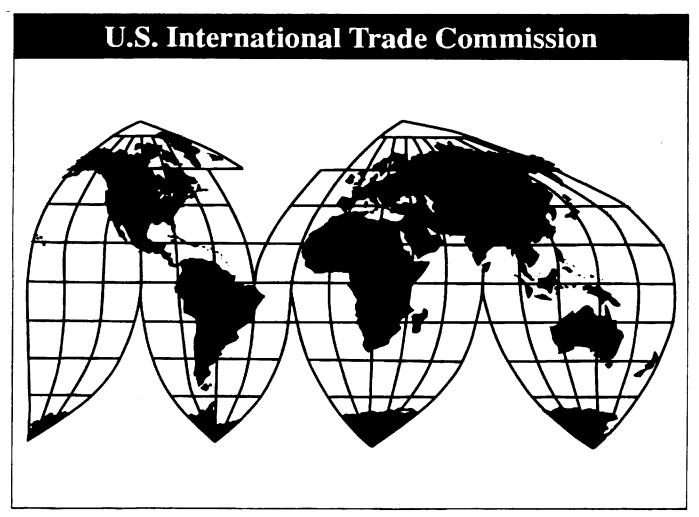
# Superalloy Degassed Chromium From Japan

Investigation No. 731-TA-1090 (Final)

**Publication 3825** 

December 2005



Washington, DC 20436

# **U.S. International Trade Commission**

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# **U.S. International Trade Commission**

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.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

#### UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-1090 (Final)

# SUPERALLOY DEGASSED CHROMIUM FROM JAPAN

# **DETERMINATION**

On the basis of the record¹ developed in the subject investigation, the United States International Trade Commission (Commission) determines, pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act), that an industry in the United States is materially injured by reason of imports from Japan of superalloy degassed chromium, provided for in subheading 8112.21.00 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce (Commerce) to be sold in the United States at less than fair value (LTFV).

#### **BACKGROUND**

The Commission instituted this investigation effective March 4, 2005, following receipt of a petition filed with the Commission and Commerce by Eramet Marietta Inc., Marietta, OH, and the Paper, Allied-Industrial, Chemical and Energy Workers International Union, Local 5-0639, Belpre, OH. The final phase of the investigation was scheduled by the Commission following notification of a preliminary determination by Commerce that imports of superalloy degassed chromium from Japan were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigation 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 September 7, 2005 (70 FR 53252). The hearing was held in Washington, DC, on November 3, 2005, and all persons who requested the opportunity were permitted to appear in person or by counsel.

<sup>&</sup>lt;sup>1</sup> The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(f)).

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#### VIEWS OF THE COMMISSION

Based on the record in this investigation, we find that an industry in the United States is materially injured by reason of imports of superalloy degassed chromium ("SD chromium") from Japan found to be sold in the United States at less than fair value ("LTFV").

#### I. BACKGROUND

The petition in this investigation was filed by Eramet Marietta Inc. ("Eramet"), the sole domestic producer of SD chromium, and the Paper, Allied-Industrial, Chemical and Energy Workers International Union, Local 5-0639, which represents the workers at Eramet's production facility (together, "petitioners"). No respondent interested party has entered an appearance or provided any argument in this final phase investigation. However, JFE Material Co., Ltd., the only subject foreign producer, submitted a foreign producer's questionnaire response in the preliminary phase investigation, and Mitsui & Co. (U.S.A.), Inc., the only known importer of subject merchandise, submitted an importer's questionnaire response in both the preliminary and final phase investigations.

SD chromium is a type of high-purity chromium sold in pellet form that is used predominantly to produce superalloys for casting into jet engine and gas-turbine parts.<sup>3</sup> SD chromium contains at least 99.5 percent, but less than 99.95 percent, chromium and low levels of critical impurities, including nitrogen, sulfur, oxygen, aluminum, silicon, and iron.<sup>4</sup> SD chromium is produced in a two-stage process, first entailing the production of chrome metal and then the refining of the metal in a vacuum degassing furnace.<sup>5</sup> Chrome metal is extracted from either high carbon ferrochromium or chromic oxide in one of three ways: Eramet utilizes an electrolytic process; subject Japanese producer JFE uses a silicothermic process; and non-subject French producer Delachaux uses an aluminothermic process.<sup>6</sup> All three producers utilize a similar vacuum degassing process to refine chrome metal into SD chromium through the removal of critical impurities.<sup>7</sup> This low level of impurities is what makes SD chromium necessary for the production of certain high-end superalloys, which are cast into jet engine and power-generation gas-turbine parts subjected to great heat and physical stress.<sup>8</sup> Chromium imparts heat- and stress-resistance to these components, and impurities in the metal would compromise their structural integrity.<sup>9</sup>

# II. DOMESTIC LIKE PRODUCT AND INDUSTRY

#### 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 the subject merchandise, the Commission first defines the

<sup>&</sup>lt;sup>1</sup> Eramet reported that \*\*\* also produces SD chromium, \*\*\*. CR at I-7 n.12; PR at I-6 n.12.

<sup>&</sup>lt;sup>2</sup> Confidential Staff Report (INV-CC-198) ("CR") at I-2 and Public Staff Report ("PR") at I-1.

<sup>&</sup>lt;sup>3</sup> CR at I-8-9; PR at I-6.

<sup>&</sup>lt;sup>4</sup> CR at I-1 n.1; PR at I-1 n.1; CR/PR at Table I-2.

<sup>&</sup>lt;sup>5</sup> See CR at I-5 to I-7; PR at I-5-6.

<sup>&</sup>lt;sup>6</sup> See CR at I-1, I-7-8; PR at I-1, I-4.

<sup>&</sup>lt;sup>7</sup> CR at I-7: PR at I-5.

<sup>&</sup>lt;sup>8</sup> CR at I-4 & n.6; PR at I-3 & n.6.

<sup>&</sup>lt;sup>9</sup> CR at I-4, I-8-9; PR at I-3, I-6-7; see also Petition at 6-7.

"domestic like product" and the "industry." Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Act"), defines the relevant domestic industry as the "producers as a [w]hole 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." In turn, the 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 . . . ." 12

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis. No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation. The Commission looks for clear dividing lines among possible like products and disregards minor variations. Although the Commission must accept the determination of the Department of Commerce ("Commerce") as to the scope of the imported merchandise allegedly sold at LTFV, the Commission determines what domestic product is like the imported articles Commerce has identified. The Commission must base its domestic like product determination on the record in the investigation before it. The Commission is not bound by prior determinations, even those pertaining to the same imported products, but may draw upon previous determinations in addressing pertinent like product issues. The commission is not bound by prior determinations in addressing pertinent like product issues.

# B. Product Description

In its final determination, Commerce defined the imported merchandise within the scope of the investigation as follows:

<sup>&</sup>lt;sup>10</sup> 19 U.S.C. § 1677(4)(A).

<sup>11 19</sup> U.S.C. § 1677(4)(A).

<sup>12 19</sup> U.S.C. § 1677(10).

<sup>&</sup>lt;sup>13</sup> See, e.g., 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: (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).

<sup>&</sup>lt;sup>14</sup> See, e.g., S. Rep. No. 96-249 at 90-91 (1979).

<sup>&</sup>lt;sup>15</sup> Nippon Steel, 19 CIT at 455; Torrington, 747 F. Supp. at 748-49. See also S. Rep. No. 96-249 at 90-91 (1979) (Congress has indicated that the like product standard should not be interpreted in "such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not 'like' each other, nor should the definition of 'like product' be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.").

<sup>&</sup>lt;sup>16</sup> <u>Hosiden Corp. v. Advanced Display Mfrs.</u>, 85 F.3d 1561, 1568 (Fed. Cir. 1996) (Commission may find single like product corresponding to several different classes or kinds defined by Commerce); <u>Torrington</u>, 747 F. Supp. at 748-752 (affirming Commission determination of six like products in investigations where Commerce found five classes or kinds).

<sup>&</sup>lt;sup>17</sup> <u>See Acciai Speciali Terni S.p.A. v. United States</u>, 118 F.Supp.2d 1298, 1304-05 (Ct. Int'l Trade 2000); <u>Nippon Steel Corp. v. United States</u>, 19 CIT 450, 455 (1995); <u>Asociacion Colombiana de Exportadores de Flores v. United States</u>, 693 F.Supp. 1165, 1169 n.5 (Ct. Int'l Trade 1998) (particularly addressing like product determination); Citrosuco Paulista, S.A. v. United States, 704 F.Supp. 1075, 1087-88 (Ct. Int'l. Trade 1988).

The product covered by this investigation is all forms, sizes, and grades of superalloy degassed chromium from Japan. Superalloy degassed chromium is a high-purity form of chrome metal that generally contains at least 99.5 percent, but less than 99.95 percent, chromium. Superalloy degassed chromium contains very low levels of certain gaseous elements and other impurities (typically no more than 0.005 percent nitrogen, 0.005 percent sulphur, 0.05 percent oxygen, 0.01 percent aluminum, 0.05 percent silicon, and 0.35 percent iron). Superalloy degassed chromium is generally sold in briquetted form, as "pellets" or "compacts," which typically are 1½ inches x 1 inch x 1 inch or smaller in size and have a smooth surface. Superalloy degassed chromium is currently classifiable under subheading 8112.21.00 of the Harmonized Tariff Schedule of the United States (HTSUS). This investigation covers all chromium meeting the above specifications for superalloy degassed chromium regardless of tariff classification.<sup>18</sup>

Commerce expressly excluded from the scope electronics-grade chromium and vacuum melt-grade chromium ("VMG chromium"), as follows:

Certain higher-purity and lower-purity chromium products are excluded from the scope of this investigation. Specifically, the investigation does not cover electronics-grade chromium, which contains a higher percentage of chromium (typically not less than 99.95 percent), a much lower level of iron (less than 0.05 percent), and lower levels of other impurities than superalloy degassed chromium. The investigation also does not cover "vacuum melt grade" (VMG) chromium, which normally contains at least 99.4 percent chromium and contains a higher level of one or more impurities (nitrogen, sulfur, oxygen, aluminum and/or silicon) than specified above for superalloy degassed chromium.<sup>19</sup>

#### C. Domestic Like Product

Petitioners argue that the new evidence collected by the Commission in this final phase investigation confirms the Commission's determination in the preliminary phase investigation to define the domestic like product to encompass only SD chromium, coextensive with the scope of the investigation defined by Commerce.<sup>20</sup> They claim that domestically produced SD chromium, but not VMG chromium, is like subject imported SD chromium.<sup>21</sup> No argument for expanding the like product to include VMG chromium was presented to the Commission.

The more developed record of this final phase investigation supports our determination in the preliminary phase investigation not to expand the domestic like product definition beyond the scope. New evidence collected in the final phase investigation confirms that VMG chromium's distinguishing physical characteristics, particularly its higher levels of critical impurities, make it unlike SD chromium, particularly in terms of physical characteristics and end uses, customer and producer perceptions, interchangeability, and price.<sup>22</sup> We therefore define the domestic like product as SD chromium, coextensive with the scope.

<sup>&</sup>lt;sup>18</sup> Notice of Final Determination of Sales at Less Than Fair Value: Superalloy Degassed Chromium from Japan, Case No. A-588-866, 70 Fed. Reg. 65886 (Nov. 1, 2005).

<sup>&</sup>lt;sup>19</sup> Notice of Final Determination of Sales at Less Than Fair Value: Superalloy Degassed Chromium from Japan, 70 Fed. Reg. at 65886.

<sup>&</sup>lt;sup>20</sup> See Prehearing Brief at 4, 13-19; Posthearing Brief at 2-5.

<sup>&</sup>lt;sup>21</sup> See Prehearing Brief at 4-8.

<sup>&</sup>lt;sup>22</sup> <u>See</u> CR at I-4 n.6, I-8-12 & nn. 25, 27, II-5 n.8; PR at I-3 n.6, I-6-8 & nn. 25, 27, II-3 n.8; <u>see also Hearing Tr.</u> at 15 (Noland), 23 (Vorberger), 48-49 (Noland), 82 (Vorberger).

# D. Domestic Industry

The domestic industry is defined as the "producers as a [w]hole 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." In defining the domestic industry, the Commission's general practice has been to include in the industry all domestic production of the domestic like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.<sup>24</sup>

Based on our finding that the domestic like product is SD chromium, coextensive with the scope of the investigation, we find that the domestic industry consists of the sole domestic producer of SD chromium, Eramet.<sup>25</sup>

# III. MATERIAL INJURY BY REASON OF THE SUBJECT IMPORTS<sup>26</sup>

#### A. General Legal Standards

In the final phase of antidumping or countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured by reason of the imports under investigation.<sup>27</sup> 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.<sup>28</sup> The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."<sup>29</sup> 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.<sup>30</sup> 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."<sup>31</sup>

For the reasons stated below, we determine that the domestic industry producing SD chromium is materially injured by reason of subject imports of chromium from Japan.

# B. Conditions of Competition

Several conditions of competition inform our analysis of whether the domestic industry is materially injured by reason of subject imports from Japan.

<sup>&</sup>lt;sup>23</sup> 19 U.S.C. § 1677(4)(A).

<sup>&</sup>lt;sup>24</sup> See United States Steel Group v. United States, 873 F. Supp. 673, 681-84 (Ct. Int'l Trade 1994), aff'd, 96 F.3d 1352 (Fed. Cir. 1996).

<sup>&</sup>lt;sup>25</sup> There are no known related parties in this investigation. CR at IV-1; PR at IV-1.

<sup>&</sup>lt;sup>26</sup> 19 U.S.C. § 1677(24)(A)(i)(I). In this investigation, subject imports accounted for more than 3 percent of the volume of superalloy degassed chromium imported into the United States from all sources in the most recent 12-month period for which data are available preceding the filing of the petition. CR at Table IV-1. As such, we find that subject imports are not negligible under 19 U.S.C. § 1677(24).

<sup>&</sup>lt;sup>27</sup> 19 U.S.C. §§ 1671b(a) and 1673b(a).

<sup>&</sup>lt;sup>28</sup> 19 U.S.C. § 1677(7)(B)(i). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each such factor . . . [a]nd explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B). See also Angus Chemical Co. v. United States, 140 F.3d 1478 (Fed. Cir. 1998).

<sup>&</sup>lt;sup>29</sup> 19 U.S.C. § 1677(7)(A).

<sup>30 19</sup> U.S.C. § 1677(7)(C)(iii).

<sup>31 19</sup> U.S.C. § 1677(7)(C)(iii).

#### 1. Demand Conditions

Domestic demand for SD chromium is derived primarily from the aerospace and power-generation industries and hence closely tracks jet engine and industrial gas-turbine production.<sup>32</sup> U.S. apparent consumption of SD chromium plummeted \*\*\* percent between 2001 and 2002<sup>33</sup> in the wake of the September 11, 2001 terrorist attacks in the United States and the decline in gas-turbine demand after Enron's collapse,<sup>34</sup> declined another \*\*\* percent between 2002 and 2003, and recovered to near 2002 levels in 2004.<sup>35</sup> The demand recovery for SD chromium accelerated in the first half of 2005, with U.S. apparent consumption increasing \*\*\* percent over the first half of 2004.<sup>36</sup>

# a. <u>Aerospace Demand Collapsed After the September 11, 2001 Terrorist</u> Attacks

Petitioners estimate that approximately 70 percent of SD chromium is consumed in the production of superalloys for casting into turbine blades for aircraft jet engines.<sup>37</sup> Consumption for this end use declined "dramatically" between 2001 and 2002, as commercial aircraft orders evaporated with reduced air travel and airline financial difficulties after the September 11, 2001 terrorist attacks in the United States.<sup>38</sup> According to petitioners, SD chromium consumption for this end use began to recover in 2004,<sup>39</sup> and strong demand for jet aircraft accounted for most of the increased demand for SD chromium in the first half of 2005.<sup>40</sup> They opine that the next generation of passenger aircraft, including the Boeing 787 and the Airbus A350, will utilize more superalloys containing SD chromium to reduce weight and enhance fuel efficiency.<sup>41</sup> At the hearing, one witness for petitioners cited a GE forecast of strong jet engine demand over the next several years.<sup>42</sup>

b. <u>Demand in the Power-Generation Market Collapsed After 2001, but</u>
<u>May Be Poised for Robust Growth Due to Innovations in Gas-Turbine Technology</u>

SD chromium demand in the power-generation market, representing approximately 25 percent of domestic consumption according to petitioners, <sup>43</sup> was abnormally strong through most of 2001, as

<sup>&</sup>lt;sup>32</sup> See CR at I-4, II-3-4; PR at I-3, II-2-3.

<sup>&</sup>lt;sup>33</sup> Preliminary Phase Confidential Staff Report (INV-CC-047) ("PCR")/ Preliminary Phase Public Staff Report ("PPR") at Table IV-2. <u>See also CR at II-3 n.6; PR at II-2 n.6; CR/PR at Table IV-2.</u>

<sup>&</sup>lt;sup>34</sup> CR at II-3; PR at II-2.

<sup>35</sup> CR/PR at Table IV-2.

<sup>&</sup>lt;sup>36</sup> CR/PR at Table IV-2.

<sup>&</sup>lt;sup>37</sup> PCR at II-1, 3; PPR at II-1, 3.

<sup>&</sup>lt;sup>38</sup> See Prehearing Brief at 31-32; Hearing Tr. at 25 (Vorberger); see also CR at II-3; PR at II-2.

<sup>&</sup>lt;sup>39</sup> Posthearing Brief at 12; Hearing Tr. at 8 (Kramer), 32 (Vorberger), 34-35 (Button); see also CR at II-3-4; PR at II-2-3.

