industry in subject countries, 2016-18, January to June 2018, January to June 2019, and projection calendar years 2019 and 2020

Item	Actual experience					Projections	
	Calendar year			January to June		Calendar year	
	2016	2017	2018	2018	2019	2019	2020
	Quantity (1,000 dry pounds)						
Capacity	***	***	***	***	***	***	***
Production	***	***	***	***	***	***	***
End-of-period inventories	***	***	***	***	***	***	***
Shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
EU	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***
	Ratios and shares (percent)						
Capacity utilization	***	***	***	***	***	***	***
Inventories/production	***	***	***	***	***	***	***
Inventories/total shipments	***	***	***	***	***	***	***
Share of shipments:							
Home market shipments:							
Internal consumption/ transfers	***	***	***	***	***	***	***
Commercial home market shipments	***	***	***	***	***	***	***
Total home market shipments	***	***	***	***	***	***	***
Export shipments to:							
United States	***	***	***	***	***	***	***
EU	***	***	***	***	***	***	***
All other markets	***	***	***	***	***	***	***
Total exports	***	***	***	***	***	***	***
Total shipments	***	***	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent
Source: Compiled from data submitted in response to Commission questionnaires.

U.S. inventories of imported merchandise

Table VII-9 presents data on U.S. importers' reported inventories of strontium chromate. End-of-period inventories of imports from Austria decreased from 2016 and 2018 by *** percent, but were *** percent higher in interim 2019 than in interim 2018. The ratio of inventories to U.S. imports, U.S. shipments of imports, and total shipment of imports from Austria all decreased between *** percentage points from 2016 to 2018.

End-of-period inventories of imports from France increased from 2016 to 2018 by *** percent, and they were *** percent higher in interim 2019 than interim 2018. The ratio of inventories to U.S. imports, U.S. shipments of imports, and total shipment of imports from France all increased from 2016 to 2018 by between *** percentage points.

Table VII-9
Strontium chromate: U.S. importers' end-of-period inventories of imports by source, 2016-18, January to June 2017, and January to June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Inventories (1,000 dry pounds); Ratios (percent)				
Imports from Austria Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from France: Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from subject sources: Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from nonsubject sources: Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***
Imports from all import sources: Inventories	***	***	***	***	***
Ratio to U.S. imports	***	***	***	***	***
Ratio to U.S. shipments of imports	***	***	***	***	***
Ratio to total shipments of imports	***	***	***	***	***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent.

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

U.S. importers' outstanding orders

The Commission requested importers to indicate whether they imported or arranged for the importation of strontium chromate from Austria and France after July 2019. These data are reported in table VII-10.

Table VII-10
Strontium chromate: Arranged imports, July 2019 through June 2020

Item	Period				
	Jul-Sept 2019	Oct-Dec 2019	Jan-Mar 2020	Apr-Jun 2020	Total
	Quantity (1,000 dry pounds)				
Arranged U.S. imports from.--					
Austria	***	***	***	***	***
France	***	***	***	***	***
Subject sources	***	***	***	***	***
Nonsubject sources	***	***	***	***	***
All import sources	***	***	***	***	***

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

Antidumping or countervailing duty orders in third-country markets

There are no antidumping or countervailing duty orders in third-country markets.

Information on nonsubject countries

There is limited strontium chromate production outside of the subject countries. According to published estimates, worldwide production and consumption of strontium chromate was approximately 9,000 tons/year in 2010.[10] That quantity has likely decreased since 2010 due to increased regulation of the product for health and safety concerns that have limited market channels to, primarily, the aerospace and defense industries (e.g., the REACH regulations in the EU).[11] Manufacturers outside of the United States and Europe are located in China, Korea, Japan, Turkey, and India.[12] Product from nonsubject sources is imported into the United States on a limited basis, if at all.[13] Demand for chromium pigments over the past decade, as a whole, has declined in Canada and Western Europe; remained constant in the United States, Mexico, Central America, and South America; and increased in Central and Eastern Europe.[14] Global exports of products classified under HTS subheading 2841.50, by exporter, are presented in table VII-11.[15] Strontium chromate produced in nonsubject countries reportedly is inferior in quality to that produced by the petitioner or respondents.[16]

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[10] Anses, "Proposal for Identification of a substance as a category 1A or 1B CMR, PBT, vPvB or a substance of an equivalent level of Concern," Annex XV – Identification of SVHC Format, p. 14.

