UNITED STATES INTERNATIONAL TRADE COMMISSION

In the Matter of: FERROVANADIUM FROM KOREA) Investigation No.:) 731-TA-1315 (FINAL)

Pages: 1 - 83 Place: Washington, D.C. Date: Tuesday, March 21, 2017



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1	UNITED STATES OF AMERICA
2	BEFORE THE
3	INTERNATIONAL TRADE COMMISSION
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5	IN THE MATTER OF:) Investigation No.:
б	FERROVANADIUM FROM KOREA) 731-TA-1315 (FINAL)
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11	Main Hearing Room (Room 101)
12	U.S. International Trade
13	Commission
14	500 E Street, SW
15	Washington, DC
16	Tuesday, March 21, 2017
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18	The meeting commenced pursuant to notice at 9:30
19	a.m., before the Commissioners of the United States
20	International Trade Commission, the Honorable David S.
21	Johanson, Vice Chairman, presiding.
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1 APPEARANCES:

2	On behalf of the International Trade Commission:
3	Commissioners:
4	Vice Chairman David S. Johanson (presiding)
5	Commissioner Irving A. Williamson
6	Commissioner Meredith M. Broadbent
7	Commissioner F. Scott Kieff
8	
9	
10	
11	Staff:
12	Bill Bishop, Supervisory Hearings and Information
13	Officer
14	Sharon Bellamy, Records Management Specialist
15	Yasmyne Hilliard, Student Intern
16	
17	Lawrence Jones, Investigator
18	Karen Taylor, International Trade Analyst
19	Andrew Knipe, Economist
20	Charles Yost, Accountant/Auditor
21	Joseph Laroski, Attorney
22	Douglas Corkran, Supervisory Investigator
23	
24	
25	

1 Opening Remarks

2	Petitioners (John B. Totaro, Jr., Neville Peterson, LLP)
3	
4	In Support to the Imposition of Antidumping Duty Order:
5	Neville Peterson, LLP
6	Washington, DC
7	on behalf of
8	Vanadium Producers and Reclaimers Association ("VPRA")
9	AMG Vanadium LLC ("AMG V")
10	Bear Metallurgical Company ("Bear")
11	Gulf Chemical & Metallurgical Corporation ("Gulf")
12	Evraz Stractor, Inc. ("Stratcor")
13	Mark Anderson, Vice President of Global Marketing and
14	Sales, AMG V
15	David F. Carey, General Manager, Bear
16	Jennifer Lutz, Senior Economist, Economic Consulting
17	Services, LLC
18	John B. Totaro, Jr Of Counsel
19	
20	Closing Remarks:
21	Petitioners (John B. Totaro, Jr., Neville Peterson, LLP)
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23	
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INDEX Page Opening Remarks Petitioners (John B. Totaro, Jr., Neville Peterson, LLP) Mark Anderson, Vice President of Global Marketing and Sales, AMG V David F. Carey, General Manager, Bear Jennifer Lutz, Senior Economist, Economic Consulting Services, LLC Closing Remarks: Petitioners (John B. Totaro, Jr., Neville Peterson, LLP)

PROCEEDINGS 1 MR. BISHOP: Okay. Will the program please come 2 3 to order? 4 VICE CHARMAN JOHANSON: Good morning. On behalf of the U.S. International Trade Commission, I welcome you to 5 6 this hearing on investigation number 731TA1315 Final 7 involving Ferrovanadium from Korea. The purpose of this investigation is to 8 9 determine whether an industry in the United States is 10 materially injured or threatened with material injury or the establishment of an industry in the United States is 11 12 materially retarded by reason of imports of Ferrovanadium 13 from Korea. Schedule setting forth the presentation of his 14 hearing, notices of investigation, and transcript order forms are available at the public distribution table. All 15 16 prepared testimony should be given to the Secretary. Please 17 do not place any testimony directly on the public distribution table. 18 19 All witnesses must be sworn in by the Secretary before presenting testimony. I understand the parties are 20 21 aware of the time allocations. Any questions regarding the time allocations should be directed to the Secretary. 22 Speakers are reminded not to refer in their remarks or 23 24 answers to questions to business or answers to questions to 25 business proprietary information. Please speak clearly into

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2 benefit of the court reporter.
3 If you will be submitting documents that contain
4 information you wish classified as business confidential,
5 your request should comply with Commission Rule 201.6. Mr.
6 Secretary, are there any preliminary matters?
7 MR. BISHOP: No, Mr. Chairman.

the microphone and state your name for the record for the

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8 VICE CHARMAN JOHANSON: Very well, let us begin9 with opening remarks.

MR. BISHOP: Opening remarks on behalf of petitioners will be given by John B. Totaro, Junior of Neville Peterson.

13 OPENING REMARKS OF JOHN B. TOTARO, JR. 14 MR. TOTARO: Good morning, Vice Chairman Johanson, commissioners, members of the commission staff. 15 16 My name is John Totaro with the law firm of Neville 17 Peterson. I'm pleased to be here today on behalf of the Vanadium Producers and Reclaimers Association and its 18 19 members, AMG Vanadium, Bear Metallurgical Company, Gulf 20 Chemical and Metallurgical Corporation, and Evraz Stractor. As we outlined in our prehearing brief and as we 21 22 will discuss further today, the information on the record of

24 effects, and impact of subject imports on the domestic

25 industry clearly demonstrates that the Ferrovanadium

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this proceeding, including facts regarding the volume, price

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industry in the United States is materially injured by
 reason of imports of the subject merchandise. The record
 also confirms that the fundamental conditions of competition
 in the U.S. market for Ferrovanadium are unchanged from
 previous proceedings in which the Commission has examined
 this product.

7 Because Ferrovanadium is a commodity product, it 8 is sold primarily on the basis of price. And there is a 9 high degree of substitutability among Ferrovanadium from all 10 sources.

Demand for Ferrovanadium is driven by the U.S. steel industry, which consumes this material at a high rate per ton relative to other countries. And the supply of Ferrovanadium in the United States is a combination of domestic production and imported material.

16 Particularly in 2015, subject imports gained 17 market share using below market pricing. These gains were 18 facilitated by the substitutability and interchangeability 19 of Ferrovanadium from all countries. The low priced imports 20 were particularly injurious to the domestic industry because 21 Korean Ferrovanadium makes up a large proportion of the 22 material traded on the spot market and because the domestic 23 industry's contract prices are directly affected by changes 24 in published spot market prices.

25 U.S. producers' financial condition in the early

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part of the period of investigation fluctuated, but largely reflected the fact that imported Ferrovanadium appeared to be trading at fair prices. And during this time, VPRA members took the opportunity to invest in improvements in their facilities.

6 However, beginning in 2015, as the volume of 7 subject imports grew significantly, and their prices on the spot market became increasingly aggressive, these imports 8 9 caused repeated downward adjustments of the U.S. published prices. This resulted in depression of domestic producers' 10 and tollees' contract prices, diminished returns on reduced 11 12 sales volumes, and severe declines in their profitability in 13 the later portion of the period of investigation.

Subject imports into the United States slowed dramatically after the petition was filed and stopped all together in September 2016. But publicly available statistics show that Korea continued to export massive volumes of Ferrovanadium to other markets and that it shifted greater volumes to these other markets when it reduced its export to the United States in 2016.

21 Without relief from dumped imports of 22 Ferrovanadium from Korea, petitioners are confident that 23 high volumes of low priced subject imports will resume, 24 along with revenue impacts like those that they experienced 25 in 2015, making it impossible for the industry to sustain

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1 operations.

I urge you to keep these factors in mind as you 2 3 hear the domestic industry's testimony today and as you 4 consider the record before you. Thank you. MR. BISHOP: Mr. Chairman, we will now move to 5 6 the panel in support of the imposition of the anti dumping 7 duty order. This panel has been seated and all witnesses have been sworn. 8 9 MR. TOTARO: I'd like to introduce our panel 10 We have assembled an experienced group of industry now. witnesses whose companies represent 100 percent of the 11 production of Ferrovanadium in the United States. And 12 13 certainly you will find their comments instructive. 14 First from AMG Vanadium, Mark Anderson, vice president for global marketing and sales. And from Bear 15 16 Metallurgical David Carey, general manager. 17 Another VPRA member, Gulf Chemical and 18 Metallurgical who participated in the preliminary phase 19 conference and hoped to participate in today's hearing, but unfortunately was unable to do so. However, I would like to 20 direct the Commission's attention to Exhibit 2 of our 21 prehearing brief, which is a statement prepared by Gulf's 22 CEO Eric Caridroit. Mr. Caridroit explained in his 23 24 statement that Gulf and Bear filed voluntary Chapter 11 25 bankruptcy petitions in June 2016 and that "the most

important factor that ultimately led these companies to file their Chapter 11 cases was the declines in the market prices of Vanadium and Melugdinum. And in particular, the declines in the published prices for Ferrovanadium caused by low priced spot market sales of Ferrovanadium from Korea."

Due to the constraints imposed on Gulf by the ongoing bankruptcy proceeding, Mr. Caridroit explained that it was not possible for a representative of Gulf to be at the hearing today. For that reason, he asks that the Commission accept the statement presented at Exhibit 2 to our brief in lieu of Gulf's direct testimony at the hearing.

12 Finally, I'd like to introduce Jennifer Lutz, a 13 senior economist from the firm Economic Consulting Services, 14 who will present additional testimony at the conclusion of 15 our industry panel. Now before I ask our witnesses to begin, I would like to review just a few issues that we 16 17 discuss in our prehearing brief. In the exhibits to that brief, we provided affidavits, some of which we had 18 previously provided in the petition that documented the 19 20 effect of spot sales of Korean Ferrovanadium on published Ferrovanadium prices during 2015 and into 2016. We 21 22 explained the direct connection between the reductions in 23 those published prices and the declines in revenues of 24 domestic producers and tollees. This information demonstrates the causal nexus, not simply a temporal 25

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connection between the subject imports and the injurious economic impact experienced by these domestic parties.

While Ferrovanadium prices declined globally during 2015 and early 2016, and while prices in the United States likely would have been lower in 2015 than in 2014, even if imports from Korea had been absent from the market, the price declines in the U.S. market would not have been as steep as they were, but for the high volumes of aggressively priced subject imports on the spot market in 2015.