<sup>&</sup>lt;sup>40</sup> Hearing Tr. at 70 (Vorberger).

<sup>&</sup>lt;sup>41</sup> Responses to Commissioner Questions at 18-19.

<sup>&</sup>lt;sup>42</sup> Hearing Tr. at 102 (Vorberger).

<sup>&</sup>lt;sup>43</sup> PCR at II-4; PPR at II-3.

high electricity prices caused overinvestment in electricity-generation capacity.<sup>44</sup> After the "speculative bubble" burst in 2001, electricity prices returned to normal, and excess electricity-generation capacity curtailed demand for new power plants, and, by extension, demand for superalloys containing SD chromium for casting into gas-turbine blades.<sup>45</sup>

Petitioners state that demand for SD chromium from power-generation equipment manufacturers recovered in 2004<sup>46</sup> and may be poised for stronger growth in the immediate future due to increased demand for electrical power, particularly in developing countries, and recent developments in gas-turbine technology.<sup>47</sup> Turbine manufacturers have harnessed jet engine technology to design a new generation of high-efficiency gas turbines capable of operating at higher temperatures, necessitating turbine blades cast from superalloys containing SD chromium.<sup>48</sup> According to a witness for petitioners at the staff conference in the preliminary phase investigation, growing demand for high-efficiency natural gas turbines could have a "big impact on the demand for SD chromium in the future."<sup>49</sup>

# c. The Substitution of VMG Chromium and Other Chromium Products for SD chromium

Petitioners admit that protracted weakness in the commercial aircraft and power-generation equipment markets "caused a one-time permanent loss of a relatively small portion of demand for SD chromium at the low end." "In the face of strong cost pressures," they opine, "some customers began to look for lower-cost substitute products whose specifications met – but did not exceed – the actual application requirements," whereas the "customers previously had been using SD chromium for some lower-end applications {that} did not absolutely require the very low level of impurities in the superalloy degassed material. . . ." "51

For example, \*\*\* purchased subject imports for its 2002-2003 requirements, but "revised its chromium specifications to accept lower grades of chromium" for 2003-2004, specifically \*\*\*, and "was no longer a customer for the subject merchandise." Two purchasers report having substituted VMG chromium for SD chromium over the period of investigation, with \*\*\* replacing 2 percent of its SD chromium requirements and \*\*\* replacing 10 percent of its SD chromium requirements. 53

# d. Concentration of Market

Petitioners claim that there are fewer than 20 purchasers of SD chromium in the U.S. market, dominated by three large "investment casters" (accounting for 70 percent of SD chromium

<sup>&</sup>lt;sup>44</sup> See PCR at IV-2; PPR at IV-2; see also Petition at 35; Petitioners' Postconference Brief at 28.

<sup>&</sup>lt;sup>45</sup> PCR at IV-2; PPR at IV-2; see also Petition at 35; Petitioners' Postconference Brief at 28.

<sup>&</sup>lt;sup>46</sup> Hearing Tr. at 70 (Vorberger); see also Petition at 35.

<sup>&</sup>lt;sup>47</sup> See CR at II-4-5; PR at II-2-3.

<sup>&</sup>lt;sup>48</sup> <u>See</u> Responses to Commissioner Questions at 19; Hearing Tr. at 70, 81-82 (Vorberger); <u>see also</u> Petition at 35-36.

<sup>&</sup>lt;sup>49</sup> Staff Conference Transcript, <u>In the Matter of: Superalloy Degassed Chromium from Japan</u>, Inv. No. 731-TA-1090 (Preliminary) (Mar. 25, 2005) ("Conference Tr.") at 53 (Houser).

<sup>&</sup>lt;sup>50</sup> Prehearing Brief at 32.

<sup>&</sup>lt;sup>51</sup> Prehearing Brief at 32; see also Petition at 20; CR at I-10 (substitution was "minimal").

<sup>&</sup>lt;sup>52</sup> Petition at 50-51.

<sup>&</sup>lt;sup>53</sup> CR at I-10 & n.25; PR at I-7 & n.25.

consumption) that produce superalloys for casting into jet engine and gas-turbine parts.<sup>54</sup> Most SD chromium purchases are made pursuant to annual contracts, with a small volume purchased on the spot market.<sup>55</sup> Given the prevalence of contracts and the small number of SD chromium purchasers, petitioners assert that market share shifts between producers in blocks, magnifying the financial impact of each lost sale and customer.<sup>56</sup>

# 2. Supply Conditions

Eramet is the sole domestic producer of SD chromium. There are only three known SD chromium producers in the world: Eramet, Delachaux, and JFE.<sup>57</sup> JFE began producing SD chromium in 2000, and entered the U.S. market in 2001.<sup>58</sup> According to petitioners, Eramet and Delachaux typically have offered customers "very similar" pricing,<sup>59</sup> and vigorous competition for sales.<sup>60</sup> They claim that non-subject imports from Delachaux were fairly priced and did not take market share from Eramet over the period of investigation ("POI").<sup>61</sup>

Bidding data indicate that \*\*\*.<sup>62</sup> Non-subject import shipment volume declined \*\*\* percent between 2002 and 2003, before increasing \*\*\* percent between 2003 and 2004 and \*\*\* percent between the first half of 2004 and the first half of 2005.<sup>63</sup> Non-subject import market share, by quantity, declined from \*\*\* percent in 2002 to \*\*\* percent in 2003, increased to \*\*\* percent in 2004, and declined from \*\*\* percent in the first half of 2004 to \*\*\* percent in the first half of 2005.<sup>64</sup>

# C. Volume of Subject Imports

Section 771(7)(C)(i) of the Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant." <sup>65</sup>

Subject import volume increased \*\*\* percent between 2002 and 2003, from \*\*\* pounds to \*\*\* pounds; \*\*\* percent between 2003 and 2004, to \*\*\* pounds; and another \*\*\* percent between the first half of 2004 and the first half of 2005, from \*\*\* pounds to \*\*\* pounds. 66 Subject import shipment volume as a share of U.S. apparent consumption increased from \*\*\* percent in 2002 to \*\*\* percent in 2003 and to \*\*\* percent in 2004, and from \*\*\* percent in the first half of 2004 to \*\*\* percent in the first

<sup>&</sup>lt;sup>54</sup> CR at I-10-11, II-1; PR at I-7, II-1; see also Petitioners' Postconference Brief at 17.

<sup>&</sup>lt;sup>55</sup> Prehearing Brief at 23; CR at V-2-3; PR at V-2 (\*\*\*.).

<sup>&</sup>lt;sup>56</sup> Prehearing Brief at 23; see also Hearing Tr. at 24 (Vorberger).

<sup>&</sup>lt;sup>57</sup> CR at I-7; PR at I-6; Prehearing Brief at 22 (petitioners claim that there are four known producers of SD chromium).

<sup>&</sup>lt;sup>58</sup> PCR at VII-1 n.3; PPR at VII-1 n.3; PCR/PPR at Table VII-1.

<sup>&</sup>lt;sup>59</sup> Conference Tr. at 38 (Vorberger) ("Delachaux and Eramet's pricing were very similar"); <u>see also Petitioners'</u> Postconference Brief at 5-6; Petition at 21.

<sup>&</sup>lt;sup>60</sup> Responses to Commissioner Questions at 21-22.

<sup>&</sup>lt;sup>61</sup> See Hearing Tr. at 66, 118 (Vorberger).

<sup>62</sup> CR/PR at Table V-4.

<sup>&</sup>lt;sup>63</sup> CR/PR at Table IV-2.

<sup>&</sup>lt;sup>64</sup> CR/PR at Table IV-2.

<sup>65 19</sup> U.S.C. § 1677(7)(C)(i).

<sup>66</sup> CR/PR at Table IV-1.

half of 2005.<sup>67</sup> Subject import shipment volume as a share of U.S. production increased from \*\*\* percent in 2002 to \*\*\* percent in 2003 and to \*\*\* percent in 2004, but declined from \*\*\* percent in the first half of 2004 to \*\*\* percent in the first half of 2005.<sup>68</sup> Subject imports reportedly ceased after the Commission's preliminary affirmative determination and the imposition of preliminary margins by Commerce.<sup>69</sup> The increase in U.S. shipments of subject imports between the first half of 2004 and the first half of 2005 was due in part to purchasers drawing from inventories held on consignment.<sup>70</sup>

We find that the increase in subject import volume was significant over the period examined, both in absolute terms and relative to U.S. apparent consumption.

# D. Price Effects of the Subject Imports

Section 771(C)(ii) of the Act provides that, in evaluating the price effects of subject imports,

the Commission shall consider whether – (I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and (II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.<sup>71</sup>

The record indicates that competition for sales of SD chromium occurs primarily on the basis of price.<sup>72</sup> Market participants responding to Commission questionnaires indicated that domestic and subject SD chromium are "always" or "sometimes" used interchangeably and that the two products are "comparable" in terms of quality and other factors influencing purchasing decisions.<sup>73 74</sup> Petitioners claim that once an SD chromium producer is qualified by a purchaser, competition among suppliers for

<sup>&</sup>lt;sup>67</sup> CR/PR at Table IV-2.

<sup>&</sup>lt;sup>68</sup> CR/PR at Table IV-3.

<sup>&</sup>lt;sup>69</sup> <u>See</u> CR at IV-2 n.4, VII-3; PR at IV-1 n.4, VII-1. The Commission issued its affirmative preliminary determination on April 18, 2005, 70 Fed. Reg. 20771 (Apr. 21, 2005), and Commerce issued its affirmative preliminary determination on August 18, 2005. 70 Fed. Reg. 48538 (Aug. 18, 2005).

<sup>&</sup>lt;sup>70</sup> The \*\*\* pound increase in U.S. shipments of subject imports between the first half of 2004 and the first half of 2005 had to have drawn from inventories of subject imports held by purchasers on consignment, because the volume of subject merchandise imported increased by only \*\*\* pounds between the two interim periods. <u>Compare CR/PR at Table IV-1</u> and CR/PR at Table IV-2; <u>see also CR at V-4</u>; PR at V-2 (Mitsui sells on a consignment basis, and maintains inventories of subject imports at the end user's production facility).

<sup>&</sup>lt;sup>71</sup> 19 U.S.C. § 1677(7)(C)(ii).

<sup>&</sup>lt;sup>72</sup> See Section IV.B.1.d., supra.

<sup>&</sup>lt;sup>73</sup> \*\*\* and one purchaser indicated that domestic and subject imported SD chromium are "always" interchangeable, while another purchaser reported that domestic and subject imported SD chromium are "sometimes" interchangeable. CR at II-8; PR at II-4. \*\*\* also reported that product differences in terms of quality, availability, product range, and other factors affecting sales are \*\*\*. CR at II-8; PR at II-4. One purchaser reported that domestic and subject imported SD chromium are comparable in terms of delivery terms, delivery time, discounts offered, extension of credit, minimum quantity requirements, packaging, quality meeting industry standards, product range, and transportation costs, but that domestic SD chromium is inferior in terms of availability, price (*i.e.*, the U.S. product was higher in price), product consistency, reliability of supply, quality exceeding industry standards, and technical support/service. CR at II-8; PR at II-4.

<sup>&</sup>lt;sup>74</sup> Eramet reports that purchaser \*\*\* but claims that there is no technical limitation that would prevent the substitution of subject imports. CR at II-9; PR at II-4; see also Hearing Tr. at 95, 100 (Vorberger) (customer indicated to Eramet that its current preference for electrolytic SD chromium could be engineered around).

that purchaser's business is price-based.<sup>75</sup> Purchasers rank price among the top two factors considered in purchasing decisions, and among the most important factors in a list of purchasing considerations.<sup>76</sup>

The Commission requested pricing data on the following four SD chromium products: a standard, or "regular," grade of SD chromium (product 1); a low-nitrogen grade (product 2); a low-sulfur grade (product 3); and a low-nitrogen and low-sulfur grade (product 4).<sup>77</sup> While Eramet reported pricing data for all four pricing products, Mitsui, the only known importer of subject merchandise, reported pricing data only for pricing products 3 and 4.<sup>78</sup> Subject SD chromium undersold the domestic product in 18 out of 18 possible quarterly price comparisons, with margins ranging from 27.5 percent to 46.0 percent.<sup>79</sup> Based on the foregoing, we find underselling by subject imports to be significant.<sup>80</sup>

The record indicates that of 13 contracts awarded based on a competitive bidding process, seven were awarded entirely to the lowest bidder, five were awarded in part to the lowest bidder, and one was awarded on the basis of non-price factors because the bids were equal.<sup>81</sup> \*\*\*.<sup>82</sup>

Petitioners made \*\*\* lost sales allegations totaling \$\*\*\* for \*\*\* pounds, and \*\*\* usable lost revenue allegations totaling \$\*\*\* for \*\*\* pounds. 83 \*\*\* confirmed that the domestic industry lost \*\*\* of substantial volume and value to subject imports from Japan. 84 \*\*\* denied petitioners' lost sales and revenue allegations. 85 However, information on the record indicates that the presence of subject imports resulted in lost sales and revenue by Eramet regarding these purchasers. 86

In response to petitioners' lost sales allegation of \*\*\* pounds, \*\*\*. \*\* However, JFE's bid in the reverse auction, \$\*\*\* per pound, was \*\*\* below the prevailing market price for domestic SD chromium at the time. \*\* A witness for petitioners testified at the hearing that Eramet's participation in the reverse auction would not have changed the result; \*\* this is a reasonable conclusion given \*\*\* price undercutting by JFE in its initial bid. We also note that \*\*\* secured \*\*\* pounds of its annual SD chromium requirements through the reverse auction, while \*\*\*, totaling at least \*\*\* pounds, was

<sup>&</sup>lt;sup>75</sup> Prehearing Brief at 23.

<sup>&</sup>lt;sup>76</sup> See CR at II-6-7; PR at II-4; CR/PR at Tables II-1-2.

<sup>&</sup>lt;sup>77</sup> CR at V-4-5, PR at V-3.

<sup>&</sup>lt;sup>78</sup> CR at V-4 & n.5, V-5; PR at V-4 & n.5.

<sup>&</sup>lt;sup>79</sup> CR at V-5; PR at V-4.

<sup>&</sup>lt;sup>80</sup> CR at V-5; PR at V-4. Petitioners claim that subject imports were purchased for use in applications requiring each of the four pricing products, including regular grade (pricing product 1) and low-nitrogen grade (pricing product 2). See Prehearing Brief at 36-38, 41, Exhibits 3-5; Posthearing Brief at 8-10; Responses to Commissioner Questions at 6; USITC Doc. Nos. 242987, 242988. Accepting petitioner's argument would not alter our finding of significant underselling because subject import prices for pricing products 3 and 4 \*\*\* than domestic prices for pricing products 1 and 2. Compare PR/CR at Tables V-2-3 with Table V-1.

<sup>81</sup> See CR at V-11; PR at V-5; CR/PR at Table V-4.

<sup>82</sup> See CR/PR at Table V-4.

<sup>83</sup> CR at V-19, PR at V-6.

<sup>&</sup>lt;sup>84</sup> CR at V-22; PR at V-6; PR/CR at Table V-5 (\*\*\* due to competition with subject imports).

<sup>85</sup> CR at V-19-22; PR at V-6; CR/PR at Tables V-4-5.

<sup>86 \*\*\*</sup> CR at V-19; PR at V-6. \*\*\*. CR at V-20-21; PR at V-6. \*\*\*. CR/PR at Table V-4.

<sup>87</sup> CR at V-21; PR at V-6.

<sup>&</sup>lt;sup>88</sup> See CR/PR at Tables V-1-2 (the weighted average U.S. price in Oct.-Dec. 2003 was \$\*\*\* per pound for pricing product 1 (regular grade), \$\*\*\* per pound for pricing product 2 (low-nitrogen grade), and \$\*\*\* per pound for pricing product 3 (low-sulfur grade)) and V-4 (\*\*\*); see also Posthearing Brief at Exh. 2 (\*\*\*); Responses to Commissioner Questions at 6 (stating that \*\*\*).

<sup>89</sup> Hearing Tr. at 64 (Vorberger).

satisfied through \*\*\*.90

We find that subject imports of SD chromium prevented to a significant degree increases in prices for the domestic product that otherwise would have occurred. As depressed aerospace demand after 2001 heightened purchaser price sensitivity, petitioners claim that purchasers revealed rival bids to competing SD chromium suppliers and price changes were quickly broadcast among the small number of buyers and sellers in the SD chromium market. Consequently, they argue that low subject import prices depressed and suppressed Eramet's prices even with customers that purchased no subject imports, such as \*\*\*, but could ill afford to pay more than their competitors for SD chromium.

We find that during the POI the domestic industry experienced \*\*\* increases in the cost of production, particularly with respect to the unit cost of goods sold ("COGS"). Eramet utilizes an electrolytic process to refine raw ferrochromium into chromium, with raw materials constituting about \*\*\* percent of the cost of goods sold. The price of ferrochromium increased irregularly from January 2001 through May 2005, approximately \*\*\*, and Eramet reported that its cost of high carbon ferrochromium ore per unit of SD chromium production increased \*\*\* percent between 2002 and 2004 and another \*\*\* percent between the first half of 2004 and the first half of 2005. Other factory costs per unit increased \*\*\* percent as domestic shipments and market share declined between 2002 and 2004, forcing Eramet to spread its fixed costs over a lower volume of sales. As a result, the domestic industry's unit COGS increased by \*\*\* percent between 2002 and 2004.