[11] ECHA, "Understanding REACH," https://echa.europa.eu/regulations/reach/understanding-reach, retrieved August 22, 2019; Wietlisbach et al, "Chromium Compounds, Inorganic," February 2019, p. 112.

[12] This is not necessarily an exhaustive list of firms that produce strontium chromate. Petition, pp. 5–6; Chongquing Jiangnan Chemical Co., Ltd., "Pigments—Anti-corrosive pigments," http://www.cjchem.com/Products/Pigments/Anticorrosivepigments/tabid/99/Default.aspx, retrieved August 22, 2019; Sambo Chemical Company, "Strontium Chromate," www.sambofine.co.kr/new.htm, retrieved August 22, 2019; Kikuchi Color and Chemicals Corporation, "Strontium Chromate," https://kikuchicolor.lookchem.com/products/CasNo-7789-06-2-Strontium-chromate-1650313.html, retrieved August 22, 2019; Pigment Sanayii AS, "Anticorrosives," https://www.pigment.com.tr/anticorrosives.htm, retrieved August 22, 2019; Raveshia Colours PVT. Ltd, "Strontium Chromate Technical Data Sheet," January 1, 2013; Wietlisbach et al, "Chromium Compounds, Inorganic," February 2019, pp. 136 and 180.

[13] Conference transcript (Esselin) p. 56.

[14] Statistics for other countries and regions not available. Including pigments beyond strontium chromate. Wietlisbach et al, "Chromium Compounds, Inorganic," February 2019, pp. 43, 72, 84, 97, 118, and 141.

[15] HTS statistical reporting numbers 2841.50.9100 and 3212.90.0050 are believed to include virtually all strontium chromate in powder form. However, Global Trade Atlas data are only available at the HTS 6-digit level (subheadings 2841.50 and 3212.90). This data includes out of scope products, so the data are not exclusively strontium chromate.

[16] Hearing transcript, p. 40 (St. John).

Table VII-11
Strontium chromate: Global exports by exporter under HS 2841.50, 2016–18

Exporter	Calendar Year		
	2016	2017	2018
	Quantity (1,000 dry pounds)		
United States	689	5,260	5,233
Austria	3,674	4,521	4,465
France	405	289	254
Kazakhstan	1,989	1,832	2,112
Russia	1,596	1,766	1,908
China	2,019	2,217	1,859
South Korea	1,843	1,705	1,411
India	989	1,218	1,283
Japan	407	647	1,101
Chile	1,129	935	960
Taiwan	86	86	94
Lithuania	63	157	91
All other exporters	614	3,809	413
Total	15,502	24,442	21,184
	Value (1,000 dollars)		
United States	2,028	5,141	4,080
Austria	5,775	6,992	6,990
France	750	661	558
Kazakhstan	1,242	1,536	1,986
Russia	3,737	8,579	8,928
China	2,297	2,411	2,230
South Korea	2,675	2,656	2,346
India	1,251	1,520	1,515
Japan	991	1,395	1,924
Chile	1,828	1,515	1,556
Taiwan	199	227	256
Lithuania	155	546	210
All other exporters	2,482	2,710	2,374
Total	25,411	35,888	34,952
	Unit value (dollars per dry pound)		
United States	2.94	0.98	0.78
Austria	1.57	1.55	1.57
France	1.85	2.29	2.20
Kazakhstan	0.62	0.84	0.94
Russia	2.34	4.86	4.68
China	1.14	1.09	1.20
South Korea	1.45	1.56	1.66
India	1.27	1.25	1.18
Japan	2.44	2.16	1.75
Chile	1.62	1.62	1.62
Taiwan	2.32	2.64	2.71
Lithuania	2.45	3.47	2.31
All other exporters	4.04	0.71	5.75
Total	1.64	1.47	1.65

Table continued on next page.