As you will hear later, the 2015 price declines for Ferrovanadium were far steeper than the contemporaneous declines in steel production and raw materials prices would suggest. The facts in the record show that subject imports increased in volume substantially from 2013 to 2014 and again from 2014 to 2015 and that Ferrovanadium from Korea gained market share during the period of investigation.

U.S. production of steel, which is the major source of demand for Ferrovanadium, was roughly flat from 2013 to 2014, but then declined by about 10 percent in 2015. During this period of decreased demand, domestic producer shipments declined and the volume of nonsubject imports declined, but subject imports increased in both volume and market share.

In 2016, U.S. production of steel was slightly
lower than in 2015, but Ferrovanadium prices rebounded

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strongly, particularly after the filing of the petition,
 providing further evidence that price declines in 2015 were
 not solely caused by a decline in demand.

4 The volume of subject imports also declined dramatically in 2016 due to the pendency this investigation. 5 However, information that the Commission collected from б 7 questionnaire responses and from public sources and information we presented in our brief suggest that that 8 9 subject imports would again be imported at increasing 10 volumes and sold at injurious prices if an order is not put in place, regardless of whether a dramatic increase in 11 12 consumption is imminent, for example, from an expansion of 13 steel industry demand.

Based on these considerations and others that our panel will discuss today, we believe that the record supports an affirmative determine nation that material injury to the domestic Ferrovanadium industry due to the subject imports. With that, I would like to begin our industry presentation. Mark?

STATEMENT OF MARK ANDERSON
 MR. ANDERSON: Good morning. My name is Mark
 Anderson. I'm the vice president of global marketing and
 sales at AMG Vanadium, LLC.

I've worked with AMG for more than nine years.My responsibilities with AMG include overseeing the

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marketing and sales of metals and alloys, including
 Ferrovanadium. My work involves direct contact with our
 company's Ferrovanadium customers.

4 AMG has produced Ferrovanadium since 1952 at or 5 production facility in Cambridge, Ohio. AMG produces б Ferrovanadium using an environmentally friendly state of the 7 art reduction process that enables us to process a wide range of Vanadium containing materials. AMG's primary raw 8 9 materials for Ferrovanadium is spent catalyst from oil 10 refineries, and listed hazardous waste, but we can also use residues and ash from power plants that burn Vanadium 11 12 bearing crudes and other sources.

13 AMG recycles these materials using a 14 technologically advanced pyro-metallurgical process. The 15 Ferrovanadium that AMG produces typically contains 55 to 60 percent Vanadium by weight. Although we can produce a 16 17 higher Vanadium content, the percentage of contained Vanadium generally is referred to as a grade of 18 Ferrovanadium product, but the percentage is simply a 19 20 physical description of the product, not an indicator of its 21 quality.

Ferrovanadium is a commodity product that is sold primarily on the basis of price. As the Commission repeatedly has found in most applications, Ferrovanadium from all sources is interchangeable. While I see from the

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public report that many producers cite quality as one of, if 1 2 not the most important factor in purchasing decisions, in 3 practical terms its high degree of interchangeability makes 4 price the most important factor for Ferrovanadium purchases. 5 The U.S. Ferrovanadium market is highly 6 competitive. Most purchasers obtain bids from multiple 7 suppliers and these purchasers will change suppliers based on the best price offered. In addition, because 8 9 Ferrovanadium is priced on a contained Vanadium basis, 10 Ferrovanadium with different percentages of Vanadium content 11 are treated as equivalent in price negotiations. 12 For most steel industry customers, Ferrovanadium 13 is equally acceptable regardless of Vanadium content. From 14 a functional or a metallurgical perspective, the difference in the amount of iron and other metals in one grade or 15 another is not consequential for the steel makers because 16 17 they add Ferrovanadium to their melts in very small 18 quantities. 19 Some prefer a lower percentage of Vanadium because it melts into the steel bath more easily. Others 20 21 prefer a higher percentage of Vanadium, because it contains

22 a lower proportion of non-Vanadium elements. But the 23 majority of steel industry customers will choose to buy one 24 product over another based primarily on price.

25

It is our understanding that most Ferrovanadium

sold in the U.S. market is sold on annual contract basis
 rather than a spot basis, although based on our market
 intelligence, imports from Korea were sold mainly on a spot
 basis during 2015.

5 In the contracts used by AMG and other market 6 participants, monthly spot prices published by CRU Ryans 7 Notes are used as a benchmark in the price term applicable 8 to the monthly shipments under that contract.

9 That is contract prices are typically based on 10 discount formulas tied to the published spot prices that are 11 in effect over the months of the term of the contract. This 12 fact makes domestic producers highly vulnerable to the 13 effects of declines in the U.S. spot price for

14 Ferrovanadium.

15 Regardless of whether sales on the spot market 16 are priced below AMG's prices, a spot price is a price low 17 enough to drive current published prices below their 18 existing level. That would reduce the monthly average 19 published price. And that price decline would flow through 20 to reduce our contract sales prices in the following months 21 for all of our contract customers.

For example, the average the CRU Ryans Notes Ferrovanadium price for the month of September 2015 was \$8.35 per pound of contained Vanadium. This published price fell four times during the month of October 2015. And as a

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result, the monthly average price for October was \$7.59 per
 pound of contained Vanadium.

3 Hypothetically, if AMG had obligations to ship 4 500,000 pounds of Vanadium per month under contracts tied to 5 CRU Ryans Notes prices, with a discount of 10 percent off 6 the published price, the decline in the monthly average 7 published price of 76 cents per pound from September to October would have reduced AMG's revenue on shipments in 8 9 November by almost 350,000. This one month price decline 10 alone would have been detrimental to our financial results, but the declines began months earlier and continue months 11 12 afterwards.

Published U.S. spot prices shifted farther and farther downward throughout 2015 and into 2016. And as a result, the declines in AMG's revenue began in 2015 and continued and compounded for more than a year.

To give you our specific example, the monthly average published price for Ferrovanadium for December 2015 was less than half of the monthly average price for December 20 2014. And the average published price in January 2016 was lower still.

And as demonstrated by the information we presented in the petition, and again in our prehearing brief, spot sales of Korean Ferrovanadium were the direct cause of several of those declines. We believe that these

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were not isolated events. Instead, they were part of a
 pattern of aggressive pricing of these imports in the U.S.
 spot market throughout 2015 and early 2016.

4 Ferrovanadium prices began to rise somewhat in the first quarter of 2016, then increased more quickly in 5 6 the first few months after we filed our petition. As 7 discussed in our prehearing brief, published prices fell in late July, again, in response to low price spot sales of 8 9 Ferrovanadium from Korea. By the end of the period of investigation, prices were again rising, but the average 10 price for September 2016 was still well below the average 11 12 published price for January 2015 when we first started to 13 see the effects of aggressive pricing of imports from Korea.

In general, a low volume spot sale can cause a reduction in the published price. However, I want to stress that the volume of imports from Korea during the period of investigation was not small. The volume of Korean Ferrovanadium available on U.S. spot market was much higher in 2015 than in 2014.

I say this based on my company's experience because AMG makes occasional spot purchases of Ferrovanadium. During 2015, when AMG contacted traders to purchase Ferrovanadium, the product that the traders offered for these spot purchases was usually of Korean origin. As imports from Korea drove published

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1 Ferrovanadium prices farther and farther down, our contract 2 sales revenue, which represents nearly all of our annual 3 sales, was dragged down as well. In the petition, and again 4 in our prehearing brief, we included an analysis of AMG's operating income data in 2014 and 2015. It shows in plain 5 6 terms the damaging economic blow to our company as low price 7 spot sales of Koreaen imports pushed published pricing for Ferrovanadium farther and farther down over the courses of 8 9 2015.

10 These published prices did not recover to any 11 significant extent for over a year once they began falling 12 in January 2015. And this resulted in a compounding effect 13 on our operating income since AMG's contracts with steel 14 companies are tied to those prices.

15 In addition to revenue effects, AMG also saw its 16 shipment volumes decrease, because orders from contract 17 customer decreased. But despite these worsening conditions, AMG tried to maintain an adequate level of shipments 18 19 throughout the year. This is both because of our 20 contractual obligations and because permitting our shipment 21 volume to slip farther would have results in declines in our 22 production volume and this would put us at risk of not being able to cover our fixed costs. 23

Neither option was desirable. We werecontinuing to ship at high volumes despite the terrible

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market prices that we were tied to or reducing production
 and incurring the cost consequences.

3 Furthermore, with the rapid declines in prices, 4 it would have made no sense to hold any material in 5 inventory. Any inventories would have steady lost value as 6 prices fell. But AMG has done its best to balance these 7 factors during the past two years. Unfortunately, despite our best efforts, the declines in published prices led by 8 9 spot sales of Korean Ferrovanadium had a damaging impact on 10 AMG's financial condition specifically in 2015 and 11 especially late in that year.

12 Beyond their direct adverse impact on our 13 profitability, these declines in sales and revenue also 14 reduced our ability to raise capital and make and maintain 15 necessary capital investments.

During the early part of the period of investigation, AMG made several substantial capital investments to improve our production facilities. Based on the market conditions at the time these projects were planned, we reasonably expected these investments would facilitate increased production and market share gains for our company.

However, our ability to sustain these
investments became extremely difficult in the face of a
major decline in revenue that our company experienced due to

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1 imports from Korea in 2015.

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2	AMG's production processes have always been
3	highly capital intensive and include high fixed costs. To
4	be able to recover our costs, we need to be able to run the
5	plant as a high a capacity utilization rate as possible, so
б	that we can spread costs evenly over a sufficiently large
7	volume of Ferrovanadium sales. In 2015, this became more
8	and more difficult.
9	The poor market conditions in 2015 also forced
10	AMG to cancel or postpone several capital projects that we
11	would have increased the efficiency of our Ferrovanadium
12	plant. We described several projects in a questionnaire
13	response that were put on the shelf until our returns on
14	Ferrovanadium sales can again support these kinds of
15	investments.
16	U.S. prices have improved in 2016, mainly
17	following a filing of the petition. It is clear to us,
18	however, based on the events of 2015 just how quickly a few
19	low priced sales of subject imports can cause our condition
20	to deteriorate.
21	MR. ANDERSON: Despite the improvements in 2016,
22	AMG is still feeling the effects of the low-priced Korean
23	Imports sold into the U.S. Market in 2015. Purchasers,
24	encouraged by the increasing volume and decreasing price of
25	the Subject Imports demanded larger discounts in their

1 contract negotiations for 2016.