The domestic industry was unable to increase prices sufficiently to compensate for these increasing production costs. Between 2002 and 2004, the domestic industry's average unit value ("AUV") of sales increased by only \*\*\* percent, from \$\*\*\* to \$\*\*\*, while unit COGS increased \*\*\* percent, from \$\*\*\* to \$\*\*\*. OGS outpaced the increase in the AUV of sales, the domestic industry's ratio of COGS to sales increased from \*\*\* percent in 2002 to \*\*\* percent in 2004.

The record indicates that subject import competition significantly contributed to the domestic industry's inability to increase prices commensurately with increasing costs. Subject imports and

<sup>90</sup> See CR/PR at Table V-4 (\*\*\*); CR at V-22; PR at V-7 (\*\*\*).

<sup>91</sup> Prehearing Brief at 23; see also Hearing Tr. at 34 (Button).

<sup>&</sup>lt;sup>92</sup> Prehearing Brief at 23; Hearing Tr. at 30 (Vorberger), 34, 41 (Button).

<sup>93</sup> Posthearing Brief at 11; Hearing Tr. at 30 (Vorberger), 34, 41 (Button).

<sup>94</sup> See CR/PR at Table VI-1.

<sup>95</sup> CR at V-1; PR at V-1.

<sup>&</sup>lt;sup>96</sup> CR/PR at Figure V-1.

<sup>&</sup>lt;sup>97</sup> CR/PR at Table VI-2; see also CR/PR at Table VI-1 (overall raw materials cost per unit \*\*\* between 2002 and 2004, and increased \*\*\* percent between the first half of 2004 and the first half of 2005).

<sup>&</sup>lt;sup>98</sup> CR/PR at Table VI-1; Prehearing Brief at 27; Hearing Tr. at 17 (Noland), 37-38 (Button); <u>see also</u> Responses to Commissioner Questions at 5 (estimating that higher shipment volume accounted for \*\*\* percent of the reduction in Eramet's unit factory costs in the first half of 2005).

<sup>99</sup> CR/PR at Table VI-1.

<sup>100</sup> CR/PR at Table VI-1.

<sup>&</sup>lt;sup>101</sup> CR/PR at Table VI-1. We also note that petitioners provided some evidence of price-suppressing effects by subject imports with respect to Eramet's sales to \*\*\*. CR at II-6 n.9; PR at II-3 n.9. Record evidence indicates that Eramet realized \*\*\* of an attempted \$\*\*\* per pound price increase for sales to \*\*\*. See Petitioners' Post-Conference Brief at Exh. 8 (letter requesting price increase and invoices reflecting realization of \*\*\* of the attempted increase). According to petitioners, \*\*\*. See Posthearing Br. at 8; Responses to Commissioner Questions at 17; Hearing Tr. at 100 (Vorberger). \*\*\* Commission Document ID #241432 (telephone notes from call to \*\*\*).

domestic SD chromium were comparable in quality and competed primarily on the basis of price. Subject imports consistently undersold the domestic like product by substantial margins, and JFE consistently underbid Eramet to win supply contracts in competitive bidding processes. Moreover, the significant increase in subject import volume contributed to the domestic industry's price-cost squeeze by displacing domestic shipments and forcing Eramet to spread its fixed costs over a lower sales volume.

On the basis of the foregoing, we find that subject imports have suppressed to a significant degree domestic industry price increases that otherwise would have occurred.

# E. Impact of the Subject Imports<sup>102</sup>

Section 771(7)(C)(iii) provides that the Commission, in examining the impact of the subject imports on the domestic industry, "shall evaluate all relevant economic factors which have a bearing on the state of the industry." These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, 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." <sup>104</sup>

We recognize that the domestic industry's condition was influenced by the collapse in SD chromium demand after 2001, as well as the subsequent demand recovery that began in 2004 and accelerated in the first half of 2005. However, the record indicates that subject import competition also had a significant adverse effect on Eramet. Most of the decline in SD chromium demand occurred between 2001 and 2002, and demand increased in 2004. Eramet's worsening performance between 2002 and 2004, and particularly between 2003 and 2004, thus cannot be explained by demand trends alone, especially given that by 2004, U.S. apparent consumption had recovered to 2002 levels. <sup>106</sup>

The domestic industry exhibited indications of material injury according to each of the statutory factors, with many important indicators declining significantly, particularly between 2003 and 2004. Eramet's production declined \*\*\* percent between 2002 and 2004, while its U.S. shipments declined by an even steeper \*\*\* percent over the period, and by \*\*\* percent between 2003 and 2004. The volume of Eramet's inventories declined \*\*\* percent between 2002 and 2003, but increased by \*\*\* percent between 2003 and 2004, with the ratio of inventory to U.S. shipments increasing from \*\*\* percent in 2003 to \*\*\* percent in 2004. The domestic industry's market share (by volume) initially rose from

<sup>&</sup>lt;sup>102</sup> In its final determination, Commerce found a weighted-average dumping margin of 129.32 percent for imports of SD chromium from Japan. Notice of Final Determination of Sales at Less Than Fair Value: Superalloy Degassed Chromium from Japan, 70 Fed. Reg. at 65887.

<sup>&</sup>lt;sup>103</sup> 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.") SAA at 885.

<sup>&</sup>lt;sup>104</sup> 19 U.S.C. § 1677(7)(C)(iii); see also SAA at 851, 885; Live Cattle from Canada and Mexico, Inv. Nos. 701-TA-386, 731-TA-812-813 (Preliminary), USITC Pub. 3155 at 25 n.148 (Feb. 1999).

<sup>&</sup>lt;sup>105</sup> See PCR/PPR at Table IV-2; CR/PR at Table IV-2.

<sup>&</sup>lt;sup>106</sup> See CR/PR at Table IV-2 (U.S. apparent consumption was \*\*\* million pounds in 2002, \*\*\* million pounds in 2003, and \*\*\* million pounds in 2004).

<sup>&</sup>lt;sup>107</sup> See CR/PR at Tables III-1-2.

<sup>&</sup>lt;sup>108</sup> CR/PR at Table III-3.

\*\*\* percent in 2002 to \*\*\* percent in 2003, but then fell to \*\*\* percent in 2004. 109

Depressed domestic industry production translated into low capacity utilization and declining employment. Domestic industry capacity increased \*\*\* from \*\*\* pounds in 2002 to \*\*\* pounds in 2003, reflecting Eramet's commissioning of an experimental pilot furnace, but capacity utilization declined overall from \*\*\* percent in 2002 to \*\*\* percent in 2004. Domestic industry employment declined from \*\*\* workers in 2002 to \*\*\* workers in 2003 and \*\*\* workers in 2004, while hours worked declined \*\*\* percent and total wages paid declined \*\*\* percent over the period.

The domestic industry's financial \*\*\* as increases in unit costs, driven in part by lower sales volume, exceeded increases in the AUV of domestic shipments, which was suppressed by subject import competition. Domestic industry unit COGS increased from \$\*\*\* per pound in 2002 to \$\*\*\* per pound in 2004, while the AUV of Eramet's sales only increased from \$\*\*\* per pound in 2002 to \$\*\*\* per pound in 2004. Consequently, Eramet suffered \*\*\* on its SD chromium sales; \*\*\* fell from \$\*\*\* in 2002 to \$\*\*\* in 2003, but then increased \*\*\* to \$\*\*\* in 2004. Similarly, Eramet's operating profit margin was \*\*\* percent in 2002 and \*\*\* percent in 2003, then worsened \*\*\* to \*\*\* percent in 2004.

Eramet's return on investment was \*\*\* percent in 2002 and \*\*\* percent in 2003.<sup>115</sup> It then fell \*\*\* to \*\*\* percent in 2004, discouraging further investment in a full-sized furnace based upon the technology validated by the pilot furnace project, an investment reportedly essential to Eramet's future competitiveness. <sup>116</sup> Domestic industry capital expenditures increased from \$\*\*\* in 2002 to \$\*\*\* in 2003, reflecting the installation of the pilot furnace, but then declined to \$\*\*\* in 2004. <sup>117</sup> Domestic industry research and development expenditures also initially rose from \$\*\*\* in 2002 to \$\*\*\* in 2003, but then fell to \$\*\*\* in 2004, <sup>118</sup> reportedly compromising Eramet's ability to tailor its SD chromium products to its customers' increasingly demanding requirements. <sup>119</sup>

JFE entered the U.S. market in 2001. According to Eramet, JFE's strategy was to win sales from Eramet's major customers with low prices. The record indicates that the presence of significant volumes of low-priced subject imports caused the continued decline in Eramet's performance despite the recovery of demand in 2004. Eramet's loss of market share and its decline in shipment volume and net sales in 2004, even as demand increased, is directly attributable to the increased presence of subject imports. Lost domestic industry sales and market share translated into higher unit costs, as Eramet was forced to spread its fixed costs over fewer units of production, but subject import competition prevented

<sup>&</sup>lt;sup>109</sup> CR/PR at Table IV-2. Domestic industry market share (by value) increased from \*\*\* percent in 2002 to \*\*\* percent in 2003, but declined to \*\*\* percent in 2004. <u>Id.</u>

<sup>110</sup> CR/PR at Table III-1.

<sup>111</sup> CR/PR at Table III-4.

<sup>112</sup> See Section IV.C., supra.

<sup>&</sup>lt;sup>113</sup> CR/PR at Table VI-1. We recognize that AUVs can be influenced by changes in product mix. However, the record indicates that the share of Eramet's shipments accounted for by lower-priced regular-grade SD chromium declined significantly between 2002 and 2004. See CR/PR at Tables V-1-3 (\*\*\*). Thus, in light of this shift in product mix to higher-priced products, the \*\*\* rise in Eramet's sales AUV relative to the rise in unit COGS is even stronger evidence of adverse impact in this investigation.

<sup>114</sup> CR/PR at Table VI-1.

<sup>115</sup> CR/PR at Table VI-5.

<sup>&</sup>lt;sup>116</sup> CR/PR at Table VI-5; CR at VI-9; PR at VI-3; see also Prehearing Brief at 28-29; Hearing Tr. at 18 (Noland).

<sup>&</sup>lt;sup>117</sup> CR/PR at Table VI-4; CR at VI-9; PR at VI-3.

<sup>118</sup> CR/PR at Table VI-4.

<sup>119</sup> Hearing Tr. at 39 (Button).

<sup>&</sup>lt;sup>120</sup> See, e.g., Posthearing Brief at 6; Hearing Tr. at 26 (Vorberger).

Eramet from sufficiently raising its prices to compensate. <sup>121</sup> This combination of lost sales and market share, increasing unit costs, and adverse price effects that resulted from subject import competition caused the domestic industry to suffer \*\*\* in 2004 even as U.S. demand increased.

The domestic industry's performance improved as a result of JFE's withdrawal from the U.S. market in April 2005.<sup>122</sup> Petitioners have presented evidence that JFE's abrupt departure resulted in increased Eramet sales to \*\*\*, with \*\*\* in the second half of 2005;<sup>123</sup> a large price increase negotiated with \*\*\*;<sup>124</sup> and increased spot sales to customers formerly served by Delachaux, which had diverted its attention to serving as \*\*\* primary SD chromium supplier.<sup>125</sup> The record indicates that domestic prices for all pricing products increased significantly between the first and second quarters of 2005.<sup>126</sup> The higher sales prices and volumes made possible by JFE's exit and the lower unit costs that resulted in part from higher production volume<sup>127</sup> substantially contributed to Eramet's \*\*\* profitability in the first half of 2005. Thus, Eramet's improved performance during the first half of 2005, when JFE withdrew from the U.S. market, does not detract from our finding of present material injury by reason of subject import competition.

We therefore conclude that subject imports have had a significant adverse impact on the domestic industry.

#### **CONCLUSION**

For the foregoing reasons, we determine that the domestic industry producing SD chromium is materially injured by reason of subject imports from Japan.

<sup>&</sup>lt;sup>121</sup> See Section IV.C., supra.; see also Prehearing Brief at 44; Hearing Tr. at 17 (Noland).

<sup>122</sup> We reduce the weight accorded to post-petition information on the condition of the domestic industry in our analysis, pursuant to 19 U.S.C. § 1677(7)(I), because such information was influenced by the pendency of the investigation. \*\*\*. CR at VII-3; PR at VII-1. \*\*\* reported in their purchaser's questionnaire responses that JFE withdrew from the U.S. market in April 2005. CR at IV-2 n.4; PR at IV-1 n.4; see also CR at V-22; PR at V-7 (\*\*\*). The record indicates that Eramet realized significantly higher prices in the second quarter of 2005. See CR/PR at Tables V-1-3. We also note that Eramet's improved financial performance in the first half of 2005 was due in part to a change in accounting estimates, which increased Eramet's operating income from \$\*\*\* under the old methodology to \$\*\*\*. See CR/PR at Table VI-1 n.1. Absent this accounting change, Eramet's operating income ratio would have been \*\*\* percent instead of the \*\*\* percent reported. Id.

<sup>&</sup>lt;sup>123</sup> Posthearing Brief at 13; Responses to Commissioner Questions at 12 (quoting Purchaser's Questionnaire Response of \*\*\* at Question III-24).

<sup>124</sup> Petitioners argue that annual contracts did not prevent Eramet from realizing price increases after JFE's departure from the market for three reasons. First, they contend that annual contracts only fix the price term for a period of six months. Hearing Tr. at 74 (Vorberger). Second, they claim that \*\*\* contract was "off cycle" and up for renegotiation in April 2005, while \*\*\* had to negotiate a new contract to replace JFE's volume in the second half of 2005. See Responses to Commissioner Questions at 3, 12. Third, Eramet was able to make spot sales at higher prices to customers formerly served by Delachaux, which reduced its spot sales to focus on replacing JFE as \*\*\* primary SD chromium supplier. See id. at 12.

 $<sup>^{125}</sup>$  Posthearing Brief at 13-14; Responses to Commissioner Questions at 13; CR at V-22; PR at V-6; CR/PR at Table V-4 & n.3 (\*\*\*).

<sup>&</sup>lt;sup>126</sup> CR/PR at Tables V-1-3; see also Responses to Commissioner Questions at 12-13.

<sup>&</sup>lt;sup>127</sup> <u>See</u> Posthearing Brief at 14; Responses to Commissioner Questions at 3-4. Petitioners estimate that \*\*\* percent of the improvement in other factory costs per unit in the first half of 2005, which accounted for \*\*\* of the decline in unit COGS, was due to higher sales volume, while \*\*\* percent was due to an accounting change that reallocated certain costs from SD chromium to other products at the plant and \*\*\* percent was due to a decline in other operating costs, primarily environmental remediation costs. <u>See id.</u>

#### PART I: INTRODUCTION

# **BACKGROUND**

This investigation results from a petition filed by Eramet Marietta Inc. ("Eramet"), Marietta, OH, and the Paper, Allied-Industrial, Chemical and Energy Workers International Union ("PACE"), Local 5-0639, Belpre, OH, on March 4, 2005, 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 superalloy degassed chromium ("SD chromium") from Japan. Information relating to the background of the investigation is provided below.

Effective Date	Action
March 4, 2005	Petition filed with Commerce and the Commission; institution of Commission investigation
March 30, 2005	Commerce's, notice of initiation
April 18, 2005	Commission's preliminary determination
August 18, 2005	Commerce's preliminary determination
September 7, 2005	Scheduling of final phase of Commission investigation (70 FR 53252, September 7, 2005)
October 25, 2005	Commerce's final determination (70 FR 65886, November 1, 2005)
•	Commission's hearing <sup>3</sup>
December 5, 2005	Commission's vote
December 15, 2005 .	Commission determination transmitted to Commerce

<sup>&</sup>lt;sup>1</sup> Commerce has defined the scope as follows: The product covered by this investigation is all forms, sizes, and grades of superalloy degassed chromium from Japan. Superalloy degassed chromium is a high-purity form of chrome metal that generally contains at least 99.5 percent, but less than 99.95 percent, chromium. Superalloy degassed chromium contains very low levels of certain gaseous elements and other impurities (typically no more than 0.005 percent nitrogen, 0.005 percent sulphur, 0.05 percent oxygen, 0.01 percent aluminum, 0.05 percent silicon, and 0.35 percent iron). Superalloy degassed chromium is generally sold in briquetted form, as "pellets" or "compacts," which typically are 1½ inches × 1 inch × 1 inch or smaller in size and have a smooth surface. Superalloy degassed chromium is currently classifiable under subheading 8112.21.00 of the Harmonized Tariff Schedule of the United States ("HTS"). This investigation covers all chromium meeting the above specifications for superalloy degassed chromium regardless of tariff classification. Certain higher-purity and lower-purity chromium products are excluded from the scope of this investigation. Specifically, the investigation does not cover electronics-grade chromium, which contains a higher percentage of chromium (typically not less than 99.95 percent), a much lower level of iron (less than 0.05 percent), and lower levels of other impurities than superalloy degassed chromium. The investigation also does not cover "vacuum melt grade" (VMG) chromium, which normally contains at least 99.4 percent chromium and contains a higher level of one or more impurities (nitrogen, sulphur, oxygen, aluminum and/or silicon) than specified above for superalloy degassed chromium. Although the HTS subheading is provided for convenience and customs purposes, the written description of the scope of this investigation is dispositive.

<sup>&</sup>lt;sup>2</sup> Federal Register notices cited in the tabulation are presented in app. A.

<sup>&</sup>lt;sup>3</sup> App. B contains the list of witnesses appearing at the Commission's hearing.