Table VII-11 – Continued
Strontium chromate: Global exports by exporter under HS 2841.50, 2016–18

Exporter	Calendar Year		
	2016	2017	2018
	Share of quantity (percent)		
United States	4.4	21.5	24.7
Austria	23.7	18.5	21.1
France	2.6	1.2	1.2
Kazakhstan	12.8	7.5	10.0
Russia	10.3	7.2	9.0
China	13.0	9.1	8.8
South Korea	11.9	7.0	6.7
India	6.4	5.0	6.1
Japan	2.6	2.6	5.2
Chile	7.3	3.8	4.5
Taiwan	0.6	0.4	0.4
Lithuania	0.4	0.6	0.4
All other exporters	4.0	15.6	1.9
Total	100.0	100.0	100.0

Source: Official exports statistics under HS subheading 2841.50, as reported by various national statistical authorities in the Global Trade Atlas database, accessed July 18, 2019. For Austria**,** mirror data based on official import statistics under HS subheading 2841.50, as reported by Eurostat in the Global Trade Atlas database, accessed September 11, 2019.

Note: Shares and ratios shown as “0.0” represent values greater than zero, but less that “0.05” percent.

APPENDIX A

FEDERAL REGISTER NOTICES

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

Citation	Title	Link
83 FR 46189, September 12, 2018	*Strontium Chromate From Austria and France; Institution of Anti-Dumping Duty Investigations and Scheduling of Preliminary Phase Investigations*	https://www.federalregister.gov/documents/2018/09/12/2018-19790/strontium-chromate-from-austria-and-france-institution-of-anti-dumping-duty-investigations-and
83 FR 49543, October 2, 2018	*Strontium Chromate From Austria and France: Initiation of Less-Than-Fair Value Investigations*	https://www.federalregister.gov/documents/2018/10/02/2018-21406/strontium-chromate-from-austria-and-france-initiation-of-less-than-fair-value-investigations
83 FR 54139, October 26, 2018	*Strontium Chromate from Austria and France*	https://www.federalregister.gov/documents/2018/10/26/2018-23490/strontium-chromate-from-austria-and-france
84 FR 8669, March 11, 2019	*Strontium Chromate From Austria and France: Postponement of Preliminary Determinations in the Less-Than-Fair-Value Investigations*	https://www.federalregister.gov/documents/2019/03/11/2019-04280/strontium-chromate-from-austria-and-france-postponement-of-preliminary-determinations-in-the
84 FR 22438, May 17, 2019	*Strontium Chromate From France: Preliminary Affirmative Determination of Sales at Less-Than-Fair Value, Preliminary Negative Determination of Critical Circumstances, Postponement of Final Determination, and Extension of Provisional Measures*	https://www.federalregister.gov/documents/2019/05/17/2019-10282/strontium-chromate-from-france-preliminary-affirmative-determination-of-sales-at-less-than-fair
84 FR 22443, May 17, 2019	*Strontium Chromate From Austria: Preliminary Determination of Sales at Not Less-Than-Fair Value and Postponement of Final Determination*	https://www.federalregister.gov/documents/2019/05/17/2019-10283/strontium-chromate-from-austria-preliminary-determination-of-sales-at-not-less-than-fair-value-and

Citation	Title	Link
84 FR 28069, June 17, 2019	*Strontium Chromate From Austria and France; Scheduling of the Final Phase of Anti-Dumping Duty Investigations*	https://www.federalregister.gov/documents/2019/06/17/2019-12757/strontium-chromate-from-austria-and-france-scheduling-of-the-final-phase-of-anti-dumping-duty
84 FR 28272, June 18, 2019	*Strontium Chromate from Austria: Amended Preliminary Determination of Sales at Less Than Fair Value*	https://www.federalregister.gov/documents/2019/06/18/2019-12840/strontium-chromate-from-austria-amended-preliminary-determination-of-sales-at-less-than-fair-value
84 FR 53676, October 8, 2019	*Strontium Chromate From Austria: Final Affirmative Determination of Sales at Less Than Fair Value*	https://www.federalregister.gov/documents/2019/10/08/2019-21808/strontium-chromate-from-austria-final-affirmative-determination-of-sales-at-less-than-fair-value
84 FR 53678, October 8, 2019	*Strontium Chromate From France: Final Affirmative Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances*	https://www.federalregister.gov/documents/2019/10/08/2019-21807/strontium-chromate-from-france-final-affirmative-determination-of-sales-at-less-than-fair-value-and

APPENDIX B

LIST OF HEARING WITNESSES

CALENDAR OF PUBLIC HEARING

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

Subject: Strontium Chromate from Austria and France

Inv. Nos.: 731-TA-1422 and 1423 (Final)

Date and Time: October 3, 2019 - 9:30 a.m.