2	A fifty percent increase in the size of the
3	discount we have historically provided to our customers.
4	Improvement in our condition in 2016 would have been even
5	stronger than that recorded in our data if not for this
6	effect. If we do not relieve relief and the Subject Imports
7	resume the practices we saw in 2015 we face another
8	potential problem with respect to potential availability of
9	the raw materials we use to make ferrovanadium.
10	Ferrovanadium price declines have a direct impact
11	on our major raw material spent refinery catalyst. The
12	contracts we use to obtain spent catalyst typically contain
13	a per unit processing fee as compensation for AMG's services
14	for recycling the catalyst. In return AMG provides a credit
15	to the refinery for the value of metals contained in the
16	catalyst, which include vanadium.
17	The metals credits are paid to the refinery as a
18	percentage of the market price index for each pound of each
19	metal contained. Under normal market conditions, the net
20	result is AMG pays a refinery for the spent catalyst however
21	there is a point at which the metal credits will be lower
22	than the processing fee and the refinery ends up paying AMG
23	on net to process the material.
24	However for vanadium-bearing spent catalyst that

25 is not sold on long-term contracts when the market prices

1 for vanadium drops below a certain level the refineries are forced to reevaluate the cost of sending their spent 2 3 catalyst to a landfill versus the cost to send the material 4 to a recycler. Our brief discusses a specific episode late 5 in the Period of Investigation when vanadium prices have 6 been driven very low by imports from Korea in which a major 7 U.S. refinery had begun land-filling the spent catalyst because recycling was no longer an economical option due to 8 9 low metal market prices.

10 For these reasons and for those we discussed in 11 our Petition and our questionnaire responses and in our 12 brief, we hope that the Commission will reach an affirmative 13 determination in this investigation. We hope that the 14 Commission will agree that the material injury suffered by 15 the U.S. ferrovanadium industry was the result of dumped 16 imports from Korea and that an antidumping duty order can be 17 issued to remedy this situation. If an order is not 18 put in place I have no doubt that the high volumes of 19 low-priced Korean ferrovanadium that caused such harm to AMG 20 and the other VPRA member companies and from which we are still working to recover, will return to the U.S. Market and 21 cause us further injury. Thank you, I look forward to 22 23 answering any questions you may have.

24 MR. TOTARO: Thank you, Mark. Our next industry
25 witness is David Carey from Bear Metallurgical.

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1 STATEMENT OF DAVID F. CAREY 2 MR. CAREY: Good morning. My name is David 3 I'm the General Manager at Bear Metallurgical Carey. 4 Company, a toll processer of ferrovanadium and 5 ferromolybdenum located in Butler, Pennsylvania. 6 I have been with Bear for ten years. At the time 7 the Petition was filed in March 2016, Bear was a subsidiary of Gulf Chemical and Metallurgical Corporation. Several 8 9 months after that, as I will discuss further in a moment, 10 Bear was acquired by Yilmaden Holding. As a result of that acquisition, the legal name of my company is now Evergreen 11 12 Metallurgical LLC but we continue to do business as Bear. 13 As we explained in our prehearing brief, the 14 structure of Bear's operations as a toll producer of 15 ferrovanadium and ferromolybdenum was not changes as a result of our acquisition by Yilmaden. Bear began producing 16 ferrovanadium in 1991. Our ferrovanadium business consists 17 of toll-processing vanadium pentoxide or V205 supplied by 18 our tolling customers into ferrovanadium. 19 20 Bear's process for producing ferrovanadium uses 21 an aluminothermic process to convert V205 into 22 ferrovanadium. In Bear's process, a precisely calibrated 23 mixture of V205, aluminum, iron scrap and other materials is 24 blended and charged into a furnace which is ignited. This

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process provides its own energy and requires no gas,

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electricity or other energy to burn. The reaction that
 occurs causes the V205 and iron to be reduced into
 ferrovanadium.

The resulting product, which contains approximately 80 percent ferrovanadium, is then crushed, analyzed, sized and packaged for delivery. All of the materials in Bear's process are recycled, reused or sold as a co-product. No material is land-filled or otherwise disposed of as waste.

As we reported to the Commission, Bear made significant capital investments during the early part of the Period of Investigation but these projects were focused on replacing worn production equipment, industrial hygiene and environmental improvements. They did not increase Bear's overall production capacity.

Bear decided to make these investments at the time based on our confidence in the market conditions for ferrovanadium and the volume of production that we could project given those conditions. Unfortunately the severe declines in ferrovanadium prices that began in 2015 directly impacted Bear's business in terms of the volume of businesses we received from tollees.

As a result, Bear has significant unused capacity and has experienced significant revenue declines over the last two years and we have had to reduce our workforce as

well. As I mentioned, Bear produces ferrovanadium from V205 supplied by our tollee customers. During the Period of Investigation Gulf Chemical and Metallurgical was Bear's largest tollee. Gulf produces the V205 that is supplied to Bear at its facilities in Freeport, Texas through a recycling process using spent oil refinery catalyst as its primary vanadium-bearing raw material.

8 After Bear converts this material into ferrovanadium for
9 Gulf, Gulf is responsible for selling the ferrovanadium in
10 the U.S. Market.

In addition to toll producing for Gulf, during the period examined during this investigation, Bear also produced ferrovanadium on behalf of a small group of other tollees including Stratcor. As we discussed in the Petition and in our prehearing brief, Bear has experienced harmful effects from the volume of low-priced imports from Korea although not in the same way as AMG Vanadium or Gulf.

We sell very little ferrovanadium into the market 18 Instead, as a toll-producer these effects flow 19 ourselves. 20 to Bear through its tollee customers. For example, bear lost significant tolling volume and revenue in 2015 compared 21 22 to 2014. Bear developed budgeted volumes for 2015 23 ferrovanadium production based on its discussions with 24 tollee customers and in late 2014. Those budgeted volumes were in line with the volumes that we produced in 2014 if 25

1 not higher.

2	However, as our tollee customers faced
3	ever-worsening conditions in the U.S. Market during the
4	course of 2015, they reduced their volume of tolling
5	business at bear and our actual 2015 conversion volume ended
б	up far below our budgeted volume for that year. While I
7	cannot go into detail in this public setting, I will say
8	that the steadily declining market conditions during 2015 in
9	particular the steep declines in ferrovanadium prices which
10	were tied to spot sale of ferrovanadium directly impacted
11	the volume of business Bear received from our tollees in
12	2016.
13	We have presented additional proprietary

14 information on these developments in our brief. Bear also 15 experienced significant employment impacts as a result of 16 these declines in its tolling business. In the Petition, we 17 addressed the employment impacts we incurred during 2015; in 18 our questionnaire response and in the prehearing brief we 19 explained the effects on Bear's employment data that 20 continued through 2016.

21 Unfortunately, these effects in 2015 and 2016 22 came on the heels of earlier employment reductions that Bear 23 introduced in 2013 and 2014. To be clear, Bear believes 24 that these negative impacts on our tolling business are a 25 direct result of the injurious effects experienced by

tollees during 2015 and unfairly traded Subject Imports were a central cause of that injury. Bear discussed this cause and effect in a statement we issued in June 2016 when Bear along with Gulf made the difficult decision to file a petition for relief under Chapter 11 of the bankruptcy code.

6 We specifically referenced the impact of high 7 volumes of imports of ferrovanadium as a factor that drove 8 this decision and the low published prices that resulted 9 from low-priced sales of ferrovanadium from Korea as well as 10 the decline in demand from the U.S. Steel industry that was 11 occurring at the same time.

Fortunately for Bear and its dedicated employees, we found a buyer through the bankruptcy process and we were able to continue our operations. Unfortunately, Gulf has not yet found a buyer and the potential loss of tolling volume that would occur if Gulf idled its production facility is a major concern to us.

18 The ferrovanadium has improved somewhat over the course of 2016 and I believe this is directly related to the 19 20 filing of the Petition and the decline in imports from Korea 21 that occurred after this investigation began. We are 22 hopeful that as the market stabilizes further in terms of 23 price and its conditions appear to be improving in terms of 24 steel production, our tollee customers will feel the confidence to increase their volumes of business at Bear. 25

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However if this investigation does not conclude with the issuance of an order, we expect that the import volumes and price depressing effects of ferrovanadium from Korea that we saw in 2015 will return. The economic effects of these developments on Bear's business would be extremely harmful and could put our continued operations in jeopardy.

7 I believe that the information that the Commission has collected in this investigation supports the 8 9 conclusion that Bear has experienced material injury during the Period of Investigation and that there is a clear link 10 between the injury we suffered and the effects of low-priced 11 12 imports of ferrovanadium from Korea on the U.S. Market for 13 ferrovanadium. I ask that you consider my testimony from 14 today along with the information and argument that we 15 presented in our prehearing brief and the other information on the record as you make your determination. I look 16 17 forward to answering any questions you may have, thank you. MR. TOTARO: Thank you, Dave. Our next witness 18 is Jennifer Lutz from Economic Consulting Services. 19 STATEMENT OF JENNIFER LUTZ 20 21 MS. LUTZ: Good morning. I am Jennifer Lutz, 22 Senior Economist at Economic Consulting Services. There are 23 a number of conditions of competition that are distinctive

25 the Commission due to past cases involving ferrovanadium.

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to the U.S. ferrovanadium market. Many will be familiar to

These conditions of competition have been cited by the
 Commission in prior investigations and continue to be
 relevant today, they are listed in Slide 1.

Ferrovanadium is used almost exclusively in the steel industry to make certain types of steel, thus demand for ferrovanadium is determined by the volume of production of those types of steel. Because demand for ferrovanadium is a derived demand, consumption follows the cyclical trends of the steel industry.

10 As ferrovanadium is added to steel in only extremely small amounts, the demand for ferrovanadium is 11 12 priced inelastic, that is a decline in the price of 13 ferrovanadium generally does not cause the volume of 14 ferrovanadium consumed to increase. There are few 15 substitutes to ferrovanadium and potential substitution is highly limited. Ferrovanadium from all sources is highly 16 17 interchangeable. Although there are different grades of 18 ferrovanadium the Commission has repeatedly found that ferrovanadium from all sources is interchangeable and that 19 20 steel producers can generally use ferrovanadium of different 21 grades.