#### SUMMARY DATA

A summary of data collected in the investigation is presented in appendix C, tables C-1 to C-3. U.S. industry data are based on the questionnaire response of one firm, Eramet, that accounted for 100 percent of U.S. production of SD chromium during the period of investigation. U.S. imports from Japan are based on the questionnaire response of the only known importer of the subject product from Japan, Mitsui & Co. (U.S.A.), Inc. ("Mitsui"). \*\*\* other imports are from France, by Delachaux Metal, Inc. Three producers of alloys for investment casting (Howmet Castings (a division of Alcoa Inc.), Dover, NJ; Certified Alloy Products, Inc. (a division of Doncasters Group Ltd. of the United Kingdom), Long Beach, CA; and Precision Castparts Corp., Portland, OR) account for approximately 70 percent of the U.S. market for SD chromium.<sup>4</sup>

#### NATURE AND EXTENT OF SALES AT LTFV

In its November 1, 2005, final determination, Commerce found a dumping margin of 129.32 percent *ad valorem* for the Japanese producer JFE Material Co., Ltd. ("JFE") and for all other producers/exporters in Japan.<sup>5</sup> The final dumping margin was based on "adverse facts available" (the petition's adjusted alleged dumping margin) because JFE did not provide Commerce with a questionnaire response.

#### THE SUBJECT PRODUCT

Imports of SD chromium are classified under HTS subheading 8112.21.00 and are subject to a 3 percent general rate of duty, applicable to Japan. Table I-1 presents current tariff rates for SD chromium.

<sup>&</sup>lt;sup>4</sup> Petition, pp. 36 and 37.

<sup>&</sup>lt;sup>5</sup> Commerce's notice of final determination of sales at LTFV, 70 FR 65886, November 1, 2005.

Table I-1

SD chromium: U.S. import tariff rates, 2005

		Column 1			
		General <sup>1</sup>	Special <sup>2</sup>	Column 2 <sup>3</sup>	
HTS provision	Article description	Rates	(percent ad va	lorem)	
8112	Beryllium, chromium, germanium, vanadium, gallium, hafnium, indium, niobium (columbium), rhenium and thallium, and articles of these metals, including waste and scrap:				
8112.21.00	Chromium: Unwrought; powders	3%	Free (A, AU, CA, MX, CL, E, IL, J, JO, SG) <sup>4</sup>	30%	

<sup>&</sup>lt;sup>1</sup> Normal trade relations ("NTR"), formerly known as the most-favored-nation duty rate, applicable to imports from Japan.

<sup>3</sup> Applies to imports from a small number of countries that do not enjoy NTR duty status.

Source: Harmonized Tariff Schedule of the United States (2005).

# **Physical Characteristics and Uses**

Chromium is a metal often used in alloys to endow them with properties such as strength, hardness, permanence, hygiene, color, and resistance to temperature, wear, and corrosion. The subject product, SD chromium, is chromium metal that has been degassed by heating in a vacuum, thereby removing certain undesirable impurities (in particular, oxygen, nitrogen, and sulfur) in order to meet specifications required to produce superalloys suitable for use in cast components for jet aircraft turbines and gas-turbine power generators. Superalloys are a class of alloys with superior heat resistance for use at high temperatures where physical stresses and oxidation are present.

High-purity chromium (greater than 99 percent chromium by weight) is produced with various levels of impurities. There are no industry-wide standard grades. The petition discussed three types of high-purity chromium: SD chromium, vacuum-melt grade ("VMG") chromium, and "electronics" grade ("EG") chromium. Specifications for the various types of high-purity chromium are presented in table I-2.

<sup>&</sup>lt;sup>2</sup> General note 3(c)(i) lists the special tariff treatment programs indicated by these symbols. Goods must meet eligibility rules set forth in other general notes, and importers must properly claim such treatment.

<sup>&</sup>lt;sup>4</sup> Generalized System of Preferences, United States-Australia Free Trade Agreement, North American Free Trade Agreement for goods of Canada and Mexico, United States-Chile Free Trade Agreement, Caribbean Basin Economic Recovery Act, United States-Israel Free Trade Agreement, Andean Trade Preferences Act, United States-Jordan Free Trade Agreement, and United States-Singapore Free Trade Agreement.

<sup>&</sup>lt;sup>6</sup> There are reportedly no substitutes for chromium in these applications. National Research Council ("NRC"), *High-Purity Chromium Metal: Supply Issues for Gas-Turbine Superalloys ("High-Purity Chromium Metal")* (Washington, DC: National Academy Press, 1995), p. 22, and transcript of the Commission's March 25, 2005 conference ("conference transcript"), p. 64 (Houser).

Table I-2

High-purity chromium: Impurity levels (in percent) and typical uses, by type

	Cr	N	S	0	Fe		
Chromium type	(Minimum)		(Maxi	mum)		Form	Typical uses
Electrolytic	99.1	0.050	0.030	0.55	0.20	Flake, powder	High-temperature, corrosion resistant, electrical resistance, and aluminum alloys
Vacuum-melt grade (VMG)	99.5	0.01	0.01	0.15	0.30	Pellets	Wrought components for jet aircraft and power-generation gas turbine engines
Superalloy degassed regular grade (SD)	99.5	0.005	0.005	0.05	0.25	Pellets	Cast components for jet aircraft and power-generation gas turbine engines
Electronics grade (EG) <sup>1</sup>	99.95	0.003	0.005	0.01	0.008	Flake, powder	LCD displays

Note.-Cr - chromium, N - nitrogen, S - sulfur, O - oxygen, and Fe - iron.

Source: Specifications and typical uses for electrolytic, vacuum-melt, and SD chromium compiled from Eramet's website at: <a href="http://www.emspecialproducts.com/specs.php?grade=11">http://www.emspecialproducts.com/specs.php?grade=4</a>, and petition, p. 19; electronics-grade specifications compiled from International Specialty Alloys website at <a href="http://www.specialtyalloys.com/chromium\_flake.htm">http://www.specialtyalloys.com/chromium\_flake.htm</a>, retrieved April 1, 2005, electronics-grade typical uses obtained from petition, p. 13.

# **Manufacturing Process**

The manufacturing process for SD chromium consists of two main steps. The first step is the production of chrome metal and the second step is degassing the chromium metal in a vacuum furnace. There are at least three different methods for producing chrome metal: electrolytic, aluminothermic, and silicothermic. Eramet uses an electrolytic process, whereas the Japanese producer, JFE, uses the silicothermic process and the French producer, Delachaux, uses the aluminothermic process. In 1995, the National Materials Advisory Board stated that both the electrolytic and the aluminothermic processes improved so that requirements of high-purity applications could be met with chromium refined by either process. All three producers are currently qualified to sell SD chromium in the United States for use in making superalloys for aircraft engine and power generation gas turbine parts. All producers of SD chromium, both domestic and foreign, use a vacuum-degassing process in the second step.

<sup>&</sup>lt;sup>1</sup> Impurity levels presented herein are for EG chromium flake; nitrogen, oxygen, and iron levels for EG chromium powder can be higher.

<sup>&</sup>lt;sup>7</sup> NRC, *High-Purity Chromium Metal*, p. 39.

<sup>&</sup>lt;sup>8</sup> Petition, p. 37. Suppliers of SD chromium must be "qualified" through a process that includes submission of sample material, followed by trial orders and evaluation of the product and the quality assurance programs in place.

# Step One: Electrolytic Process<sup>9</sup>

The chromium source used by Eramet is high-carbon ferrochromium that contains approximately 67 percent chromium. The ferrochromium is milled to a powder that, along with anhydrous ammonia, is dissolved in sulfuric acid. Iron precipitates out of the solution as ferrous ammonium sulfate crystals and the chromium remains in solution. The solution is filtered three times to remove as much iron (as ferrous ammonium sulfate crystals) as possible. The filtrate is then sent to an "ager" system where it is held for several days, during which time the chromium precipitates as purple chromium ammonium sulfate crystals. The crystals are filtered out, washed, and dissolved in water. This solution is used as feedstock for the electrolytic cells.

The solution remains in the electrolytic cells for 3 to 4 days while the chromium plates out onto (i.e., adheres to) cathodes. At the end of the plating cycle, the cathodes are removed and the thick chromium deposits are removed from them by hammering, which causes them to break off in pieces in the form of flakes or chips. The chromium flakes are approximately 99.1 percent chromium, by weight, and can be used in a variety of air melt applications (i.e., applications that do not require the chromium to undergo a degassing process in a vacuum furnace). After cooling, the flake chromium can be packaged and sold as is, or further processed into degassed chromium or any of several other downstream products.

# Step Two: Vacuum Degassing Process

Vacuum degassing is the final refinement step for the production of SD chromium metal. Eramet's degassing process is described below; however, the process is similar to that used by all SD chromium producers.

The chromium flakes are milled to a fine powder and then blended into a briquetting mixture with finely divided carbon, tin, and a polymeric binder. The quantities of these additives depend on the composition of the feed chromium metal. The mixture is wetted and formed into small briquettes, which are allowed to dry and placed in separate lots in a vacuum furnace, which is closed and evacuated by a steam extractor. The furnace is heated at a sufficiently slow rate to accommodate offgassing without excessive increases in pressure. When the maximum temperature is reached, it is held for some time. The furnace is then allowed to cool while a stream of argon gas is admitted. Final purging is accomplished with helium. These inert gases are introduced into the furnace and circulated through heat exchangers to cool the briquettes. During the process, nitrogen and lead are volatilized (i.e., passed off as gases), and sulfur and oxygen are removed as tin sulfide and carbon dioxide, respectively. The briquettes are then removed, analyzed, and packaged for shipment.

<sup>&</sup>lt;sup>9</sup> Information used in the description of the manufacturing process was obtained from the petition, pp. 7-8, and from *High-Purity Chromium Metal*, pp. 29-36.

<sup>&</sup>lt;sup>10</sup> Obtained from Eramet's website at: <a href="http://www.emspecialproducts.com/specs.php?grade=4">http://www.emspecialproducts.com/specs.php?grade=4</a>, retrieved March 29, 2005. Vacuum degassing (e.g., heating a substance in a vacuum furnace) purifies a substance by removing dissolved gasses and causing certain impurities to volatilize. Chromium alloys used in aircraft engine applications require a high level of purity and are normally vacuum-melted. Therefore, flake chromium would not be used in these applications. NRC, *High-Purity Chromium Metal*, p. 22.

<sup>&</sup>lt;sup>11</sup> Carbon added to the process combines with the oxygen in the briquettes to form carbon dioxide, and the tin added to the process combines with the sulfur in the briquettes to form tin sulfide.

# **Production Processes of Foreign Producers**

Worldwide, there are only three known producers of SD chromium: Eramet, Delachaux SA ("Delachaux") of France, and JFE.<sup>12</sup> Eramet, Delachaux, and JFE are currently qualified to sell SD chromium in the United States for investment casting applications (for producing superalloys used in aircraft engine and power generation gas turbine parts). Eramet is the only SD chromium producer to use the electrolytic process in the first step of the production process. Delachaux uses the aluminothermic process and JFE uses a silicothermic process.

In the silicothermic process, chromic oxide, silicon metal, and calcium oxide are combined in an electric arc furnace. As materials are melted, the silicon combines with the oxygen in the chromic oxide, producing molten chromium and slag (unwanted elements). After the slag is removed, the chromium metal undergoes additional refining to remove or reduce other impurities such as silicon, sulfur, phosphorus, carbon, and oxygen. The molten chromium is then removed from the furnace and poured into molds. After cooling, the chromium is shot blasted to remove residual slag and is then crushed and sized. Magnetic separation is employed to further remove any remaining slag from the chromium. The same basic process is used by the French producer Delachaux with the exception that aluminum is used instead of silicon to remove oxygen from the chromic oxide.<sup>13</sup>

# **Domestic Like Product Issues**<sup>14</sup>

The petitioner advocates one domestic like product coextensive with the scope of the investigation.<sup>15</sup> In the preliminary phase of this investigation, the Commission found a single domestic like product, SD chromium, coextensive with the scope of the investigation.<sup>16</sup>

# **Physical Characteristics and Uses**

VMG chromium contains substantially higher levels of critical impurities (such as oxygen, nitrogen, and sulfur) than SD chromium. Therefore, VMG chromium cannot be used in the high-end applications reserved for SD chromium, including the production of superalloys cast into the most critical components for jet aircraft and power-generation gas turbines. Petitioner indicates that VMG chromium is used to produce superalloys for aircraft and power-generation turbine components that are subject to lower temperatures and physical stresses, for which higher levels of impurities are acceptable, and which generally are wrought rather than cast. VMG chromium is also used to produce superalloys for other applications such as the production of corrosion-resistant metal piping, sheet, and plate.<sup>17</sup>

<sup>12 \*\*\*</sup> 

<sup>&</sup>lt;sup>13</sup> Petitioner's postconference brief, p. 1 of attachment (responses to staff questions).

<sup>&</sup>lt;sup>14</sup> The Commission's domestic like product determination is based on a number of factors, including (1) physical characteristics and uses, (2) common manufacturing facilities and production employees, (3) interchangeability, (4) customer and producer perceptions, (5) channels of distribution, and where appropriate, (6) price.

<sup>&</sup>lt;sup>15</sup> Petitioner's postconference brief, p. 5.

<sup>&</sup>lt;sup>16</sup> Superalloy Degassed Chromium from Japan, Investigation No. 731-TA-1090 (Preliminary), USITC Publication 3768, April 2005, pp. 6-12. The Commission noted, however, that in any final phase of the investigation, it would collect more information as to whether to define the domestic product to include VMG chromium. Ibid., p. 12.

<sup>&</sup>lt;sup>17</sup> Petitioner's postconference brief, p. 14.

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\*\*\*.20 According to Delachaux, "\*\*\*."21

Mitsui, an importer of the Japanese SD chromium produced by JFE, states that "\*\*\*."22

\*\*\*, a purchaser, notes that SD chromium and VMG chromium are "very similar in all respects. Small variations in chemical content are responsible for selection of one over the other. Elements of concern are N, O, S, Fe."<sup>23</sup>

\*\*\*, a purchaser, states that "Both products have similar physical characteristics and uses."24

# Interchangeability

Because VMG chromium contains higher levels of impurities than does SD chromium, it cannot be substituted directly for SD chromium for applications that require the purity of SD chromium. A minimal amount of substitution has occurred as purchasers have carefully evaluated their requirements to ensure that they are using the material form of chromium that enables them to meet their customers' requirements at the lowest possible cost. For example, \*\*\* indicates that despite "maximum efforts" to substitute lower-priced VMG chromium for SD chromium, only about 2 percent substitution has been possible. Although SD chromium can be substituted for VMG chromium, this substitution of higher-priced material for the lower-priced VMG chromium is not economical.

#### **Channels of Distribution**

Although both VMG chromium and SD chromium are sold directly to superalloy producers, Eramet reports that there are differences between the types of end users for these products. According to Eramet, there are fewer than 20 purchasers of SD chromium in the United States, including three investment casters that account for about 70 percent of the SD chromium consumed, whereas VMG chromium is consumed by larger number of customers with a wider variety of end uses.

# Common Manufacturing Facilities, Production Processes, and Production Employees

Eramet, the only U.S. producer of SD chromium and also the only U.S. producer of VMG chromium, is a minor producer of VMG chromium in comparison to other producers in the world. Eramet uses a VMG production process that differs from that used by the major producers, London &

<sup>18 \*\*\*</sup> questionnaire response, p. 6.

<sup>19</sup> Ibid.

<sup>&</sup>lt;sup>20</sup> \*\*\* importers' questionnaire response, p. 5, and staff interview of \*\*\*, October 13, 2005.

<sup>&</sup>lt;sup>21</sup> Ibid.

<sup>&</sup>lt;sup>22</sup> \*\*\* importers' questionnaire response, p. 5.

<sup>&</sup>lt;sup>23</sup> \*\*\* purchasers' questionnaire response, p. 19.

<sup>&</sup>lt;sup>24</sup> \*\*\* purchasers' questionnaire response, p. 19.

<sup>&</sup>lt;sup>25</sup> \*\*\* reported that it has managed to substitute some VMG chromium in place of about 10 percent of the SD chromium that it previously used. Another firm, \*\*\*, that does not consider VMG chromium to be a true substitute for SD chromium, has also used VMG chromium in place of its SD chromium to a minor extent during 2005. Ibid., pp. 7-8.

<sup>&</sup>lt;sup>26</sup> Petitioner's postconference brief, pp. 17, 21.

Scandinavian Metallurgical Co. Ltd. ("LSM") of the United Kingdom and Delachaux. Eramet began producing VMG chromium in 2003. \*\*\*;<sup>27</sup> however, \*\*\*. Eramet has \*\*\*.<sup>28</sup>

LSM's British and Delachaux's French VMG chromium are produced through a variation of the aluminothermic process, in which the exposure of molten chromium to air is limited as it cools. In contrast to Eramet's process for producing VMG chromium, \*\*\*.<sup>29</sup>

# **Customer and Producer Perceptions**

Customers are aware of the differences between SD chromium and VMG chromium, and use the grade that satisfies the requirements of any given end use. For example, \*\*\* purchases both SD chromium and VMG chromium, and indicates that certain applications require the use of SD chromium.<sup>30</sup> \*\*\* provides specific examples of the products for which it uses SD chromium and those for which it uses VMG chromium.<sup>31</sup>

Eramet perceives the two products as distinct and claims that its customers do not perceive the differences between SD chromium and VMG chromium to be minor or insignificant. It states that customers provide specifications for the type of chromium they need that clearly distinguish between SD chromium and VMG chromium in terms of chromium content and critical impurities, without using the terms "superalloy degassed chromium" or "VMG chromium." 32

#### **Price**

Eramet has sold most of its SD chromium at prices ranging from \$\*\*\* to \$\*\*\* per pound. JFE's U.S. importer Mitsui sold SD chromium at about \$\*\*\* to \$\*\*\* per pound in the United States. VMG is sold domestically at prices ranging from \$\*\*\* to \$\*\*\* per pound.<sup>33</sup>

<sup>&</sup>lt;sup>27</sup> Eramet uses \*\*\* degassing furnaces to produce SD chromium. \*\*\*. Ibid., responses to staff questions, p. 4.