A session was held in connection with these investigations in the Main Hearing Room (Room 101), 500 E Street, SW., Washington, DC.

OPENING REMARKS:

Petitioner (**Jeffrey S. Neeley**, Husch Blackwell, LLP)

In Support of the Imposition of Antidumping Duty Orders:

Husch Blackwell, LLP
Washington, DC
on behalf of

WPC Technologies

Brent St. John, Chairman and Chief Executive Officer,
WPC Technologies

Laura Klein, Sales Director, WPC Technologies

Gary Krall, Consultant, WPC Technologies, Retired
Chief Financial Officer, WPC Technologies

Sam Rumfola, Chief Executive Officer, TCR Industries

Kevin Downing, Senior Account Executive, Peninsula Polymers

Jeffrey S. Neeley)
) – OF COUNSEL
Stephen W. Brophy)

CLOSING REMARKS:

Petitioner (**Jeffrey S. Neeley**, Husch Blackwell, LLP

-END-

APPENDIX C

SUMMARY DATA

Table C-1
Strontium chromate: Summary data concerning the U.S. market, 2016-18, January to June 2018, and January to June 2019
(Quantity=1,000 dry pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per dry pound; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. consumption quantity:									
Amount	***	***	***	***	***	▲***	▼***	▲***	▼***
Producers' share (fn1)	***	***	***	***	***	▼***	▼***	▲***	▲***
Importers' share (fn1):									
Austria	***	***	***	***	***	▲***	▲***	▲***	▼***
France	***	***	***	***	***	▼***	▼***	▼***	▼***
Subject sources	***	***	***	***	***	▲***	▲***	▼***	▼***
Nonsubject sources	***	***	***	***	***	▼***	▼***	***	***
All import sources	***	***	***	***	***	▲***	▲***	▼***	▼***
U.S. consumption value:									
Amount	***	***	***	***	***	▼***	▼***	▲***	▼***
Producers' share (fn1)	***	***	***	***	***	▼***	▼***	▼***	▲***
Importers' share (fn1):									
Austria	***	***	***	***	***	▲***	▲***	▼***	▼***
France	***	***	***	***	***	▼***	▼***	▲***	▼***
Subject sources	***	***	***	***	***	▲***	▲***	▲***	▼***
Nonsubject sources	***	***	***	***	***	▼***	▼***	***	***
All import sources	***	***	***	***	***	▲***	▲***	▲***	▼***
U.S. shipments of imports from:									
Austria:									
Quantity	***	***	***	***	***	▲***	▲***	▲***	▼***
Value	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit value	***	***	***	***	***	▼***	▼***	▼***	▲***
Ending inventory quantity	***	***	***	***	***	▼***	▲***	▼***	▲***
France									
Quantity	***	***	***	***	***	▼***	▼***	▲***	▼***
Value	***	***	***	***	***	▼***	▼***	▲***	▼***
Unit value	***	***	***	***	***	▼***	▼***	▲***	▼***
Ending inventory quantity	***	***	***	***	***	▲***	▼***	▲***	▲***
Subject sources:									
Quantity	***	***	***	***	***	▲***	▲***	▲***	▼***
Value	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit value	***	***	***	***	***	▼***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	***	***	▼***	▼***	▲***	▲***
Nonsubject sources:									
Quantity	***	***	***	***	***	▼***	▼***	***	***
Value	***	***	***	***	***	▼***	▼***	***	***
Unit value	***	***	***	***	***	▼***	▼***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***
All import sources:									
Quantity	***	***	***	***	***	▲***	▲***	▲***	▼***
Value	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit value	***	***	***	***	***	▼***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	***	***	▼***	▼***	▲***	▲***

Table continued.