Data collected by the Commission in this investigation demonstrate that ferrovanadium from all sources remains interchangeable. Give the high degree of interchangeability among sources, ferrovanadium is sold

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primarily on the basis of price. In prior investigations the Commission has found that price was an important factor in purchasing decisions noting that all purchasers cited price as a major factor in choosing a supplier.

5 In this investigation price was the most commonly 6 cited factor considered in making purchasing decisions and 7 24 of 27 responding purchasers reported that they always or usually purchase the lowest price product. There is 8 9 widespread knowledge of prevailing ferrovanadium prices in the market. ferrovanadium prices are published in a number 10 of sources with CRU Ryan's notes being the most widely used 11 12 in the United States.

13 Furthermore, as you have heard from our witnesses 14 contracts normally contain pricing formulas that use such published prices as benchmarks. As a result, changes in 15 prevailing market prices affect contract prices quickly and 16 17 directly. Many domestic and import suppliers compete in the U.S. ferrovanadium market. These include two U.S. 18 Producers, one of which toll converts vanadium pentoxide 19 20 into ferrovanadium for other parties. Suppliers also 21 include multiple import sources.

22 Due to relatively strong demand in the U.S. 23 Market relative to other markets, the Antidumping Duty 24 Orders on imports of ferrovanadium from two of the largest 25 producing countries, China and South Africa, ferrovanadium

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prices in the U.S. Market are generally higher than prices 1 in other markets. Petitioners' prehearing brief provides 2 3 Ryan's notes prices for the POI in the EU and US markets. 4 Subject Import volumes have been significant. As shown in Slide II from 2013 to 2015 these imports increased 5 б from 784,000 pounds contained vanadium in 2013 to 1.6 7 million pounds contained vanadium in 2015, an increase of more than 105 percent over this period. The volume increase 8 9 from 2014 to 2015 occurred during a period when us 10 consumption of ferrovanadium declined. While much of the data are confidential, Subject Import volumes have been 11 12 significant and increasing absolutely and as a percent of 13 total imports, as a percent of domestic production and as a 14 percent of apparent consumption. 15 The volume of Subject Imports was particularly

16 significant as it is Petitioners understanding that 17 ferrovanadium from Korea is largely sold on the spot market. 18 The low prices of the Subject Imports caused published 19 ferrovanadium prices to decline, adversely impacting the 20 prices received under any contract tied to the published 21 prices.

How did the Subject Imports increase their presence in the U.S. Market? By selling at very low prices. Imports of ferrovanadium from Korea are sold largely on the spot market and are directly responsible for a number of the

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reported changes to the published price in 2015 which led directly to lower revenues for the Domestic Industry.

3 As you have heard, contract prices in this market 4 are generally tied to published spot prices, most commonly 5 the prices published in CRU Ryan's notes. It is clear from б Slide III that prices fell modestly during 2013 and 2014. 7 However, in 2015 as Subject Imports continued to increase in volume, prices plummeted falling by 50 percent. Petitioners 8 9 believe that these declines are linked directly to the 10 Subject Imports and provide a detailed evidence to support this belief in a series of affidavits that are presented in 11 12 our prehearing brief.

13 Given our understanding that the Subject Imports 14 are more frequently sold in the spot market and Domestic 15 Product is more often sold through contracts with prices typically set at a discount to the published spot price, we 16 17 would not necessarily expect to see underselling by the Subject Imports. Because of the dynamics of this market, 18 even higher priced imports could affect the price of every 19 pound of ferrovanadium sold under contract and injure the 20 21 Domestic Industry.

However, the revised pricing data prepared by the Commission Staff show that Subject Imports undersold Domestic Product in the majority of instances in 9 of 14 comparisons at margins as high as 16.7 percent and that the

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volume of Subject Imports underselling the Domestic Industry
 was almost twice as large as the volume of Subject Imports
 overselling the Domestic Industry.

4 The adverse impact of the Subject Imports on the Domestic Industry in 2015 was significant. While the 5 б Domestic Industry experienced declines in shipping volumes 7 even as Subject Imports increased in volume, the harm to the Domestic Industry was most notably caused by the sharply 8 9 declining prices during the year. The CRU Ryan's notes U.S. 10 Price averaged 12 dollars and 25 cents per pound in January of 2015. By December that price had fallen to 6 dollars and 11 12 19 cents per pound and the price continued to fall in 13 January of 2016.

14 As described in our brief, the Subject Imports 15 have been directly linked to multiple declines in the 16 published U.S. spot prices during the course of 2015 and these price declines directly caused U.S. sales prices to 17 fall. The Domestic Industry saw significant declines in 18 profitability from 2014 to 2015 but the financial injury to 19 20 the Domestic Industry is truly apparent if the 4th quarter of 2015 is considered alone as discussed in detail in our 21 prehearing brief. 22

During the Preliminary Investigation, Commission
Staff asked questions regarding other factors potentially
affecting ferrovanadium prices during this period, such as

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changes in steel production and changes in the price for
 vanadium pentoxide which is the input converted into
 ferrovanadium by Bear. The data shows that these factors do
 not explain the decline in U.S. prices in 2015.

5 With respect to steel production, slide IV shows 6 the monthly CRU Ryan's notes prices and monthly U.S. Steel 7 production. As you can see, the trends in these two lines are similar during the POI until 2015 when prices started to 8 9 drop sharply despite increasing steel production in the 1st 10 months of the year. Exhibit 6 to our prehearing brief shows the data going back to 2009 further demonstrating the 11 12 unusual divergence in the trends in 2015.

13 The gap narrowed again in 2016 after the filing 14 of the petition in this case. This is particularly notable 15 because U.S. ferrovanadium prices improved significantly in 16 2016 particularly after the filing of the Petition even as 17 U.S. Steel production fell slightly.

Slide V shows the monthly ferrovanadium prices 18 along with the monthly vanadium pentoxide prices. Again, 19 20 these data show that there is a relatively stable difference 21 in the prices for the intermediate material and the finished 22 product until 2015 when Subject Imports increased in volume 23 and caused declines in U.S. spot prices. Again, the 24 relative prices started to return to a more normal pattern in 2016. 25

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1 Exhibit 7 to our prehearing brief provides these 2 prices going back further in time, showing that the normal 3 relationship is apparent even then. That concludes my 4 testimony and I would be happy to answer your questions. MR. TOTARO: Thank you, Jennifer. Before we 5 6 conclude, I would like to touch on a few points with regard 7 to threat of material injury. Although the facts establishing present material injury are clear, Petitioners 8 9 believe that the record also supports the determination that 10 the domestic ferrovanadium industry is threatened with material injury by reason of Subject Imports. Several 11 12 factors support this determination as well. 13 First, the volume of Subject Imports more than 14 doubled from 2013 to 2015, which clearly represents a 15 significant rate of increase. Subject Imports' share of the total volume of U.S. shipments of ferrovanadium also 16 increased over the Period of Investigation. These data 17 indicate that increased Subject Imports are likely. 18 19 Second, the likelihood of increased Subject 20 Imports is also reflected in the existence of other large 21 export markets for Korean ferrovanadium from which shipment 22 volumes can be shifted. Importantly, public export 23 statistics show that Korea shifted over one million pounds 24 of ferrovanadium away from the United States and two other

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export markets in 2016, the year in which the Petition was

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1 filed.

2	This demonstrates the Korean ferrovanadium
3	industry's ability to rapidly shift its export volumes among
4	markets. While I cannot address this information publicly,
5	our prehearing brief included an analysis of the data
6	reported by the Korean ferrovanadium producers, including
7	data on capacity utilization and projections for operations
8	in 2016 and 2017, all of which support a determination that
9	continued or increased Subject Imports are likely in the
10	future.
11	MR. TOTARO: Third, the prehearing report states
12	that between 2013 and 2015, U.S. importers' inventories and
13	ratios increased by every measure. Without getting into
14	proprietary data, the inventory information reported by U.S.
15	importers of Korean ferrovanadium support an affirmative
16	threat determination.
17	Fourth, the subject industry has access to large
18	and varied sources of vanadium raw materials. From China to
19	a large extent, but not exclusively. And this, too, would
20	facilitate increases in subject imports.
21	Fifth, subject import prices, spot sales
22	specifically, has significant depressing or suppressing
23	effect on domestic prices, mainly during 2015, but also in
24	2016. These documented effects are likely to continue and
25	thus demand for low-priced Korean ferrovanadium in the spot

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1 market will likely remain strong.

2	Finally, as we discussed, domestic producers'
3	ability to source adequate raw materials becomes
4	increasingly complicated when vanadium prices are low, and
5	this, too, increases these producers' vulnerability to
6	increased subject imports.
7	For the reasons discussed by our panel today, we
8	believe the Commission should make an affirmative
9	determination in this investigation. That concludes our
10	direct presentation and we look forward to answering any
11	questions you may have. Thank you.
12	VICE CHAIRMAN JOHANSON: We will now begin
13	Commissioner questions beginning with Commissioner Kieff.
14	COMMISSIONER KIEFF: Thank you very much. We
15	all are very interested in having the benefit of the good
16	attorney argument and witness testimony that each of you has
17	provided. I am having a hard time understanding why we're
18	here talking about it. There's no other side. And the type
19	of information you've provided certainly could have been
20	provided in a written submission. Presumably we're here to
21	exchange ideas in a live setting. What have you told me
22	here that couldn't have been provided in a written
23	submission?
24	MR. TOTARO: Well, I guess we looked at this as
25	an opportunity, as I understood was our responsibility to

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present a summary of what we had --

2	COMMISSIONER KIEFF: So we do have the benefit
3	of all of your information that you've already provided.
4	I'm trying to figure out what we're getting out of this
5	activity right now.
б	MR. TOTARO: Hopefully this will provide an
7	opportunity, if the issues were not clear to you or if you
8	had questions that we did not address in our written
9	materials, this would provide the Commission with an
10	opportunity to ask those questions directly to the industry
11	witnesses, so we're presenting that opportunity to you.
12	COMMISSIONER KIEFF: And was that opportunity
13	helped by the opening statement?
14	MR. TOTARO: Hopefully that was setting the
15	stage for those questions. But
16	COMMISSIONER KIEFF: Well, more so than the
17	written submissions?
18	MR. TOTARO: No. And I
19	COMMISSIONER KIEFF: So I generally think, at
20	least for me, I like to deploy my office's resources
21	efficiently so that I can help you the next time you come.
22	And your colleagues and your fellow industries when you are
23	asking for our attention, I want to know how to provide it
24	efficiently.
25	So, at least for me, especially where there's no

other side, you're going to ask to meet with me, it's going to help me know what matters to you if you tell me something unique in the interaction. And at least for me, I didn't find anything in the oral testimony that wasn't either provided or providable in written form.