<sup>&</sup>lt;sup>28</sup> Petitioner's prehearing brief, pp. 6-7.

<sup>29 \*\*\*</sup> 

<sup>&</sup>lt;sup>30</sup> \*\*\* purchasers' questionnaire response, p. 5.

<sup>31 \*\*\*</sup> purchasers' questionnaire response, p. 5.

<sup>&</sup>lt;sup>32</sup> Petitioner's postconference brief, p. 18.

<sup>&</sup>lt;sup>33</sup> See Part V of this report.

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

# U.S. MARKET SEGMENTS/CHANNELS OF DISTRIBUTION

The universe of customers for SD chromium in the United States is very small, consisting of less than 20 firms.<sup>1</sup> Most SD chromium sold in the U.S. market goes to customers that use it in making the superalloys that are used in critical components of jet aircraft turbines and gas-turbine power generators. To a very limited extent, SD chromium is also used in other high-end applications including metal coatings and some electronics applications. \*\*\* by producer Eramet and \*\*\* sales by importer Mitsui are to \*\*\*.<sup>2</sup>

Eramet and Mitsui both reported that they sell \*\*\*. However, \*\*\* by Mitsui in 2004 were to \*\*\*

U.S. producers and importers were asked to report their U.S. inland shipping distances for SD chromium. Eramet reported that \*\*\*. None of Eramet's shipments are for \*\*\*. In contrast, \*\*\* shipments by Mitsui were \*\*\*.

#### SUPPLY AND DEMAND CONSIDERATIONS

# **U.S. Supply**

The sensitivity of the domestic supply of SD chromium to changes in price depends on such factors as the level of excess capacity, the availability of alternate markets for SD chromium, inventory levels, and the ability to shift manufacturing from the subject product to other products. The overall evidence indicates that Eramet has a high degree of flexibility in expanding output and U.S. shipments in response to an increase in price, due to the existence of some industry capacity, the existence of export markets, \*\*\* inventory levels, and the ability to shift from SD chromium production to other products. Eramet's reported capacity utilization for SD chromium was \*\*\* percent in 2002, \*\*\* percent in 2003, \*\*\* percent in 2004, and \*\*\* percent in January-June 2005. This indicates that Eramet has typically had excess capacity that could be used to increase production in the event of a price change. Eramet's exports of SD chromium, as a percentage of total shipments, ranged between \*\*\* percent and \*\*\* percent annually between 2002 and 2004. During January-June 2005, they amounted to \*\*\* percent of its total shipments. Eramet's inventories, as a percentage of total shipments, ranged between \*\*\* percent and \*\*\* percent annually between 2002 and 2004. These data for exports and inventories indicate that Eramet has some ability to divert shipments to or from alternative markets in response to changes in the price of SD chromium. In addition, Eramet is able to use \*\*\*. Eramet reported that the chrome metal that it produces in the electrolytic stage of production can be sold as the base chrome metal and is used to produce a variety of value-added products (such as VMG and a chrome-carbide product).3

#### **Subject Imports**

The supply response of the single Japanese producer (JFE) to changes in price in the U.S. market is likely to depend upon such factors as capacity utilization rates in Japan, the availability of home markets, other export markets besides the United States, inventory levels, and the ability to shift from SD

<sup>&</sup>lt;sup>1</sup> Conference transcript, p. 17 (Vorberger).

<sup>&</sup>lt;sup>2</sup> Eramet sells a small quantity of SD chromium (less than one percent of its shipments) to distributors that resell the product to customers needing very small quantities (50 or 100 pounds). See petition, p. 9.

<sup>&</sup>lt;sup>3</sup> Conference transcript, pp. 72-73 (Kramer and Houser).

chromium production to other products.<sup>4</sup> The evidence relating to capacity utilization rates, alternative markets, and inventory levels indicates that JFE has the flexibility to expand exports to the United States in response to a change in price. JFE reported a capacity utilization rate of \*\*\* percent in 2002, \*\*\* percent in 2003, and \*\*\* percent in 2004. JFE projected a capacity utilization rate of \*\*\* percent in 2005 and \*\*\* percent in 2006. JFE's combined shipments of SD chromium in its home market and to export markets other than the United States amounted to \*\*\* percent of its total shipments in 2002, \*\*\* percent in 2003, and \*\*\* percent in 2004. JFE's inventories in relation to shipments amounted to \*\*\* percent in 2002, \*\*\* percent in 2003, and \*\*\* percent in 2004. It projected ratios of inventories to shipments of \*\*\* percent in 2005 and \*\*\* percent in 2006. JFE reported that it \*\*\* use the machinery and equipment used to make SD chromium to produce other products.

#### U.S. Demand

#### **Demand Characteristics**

As discussed earlier, the demand for SD chromium is a derived demand that depends upon the demand for jet engines; gas turbines used to generate electric power; and, to a very limited degree, metal coatings and other products including electronics applications not requiring the lower iron content of the electronics-grade chromium.<sup>5</sup> The demand for SD chromium, as measured by apparent U.S. consumption, in quantity terms, decreased from \*\*\* million pounds in 2002 to \*\*\* million pounds in 2003 and then recovered to \*\*\* million pounds in 2004. During January-June 2005 apparent U.S. consumption was \*\*\* million pounds as compared to \*\*\* million pounds in January-June 2004.

Producers and importers were both asked how U.S. demand for SD chromium has changed since January 1, 2002, and they were also asked what factors affect changes in demand. Eramet stated that demand \*\*\*. According to Eramet, demand \*\*\* in this market segment in 2002, but \*\*\* in 2003. It said that demand \*\*\* in 2005. Eramet stated that in the power generation segment of the market, demand was \*\*\* during 2001-03, but beginning in 2004 customers have reported \*\*\* in demand for power generation. Mitsui indicated that \*\*\*. Another importer, Delachaux, stated that the market had \*\*\* in 2003, but \*\*\* in 2004 although it was still \*\*\* than in 2003. Delachaux stated that the market has \*\*\* in 2005. It said that demand is created by \*\*\*.

Purchasers that are end users were asked to report whether the demand for their products using SD chromium had changed since January 1, 2002. Of the six end-use purchasers that responded to the question, five indicated that demand had increased during this period. One firm cited an increase in demand for jet engines, and another cited a recovery of aerospace generally.

Producers and importers were also asked to project future demand trends for SD chromium in (1) the aircraft industry and (2) the power generation sector, in 2005 and 2006. Eramet stated \*\*\*. Mitsui \*\*\* provide forecasts of future demand. Delachaux stated that the demand trend is \*\*\*.

\*\*\* that both major U.S. aircraft manufacturers, Boeing and Lockheed Martin, are expecting to build more aircraft in the future. \*\*\* two suppliers of mid-range aircraft, Bombardier and Embraer, are also expecting to produce more aircraft in the future. In addition, \*\*\* increased military spending by the

<sup>&</sup>lt;sup>4</sup> JFE did not submit a foreign producer questionnaire in the final phase of this investigation. This information is based upon its questionnaire from the preliminary phase of the investigation.

<sup>&</sup>lt;sup>5</sup> Petition, pp. 34, 36.

<sup>&</sup>lt;sup>6</sup> U.S. apparent consumption for all of 2001 had amounted to over \*\*\* million pounds (prehearing report, table IV-2). These numbers are probably understated because \*\*\*.

Federal Government and a strong demand for replacement parts will lead to continued improved results in the aerospace superalloys market over the next two years and beyond.<sup>7</sup>

In the case of power generation equipment, Eramet reported that it expects that the long-term demand for \*\*\* will lead to increased demand for SD chromium. On the basis of information that it obtained from its superalloy customers, Eramet believes that the \*\*\*.

#### **Substitute Products**

Producers, importers, and purchasers were asked to list and describe any products that can be used as substitutes for SD chromium. Eramet stated \*\*\*. It is impractical for superalloy producers to use chromium in their production processes in powder form. \*\*\* stated that VMG chromium can also be used as a substitute for SD chromium. It said that some VMG grade has been substituted for SD chromium in certain applications. \*\*\* stated that there are no substitutes for SD chromium.

Of the six end-use purchasers that were asked to list substitutes for SD chromium, four reported that no substitutes exist. One purchaser listed VMG chromium<sup>8</sup> and another listed aluminothermic chrome.

#### **Cost Share**

Producers, importers, and purchasers were asked to estimate the cost share of chromium in enduse applications. The estimates varied widely. \*\*\*. Of the five end-use purchasers that responded to the question, the cost share ranged from less than 1 percent to 19 percent.

#### SUBSTITUTABILITY ISSUES

The extent of substitutability between U.S.-produced SD chromium and subject and nonsubject imports and between subject and nonsubject imports is examined in this section. The discussion is based upon the results of questionnaire responses from producers, importers, and purchasers.

Eight purchasers provided questionnaire responses. Among these purchasers, six are end users and two are distributors. All eight purchasers reported buying U.S.-produced SD chromium during the period January 2002 through June 2005. Two of the firms, including \*\*\*, have \*\*\* during this period. Of the other six firms that bought from \*\*\*, one also reported purchases of imports from Japan; two reported purchases of imports from both Japan and France; two reported purchases from France only; and one reported purchases of imports from \*\*\*.

<sup>&</sup>lt;sup>7</sup> There is no evidence that "Buy American" policies have an influence on purchases. When asked whether such policies limit purchases of SD chromium, all eight purchasers that completed questionnaires indicated that "Buy American" policies don't apply to their purchases. \*\*\*.

<sup>&</sup>lt;sup>8</sup> This purchaser, \*\*\*, reported that it has managed to substitute some VMG chromium in place of about 10 percent of the SD chromium that it previously used. Another firm, \*\*\*, that does not consider VMG chromium to be a true substitute for SD chromium, has also used VMG chromium in place of its SD chromium to a minor extent during 2005.

<sup>9 \*\*\*</sup> questionnaire response indicates that it accounted for over \*\*\*.

# **Factors Affecting Purchasing Decisions**

When asked to rank the three most important factors involved in purchasing decisions, purchasers listed quality and price as the most common, followed by delivery. Of the six purchasers that responded, all ranked quality and/or price among the top two factors, as shown in table II-1.

Table II-1 SD chromium: Ranking of factors used in purchasing decisions, as reported by U.S. purchasers

	Number of firms reporting					
Factor	Number one factor	Number two factor	Number three factor			
Delivery	0	0	3			
Price	1	3	1			
Quality	4	1	0			
Other <sup>1</sup>	1	2	2			

<sup>&</sup>lt;sup>1</sup> Other factors include availability, dependability, and ability to meet specifications.

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

In addition to these rankings, purchasers were also asked to report whether the factors shown in table II-2 are "very important," "somewhat important," or "not very important" in their purchasing decisions. The results indicate that product consistency, reliability of supply, availability, price, and quality are the most important considerations.

# **Comparisons of Domestic Products and Subject Imports**

In order to determine whether U.S.-produced SD chromium can generally be used in the same applications as imports from Japan, producers, importers, and purchasers were asked whether the product can "always," "frequently," "sometimes," or "never" be used interchangeably. Eramet stated that \*\*\*. However, Eramet \*\*\*. Among purchasers, one firm reported that U.S.-produced SD chromium is always interchangeable with imports from Japan, and another reported that it is sometimes interchangeable. This firm reported that the product from Japan has a lower sulfur and nitrogen content than the U.S.-produced product.

In addition to questions concerning interchangeability, producers and importers also were asked to compare U.S.-produced products with imports from Japan in terms of product differences such as quality, availability, product range, and other factors that affect sales. Again, firms were asked whether these product differences are always, frequently, sometimes, or never significant. \*\*\*. In stating that differences are \*\*\*, Eramet again \*\*\*.

Purchasers also were asked to compare U.S.-produced SD chromium with imported SD chromium from Japan in 15 selected characteristics, noting whether the domestic product was superior, comparable, or inferior to the imported product. The single purchaser that made the comparison reported that the U.S. product was inferior to the Japanese product in availability, price (i.e., the U.S. product was higher in price), product consistency, reliability of supply, quality exceeding industry standards, and technical support/service, and comparable to the Japanese product in delivery terms, delivery time, discounts offered, extension of credit, minimum quantity requirements, packaging, quality meeting industry standards, product range, and transportation costs.

Table II-2 SD chromium: Importance of purchasing factors, as reported by U.S. purchasers

	Very important	Somewhat important	Not important			
Factor	Number of firms responding					
Availability	7	1	0			
Delivery terms	3	5	0			
Delivery time	5	3	0			
Discounts offered	1	6	1			
Extension of credit	3	3	2			
Price	7	1	0			
Minimum quantity requirements	1	4	3			
Packaging	2	5	1			
Product consistency	8	0	0			
Quality meets industry standards	7	1	0			
Quality exceeds industry standards	7	1	0			
Product range	3	2	3			
Reliability of supply	8	0	0			
Technical support/service	4	3	1			
U.S. transportation costs	3	4	1			
Source: Compiled from data subr	nitted in response to Comm	nission questionnaires.				

# **Comparisons of Domestic Products and Nonsubject Imports**

In addition to comparing U.S.-produced SD chromium with imports from Japan, producers and importers were asked to compare the U.S. product with imports from nonsubject countries in terms of interchangeability and product differences, and purchasers were asked to compare them in terms of interchangeability. \*\*\*. \*\*\*\* Among purchasers, two reported that the domestic product is always interchangeable with nonsubject imports, two reported that it is frequently interchangeable, and one reported that it is sometimes interchangeable. One firm reported that the product from France has a lower sulfur and nitrogen content than the U.S.-produced product.

Purchasers also were asked to compare U.S.-produced SD chromium with imported SD chromium from nonsubject countries in the 15 selected characteristics discussed earlier. Five purchasers compared the domestic product with imports from France. A majority of these purchasers ranked the U.S. product comparable in all of 15 categories, although in the case of availability, price, product consistency, product range, and reliability of supply, two of five purchasers ranked the U.S. product inferior (table II-3).

Table II-3 SD chromium: Comparisons between U.S.-produced and imported products from France, as reported by U.S. purchasers

	Number of firms reporting					
Factor	U.S. superior	Comparable	U.S. inferior			
Availability	0	3	2			
Delivery terms	0	5	0			
Delivery time	0	4	1			
Discounts offered	0	4	1			
Extension of credit	0	4	1			
Lower price <sup>1</sup>	0	3	2			
Minimum quantity requirements	0	5	0			
Packaging	0	5	0			
Product consistency	0	3	2			
Quality meets industry standards	0	5	0			
Quality exceeds industry standards	0	4	1			
Product range	0	3	2			
Reliability of supply	0	3	2			
Technical support/service	0	5	0			
Lower U.S. transportation costs	0	5	0			

<sup>&</sup>lt;sup>1</sup> A rating of superior means that the price is generally lower. For example, if a firm reports "U.S. superior," this means that it rates the U.S. product price generally lower than the French product's price.

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

#### **Comparisons of Subject Imports and Nonsubject Imports**

Producers and importers were also asked to compare the imported product from Japan with imports from nonsubject countries in terms of interchangeability and product differences, and purchasers were asked to compare them in terms of interchangeability. \*\*\*. Among purchasers, one firm reported that imports from Japan can always be used interchangeably with nonsubject imports, one stated that they can frequently be used interchangeably, and one stated that they can sometimes be used interchangeably. This last firm reported that the product from Japan has a lower sulfur and nitrogen content than the product from France.

Purchasers were asked to compare imported SD chromium from Japan with imported product from nonsubject countries in the 15 selected characteristics discussed earlier. One purchaser reported that the product from Japan was superior to the product from France in availability, price (i.e., the Japanese product was lower in price), quality exceeding industry standards, reliability of supply, and technical service/support, and comparable in all of the other characteristics.

#### **ELASTICITY ESTIMATES**

This section discusses elasticity estimates for SD chromium. Parties were encouraged to comment on these estimates as an attachment to their briefs, but they provided no comments.

#### U.S. Supply Elasticity<sup>10</sup>

The domestic supply elasticity for SD chromium measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of SD chromium. This elasticity depends upon capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced SD chromium. Because of the considerations discussed earlier, it is likely that the supply elasticity is high. An estimate in the range of 5 to 10 appears to be reasonable.

#### U.S. Demand Elasticity

The U.S. demand elasticity for SD chromium measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of this product. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component share of this product in end uses. Because of the lack of close substitutes and the low cost share of CD chromium in end-use applications, the aggregate demand for SD chromium is likely to be inelastic; a range of -0.1 to -0.5 is suggested.

#### **Substitution Elasticity**

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products. Product differentiation depends upon such factors as product quality and conditions of sale (availability, sales terms/discounts/promotions, etc.). Based on available information, the elasticity of substitution between U.S.-produced SD chromium and imported SD chromium is likely to be in the range of 3 to 5.

<sup>&</sup>lt;sup>10</sup> A supply function is not defined in the case of a non-competitive market.