Table C-1--Continued
Strontium chromate: Summary data concerning the U.S. market, 2016-18, January to June 2018, and January to June 2019
(Quantity=1,000 dry pounds; Value=1,000 dollars; Unit values, unit labor costs, and unit expenses=dollars per dry pound; Period changes=percent--exceptions noted)

	Reported data					Period changes			
	Calendar year			January to June		Comparison years			Jan-Jun
	2016	2017	2018	2018	2019	2016-18	2016-17	2017-18	2018-19
U.S. producers':									
Average capacity quantity	***	***	***	***	***	▲***	▲***	***	***
Production quantity	***	***	***	***	***	▼***	▼***	▲***	▲***
Capacity utilization (fn1)	***	***	***	***	***	▼***	▼***	▲***	▲***
U.S. shipments:									
Quantity	***	***	***	***	***	▼***	▼***	▲***	▲***
Value	***	***	***	***	***	▼***	▼***	▲***	▲***
Unit value	***	***	***	***	***	▼***	▼***	▼***	▼***
Export shipments:									
Quantity	***	***	***	***	***	▲***	▲***	▲***	▼***
Value	***	***	***	***	***	▲***	▲***	▲***	▼***
Unit value	***	***	***	***	***	▼***	▼***	▼***	▼***
Ending inventory quantity	***	***	***	***	***	▲***	▼***	▲***	▲***
Inventories/total shipments (fn1)	***	***	***	***	***	▲***	▲***	▲***	▲***
Production workers	***	***	***	***	***	▲***	▲***	***	▼***
Hours worked (1,000s)	***	***	***	***	***	▼***	▼***	▲***	▼***
Wages paid ($1,000)	***	***	***	***	***	▲***	▼***	▲***	▲***
Hourly wages (dollars per hour)	***	***	***	***	***	▲***	▼***	▲***	▲***
Productivity (dry pounds per hour)	***	***	***	***	***	▼***	▼***	▲***	▲***
Unit labor costs	***	***	***	***	***	▲***	▼***	▲***	▲***
Net sales:									
Quantity	***	***	***	***	***	▼***	▼***	▲***	▲***
Value	***	***	***	***	***	▼***	▼***	▲***	▲***
Unit value	***	***	***	***	***	▼***	▼***	▼***	▼***
Cost of goods sold (COGS)	***	***	***	***	***	▼***	▼***	▲***	▼***
Gross profit or (loss) (fn2)	***	***	***	***	***	▼***	▼***	▼***	▲***
SG&A expenses	***	***	***	***	***	▼***	▼***	▲***	▲***
Operating income or (loss) (fn2)	***	***	***	***	***	▼***	▲***	▼***	▲***
Net income or (loss) (fn2)	***	***	***	***	***	▲***	▲***	▼***	▲***
Capital expenditures	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit COGS	***	***	***	***	***	▼***	▲***	▼***	▼***
Unit SG&A expenses	***	***	***	***	***	▼***	▼***	▼***	▼***
Unit operating income or (loss) (fn2)	***	***	***	***	***	▼***	▼***	▼***	▲***
Unit net income or (loss) (fn2)	***	***	***	***	***	▲***	▲***	▼***	▲***
COGS/sales (fn1)	***	***	***	***	***	▲***	▲***	▲***	▼***
Operating income or (loss)/sales (fn1)	***	***	***	***	***	▼***	▼***	▼***	▲***
Net income or (loss)/sales (fn1)	***	***	***	***	***	▲***	▲***	▼***	▲***

Note.--Shares and ratios shown as "0.0" represent values greater than zero, but less than "0.05" percent. Zeroes, null values, and undefined calculations are suppressed and shown as "---".

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

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

APPENDIX D

PRODUCTION RELATED ACTIVITIES OF WPC'S TOLLER, ***, AND SELECTED DATA REGARDING TOLL PROCESSING

Production-related activities of WPC's toller

WPC contracts with ***, to process strontium chromate powder into a dispersion/paste form. According to WPC, *** takes the pigment produced by WPC, mixes the pigment with solvents, charges a fee for its labor, and returns the containers of dispersed product back to WPC for shipment to customers.

Table D-1 provides the narrative responses WPC's toller, ***, provided in its questionnaire response on the nature and extent of its processing operations under the six factors the Commission generally considers when deciding whether a firm qualifies as a producer of the domestic like product.

Table D-1
Strontium chromate: Tolling/dispersion activities

Item	Narrative
Capital investments	***
Technical expertise	***
Value added	***
Employment	***
Quantity, type, and source of parts	***
Costs and activities	***

[1] ***. Petitioner's postconference brief, p. 8. At staff's request, the toller provided the following additional details on the capital investments made: ***. ***.