6 So, just in the future, I'd encourage you to 7 consider that option so that you can get the most bang for 8 your buck. I know that it cost you a lot of effort to come 9 and present and I want you to get the most for your effort. 10 At least for me, as someone trying hard to make the 11 decisions you're asking me to make, it helps me if I can 12 efficiently exchange information with you.

13 The one question that I do have about the 14 information is -- to recognize that there is confidentiality 15 with respect to the pricing data, so I'm going to ask a 16 somewhat abstract question in the hopes that in the 17 post-hearing you can provide more concrete answers, but it's 18 probably not ripe or appropriate for discussion in the open 19 setting. And I was trying to listen for it.

I apologize if I missed the answer, but as I understand, and again, I'm going to wade gently into this and ask staff to signal if I'm getting too close to proprietary information. The pricing data involves more than one pricing product; is that okay? Can you, in the post-hearing, be as specific as you can about what

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conclusions you want us to draw from the price trends in the
 different pricing products. And then if you have questions
 about that question, if you are having trouble following it,
 please ask now.

5 MS. LUTZ: This is Jennifer Lutz. I understand 6 your question and we'll be happy to respond to it in our 7 brief.

COMMISSIONER KIEFF: Great. Yeah. 8 I have no 9 further questions. I just really want to encourage you, 10 especially in settings where we don't have someone else on the other side to challenge what information you're 11 12 presenting, to present your information in ordinary written 13 submissions, and if what you really want is the opportunity 14 to exchange ideas, then an opening statement that says, "we stand on our written submissions, and we're here to answer 15 16 questions" is a technique that I've always taught my 17 students in trial advocacy to adopt as trial attorneys, one 18 I often adopted and I would encourage you to consider it, if it suits your needs. 19

20 It's up to you to use the time, however you 21 want, we like to try to provide and accommodate requests. 22 I'm just noticing that this time didn't appear to be used to 23 accomplish anything that could not have been accomplished by 24 a written submission. Thanks. I have no further questions. 25 VICE CHAIRMAN JOHANSON: Thank you, Commissioner

1 Kieff. And I would like to thank all of you for being here today. I know we've seen you all before. So, welcome back. 2 3 Petitioners have referred in their brief to 4 reduce levels of seal making and to the harmful turn in the ferrovanadium market in 2015, and that can be found at Pages 5 6 6 and 46 of your brief. What happened to demand for 7 ferrovanadium in 2015? And also, how much of the domestic industry's condition in 2015 is explainable by reduced steel 8 9 making?

MS. LUTZ: I'll start and I think probably my colleagues will have some comments on that. According to the data that we looked at from the World Steel Association, steel production in the United States fell about 10% from 2014 to 2015. The apparent consumption data are confidential, but there was a similar decline in apparent consumption.

But if you look at the slide that we prepared on steel production and ferrovanadium prices over time, the drop in ferrovanadium, especially when you look at the monthly changes in steel production, the declines in 2015 are not as severe as the drop in prices would suggest. MR. ANDERSON: This is Mark Anderson, AMG Vanadium. We did see a similar drop in ferrovanadium

24 requirements. Just about all of our sales of ferrovanadium 25 during that time period were done on annual contracts based

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on estimated volumes that the customers expected to take in
 2015 or 2016. And they weren't coming close to their
 estimated volume, so we had to go out and look for other
 options, contract outlets we could supply ferrovanadium. So
 we did see the 10% drop in vanadium.

6 VICE CHAIRMAN JOHANSON: Thank you, Ms. Lutz and 7 Mr. Anderson for your responses. I'm not seeing a market 8 share shift between domestic product and Korean imports. 9 They both seem to have increased from 2013 to 2015. And 10 that can be seen in Staff Report Table C-1. To what extent 11 did Korean imports simply take nonsubject import market 12 share?

MR. TOTARO: I think there were declines in shipments from the domestic producers from 2014 to 2015 and or maybe the largest impact though was in terms of the price effect. There was some market share effects and volume effects, but I think that the larger impact was in terms of the impact on the revenues based on the pricing of the Korean product.

20 VICE CHAIRMAN JOHANSON: And along the same
21 lines, given rising trends in U.S. production between 2013
22 to 2015, is there any reason to believe that imports of
23 ferrovanadium from Korea would displace U.S. production?
24 MR. TOTARO: I think that that is a concern.
25 And I think that there were increasing volumes from Korea in

the market and so that they were displacing -- and there were declines in U.S. shipments, so there was some displacement happening, and I think that as that material was available, that's become -- if it's there as an option for purchasers who are looking for material -- the potential is there to lose even more volume.

7 MS. LUTZ: I think, as you heard in Mr. Anderson's testimony, the volume effects in 2015 were 8 9 not as -- on the part of the domestic industry -- were mitigated by the fact that they had contracts that they weren't going 10 to not supply because prices fell, and the fact that they 11 12 have very high fixed costs and operating at reduced levels 13 would have been even worse for their financial results. And 14 in a period of declining costs, the incentives to holding 15 inventory are very low.

Because if you produced in January 2015 and held those inventories through the end of the year, they would've fallen in value by half. So there were strong incentives for the domestic industry to continue to produce and sell the volumes that they had contracted to, but the subject imports effects on the spot prices affected the price of every single pound sold under contracts.

23 VICE CHAIRMAN JOHANSON: Thank you, Ms. Lutz.
24 The Staff Report indicates that imports from several
25 nonsubject countries collectively count for a large share of

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1 ferrovanadium imports. Can you all comment on the role of nonsubject imports in the U.S. ferrovanadium market? 2 3 MR. TOTARO: Well, I'll start and then I'm sure 4 our industry witnesses will have something to add. In 5 general, the volume of nonsubject imports decreased over the 6 course of the POI, in contrast to subject imports that increased over the POI. It's confidential information, but 7 there is information in the Staff Report regarding the 8 9 presence of the method of sales of nonsubject imports and 10 subject imports in terms of presence on the spot market or sales by contracts. 11

And that data shows a larger presence by Korean imports in the spot market than nonsubject imports. But it's my understanding that there is -- that the domestic industry does compete against nonsubject imports and subject imports in the U.S. market and that there are, where there are nonsubject imports competing for contracts sales, that's direct competition with domestic industry as well.

MR. ANDERSON: I think the key difference is the nonsubject imports compete with us more on contract sales and annual volumes and things like that, where the subject imports from Korea, from my understanding, don't do annual contracts. It's strictly all spot sales. So the more volume they brought in, the more aggressive they were on pricing, and the more it hurt us with our monthly and annual

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1 contracts.

2	VICE CHAIRMAN JOHANSON: Thank you for your
3	response, Mr. Anderson. And Mr. Totaro, I apologize. I
4	think you already said this, but about what percentage of
5	nonsubject imports are contracts? If that's proprietary,
6	just respond in writing.
7	MR. TOTARO: Okay, I'll do that, because it is
8	proprietary. Those numbers, yeah.
9	VICE CHAIRMAN JOHANSON: Okay. That's what I
10	assumed. Thanks for your responses there. How is there a
11	volume-based injury on this record if the industry as a
12	whole improved its market share notwithstanding the increase
13	in subject imports?
14	MR. TOTARO: There is, umthe market share, I
14 15	MR. TOTARO: There is, umthe market share, I believe the market share of the domestic industry would have
15	believe the market share of the domestic industry would have
15 16	believe the market share of the domestic industry would have been higher but for this higher presence of subject imports.
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15 16 17 18 19 20 21 22 23	believe the market share of the domestic industry would have been higher but for this higher presence of subject imports. The subject imports increased, and nonsubject imports decreased during the period. And so in essence there was some increase in the domestic share, but it was roughly flat during the three years of the POI. So I think, you know, where there isone side of the volume effect is just the large presence of subject imports on the spot market, and their ability to influence

1 MS. LUTZ: I think that in general we would 2 certainly argue that the subject imports were significant in 3 volume, and that volume increased even as consumption was 4 declining. But that the primary adverse effect they had on 5 the domestic industry was on price, not on volume. 6 VICE CHAIRMAN JOHANSON: Thank you, Ms. Lutz and 7 Mr. Totaro. My time is expiring, so we will now move on to Commissioner Williamson. 8 9 COMMISSIONER WILLIAMSON: Thank you. Thank you for coming this morning to give your testimony. 10 I understand you've cited the fact that Gulf has 11 12 filed for Chapter 11 bankruptcy in June, and in 2016 I guess 13 Gulf idled its operations. What is the current status of 14 Gulf? 15 MR. TOTARO: My understanding is that Gulf is 16 still operating, still producing V205. They're following 17 two tracks, and they provide some more details about this in their statement at Exhibit 2 to our brief. But they are 18 proceeding on two tracks. One is looking for a purchaser, 19 20 looking for a buyer, and the other is preparing, if they 21 don't find a buyer, preparing to, down the road to idle their facility. But I don't think they've set a hard date 22 for either. 23 24 And in our post-hearing brief I can be glad to

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touch base with Gulf and get their status as of that point,

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1 as of next week, if you'd like an update on their status. COMMISSIONER WILLIAMSON: Okay, thank you. This 2 3 is a general question, and you don't have to answer it--you 4 may not even know the answer. Is there anything about the 5 status of the industry and the market that would be very 6 encouraging for them in terms of finding a buyer? I'm just 7 trying to get a little background. MR. TOTARO: Well I can't speak directly for Gulf, 8 9 but from what I understand is that certainly as prices seem 10 to be solidifying and improving a little bit, as steel production seems to be increasing slightly, I think that 11 12 raises the prospects for the likelihood of them finding a 13 buyer. I hope that they do. 14 COMMISSIONER WILLIAMSON: Okay. For Bear, to what

15 extent can your--your purchaser, what kind of company was 16 that? Were they already in the business, other mining, 17 minerals operations, just out of curiosity?