<sup>&</sup>lt;sup>11</sup> The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and the domestic like product 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 final margins of dumping was presented in Part I of this report and information on the volume and pricing of imports of the subject merchandise is presented in Parts IV and V.

#### U.S. PRODUCER

Producer questionnaires were sent to two firms, of which only Eramet is a U.S. producer of SD chromium.<sup>1</sup> Data on Eramet's production are provided in table III-1. Eramet's production capacity rose by \*\*\* percent between 2002 and 2003, and then was constant from 2003 through June 2005.<sup>2</sup> Production and capacity utilization fluctuated throughout the period of investigation; however, production rose \*\*\* percent in January-June 2005 as compared to the same period in 2004, \*\*\* the full year 2002 level. According to Eramet, this increase was attributable both to an increase in demand and the departure of JFE from the market.<sup>3</sup> In correlation with production increases, capacity utilization reached \*\*\* percent.

Data on Eramet's shipments are provided in table III-2. Eramet's shipments, of which over \*\*\* percent were U.S. commercial shipments, declined between 2002 and 2004 by \*\*\* percent. However, Eramet's shipments \*\*\* in January-June 2005 as compared to the same period in 2004.<sup>4</sup> According to Eramet, despite demand recovery in 2004, shipments \*\*\* due to volume and market share lost to imports from JFE.<sup>5</sup> Once JFE exited the market, Eramet was able to benefit from increased demand.<sup>6</sup> Additionally, Eramet's unit value of its U.S. shipments rose throughout the period of investigation, rising to \$\*\*\* per pound in the first half of 2005. Export shipments by quantity, as a share of total shipments, fluctuated from 2002 to June 2005, but never exceeded \*\*\* percent. Eramet \*\*\*. It \*\*\* neither imports nor purchases SD chromium or VMG chromium.

## Table III-1 SD chromium: U.S. producer's capacity, production, and capacity utilization, 2002-04, January-June 2004, and January-June 2005

<sup>&</sup>lt;sup>1</sup> Eramet produces SD chromium, other special products (including aluminum hardeners, electrolytic chromium, vacuum products, and specialty metals), and manganese ferroalloys at its plant in Marietta, OH. Eramet is part of the Eramet Group, an international metals and minerals producer with a focus on nickel, manganese, and high-performance steels and alloys. The Eramet Group is headquartered in Paris, France and has manufacturing or mining facilities in China, France, Gabon, Norway, and the United States. The other U.S. firm that was sent a producers' questionnaire, International Specialty Alloys, Newcastle, PA, producers electronics-grade chromium, not SD chromium.

<sup>&</sup>lt;sup>2</sup> Eramet's annual capacity was \*\*\* annual apparent U.S. consumption of SD chromium in 2002-04, \*\*\*.

<sup>&</sup>lt;sup>3</sup> \*\*\*, demand for SD chromium was weak in 2002, particularly in the aerospace market following the September 11 terrorist attacks in 2001. \*\*\*, and hearing transcript, p. 9 (Kramer).

<sup>&</sup>lt;sup>4</sup> One purchaser indicated an increase in purchases from Eramet in 2005 for supply and availability reasons. \*\*\* purchaser questionnaire response, II-4.

<sup>&</sup>lt;sup>5</sup> Petitioner's posthearing brief, p. 12.

<sup>&</sup>lt;sup>6</sup> Ibid., p. 14.

#### Table III-2

SD chromium: U.S. producer's shipments, 2002-04, January-June 2004, and January-June 2005

\* \* \* \* \* \* \*

Data for the U.S. producer's end-of-period inventories are presented in table III-3. Inventories decreased by \*\*\* percent from 2002 to 2003, before rising by \*\*\* percent from 2003 to 2004 and by \*\*\* percent between interim 2004 and interim 2005. Eramet described the inventory increase in 2004 as resulting from an increase in production along with a decrease in Eramet's shipment volume in that year. Inventories as a ratio to production fell from \*\*\* percent in 2002 to \*\*\* percent in 2004, and from \*\*\* percent in interim 2004 to \*\*\* percent in interim 2005.

#### Table III-3

SD chromium: U.S. producer's end-of-period inventories, 2002-04, January-June 2004, and January-June 2005

\* \* \* \* \* \* \*

Data on Eramet's production and related workers ("PRWs") are provided in table III-4. While the number of PRWs and hours worked decreased during 2002-04, hourly wages rose by \$\*\*\* per hour. Productivity increased by \*\*\* percent from 2002 to 2004 and then rose by \*\*\* percent in the interim period. Unit labor costs fluctuated during 2002-04, then declined \*\*\* in January-June 2005 compared with January-June 2004.

#### Table III-4

SD chromium: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2002-04, January-June 2004, and January-June 2005

<sup>&</sup>lt;sup>7</sup> Hearing transcript, p. 36 (Button).

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

#### **U.S. IMPORTERS**

The Commission sent questionnaires to six possible importers of SD chromium identified in the petition and/or in information provided by U.S. Customs and Border Protection ("Customs"). Three firms¹ reported imports of SD chromium: (1) Mitsui² reported imports of SD chromium from Japan; (2) \*\*\*, Delachaux, reported imports from its production facility in France; and (3) \*\*\* reported imports of SD chromium from \*\*\*. There are no known related parties in this investigation as defined in section 771(4) (B) of the Act (19 U.S.C. § 1677 (4)(B)).

#### U.S. IMPORTS

U.S. import data presented in this report are from the reporting importers of SD chromium (table IV-1). Official import statistics were not used because the HTS subheading under which SD chromium enters the United States includes chromium products other than SD chromium.

Total imports of SD chromium grew by \*\*\* percent by quantity between 2002 and 2004, and this increase was accounted for \*\*\* by an increase in imports from Japan. Japan's share of total imports \*\*\* between 2002 and 2004 \*\*\*; the share declined \*\*\* during January-June 2005 to \*\*\* percent as compared to the share in the same period in 2004. The level of imports from Japan \*\*\*. Imports from France, the \*\*\* import source of SD chromium in the United States and accounting for \*\*\* of the imports from nonsubject sources, declined throughout 2002-04, particularly in \*\*\* reportedly due to \*\*\*

#### Table IV-1

SD chromium: U.S. imports, by sources, 2002-04, January-June 2004, and January-June 2005

<sup>1 \*\*\*</sup> indicated that they do not import SD chromium.

<sup>&</sup>lt;sup>2</sup> Mitsui USA is a wholly owned subsidiary of Mitsui & Co., Ltd., Japan, which is a diversified trading, investment, and service enterprise operating globally. Mitsui USA is engaged in such traditional businesses as importing, exporting, offshore trade, and domestic wholesale. Mitsui USA's international trade activities include such commodity groups as iron and steel, chemicals, machinery, lumber & pulp, raw metals (including chromium), coal, petroleum, grain, sugar, fertilizers, foodstuffs, and consumer products. Mitsui USA's core businesses are bolstered and facilitated by its wide-range service capabilities in information and research, financial arrangements, risk management, supply chain management, and logistics planning and execution, among others.

<sup>&</sup>lt;sup>3</sup> According to Eramet, these increases occurred despite weak demand due to the impact of September 11, 2001 and shifts in "power prices" which affected key end-use markets. Hearing transcript, p. 7 (Kramer).

<sup>&</sup>lt;sup>4</sup> \*\*\* was the importer from \*\*\*. Staff telephone interview with \*\*\*. Purchaser questionnaires indicate that the Japanese withdrew from the U.S. market in April 2005. \*\*\*.

<sup>&</sup>lt;sup>5</sup> Delachaux importer questionnaire response, section III-B-12.

#### APPARENT U.S. CONSUMPTION AND MARKET SHARES

Data collected in this investigation concerning apparent U.S. consumption and market shares of SD chromium, as shown in table IV-2, are based on the U.S. producer's and importers' U.S. shipments of SD chromium provided in response to Commission questionnaires.

While apparent U.S. consumption decreased \*\*\* between 2002 and 2004, Eramet's share of U.S. apparent consumption declined and Japan's share grew by \*\*\* percentage points in terms of quantity and \*\*\* percentage points in terms of value. The share of consumption accounted for by other sources declined \*\*\* over the period. The quantity of apparent U.S. consumption in January-June 2005 was \*\*\* that of January-June 2004, reaching \*\*\* percent of the level for full-year 2004; Eramet's share of the quantity of U.S. apparent consumption increased from \*\*\* percent in January-June 2004 to \*\*\* percent in January-June 2005.

#### Table IV-2

SD chromium: U.S. shipments of domestic product, U.S. imports, by sources, apparent U.S. consumption, and market shares, 2002-04, January-June 2004, and January-June 2005

\* \* \* \* \* \* \*

#### RATIO OF IMPORTS TO U.S. PRODUCTION

Information concerning the ratio of imports to U.S. production of SD chromium is presented in table IV-3. The ratio of imports from Japan to U.S. production increased \*\*\* from 2002 to 2004. However, the ratio of imports to U.S. production declined \*\*\* in the first half of 2005.

#### Table IV-3

SD chromium: Ratio of U.S. imports to U.S. production, by sources, 2002-04, January-June 2004, and January-June 2005

#### PART V: PRICING AND RELATED INFORMATION

#### **FACTORS AFFECTING PRICES**

#### **Raw Material Costs**

Raw materials made up about \*\*\* percent of the cost of goods sold for Eramet's production of SD chromium in 2004. Eramet reported that high-carbon ferrochrome is the key raw material for the electrolytic process that it uses to produce SD chromium.<sup>1</sup> A published price for high-carbon ferrochrome from Metal Bulletin is shown on a monthly basis for the period January 2001 through September 2005 (figure V-1). The data show that the price of this input has increased irregularly throughout much of the period. However, since May of 2005 it has been decreasing.

#### Transportation Costs to the U.S. Market

Ocean transportation costs for SD chromium shipped from Japan to the United States (excluding U.S. inland costs) averaged approximately 1.8 percent of the customs value of these imports during 2004.<sup>2</sup> These estimates are derived from official import data and represent the transportation and other charges on imports.

#### **U.S. Inland Transportation Costs**

U.S. inland transportation costs for SD chromium account for a small part of the total delivered cost of both the U.S.-produced and imported products. Eramet reported that U.S. inland transportation costs make up \*\*\* percent of the delivered cost of SD chromium on average, while the importer Mitsui reported that U.S. inland transportation costs make up \*\*\* percent of the delivered cost.

#### **Exchange Rates**

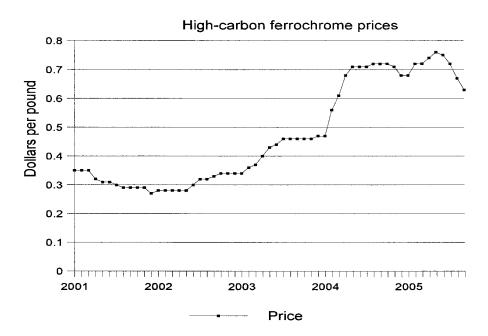
Quarterly data reported by the International Monetary Fund indicate that the nominal value of the Japanese yen appreciated relative to the U.S. dollar during January 2002 through June 2005, while the real value of the yen remained relatively stable in relation to the dollar during this period (figure V-2).<sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Petition, pp. 7, 48.

<sup>&</sup>lt;sup>2</sup> These estimates are based on import values under HTS subheading 8112.21.00 entered at the port of New York City. Petitioner indicates that virtually all of the entries identified as subject merchandise were unladed and entered at the port of New York City (petition, p. 27, fn. 45). The estimated cost was obtained by subtracting the customs value from the c.i.f. value of the imports for 2004 and then dividing by the customs value.

<sup>&</sup>lt;sup>3</sup> Real exchange rates are calculated by adjusting the nominal rates for movements in producer prices in the United States and Japan.

Figure V-1 High-carbon ferrochome: Prices, by month, January 2001- September 2005



Source: Metal Bulletin, "Ferro-chrome 6-8% C basis 60-65% Cr max 2% Si, United States" reported periodically. Monthly price for a particular month is the first price reported for that month. Since there was no price reported in August 2003, the price reported for July 31, 2003 (which is also the only price reported for July 2003) was used.

#### PRICING PRACTICES

#### **Pricing Methods**

\*\*\* sales of SD chromium by both Eramet and Mitsui are on a contract basis. Eramet reported that during 2004, \*\*\*. In the case of Mitsui, \*\*\*.

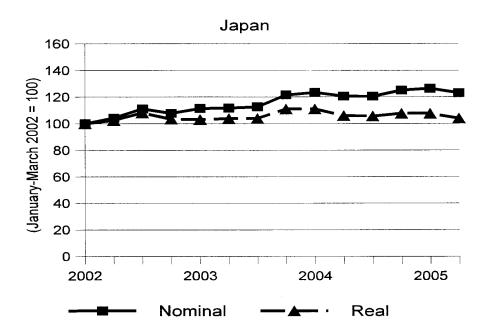
Eramet and Mitsui reported \*\*\* methods for determining prices that they charge for SD chromium. Eramet stated that its prices are determined \*\*\*.

Eramet and Mitsui \*\*\*. Both companies reported that \*\*\*.

Eramet and Mitsui \*\*\* sell on a consignment basis. Under this arrangement, the supplier maintains an inventory of the SD chromium at the end-use purchaser's production facility.<sup>4</sup> The purchaser then periodically reports the amount of the product it used, typically monthly. The supplier bills the customer for that quantity at the contract price. Eramet reported that the limit on the consignment period \*\*\*. Terms of payment are net \*\*\*. Eramet stated that in 2004, its merchandise was held in consignment for \*\*\* days on average, with the period varying by customer. Mitsui reported that its maximum consignment period is \*\*\* days. It typically bills its customers after \*\*\* days. Mitsui also reported that in 2004, its merchandise was held in consignment for \*\*\* days on average for all customers; the figures were \*\*\* days on average for \*\*\* and \*\*\* days on average for \*\*\*.

<sup>&</sup>lt;sup>4</sup> Conference transcript, p. 18 (Vorberger).

Figure V-2 Exchange rates: Indexes of the nominal and real exchange rates of the Japanese yen relative to the U.S. dollar, by quarters, January 2002-June 2005



Source: International Monetary Fund, International Financial Statistics, September 2005 and earlier periods.

Eramet reported that \*\*\*, while Mitsui reported that \*\*\*. Eramet reported that sales from inventory are delivered \*\*\* on average, while sales of products produced to order are delivered within \*\*\* to \*\*\* weeks. Mitsui reported \*\*\*.

#### PRICE DATA

The Commission asked U.S. producers and importers of SD chromium to provide quarterly data for the total quantity and value of SD chromium that was shipped to unrelated purchasers in the U.S. market on a delivered basis for the period January 2002 through June 2005. The products for which pricing data were requested are as follows:

<u>Product 1</u>.--Regular grade: For sales to superalloy producers - superalloy degassed chromium containing more than 0.002 percent nitrogen and more than 0.001 percent sulfur.

<u>Product 2.--Low-nitrogen grade</u>: For sales to superalloy producers - superalloy degassed chromium containing 0.002 percent or less nitrogen and more than 0.001 percent sulfur.

**Product 3.--Low-sulfur grade**: For sales to superalloy producers - superalloy degassed chromium containing 0.001 percent or less sulfur and more than 0.002 percent nitrogen.

<u>Product 4.--Low-nitrogen and low-sulfur grade</u>: For sales to superalloy producers - superalloy degassed chromium containing 0.002 percent or less nitrogen and 0.001 percent or less sulfur.

Eramet reported price data on sales of all four products during the specified period, while Mitsui reported price data only for product 3 and 4 since it does not sell SD chromium fitting the description of products 1 and 2.<sup>5</sup> The price data accounted for \*\*\*.

#### **Price Trends**

Weighted-average prices for Eramet and Mitsui are presented on a quarterly basis for the period January-March 2002 through April-June 2005 in tables V-1 through V-3 and in figures V-3 through V-5. Eramet's prices for products 1, 2, and 3 were all relatively stable during 2002 through 2004, but showed an increase during the first half of 2005. Similarly, in the case of product 4 Eramet's price was higher in the second quarter of 2005 than in the earlier quarters where transactions were reported. Mitsui's price for product 3 was relatively stable throughout the period for which data were reported, while its price for product 4 increased during the first quarter of 2005.

#### **Price Comparisons**

In the 18 quarterly price comparisons between U.S.-produced and imported Japanese prices for products 3 and 4, the Japanese prices were lower in all quarters. Margins of underselling ranged from a low of 27.5 percent to a high of 46.0 percent. Japanese prices for products 3 and 4 were also consistently lower than prices for U.S.-produced products 1 and 2.

#### Table V-1

SD chromium: Weighted-average delivered prices and shipment quantities of U.S.-produced products 1 and 2 sold to purchasers, by quarters, January 2002-June 2005

\* \* \* \* \* \* \*

#### Table V-2

SD chromium: Weighted-average delivered prices and shipment quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarters, January 2002-June 2005

\* \* \* \* \* \* \*

#### Table V-3

SD chromium: Weighted-average delivered prices and quantities of domestic and imported product 4 sold to purchasers and margins of underselling/(overselling), by quarters, January 2002-June 2005

\* \* \* \* \* \* \*

#### Figure V-3

SD chromium: Weighted-average delivered prices of U.S.-produced products 1 and 2 sold to purchasers, by quarters, January 2002-June 2005

<sup>&</sup>lt;sup>5</sup> In the preliminary phase of this investigation, Mitsui \*\*\*.