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

Value added by ***

In general, the Commission calculates "value added" by determining the share of conversion costs (i.e., direct labor and other factory costs) to total COGS. Based on the information reported to the Commission, value added calculated for *** was estimated to be *** percent in 2018.[1]

Select data regarding *** toll operations

Tables D-2 and D-3 provide selected industry data and employment related data for ***, respectively. Table D-4 provides select combined employment data for WPC and ***.

Table D-2
Strontium chromate: Industry data for *, 2016-18, January-June 2018, and January-June 2019**

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
Capacity	***	***	***	***	***
Production	***	***	***	***	***
U.S. shipments: Returned to tollee (Quantity)	***	***	***	***	***
Returned to tollee (Value)	***	***	***	***	***
Returned to tollee (Unit value)	***	***	***	***	***
	Ratio (percent)				
Capacity utilization	***	***	***	***	***

Note: ***.

Source: Compiled from data submitted in response to Commission questionnaires and from data provided in the staff verification report.

[1] Since *** is a toll producer, it does not have the raw material cost of strontium chromate powder recorded in its records at fair market value. For purposes of a value-added calculation, this cost has been estimated based on WPC's average unit value of strontium chromate powder shipments in 2018 ($***) and the quantity of toll-produced strontium chromate dispersion in 2018 reported by ***. The estimated cost of the strontium chromate powder was added to *** reported COGS to form the denominator in the value-added calculation.

Table D-3
Strontium chromate: *'s employment related data, 2016-18, January-June 2018, and January-June 2019**

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***
PRW average wages (dollars per hour)	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***
Unit labor costs (dollars per pound)	***	***	***	***	***
Hours worked per PRW (hours)	***	***	***	***	***

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

Table D-4
Strontium chromate: Combined U.S. producer/toller employment related data, 2016-18, January-June 2018, and January-June 2019

Item	Calendar year			January to June	
	2016	2017	2018	2018	2019
Production and related workers (PRWs) (number)	***	***	***	***	***
Total hours worked (1,000 hours)	***	***	***	***	***
Wages paid ($1,000)	***	***	***	***	***
PRW average wages (dollars per hour)	***	***	***	***	***

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

Table D-5 presents data on *** operations in relation to strontium chromate, while table D-6 presents the combined financial data for WPC and ***. Table D-7 presents data on *** total assets and its operating return on assets, while table D-8 presents *** capital expenditure and research and development expenses.

Table D-5
Strontium chromate: * results of operations, 2016-18, January-June 2018, and January-June 2019**

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
Net tolling quantities	***	***	***	***	***
	Value ($1,000)				
Net tolling revenues	***	***	***	***	***
Cost of goods sold:-- Additional raw materials	***	***	***	***	***
Direct labor cost	***	***	***	***	***
Other factory costs	***	***	***	***	***
Total COGS	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***
Interest expense	***	***	***	***	***
All other expenses	***	***	***	***	***
All other income	***	***	***	***	***
Other expense / (income), net	***	***	***	***	***
Net income or (loss)	***	***	***	***	***
Depreciation/ amortization	***	***	***	***	***
Cash flow	***	***	***	***	***
	Ratio to net tolling revenue (percent)				
Cost of goods sold.-- Additional raw materials	***	***	***	***	***
Direct labor cost	***	***	***	***	***
Other factory costs	***	***	***	***	***
Total COGS	***	***	***	***	***
Gross profit (loss) margin	***	***	***	***	***
Net profit (loss) margin	***	***	***	***	***
	Ratio to total COGS (percent)				
Cost of goods sold.-- Additional raw materials	***	***	***	***	***
Direct labor cost	***	***	***	***	***
Other factory costs	***	***	***	***	***
	Unit value (dollars per dry pound)				
Net tolling revenues	***	***	***	***	***
Cost of goods sold.-- Additional raw materials	***	***	***	***	***
Direct labor cost	***	***	***	***	***
Other factory costs	***	***	***	***	***
Total COGS	***	***	***	***	***
Gross profit (loss) margin	***	***	***	***	***
Net profit (loss) margin	***	***	***	***	***

Note: As discussed in the note to table D-2, ***.

Source: Compiled from data submitted in response to Commission questionnaires and from data provided in the staff verification report.