MR. CAREY: This is Dave Carey. Yeah, Yuleman
Holding is a global company. It's based in Istanbul Turkey.
They're in many sectors, but this is their first adventure
into the ferrovanadium and ferro mylanum. They're a very
large ferro chrome producer.
COMMISSIONER WILLIAMSON: Okay, and they're

24 already in the U.S. market?

25 MR. CAREY: In the U.S. market with the ferro

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1 chrome, correct.

2	COMMISSIONER WILLIAMSON: Okay. Thank you. Is
3	Gulf still supplying UVT05 to convert?
4	MR. TOTARO: We're receiving material from Gulf,
5	but it's been purchased by a third party. So they're
б	selling all of their V205 to a third party, which is then
7	converting with Bear.
8	COMMISSIONER WILLIAMSON: Okay, thank you.
9	Okay, this is probably going to be post-hearing, but this
10	morning, what explains the trends in Gulf shipments of the
11	ferro vanadium over the POI?
12	MR. TOTARO: We'll be glad to respond to that in
13	our brief.
14	COMMISSIONER WILLIAMSON: Okay, thank you. A
15	number of purchasers identify grade as an important factor
16	in making purchasing decisions. Could you elaborate on the
17	types of products on which your purchasers are unable to
18	substitute between grades 40-60 and 35-80 of ferro vanadium?
19	We talk about them being substitutable, but I guess not for
20	everybody.
21	MR. ANDERSON: This is Mark Anderson. I believe a
22	lot of that is preference of the metallurgist. Some people
23	prefer the 50 grade. Some people prefer the 80 grade. And
24	it's just been their system all along that, hey, I use 50,
25	I'm going to stay with 50. If I leave this mill within a

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large corporation, they move around quite a bit and they go
 somewhere else, then they kind of take their past practice
 with them.

4 There are some grades that prefer 80 only, a lot 5 of tool steels that are very--require very low residuals, б don't like the higher residuals and the higher iron convent 7 of the 50 grade. So a lot of the tool steels and some of the foundry grade type materials prefer 80 specifically. 8 9 But other than that, it's just pretty much the preference of 10 the metallurgist COMMISSIONER WILLIAMSON: Okay. So with the lower 11 12 grades, or with the 40 to 60, you've got more stuff to 13 remove afterwards? Is that it? 14 MR. ANDERSON: Yes, and obviously you'd have 15 higher iron content, a higher silicon. Some guys are 16 aluminum killed shops, and some are silicon killed shops, so

18 all. Where the aluminum guys don't want the silicon. So

the silicon doesn't matter to the silica killed shops at

19 it's kind of balanced in that.

17

20 COMMISSIONER WILLIAMSON: Okay. Thank you. But 21 preferences of the metallurgist rules here?

MR. ANDERSON: Correct. The metallurgist is makingthe final decision.

24 COMMISSIONER WILLIAMSON: I was in Flanges
25 factories last year, which is kind of a family operation in

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1 some respects, so I understand what you're getting at Okay, from 2013 to 2015, of course as you already 2 3 know, the share of nonsubjects fell sharply. The value of 4 imports from the Czech Republic in particular declined. As Evraz is the subsidiary of that Czech producer, can Evraz--5 6 you may have to do this post-hearing--explain the decisions 7 the company made during this 2013-15 period and its 2016 by how it supplied the U.S. market? And I understand this has 8 9 to be done post-hearing. 10 MR.; TOTARO: Yes, I can get that response 11 directly from Evraz and put that I our report. 12 COMMISSIONER WILLIAMSON: Okay, thank you. That 13 would be helpful. 14 You argue that subject imports were responsible for falling U.S. prices in 2015. However, none of the 15 16 purchasers confirmed this effect in table V-9 of the staff report. So does Table V-9 sort of hurt your argument about 17 the role of the subject imports? 18 19 MR. TOTARO: I'm sorry? I missed the beginning 20 part of your question. Could you repeat that, please? COMMISSIONER WILLIAMSON: Okay, you argue that 21 22 subject imports were responsible for--I'm sorry, let me 23 speak into the microphone. That might help. You argue that 24 subject imports were responsible for falling U.S. prices in 25 2015. And, but none of the purchasers confirmed this

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1 effect, if you look at table V-9. So I'm wondering, does
2 this table hurt your argument?
3 MS. LUTZ: Which table?
4 COMMISSIONER WILLIAMSON: V-9.
5 MS. LUTZ: Got it.

COMMISSIONER WILLIAMSON: This is I think the
purchasers' responses. Yes, it's the purchasers' responses
to U.S. producer price reductions.

9 MR. TOTARO: Unfortunately I'm looking at the 10 public report and the entire table is proprietary, so--

11 COMMISSIONER WILLIAMSON: Okay, so post-hearing if 12 you could take a look at that.

13 MS. LUTZ: Just to provide a little context, I 14 think that because the effects of the subject imports on the 15 contract prices were less direct than those purchasers 16 would--you know, they can say, no, my prices fell but I 17 never even looked at Korean imports. So I don't see a link. But the evidence that we have provided in our 18 brief shows that these price declines were directly linked 19 20 to the subject imports and those effects flowed through to

all of the contracts.

22 So while the purchaser might now attribute that 23 decline to the subject imports, we've provided the evidence 24 that makes that link.

25 COMMISSIONER WILLIAMSON: Okay. Now were there

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1 any stories going around? A lot of times when people come in they'll tell us, yeah, you know, when I talked to my 2 3 purchaser, or I talk to my prospective purchaser he tells me 4 the Korean prices are out there. You haven't mentioned any kind of that stuff. 5 6 So what was the buzz? 7 (Pause.) Are relations so stable in this industry that 8 9 people don't really talk to each other about what they're 10 doing? MR. ANDERSON: This is Mark Anderson. I believe 11 12 there was an affidavit, a couple of affidavits submitted 13 that talked about the low-priced purchases of Korean 14 ferrovanadium that happened over the Period of 15 Investigation. And like I stated, even, we go out to 16 purchaser material every once in awhile just to have 80 grade, or 50 grade in inventory, and during these years we 17 were offered Korean material most of the time, where 18 previously it was not Korean material we were being offered. 19 20 So there was just a lot more Korean material coming in over this time period, and like I said it's all 21 22 being sold into the spot market versus the large volume of 23 sales which happens on contracts. So it was pushed through 24 at lower prices. 25 COMMISSIONER WILLIAMSON: Okay. Thank you. It's

1 just, as I said, usually there's Internet ads and stuff like 2 that that people have that show what's going on there. 3 Okay, thank you. 4 Thank you. 5 COMMISSIONER BROADBENT: I want to thank the б witnesses for coming today. It does help me to kind of talk 7 through some of these things with you all in person. Mr. Totaro, you were talking--something sort of 8 9 caught my ear as I was sitting up here. You said domestic --10 the industry market share in the first three years of the Period of Investigation was largely flat? 11 12 MR. TOTARO: Yes, there was a small increase in 13 2013 to 2015, and again that's proprietary but it was--14 COMMISSIONER BROADBENT: That small? Really? 15 MR. TOTARO: Well I can give you the exact 16 numbers--you're looking at the exact numbers, but, yes, I 17 think in my opinion the change was not great. But we can 18 elaborate on that in our post-hearing brief. 19 COMMISSIONER BROADBENT: You may want to give me some context because that doesn't ring true to me here 20 21 looking at the numbers I've got on my chart. 22 What determines a vanadium pentoxide producer or 23 trader's decision to opt for a conversion of the vanadium 24 pentoxide in ferrovanadium versus selling vanadium pentoxide 25 into other channels? Can I say that again?

How do we decide, when the trader or the producer is trying to make a decision what he does, whether it's vanadium pentoxide and whether he turns it into ferrovanadium, kind of what are the dynamics of that decision?

6 MR. CAREY: This is Dave Carey. The decision to 7 convert is driven by price, the difference in price between 8 the vanadium oxide and the ferrovanadium. So a larger 9 spread. There's a lot more opportunity there to make some 10 money. When that spread becomes narrow, then the decision 11 is to not convert.

12 I would say that there are a lot more
13 ferrovanadium sales than there are oxide sales. So most of
14 the sales occur as a ferro sale.

15 COMMISSIONER BROADBENT: Okay. In your 16 post-hearing brief can you discuss the individual reasons 17 why specific domestic shippers of ferrovanadium experienced 18 increases in their shipments while others experienced 19 substantial decreases in their shipments?

20 MR. TOTARO: Yes, we'll address that in the brief. 21 But as an initial response, we'll point you back to some of 22 the statements that Mr. Anderson made during his statement 23 about the benefits to the company in terms of covering their 24 costs of keeping the shipments high, despite the declining 25 prices. And part of that is a cost issue, and part of that

are their commitments under the contracts that they've made to supply the steel industry producers even though the prices might be declining if they've committed to volumes to supply those volumes, then those will move on despite they're losing--the revenue is declining because of the declines in spot market prices.

7 COMMISSIONER BROADBENT: Okay. This would be for 8 Mr. Totaro. In your prehearing brief you discuss the volume 9 of nonsubject imports having declined for reasons that were 10 unrelated to the subject imports.

Given that the U.S. industry was able to gain market share in 2015, why does it matter that subject imports were able to increase significantly if they were solely displacing nonsubject imports which were declining for their own reasons?

MR. TOTARO: I think the point I was trying to make was that if the steel industry demand was decreasing, that would seem to--then the decrease in nonsubject imports would seem to make sense, if steel industry consumption was declining.

But subject imports, imports from Korea, were increasing and so my point there was that they seemed to be motivated by factors that the nonsubject imports were not. So that the subject imports were continuing to come in at greater and greater volumes, despite the fact that demand

was decreasing. Whereas, nonsubject imports were following
 a different path.

3 COMMISSIONER BROADBENT: Okay. Ms. Lutz, if most 4 prices are set according to contracts which are using last 5 month's spot prices primarily set by imports, wouldn't we 6 expect to see under-selling during periods when prices are 7 falling and over-selling when prices are increasing?

8 MS. LUTZ: If we were looking at this on a 9 month-to-month basis, potentially. But I think that--so 10 that could be having some effect, certainly, although even 11 when earlier in the period when prices were not declining 12 there was under-selling as well.