#### Figure V-4

SD chromium: Weighted-average delivered prices of domestic and imported product 3, by quarters, January 2002-June 2005

\* \* \* \* \* \* \*

#### Figure V-5

SD chromium: Weighted-average delivered prices of domestic and imported product 4, by quarters, January 2002-June 2005

\* \* \* \* \* \* \*

#### **BID DATA**

The Commission requested U.S. purchasers of SD chromium to provide data on the price negotiation process. Data were requested for the period January 2001-June 2005. Four end users provided varying amounts of usable bid data for sales of the requested products (see table V-4).<sup>6</sup> Bid data were grouped by purchaser and year. Initial and awarded bids are provided when reported. A total of 15 bid contracts for SD chromium were reported for the period examined, involving \*\*\* valued at \$\*\*\* (in winning bid values).<sup>8</sup> Of these contracts, \*\*\* percent of the total quantity was awarded to the U.S. supplier and \*\*\* percent was awarded to the Japanese supplier.

Of the 15 reported contracts for the SD chromium market, 13 contracts worth \$\*\*\* resulted from a competitive bid process. Of the 13 contracts involving competing bids, 7 were awarded entirely to the lowest bidder, 5 were split between multiple bidders (in all cases including the lowest bidder) and in one case where bids were equal, the contract was awarded to one company because of factors other than price. Five of the 13 competitive contracts involved competition between Eramet and Mitsui, the supplier of Japanese product. Japanese suppliers bid lower than the lowest U.S. bid in \*\*\* of these contracts.

<sup>6 \*\*\*</sup> 

<sup>&</sup>lt;sup>7</sup> Some firms don't use a bidding process of the type described in the questionnaire. For example, \*\*\*. Two other purchasers, \*\*\*, also reported that they do not keep detailed records of bids.

<sup>&</sup>lt;sup>8</sup> In addition to bid competition, some purchasers also reported spot transactions involving just one supplier. These transactions are not shown in the table.

<sup>9 \*\*\*.</sup> 

#### Table V-4

SD chromium: Bid information and sales to purchasers, January 2001-June 2005

LOST SALES AND LOST REVENUES

\*

In their petition, Eramet provided \*\*\* allegations of lost sales and \*\*\* allegations of lost revenues due to competition from imports from Japan. The \*\*\* lost sales allegations totaled \$\*\*\* for \*\*\* pounds during January 2002 to June 2005 and the \*\*\* usable lost revenue allegations totaled \$\*\*\*

for \*\*\* pounds. Staff contacted all purchasers named in these allegations and received responses from \*\*\* purchasers; a summary of the information obtained is presented in tables V-5 and V-6.

Eramet alleged that in 2004 it lost revenue on \*\*\*. 10 \*\*\*.

#### Table V-5

SD chromium: U.S. producer's lost sales allegations

#### Table V-6

SD chromium: U.S. producer's lost revenue allegations

Eramet alleged that it lost \*\*\* \*\*\*. 16 17

Eramet alleged that in 2003 it lost revenue on \*\*\*. 11 \*\*\* 12 \*\*\* \*\*\* 13 14 15 \*\*\*

<sup>10 \*\*\*</sup> 11 \*\*\* 12 \*\*\* <sup>13</sup> Staff interview with \*\*\*.

<sup>&</sup>lt;sup>15</sup> These annual purchase quantities do not match perfectly with the bid data shown in the table V-4 because they include spot purchases in addition to the bid data.

<sup>16 \*\*\*</sup> 17 \*\*\*

#### PART VI: FINANCIAL EXPERIENCE OF ERAMET

#### **BACKGROUND**

Eramet is the sole known U.S. producer of SD chromium, and it provided usable financial data on its operations.<sup>1</sup> Eramet produces a full line of manganese alloys in one part of its plant at Marietta, OH, and SD chromium (part of a group of "special products") in another part of the plant.<sup>2</sup> Sales of SD chromium accounted for \*\*\* percent of Eramet's total sales in 2004.<sup>3</sup>

Eramet prepares a GAAP-based fully absorbed product cost statement for each department on a monthly basis, and it provided with its postconference brief a copy of these statements for each of the four years of the period examined.<sup>4</sup> The firm's questionnaire data are consistent with its internal statements.<sup>5</sup>

#### **OPERATIONS ON SD CHROMIUM**

Income-and-loss data for Eramet's operations on SD chromium are presented in table VI-1.

Table VI-1 SD chromium: Results of Eramet's operations, 2002-04, January-June 2004, and January-June 2005

\* \* \* \* \* \* \* \*

The quantity and value of Eramet's sales fell by \*\*\* between 2001<sup>6</sup> and 2002, and again decreased between each of the years 2002-04. Reportedly, the vast majority of the decline between 2001 and 2002 was attributable to the demand shocks of 9/11 and the "bursting of the energy bubble" that together led to reduced demand in the aerospace and power generation markets, while a contributing factor to the decline during 2002 and 2003 was the substitution of lower-cost VMG chromium metal for

<sup>&</sup>lt;sup>1</sup> Eramet has a fiscal year that ends on \*\*\*. The data reported in the trade, financial, and pricing sections of the Commission's questionnaire reconciled. The Marietta, OH plant has been in operation since August 1951. Union Carbide, the plant's first owner and operator, sold the site to Elkem (owned by the Norwegian firm of the same name) in 1981, and Elkem sold the site to Eramet SA, a French mining and metallurgical company, in 1999. Eramet's web site found at <a href="http://www.emspecialproducts.com/products.php">http://www.emspecialproducts.com/products.php</a>, retrieved on March 10, 2005. Commission staff verified the questionnaire response of Eramet on October 5-6, 2005, and \*\*\*.

<sup>&</sup>lt;sup>2</sup> Eramet's web site found at <a href="http://www.emspecialproducts.com/products.php">http://www.emspecialproducts.com/products.php</a>, retrieved on March 10, 2005.

<sup>&</sup>lt;sup>3</sup> Eramet's questionnaire response, p. 13. Sales of manganese alloys accounted for \*\*\* percent of total net sales in 2004, and sales of special products accounted for the balance. This latter group of products includes SD chromium as well as aluminum hardeners (\*\*\* percent of total net sales in 2004), electrolytic chromium metal (\*\*\* percent); low-carbon ferrochrome, nitrided chromium, and chromium carbide (together accounting for \*\*\* percent); and VMG chromium (\*\*\* percent).

<sup>&</sup>lt;sup>4</sup> Eramet's postconference brief, exh. 9. Eramet provided a copy of its January-June 2005 statement pursuant to a request by staff during verification. See verification report.

<sup>&</sup>lt;sup>5</sup> These statements show both the variable and fixed costs of production and distribution of each of Eramet's products. While variable costs are direct costs of manufacture, fixed costs are \*\*\*. Fixed costs are \*\*\*. The allocations in Eramet's questionnaire response reconciled to the firm's internal statements for the product line that includes SD chromium.

<sup>&</sup>lt;sup>6</sup> For data reported in 2001, *see* Commission staff report (memorandum INV-CC-047, April 11, 2005) in the preliminary phase of the investigation.

SD chromium by some purchasers.<sup>7</sup> The average unit value ("AUV") of sales increased between each of the yearly periods, but did not compensate for the decline in volume. The total cost of goods sold ("COGS") decreased between 2002 and 2003 (somewhat in line with the decline in quantity sold), before rising between 2003 and 2004 (despite a further decline in sales quantity). The combined AUV of raw materials and direct labor decreased in 2003 before increasing between 2003 and 2004, while the AUV of other factory costs remained the same in 2002 and 2003 and increased in 2004. The AUV of selling, general, and administrative ("SG&A") expenses increased during each year between 2002 and 2004. Eramet's operating income fell between 2001<sup>8</sup> and 2002 \*\*\*. \*\*\* decreased in 2003, and then increased in 2004. Eramet's operating experience between January-June 2004 and the same period in 2005 differed from its experience in earlier periods. Its quantity and value of net sales \*\*\* between the interim periods and its operating \*\*\* increased to an operating \*\*\*.

According to internal accounting documents submitted by Eramet, the classifications of "other factory costs" and "general and administrative expenses" include \*\*\*. Each of these items increased during 2001-04 as a ratio of \*\*\*. 10

The Commission's questionnaire requested Eramet to report its cost of producing SD chromium by process stage: the purchase cost of high carbon ferrochromium ore, the cost of processing that ore into electrolytic chromium metal ("EC metal"), and the cost of processing EC metal into SD chromium. These data are shown in table VI-2.

Table VI-2 SD chromium: Production costs of Eramet, 2002-04, January-June 2004, and January-June 2005

\* \* \* \* \* \* \* \*

Changes in the data depict the relative costs of production and show the added cost at each stage of the process. As noted in Eramet's questionnaire response, the production costs shown in table VI-2 differ from those reported in its income statement in table VI-1.<sup>11</sup> Differences between the two schedules are largely due to differences in the methodology used to compile the data. The cost data in table VI-1 were \*\*\*.

Eramet reconciled its cost of production (table VI-2) with its profit-and-loss statement (table VI-1).<sup>12</sup>

Changes in Eramet's operating income are further examined by the variance analysis that shows the effects of prices and volume on net sales, and of costs and volume on its total costs. This analysis is summarized at the bottom of table VI-3, and shows that the decrease in operating income between 2002 and 2004 was attributable to \*\*\*. Between January-June 2004 and January-June 2005 operating income rose \*\*\* due to favorable variances on price and net cost/expense. Eramet stated it had experienced

<sup>&</sup>lt;sup>7</sup> Eramet's postconference brief, responses to staff questions, p. 6 and exh. 7. Also, *see* Eramet's prehearing brief, p. 32.

<sup>&</sup>lt;sup>8</sup> Information obtained in the preliminary phase of this investigation indicated that Eramet's operating income on its SD chromium operations was \$\*\*\* in 2001, or \*\*\* percent of its net sales of SD chromium in that year. Staff report/memorandum INV-CC-047, April 11, 2005, table VI-1.

<sup>&</sup>lt;sup>9</sup> See \*\*\*.

<sup>&</sup>lt;sup>10</sup> See note 1 in table VI-1 regarding a \*\*\* starting January 2005.

<sup>&</sup>lt;sup>11</sup> Eramet's questionnaire response, addendum response to question III-11.

<sup>&</sup>lt;sup>12</sup> E-mail from \*\*\* to staff on September 28, 2005.

\*\*\*.<sup>13</sup> Contributing to the increased costs are the categories of allocated costs that were noted earlier. Contributing to the increase in operating income between January-June 2004 and the same period in 2005 was the \*\*\* and the increase in \*\*\*.

#### Table VI-3

SD chromium: Variance analysis on the results of operations of Eramet, 2002-04 and January-June 2004-05

#### CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Eramet's data on capital expenditures and its research and development ("R&D") expenses for the production of SD chromium are shown in table VI-4.

#### Table VI-4

SD chromium: Value of capital expenditures and R&D expenses of Eramet, 2002-04, January-June 2004, and January-June 2005

\* \* \* \* \* \* \*

Eramet incurred its capital expenditures in connection with an investment in a new pilot degassing furnace employing a new patented technology. According to \*\*\*, and testimony at the staff conference, Eramet planned to continue to develop this technology and to \*\*\* based on this technology, \*\*\* in use at Marietta, OH.<sup>14</sup> Eramet estimated that using the \*\*\* would result in \*\*\*.<sup>15</sup> Eramet stated that its poor financial performance due to the unfairly traded imports has had serious negative effects on its development and production efforts with respect to its advanced degassing furnace technology.<sup>16</sup>

#### ASSETS AND RETURN ON INVESTMENT

The Commission's questionnaire requested data on assets used in production, warehousing, and sales of SD chromium to compute return on investment ("ROI") for 2002 to 2004 (table VI-5). The data for total net sales and \*\*\* are from table VI-1. Operating income was divided by total net sales, resulting in the operating income ratio. Total net sales was divided by total assets, resulting in the asset turnover ratio. The operating income ratio was then multiplied by the asset turnover ratio, resulting in ROI. The expanded form of this equation shows how the profit margin and total assets turnover ratio interact to determine the return on investment.

#### Table VI-5

SD chromium: Eramet's value of assets used in production, warehousing, and sale, and its return on investment, 2002-04

<sup>&</sup>lt;sup>13</sup> Eramet's postconference brief, pp. 43-44 and exh. 5.

<sup>&</sup>lt;sup>14</sup> \*\*\*. Also, see staff notes of Karen Taylor, March 16, 2005.

<sup>&</sup>lt;sup>15</sup> Eramet's postconference brief, response to staff questions, p. 2.

<sup>&</sup>lt;sup>16</sup> Eramet's prehearing brief, p. 30.

#### **CAPITAL AND INVESTMENT**

The Commission requested U.S. producers to describe any actual or potential negative effects of imports of SD chromium from Japan on their firms' return on investment, growth, investment, ability to raise capital, existing development and production efforts (including efforts to develop a derivative or more advanced version of the product), or the scale of capital investments. Eramet's responses are:

\*\*\*.

\*\*\*.

#### PART VII: THREAT CONSIDERATIONS

The Commission analyzes a number of factors in making threat determinations (see 19 U.S.C. § 1677(7)(F)(i)). Information on the volume and pricing of imports of the subject merchandise is presented in Parts IV and V, and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in Part VI. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows.

#### THE INDUSTRY IN JAPAN

The Commission sent foreign producer questionnaires to 11 firms that were identified as possible producers/exporters of SD chromium in Japan by the petition and/or by information provided by Customs.<sup>1</sup> Two firms (\*\*\*) reported they did not produce the subject product, and the remaining firms have not responded. JFE responded to the Commission's questionnaire in the preliminary phase of the investigation, but did not respond to the questionnaire sent in the final phase of the investigation.<sup>2</sup> Therefore, table VII-1 contains data collected from the preliminary phase of the investigation.<sup>3</sup>

#### Table VII-1

SD chromium: Reported Japanese production capacity, production, shipments, and inventories, 2002-04 and projected 2005-06

\* \* \* \* \* \* \*

On October 7, 2005, \*\*\*. JFE's reported capacity to produce SD chromium increased by \*\*\* percent from 2002 to 2004, before decreasing \*\*\* percent between 2004 and projected 2005. Projected capacity is expected to decrease by \*\*\* percent between 2005 and 2006, as \*\*\*. According to Eramet, since JFE exited the U.S. market, it has been selling SD chromium to Europe in lieu of shipments to the United States. Documents provided by Eramet show that \*\*\*. According to Eramet, it would be easy for the Japanese to reenter the U.S. market as they have already gone through the qualification process.

<sup>&</sup>lt;sup>1</sup> The petition identified two high-purity degassed non-electronics grade chromium producers in Japan: Japan Metals and Minerals, \*\*\*, and JFE. The remaining nine were identified using proprietary Customs data.

<sup>2 \*\*\*</sup> 

<sup>&</sup>lt;sup>3</sup> The United States Geological Survey published in its *Geological Survey Minerals Yearbook-2000* that JFE reported the development of a new product, 99.5 percent pure chromium metal using vacuum degasification, and that it planned to produce about 1,000 tons per year, developing its chromium metal production capacity to 3,000 tons per year.

<sup>&</sup>lt;sup>4</sup> Staff telephone interview with \*\*\*, October 7, 2005.

<sup>&</sup>lt;sup>5</sup> Eramet stated that when JFE began producing SD chromium in 2000 it announced intentions to eventually produce at a level 50 percent higher than current total global consumption. Hearing transcript, p. 7 (Kramer).

<sup>&</sup>lt;sup>6</sup> JFE's producer questionnaire response, section II-7, supplemental information.

<sup>&</sup>lt;sup>7</sup> Hearing transcript, p. 31 (Vorberger) and petitioner's prehearing brief, exh. 7.

<sup>&</sup>lt;sup>8</sup> Petitioner's prehearing brief, exh. 7.

<sup>&</sup>lt;sup>9</sup> Hearing transcript, p. 117 (Vorberger).

#### U.S. IMPORTS SUBSEQUENT TO JUNE 30, 2005

\*\*\*.<sup>10</sup> In the preliminary phase of the investigation, however, \*\*\*.<sup>11</sup> However, when \*\*\* exited the market, it did not honor preexisting sales agreements, leading purchasers to seek new sources of SD chromium.<sup>12</sup>

#### U.S. IMPORTERS' INVENTORIES

Data collected in this investigation on the reporting U.S. importers' end-of-period inventories of subject SD chromium are presented table VII-2.

#### Table VII-2

SD chromium: U.S. importers' end-of-period inventories of imports, by source, 2002-04, January-June 2004, and January-June 2005

DUMPING IN THIRD-COUNTRY MARKETS

There are no known current or previous antidumping investigations or orders in other countries on SD chromium from Japan.

<sup>10 \*\*\*</sup> 

<sup>&</sup>lt;sup>11</sup> See table VII-1.

<sup>12 \*\*\*</sup> purchaser questionnaire response, section V-1, p. 20, and hearing transcript, p. 9 (Kramer).

# APPENDIX A FEDERAL REGISTER NOTICES

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### INTERNATIONAL TRADE COMMISSION

[Investigation No. 731-TA-1090 (Final)]

## Superalloy Degassed Chromium From Japan

**AGENCY:** International Trade Commission.

**ACTION:** Scheduling of the final phase of an antidumping duty investigation.

SUMMARY: The Commission hereby gives notice of the scheduling of the final phase of antidumping investigation No. 731–TA–1090 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the Act) to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of less-then-fair-value imports from Japan of superalloy degassed chromium ("SD chromium"), provided for in subheading 8112.21.00 of the

Harmonized Tariff Schedule of the United States.<sup>1</sup>

For further information concerning the conduct of this phase of the investigation, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207). DATES: Effective date: August 18, 2005. FOR FURTHER INFORMATION CONTACT: Megan Spellacy (202) 205-3190, Office of Investigations, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436. Hearingimpaired persons can obtain information on this matter by contacting the Commission's TDD terminal on (202) 205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server (http:// www.usitc.gov). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at http://edis.usitc.gov.