Table D-6
Strontium chromate: Combined U.S. producer/toller results of operations, 2016-18, January-June 2018, and January-June 2019

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Quantity (1,000 dry pounds)				
Net sales quantity (WPC only)	***	***	***	***	***
	Value ($1,000)				
Net sales value (WPC only)	***	***	***	***	***
Gross profit or loss, combined	***	***	***	***	***
Average unit value	***	***	***	***	***
Margin (percent of net sales)	***	***	***	***	***
Operating profit or (loss), combined	***	***	***	***	***
Average unit value	***	***	***	***	***
Margin (percent of net sales)	***	***	***	***	***
Net profit or (loss), combined	***	***	***	***	***
Average unit value	***	***	***	***	***
Margin (percent of net sales)	***	***	***	***	***

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

Table D-7
Strontium chromate: * total assets and return on assets, 2016-18**

Item	Fiscal year		
	2016	2017	2018
Net assets ($1,000 dollars)	***	***	***
Operating ROA (percent)	***	***	***

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

Table D-8
Strontium chromate: * capital expenditures and research and development expenses, 2016-18, January-June 2018, and January-June 2019**

Item	Fiscal year			January to June	
	2016	2017	2018	2018	2019
	Value (1,000 dollars)				
Capital expenditures	***	***	***	***	***
Research and development expenses	***	***	***	***	***

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

APPENDIX E

HISTORICAL U.S. SHIPMENTS AND IMPORTS, 2012-15

U.S. producer's historical U.S. shipments

WPC's facility was shut down from July 2015 to March 2016, so U.S. shipment data from that period represent only partial year production. Table E-1 presents WPC's historical U.S. shipment data from 2012 to 2015. WPC's U.S. shipments increased in quantity between 2012 and 2013 by *** percent, then decreased between 2013 and 2014 by *** percent. In 2015, shipments decreased an additional *** percent.

Table E-1

Strontium chromate: U.S. producer's historical U.S. shipments, 2012-15

Item	Calendar year			
	2012	2013	2014	2015
U.S shipments:				
Quantity	***	***	***	***
Unit Value	***	***	***	***

Source: Compiled from data submitted in response to Commission questionnaires in preliminary phase of these investigations.

Table E-2 presents historical shipments of strontium chromate for WPC and U.S. imports by importers. From 2012 to 2015, these shipments of strontium chromate decreased by *** percent. As these shipments decreased, the share accounted for by shipments of imports from subject sources increased by *** percentage points. The share of Austrian imports increased by *** percentage points, to *** percent in 2015, while the share of French imports increased by *** percentage points, to *** percent.

Table E-2

Strontium chromate: U.S. producer's and importers' historical U.S. shipments and imports, 2012-15

Item	Reported data			
	Calendar year			
	2012	2013	2014	2015
Calculated U.S. quantity:				
Amount	***	***	***	***
Producers' share (fn1)	***	***	***	***
Importers' share (fn1):				
Austria	***	***	***	***
France	***	***	***	***
Subject sources	***	***	***	***
Calculate U.S. value:				
Amount	***	***	***	***
Producers' share (fn1)	***	***	***	***
Importers' share (fn1):				
Austria	***	***	***	***
France	***	***	***	***
Subject sources	***	***	***	***
U.S. imports from:				
Austria:				
Quantity	968	1,230	1,704	1,525
Value	1,700	2,359	3,084	2,732
Unit value	$1.76	$1.92	$1.81	$1.79
France				
Quantity	12	13	13	93
Value	25	27	28	253
Unit value	$2.02	$2.04	$2.08	$2.71
Subject sources:				
Quantity	980	1,244	1,717	1,618
Value	1.725	2,386	3,111	2,984
Unit value	$1.76	$1.92	$1.81	$1.84
U.S. producers':				
U.S. shipments:				
Quantity	***	***	***	***
Value	***	***	***	***
Unit value	***	***	***	***

Note.—The data in this table differ in several ways from those summarized in table C-1. Data for strontium chromate from Austria and France presented above are based on imports drawn from official U.S. import statistics, rather than U.S. shipments of imports drawn from questionnaires. In addition, the data presented above do not include any imports of dispersions or any imports of strontium chromate in any form from nonsubject sources.

Source: Compiled from data submitted in response to Commission questionnaires in the preliminary phase of these investigations and from official statistics of the U.S. Department of Commerce, using HTS number 2841.50.9100, accessed October 9, 2019.