So, yes, that certainly can have an effect, timing, but looking at it as a quarter helps mitigate some of that difference. So we certainly would not rest our arguments on the under-selling data. The evidence with respect to the subject imports impacts on the published prices is a much more direct--more direct evidence of the effect that they had on domestic producers' prices.

20 COMMISSIONER BROADBENT: Okay, thank you. In this 21 segment, Commissioner Kieff touched on, and I just wanted to 22 be sure I understood the argument. U.S. prices for product 23 one didn't face--they decreased to a greater extent than the 24 U.S.; prices for product two. And product one of course 25 didn't face any import competition, and product two did.

1 Can you explain this trend? MS. LUTZ: I think that it--I wouldn't 2 3 characterize product one as not facing import competition, 4 because these products are all sold in contracts referencing 5 the spot price. They are following the same declines in the 6 published price. And there are some slight differences in 7 product one and product two that are confidential and I can discuss further in the post-hearing brief. 8 9 COMMISSIONER BROADBENT: Okay. Alright, Mr. 10 Carey, on page 5 and 6 of your prehearing brief you listed a quote from Bear during the Chapter 11 bankruptcy 11 12 proceedings. You state it specifically references the 13 impact of imports. The quote reads: "We anticipate a return 14 to profitability as we address challenging market 15 conditions, including unusually low metal prices, reduced 16 levels of steel-making in the U.S., and higher than usual levels of imports of our products." 17 `I just had a couple of questions about this. 18 19 You reference a return to profitability. Where in our data set can we see a point at which Bear has not been profitable 20 21 in its ferrovanadium operations? Was this statement 22 regarding profitability in reference to nonferrovanadium 23 operations? 24 MR. CAREY: We can certainly address that in our post-hearing brief, the specifics of the period of 25

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1 unprofitability.

2	COMMISSIONER BROADBENT: Okay. You reference
3	unusually low metal prices as a problem. As a toll
4	producer, why would low metal prices affect your business?
5	Aren't you making money through the volume and the toll
6	margin?
7	MR. CAREY; That's correct. We do charge a fee
8	for the conversion process. We also guarantee a
9	metallurgical yield back to the toll material that we
10	recover in excess of that metallurgical yield that's built
11	into our business plan. So our business model includes
12	that. And when low metal prices are there, our sales of the
13	excess metallurgical yield are lower and that impacts us
14	directly at the bottom line.
15	COMMISSIONER BROADBENT: Okay, let's see. I had
16	one more question to fit in here. Mr. Totaro, you ask us to
17	focus our analysis of injury on the 2015 period, and in
18	particular you asked us to compare 2015 to 2014. However,
19	if we look at the domestic industry's financial performance,
20	we need to understand why it was so profitable in 2014 in
21	order to understand why profits fell in 2015.
22	Can you please address why the industry was so
23	profitable in 2014? And can you compare that to 2015
24	profitability, and then to profitability in the interim
25	2016?

MR. TOTARO: We can go into more detail in the 1 2 brief, but the greatest influence in the revenues of the 3 domestic producers is the spot market price. And you saw in 4 the charts that we presented in our testimony very severe price drop from 2014 to 2015. And you could see that over 5 6 the course of 2015 that the effect in the quarterly analysis 7 that we presented in our brief of the revenues going down, and down, and down, as the published prices decreased. 8 9 So you had the effect of prices. You also had 10 higher production by the steel industry in 2014. So I think those are two key factors. If anyone else would like to add 11 12 to that? Or we can add more in the brief. Anything? 13 (No response.) 14 MR. TOTARO: Okay, if we can just leave that as 15 our initial response, then we'd be glad to provide more 16 detail on a proprietary basis in the brief. COMMISSIONER BROADBENT: So why was the industry 17 so profitable in 2014? You said steel--18 19 MR. TOTARO: The industry was more profitable in 2014 than 2015--20 COMMISSIONER BROADBENT: Well it was pretty 21 22 profitable, right? Or do you see this one as largely flat, 23 too? 24 MR. TOTARO: No, I'm not arguing that at all. I'm arguing that there was a big decline from 2014 to 2015. 25

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1 COMMISSIONER BROADBENT: Yes, and I'm just trying 2 to figure out what was going on in 2014 that was making the 3 industry so profitable.

MR. TOTARO: As I say, they were selling through contracts, the same types of contracts in 2014 and 2015, and in both years the prices that they were receiving from their customers were determined by the published prices. Then since the published prices were so much lower in 2015 than 2014, that had a major impact in their revenues between the two years.

11 COMMISSIONER BROADBENT: Okay. I don't find that 12 so illuminating, but thank you very much.

13 VICE CHAIRMAN JOHANSON: Petitioners commented in 14 their brief, or in your brief at pages 11 and note 35 that 15 the U.S. steel industry consumes a larger percentage of 16 vanadium per ton of steel produced compared to many 17 countries.

18 Why is this the case? Don't other countries put
19 vanadium into bearing steel such as rebar and construction
20 bar?

21 MR. TOTARO: They do. And that statement was 22 based on testimony of a particular one of our witnesses at 23 the conference who explained that I guess the proportion of 24 total steel produced in this country includes maybe a higher 25 percentage of those types of steel that include a higher

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percentage of vanadium. But maybe one of our--Mark, do you
want to talk to that?

3 MR. ANDERSON: Michael Anderson, even the rebar 4 in the U.S. has a higher percentage than other countries, like China, India and places like that. So, several PLR and 5 rebar in the U.S. has more ferrovanadium. The U.S. also 6 7 produces more high alloy steel than anywhere else in the world, which takes more ferrovanadium as well. So there's a 8 9 product grade difference as well as philosophy difference. 10 VICE CHARMAN JOHANSON: Yeah, thanks. We deal with a lot of steel cases this year and I always like 11 12 learning more about steel. It was something I didn't know 13 anything about until about five years ago when I arrived 14 here. 15 Why would the U.S. be putting more ferrovanadium 16 in the steel than other countries, such as China, which you 17 just mentioned with regard to rebar. MR. ANDERSON: China is moving more and more in 18 our direction. Really, if you just like look at 19 20 ferrovanadium gives strength to steel, so if you put in high 21 beams and things like and you build that building you can actually use less steel because of the strength of the 22 23 ferrovanadium.

24 If you look back to when China had all the 25 earthquakes and things and buildings crumbled, so because of

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that they've decided to strengthen the steel in the buildings that they're putting up now. So they're moving more and more in our direction, but they're still not to the level of ferrovanadium, even in rebar, that we are here in the U.S.

6 VICE CHARMAN JOHANSON: Okay, thank you, Mr.7 Anderson.

8 To what extent are the data of the tollees' 9 relevant to our analysis of the financial condition of the 10 domestic industry and how do you square such consideration 11 with the statute which requires us to consider the impact of 12 subject imports on the producers of ferrovanadium and GM 13 Bear, rather than the tollees.

14 MS. LUTZ: This is Jennifer Lutz.

I think that certainly the Commission has made numerous determinations that Bear and AMG are the domestic industry producing the product; however, as we've discussed, they have very different business models. And looking at the information on the tollees' provides a better basis for understanding the volume effects, for example, at Bear.

21 Because the tollees are being more directly 22 affected by the market prices than Bear is, more directly, 23 because they're selling the ferrovanadium into the market. 24 So if the tollees are doing poorly, they are less likely to 25 have their volumes -- have ferrovanadium pentoxide tolled

1 into ferrovanadium if they're just selling it at a loss. So
2 I think that it provides some more information about how the
3 low prices are affecting the domestic industry even in a
4 less direct way.

5 VICE CHARMAN JOHANSON: Thanks, Ms. Lutz. 6 In August 2012, all six Commissioners voted in 7 the negative in reviewing orders on ferrovanadium and 8 nitrate vanadium from Russia. Should the negative in that 9 case give us any pause in this original investigation on 10 ferrovanadium from Korea?

MR. TOTARO: This is John Totaro.

11

12 No, I don't think it should. My reading of the 13 Commission's determination in that 2012 sunset review was 14 that the determining factor was the arguments of the Russian 15 industry that they had changed their business model so that 16 they no longer intended to supply the U.S. market with 17 ferrovanadium. They're no longer producing ferrovanadium. Their intent was not to produce ferrovanadium in Russia; 18 that they intended only to produce vanadium bearing 19 20 materials that they would send to other countries to be converted into ferrovanadium in those other countries. That 21 22 they weren't going to be producing ferrovanadium in Russia 23 and exporting ferrovanadium from Russia, so I think that's a 24 very specific situation that's not relevant at all to this 25 investigation.

1 VICE CHARMAN JOHANSON: Thank you, Mr. Totaro. 2 Yes, I barely remember that investigation. That was five 3 years ago during my first months here at the Commission, so 4 that happened some time ago, but thank you for filling us in 5 on that.

6 The majority of responding producers, tollees, 7 and importers reported that there are substitutes for 8 ferrovanadium, whereas, the majority of purchasers reported 9 that there were none and this can be seen in the staff 10 report at page 213.

Which is and what are the substitutes, in your view, and how have they impacted the market, if at all, during the period of investigation?

MS. LUTZ: Well, I'll just start by saying there are some technical substitutes that most purchasers probably wouldn't consider because it's not economic for them to use these other products, and probably Mark can provide a little more detail on that.

19 MR. ANDERSON: Mark Anderson.

20 Vanadium niobium can be used in steel production 21 as well and is sometimes used as a substitute for 22 ferrovanadium or vanadium niobium, either way. That is one 23 product that can be substituted. We have not seen much of 24 that over the course of period of investigation, but that 25 can happen.