#### SUPPLEMENTARY INFORMATION:

Background.—The final phase of this investigation is being scheduled as a result of an affirmative preliminary determination by the Department of Commerce that imports of superalloy

Certain higher-purity and lower-purity chromium products are excluded from the scope of this investigation. Specifically, the scope of the investigation does not cover electronics-grade chromium, which contains a higher percentage of chromium (typically not less than 99.95 percent), a much lower level of iron (less than 0.05 percent), and lower levels of other impurities than superalloy degassed chromium. The investigation also does not cover "vacuum melt grade" ("VMG") chromium, which normally contains at least 99.4 percent chromium and contains a higher level of one or more impurities (nitrogen, sulphur, oxygen, aluminum and/or silicon) than specified above for superalloy degassed chromium."

<sup>&</sup>lt;sup>1</sup> For purposes of this investigation, the Department of Commerce has defined the subject merchandise as "all forms, sizes, and grades of superalloy degassed chromium from Japan. Superalloy degassed chromium is a high-purity form of chrome metal that contains at least 99.5 percent, but less than 99.95 percent, chromium Superalloy degassed chromium contains very low levels of certain gaseous elements and other impurities (typically no more than 0.005 percent nitrogen, 0.005 percent sulphur, 0.05 percent oxygen, 0.01 percent aluminum, 0.05 percent silicon, and 0.35 percent iron). Superalloy degassed chromium is generally sold in briquetted form, as "pellets" or "compacts," which typically are 1½ inches x 1 inch x 1 inch or smaller in size and have a smooth surface. Superalloy degassed chromium currently is classifiable under subheading 8112.21.00 of the Harmonized Tariff Schedule of the United States ("HTSUS"). This investigation covers all chromium meeting the above specifications regardless of tariff classification.

degassed chromium from Japan are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigation was requested in a petition filed on March 4, 2005, by Eramet Marietta Inc., Marietta, OH, and the Paper, Allied-Industrial, Chemical and Energy Workers International Union, Local 5–0639, Belpre, OH.

Participation in the investigation and public service list.—Persons, including industrial users of the subject merchandise and, if the merchandise is sold at the retail level, representative consumer organizations, wishing to participate in the final phase of this investigation as parties must file an entry of appearance with the Secretary to the Commission, as provided in section 201.11 of the Commission's rules, no later than 21 days prior to the hearing date specified in this notice. A party that filed a notice of appearance during the preliminary phase of the investigation need not file an additional notice of appearance during this final phase. The Secretary will maintain a public service list containing the names and addresses of all persons, or their representatives, who are parties to the investigation.

Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.-Pursuant to section 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in the final phase of this investigation available to authorized applicants under the APO issued in the investigation, provided that the application is made no later than 21 days prior to the hearing date specified in this notice. Authorized applicants must represent interested parties, as defined by 19 U.S.C. 1677(9), who are parties to the investigation. A party granted access to BPI in the preliminary phase of the investigation need not reapply for such access. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

Staff report.—The prehearing staff report in the final phase of this investigation will be placed in the nonpublic record on October 20, 2005, and a public version will be issued thereafter, pursuant to section 207.22 of the Commission's rules.

Hearing.—The Commission will hold a hearing in connection with the final phase of this investigation beginning at 9:30 a.m. on November 3, 2005, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or

before October 24, 2005. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on October 28, 2005, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by sections 201.6(b)(2), 201.13(f), and 207.24 of the Commission's rules. Parties must submit any request to present a portion of their hearing testimony in camera no later than 7 days prior to the date of the hearing.

Written submissions.—Each party who is an interested party shall submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of section 207.23 of the Commission's rules; the deadline for filing is October 27, 2005. Parties may also file written testimony in connection with their presentation at the hearing, as provided in section 207.24 of the Commission's rules, and posthearing briefs, which must conform with the provisions of section 207.25 of the Commission's rules. The deadline for filing posthearing briefs is November 10, 2005; witness testimony must be filed no later than three days before the hearing. In addition, any person who has not entered an appearance as a party to the investigation may submit a written statement of information pertinent to the subject of the investigation, including statements of support or opposition to the petition, on or before November 10, 2005. On November 28, 2005, the Commission will make available to parties all information on which they have not had an opportunity to comment. Parties may submit final comments on this information on or before November 30, 2005, but such final comments must not contain new factual information and must otherwise comply with section 207.30 of the Commission's rules. All written submissions must conform with the provisions of section 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of sections 201.6, 207.3, and 207.7 of the Commission's rules. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by section 201.8 of the Commission's rules, as amended, 67 FR 68036 (November 8, 2002). Even where electronic filing of a document is permitted, certain

documents must also be filed in paper form, as specified in II (C) of the Commission's Handbook on Electronic Filing Procedures, 67 FR 68168, 68173 (November 8, 2002).

Additional written submissions to the Commission, including requests pursuant to section 201.12 of the Commission's rules, shall not be accepted unless good cause is shown for accepting such submissions, or unless the submission is pursuant to a specific request by a Commissioner or Commission staff.

In accordance with sections 201.16(c) and 207.3 of the Commission's rules, each document filed by a party to the investigation must be served on all other parties to the investigation (as identified by either the public or BPI service list), and a certificate of service must be timely filed. The Secretary will not accept a document for filing without a certificate of service.

Authority: This investigation is being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to section 207.21 of the Commission's rules.

By order of the Commission. Issued: August 31, 2005. Marilyn R. Abbott,

Secretary to the Commission.
[FR Doc. 05–17658 Filed 9–6–05; 8:45 am]
BILLING CODE 7020–02–P

countervailable subsidy (as appropriate) and of material injury. As a courtesy, the Department provides advance notice of the cases that are scheduled for sunset reviews one month before those reviews are initiated.

FOR FURTHER INFORMATION CONTACT: Zev Primor, Office 4, AD/CVD Operations, Import Administration, International Trade Administration, U.S. Department of Commerce at (202) 482–4114.

#### **Upcoming Sunset Reviews**

There are no sunset reviews scheduled for initiation in December 2005.

For information on the Department's procedures for the conduct of sunset reviews, See 19 CFR 351.218. This notice is not required by statute but is published as a service to the international trading community. Guidance on methodological or analytical issues relevant to the Department's conduct of sunset reviews is set forth in the Department's Policy Bulletin 98.3, "Policies Regarding the Conduct of Five-Year ("Sunset") Reviews of Antidumping and Countervailing Duty Orders;" Policy Bulletin, 63 FR 18871 (April 16, 1998) ("Sunset Policy Bulletin"). The Notice of Initiation of Five-Year ("Sunset") Reviews provides further information regarding what is required of all parties to participate in sunset reviews.

Dated: October 19, 2005.

#### Holly A. Kuga,

Senior Office Director, AD/CVD Operations, Office 4, for Import Administration. [FR Doc. 05–21768 Filed 10–31–05; 8:45 am]

BILLING CODE 3510-DS-S

#### DEPARTMENT OF COMMERCE

#### **International Trade Administration**

(A-588-866)

Notice of Final Determination of Sales at Less Than Fair Value: Superalloy Degassed Chromium from Japan

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

EFFECTIVE DATE: November 1, 2005. SUMMARY: The Department of Commerce determines that imports of superalloy degassed chromium from Japan are being, or are likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended (the Act). The final weighted—average dumping margins are listed below in the section entitled "Final Determination of Investigation."

#### FOR FURTHER INFORMATION CONTACT:

Janis Kalnins or Minoo Hatten, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482–1392 or (202) 482– 1690, respectively.

#### SUPPLEMENTARY INFORMATION:

#### **Background**

On August 18, 2005, the Department of Commerce (the Department) published the preliminary determination of sales at less than fair value (LTFV) in the antidumping investigation of superalloy degassed chromium from Japan. See Notice of Preliminary Determination of Sales at Less Than Fair Value: Superallov Degassed Chromium from Japan, 70 FR 48538 (August 18, 2005) (Preliminary Determination). We requested that parties comment on the Preliminary Determination. We did not make a decision on scope-clarification comments submitted by parties prior to the Preliminary Determination, as there was insufficient information on the record to draw a conclusion. Therefore, we invited parties to provide any new factual information on this issue and scope comments.

We received new factual information and scope comments from Tosoh Corporation and Tosoh Specialty Materials Corporation (collectively, Tosoh) and from Eramet Marietta Inc. (Eramet) and the Paper Allied-Industrial Chemical and Energy Workers International Union (collectively, the petitioners). We did not receive any comments, scope or otherwise, from JFE Material Co., Ltd. (JFE Material), during this investigation. While Mitsui & Co. (U.S.A.), Inc. (Mitsui), submitted scope comments prior to the Preliminary Determination, we have not received any comments from Mitsui since the Preliminary Determination. On September 21, 2005, the petitioners requested a hearing to discuss scope comments or rebuttal comments raised by interested parties in the investigation but then withdrew their request for a hearing on September 30, 2005. We did not receive any case or rebuttal briefs from any interested parties.

#### **Scope Comments**

All comments raised by parties to this investigation on superalloy degassed chromium from Japan are addressed in the Scope Comments Memorandum from Laurie Parkhill, Office Director, to Stephen J. Claeys, Deputy Assistant Secretary, dated October 25, 2005. As discussed in the Scope Comments Memorandum, the scope of the

investigation remains unchanged from our preliminary determination. This Scope Comments Memorandum, which is a public document, is on file in the Department's Central Records Unit, Herbert C. Hoover building, Room B— 099.

#### Period of Investigation

The period of investigation is January 1, 2004, through December 31, 2004.

#### Scope of Investigation

The product covered by this investigation is all forms, sizes, and grades of superalloy degassed chromium from Japan. Superalloy degassed chromium is a high-purity form of chrome metal that generally contains at least 99.5 percent, but less than 99.95 percent, chromium. Superalloy degassed chromium contains very low levels of certain gaseous elements and other impurities (typically no more than 0.005 percent nitrogen, 0.005 percent sulphur, 0.05 percent oxygen, 0.01 percent aluminum, 0.05 percent silicon, and 0.35 percent iron). Superalloy degassed chromium is generally sold in briquetted form, as "pellets" or "compacts," which typically are 1½ inches x 1 inch x 1 inch or smaller in size and have a smooth surface. Superalloy degassed chromium is currently classifiable under subheading 8112.21.00 of the Harmonized Tariff Schedule of the United States (HTSUS). This investigation covers all chromium meeting the above specifications for superalloy degassed chromium regardless of tariff classification.

Certain higher-purity and lowerpurity chromium products are excluded from the scope of this investigation. Specifically, the investigation does not cover electronics-grade chromium, which contains a higher percentage of chromium (typically not less than 99.95 percent), a much lower level of iron (less than 0.05 percent), and lower levels of other impurities than superalloy degassed chromium. The investigation also does not cover "vacuum melt grade" (VMG) chromium, which normally contains at least 99.4 percent chromium and contains a higher level of one or more impurities (nitrogen, sulphur, oxygen, aluminum and/or silicon) than specified above for superalloy degassed chromium.

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

#### **Adverse Facts Available**

For the final determination, we continue to find that, by failing to provide information we requested, IFE

Material, a producer and exporter of superalloy degassed chromium from Japan and mandatory respondent in this investigation, did not act to the best of its ability. Thus, the Department continues to find that the use of adverse facts available is warranted under section 776(a)(2) of the Act. See *Preliminary Determination*, 70 FR at 48539–48540.

#### **Final Determination of Investigation**

We determine that the following weighted average dumping margins exist for the period January 1, 2004, through December 31, 2004:

Manufacturer or Exporter	Weighted-Average Margin (percent)
JFE Material Co., Ltd All Others	129.32 129.32

## Continuation of Suspension of Liquidation

Pursuant to section 735(c)(1)(B) of the Act and 19 CFR 351.211(b)(1), we will instruct Customs and Border Protection (CBP) to continue to suspend liquidation of all imports of subject merchandise from Japan entered, or withdrawn from warehouse, for consumption on or after August 18, 2005, the date of the publication of our preliminary determination. CBP shall continue to require a cash deposit or the posting of a bond equal to the estimated amount by which the normal value exceeds the U.S. price as shown above. These instructions suspending liquidation will remain in effect until further notice.

### International Trade Commission Notification

In accordance with section 735(d) of the Act, we have notified the International Trade Commission (ITC) of our final determination. As our final determination is affirmative and in accordance with section 735(b)(2) of the Act, the ITC will determine, within 45 days, whether the domestic industry in the United States is materially injured, or threatened with material injury, by reason of imports, or sales (or the likelihood of sales) for importation, of the subject merchandise. If the ITC determines that material injury or threat of material injury does not exist, the proceeding will be terminated and all securities posted will be refunded or canceled. If the ITC determines that such injury does exist, the Department will issue an antidumping duty order directing CBP to assess antidumping duties on all imports of the subject merchandise entered, or withdrawn from warehouse, for consumption on or

after the effective date of the suspension of liquidation (i.e., August 18, 2005).

#### **Notification Regarding APO**

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305. Timely notification of return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This determination is issued and published pursuant to sections 735(d) and 777(i)(1) of the Act.

Dated: October 25, 2005.

#### Stephen J. Claeys,

Acting Assistant Secretary for Import Administration.

[FR Doc. 05–21769 Filed 10–31–05; 8:45 am] BILLING CODE 3510–DS-S

#### **DEPARTMENT OF COMMERCE**

### National Oceanic and Atmospheric Administration

Proposed Information Collection; Comment Request; Alaska Individual Fishing Quota Cost Recovery Program Requirements

AGENCY: National Oceanic and Atmospheric Administration (NOAA).

**ACTION:** Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995.

**DATES:** Written comments must be submitted on or before January 3, 2006.

ADDRESSES: Direct all written comments to Diana Hynek, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW., Washington, DC 20230 (or via the Internet at dHynek@doc.gov).

#### FOR FURTHER INFORMATION CONTACT:

Requests for additional information or copies of the information collection instrument and instructions should be directed to Patsy A. Bearden, 907–586–7008 or patsy.bearden@noaa.gov.

#### SUPPLEMENTARY INFORMATION:

#### I. Abstract

The Magnuson-Stevens Fishery
Conservation and Management Act
requires that the Secretary of Commerce
conduct a Cost Recovery Program to
cover the management and enforcement
costs of the Alaska Individual Fishing
Quota (IFQ) Program. This Cost
Recovery Program requires IFQ permit
holders to submit information about the
value of landings of IFQ species and to
calculate and submit fees. The Cost
Recovery Program requires Registered
Buyers to submit information about the
value and volume of landings of IFQ
species.

#### II. Method of Collection

Paper fee submission forms (mailed with payment) or report and payment online.

#### III. Data

OMB Number: 0648-0398.

Form Number: None.

Type of Review: Regular submission. Affected Public: Not-for-profit institutions; and business or other for-profits organizations.

Estimated Number of Respondents: 2,700.

Estimated Time per Response: 2 hours to complete IFQ Permit Holder Fee Submission Form; 2 hours to complete IFQ Registered Buyer Ex-vessel Value and Volume Report; 2 hours to complete the appeal process; and 30 minutes for prepayment of fees.

Estimated Total Annual Burden Hours: 5,504.

Estimated Total Annual Cost to Public: \$2,000.

#### IV. Request for Comments

Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

# APPENDIX B HEARING WITNESSES

#### CALENDAR OF PUBLIC HEARING

Those listed below appeared as witnesses at the United States International Trade Commission's hearing:

**Subject:** Superalloy Degassed Chromium from Japan

**Inv. No.:** 731-TA-1090 (Final)

**Date and Time:** November 3, 2005 - 9:30 a.m.

Session were held in connection with this investigation in the Main Hearing Room (room 101), 500 E Street, SW, Washington, DC.

#### **OPENING REMARKS:**

Petitioners (William D. Kramer, DLA Piper Rudnick Gray Cary US LLP)

#### In Support of the Imposition of Antidumping Duties:

DLA Piper Rudnick Gray Cary US LLP Washington, DC on behalf of

Eramet Marietta Inc. ("Eramet")

The Paper, Allied-Industrial, Chemical and Energy Workers International Union ("PACE"), Local 5-0639

**Gregory L. Noland**, Department Manager, Vacuum Products and Briquetting Operations, Eramet

**John W. Vorberger**, Sales and Marketing Manager, Special Products, Eramet North America, Inc.

Kenneth R. Button, Senior Vice President, Economic Consulting Services, LLC Jim Dougan, Senior Economist, Economic Consulting Services, LLC

William D. Kramer	)
	) – OF COUNSEL
Clifford E. Stevens, Jr.	)

#### **CLOSING REMARKS:**

Petitioners (Clifford E. Stevens, Jr., DLA Piper Rudnick Gray Cary US LLP)

# APPENDIX C SUMMARY DATA

#### Table C-1

SD chromium: Summary data concerning the U.S. market, 2002-04, January-June 2004, and January-June 2005

\* \* \* \* \* \* \*

#### Table C-2

VMG chromium: Summary data concerning the U.S. market, 2002-04, January-June 2004, and January-June 2005

\* \* \* \* \* \* \*

#### Table C-3

SD chromium plus VMG chromium: Summary data concerning the U.S. market, 2002-04, January-June 2004, and January-June 2005