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1 VICE CHARMAN JOHANSON: Is that substitute used in other markets -- in the production of steel in other 2 3 markets? 4 MR. ANDERSON: It can be, yes. 5 VICE CHARMAN JOHANSON: Do you know if it actually is being used? б 7 MR. ANDERSON: I do not. VICE CHARMAN JOHANSON: Okay. 8 9 MR. ANDERSON: We've not saw anything really external to the U.S. export-wise, so I don't participate in 10 those markets. 11 12 VICE CHARMAN JOHANSON: Okay. 13 MS. LUTZ: My understanding is that vanadium 14 niobium is considerably more expensive than ferrovanadium so that while, technically, it could be used most producers 15 16 would not even consider it because of that. 17 VICE CHARMAN JOHANSON: Thanks, Ms. Lutz. 18 And could you all please describe the differences in raw material for U.S. and Korea producers; 19 20 that is, differences between recycled and spent catalyst versus vanadium ore and how, if at all, do differences in 21 22 the costs of these inputs impact the pricing and production as well? 23 24 MR. TOTARO: I will say it's my understanding that vanadium ore is not a raw material used by the Korean 25

producers. It's my understanding that they convert V205, 1 2 vanadium pentoxide just like Bear does, but that AMG 3 vanadium uses a different production method than Bear or the 4 Korean producers. As Mark Anderson explained, their primary raw 5 6 material is spent catalyst from oil refineries, which 7 contains vanadium. So it's my understanding is that the Korean producer's production method is very similar to 8 9 Bear's, but AMG's is a different method. 10 VICE CHARMAN JOHANSON: When you use a different method -- let's say the spent catalyst versus the 11 12 oil-produced catalyst. 13 MR. TOTARO: That's all the same thing. 14 VICE CHARMAN JOHANSON: All the same thing, 15 okay. There's no quality difference involved. 16 MR. TOTARO: Well, the product, the catalyst that we refer to as a raw material for AMG vanadium the new 17 catalyst, unspent catalyst is consumed by the oil 18 refineries. It's put into the tanks where the refining 19 20 process is going on. And once the catalyst has done its job in the refining process, it's a waste product, but it has 21 22 some absorbed some vanadium through that process and so the 23 oil refinery needs to get rid of that some how and the 24 they've found that there is this -- that producers like AMG 25 vanadium are able to take that waste material and extract

the valuable metals from it and in the process save the refinery the -- the refinery doesn't have to landfill that waste material, so we have recycling that waste and AMG gets some value out of that.

5 VICE CHARMAN JOHANSON: So when I was preparing 6 for this hearing, I found it very interesting. Vanadium is 7 very common in the earth's crust; is that correct, but it's 8 uneconomical to get it?

9 MR. TOTARO: Well, in some places in the earth 10 it only appears in ore in certain areas of the earth and you 11 know even in oils it's only -- it's my understanding that it 12 only appears in crude oils from certain places, from South 13 America or from the oil sands in Canada.

14 VICE CHARMAN JOHANSON: Okay, so it's actually a
15 byproduct for the oil and not the catalyst which is used in
16 the production of the oil?

MR. TOTARO: Well, the material that AMG vanadium receives from the refinery is the spent catalyst. VICE CHARMAN JOHANSON: Okay, so it's not from the oil itself then?

21 MR. TOTARO: No. But I think that it's because 22 the catalyst had been through the ore refining process that 23 it has absorbed the vanadium from the oil.

VICE CHARMAN JOHANSON: Okay. Okay, it's justinteresting.

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Mr. Anderson, did you want to say something? 1 MR. ANDERSON: That's correct. He was saying 2 3 South American oil and Canadian oil contains small amounts 4 of vanadium in it, so when it passes through these catalysts the catalyst takes out the sulfur and the vanadium out of 5 6 the oil as they process it and gets captured in these 7 catalysts and then it becomes a hazardous waste and they dump it into railcars and ship it to us or Gulf or whoever 8 9 they can process it as long as the metal values allow that. 10 Either that, or like he said, it could go to the landfill. VICE CHARMAN JOHANSON: Okay, thanks a lot. 11 12 Yeah, this is not really relevant to the investigation, but 13 my brother-in-law is a geologist and he works in the oil 14 industry and he just loves to talk about geology. And I've become somewhat of a fan of it myself, so thanks for 15 16 informing me further on this. 17 That concludes my questions. We're going to now to, though, to Commissioner Williamson. And before I end, 18 let me just say I thank you all for appearing here today. I 19 found it quite useful, the information you presented, so 20 21 thank you for being here. 22 COMMISSIONER WILLIAMSON: Okay, just following 23 up on that last question, is the reason the plant is in 24 Houston because they process some of the oil -- or refines some of the oil that comes from, say, places like Venezuela 25

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1 or did I get it wrong?

2	MR. CAREY: I can't speak to the history of
3	Gulf, but I believe that's a logical assumption. Yes.
4	COMMISSIONER WILLIAMSON: Okay, I was just
5	wondering. This is part of the geology part.
6	You talked about the fact that I guess most of
7	the customers are long-term contracts, but it's the spot
8	market changes that are driving down the prices. I assume
9	the contracts may vary some, but does it matter whether you
10	have and I guess all of the contracts have adjustments in
11	them, clauses in them. Do those clauses vary very much and
12	would contracts with clauses that adjust more frequently be
13	more subject to the prices being driven by the imports or is
14	all of this kind of standardized?
15	MR. TOTARO: I'll start and Mark can continue.
16	
ŦŎ	We've talked some about this in our brief and my
17	We've talked some about this in our brief and my understanding is that a typical long-term annual or a
17	understanding is that a typical long-term annual or a
17 18	understanding is that a typical long-term annual or a long-term contract for ferrovanadium in the U.S. market
17 18 19	understanding is that a typical long-term annual or a long-term contract for ferrovanadium in the U.S. market would have a pricing clause that changes every month based
17 18 19 20	understanding is that a typical long-term annual or a long-term contract for ferrovanadium in the U.S. market would have a pricing clause that changes every month based on the average of the published prices in a publication
17 18 19 20 21	understanding is that a typical long-term annual or a long-term contract for ferrovanadium in the U.S. market would have a pricing clause that changes every month based on the average of the published prices in a publication like Ryan's Notes. I believe that would be the most common
17 18 19 20 21 22	understanding is that a typical long-term annual or a long-term contract for ferrovanadium in the U.S. market would have a pricing clause that changes every month based on the average of the published prices in a publication like Ryan's Notes. I believe that would be the most common publication, the average for the previous month. So that

1 change every month.

2	Excuse me. And I should say that where the
3	competition occurs between suppliers who are supplying,
4	pursuant to the long-term contract, if they're all tied to
5	the spot prices where the competition occurs is the discount
б	that they offer the customer off of that monthly average, so
7	they're not all offering the same price. They're competing
8	based on the discount percentage off of the monthly average.
9	COMMISSIONER WILLIAMSON: Okay, good. Thank you
10	for that.
11	If you produce multiple products on shared
12	equipment, how do you allocate available capacity among
13	different products and what is the ideal capacity and
14	product mix for both AMG and Bear, individually? And if
15	it's proprietary, of course, post-hearing is appropriate.
16	MR. TOTARO: For AMG vanadium, they reported
17	there the product they produce is vanadium and the other
18	products that result in that and that they sell are
19	byproducts of the vanadium production, so it's not a
20	question of allocating production to one or the other. When
21	they produce ferrovanadium, these byproducts are generated.
22	COMMISSIONER WILLIAMSON: Okay, when they
23	produce ferrovanadium, so I mean they use the same equipment
24	to produce other products?
25	MR. TOTARO: AMG does not, no.

1	COMMISSIONER WILLIAMSON: Okay.
2	MR. CAREY: This is Dave Carey.
3	So Bear does. We do produce ferrovanadium and
4	ferromolybdenum. It is demand driven, so the equipment
5	would be shared. Most of our equipment is interchangeable,
6	so it can be used for both products. And as I mentioned,
7	it's demand driven.
8	COMMISSIONER WILLIAMSON: Okay. What is
9	ferromolybdenum used for?
10	MR. CAREY: It's a very similar product to
11	ferrovanadium. It gives different properties to steel where
12	ferrovanadium is used for strengthening, so a small amount
13	of vanadium gives a large amount of strength, 40 percent
14	reduction in mass in some cases using vanadium. Molybdenum
15	is a little bit different. When you add ferromolybdenum to
16	steel you get a work-harding effect and some
17	anti-corrosives, so you'll find that in like drilling, tubal
18	goods, like that type of thing where you drill rigs and so
19	forth, tooling steels.
20	COMMISSIONER WILLIAMSON: Okay, so in a sense
21	you can't say there's the idea of capacity is whatever
22	meets demand or the ideal product mix or whatever meets
23	demand.
24	MR. CAREY: I would say at our case at Bear
25	ferrovanadium is much more profitable of a product to

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product. Ferromolybdenum there's not a lot profit in there. It does absorb fixed costs, so when we do produce that it will take up some of the fixed costs, but the ferrovanadium is definitely a higher mix for us. It's a better

5 profitability for Bear.

6

COMMISSIONER WILLIAMSON: Okay, thank you.

7 I just have one other question here. Exhibit 12 8 of your brief shows U.S. and EU for ferrovanadium during the 9 POI they show similar trends with prices falling 10 substantially in 2015 and then arising in 2016. What caused 11 the EU prices to follow the same trends as the U.S. prices 12 and does this similarity show that something other than 13 subject imports were affecting ferrovanadium prices?

MR. TOTARO: One of the statements that we made earlier was that there were drops in metal prices -- a lot of different kinds of metal prices during that period, but it's our position that the price declines in ferrovanadium were much more severe than could've been expected otherwise because of the affects of the subject imports.

And with regard to the European prices, I think what those charts show is that for a long time -- and one of our charts begins back in 2009 -- the gap between the U.S. and European prices was there, but was relatively constant with the U.S. price being higher. But then as we got into 2015, there were occasions where those two trend lines got

1 closer and at a certain point and I think more than one 2 point during the POI, during that lighter part of the POI, 3 the U.S. price actually dropped below the European price, 4 which is unusual based on the historical data. And you know 5 we believe that that was due to the low pricing by subject б imports and their influence on the spot market prices. 7 COMMISSIONER WILLIAMSON: Why has traditionally the U.S. price been higher? 8 9 MR. TOTARO: I think there's been a variety of 10 factors. Do you want to talk a little bit about that? MS. LUTZ: I think a significant factor is the 11 12 existing orders on imports from China and South Africa, 13 which are two of the largest ferrovanadium-producing 14 countries or vanadium producing countries in the world. 15 COMMISSIONER WILLIAMSON: Okay. And there 16 haven't been any AD-CVD cases in Europe on these products, I 17 take it? MS. LUTZ: Not that I'm aware of. 18 19 COMMISSIONER WILLIAMSON: Okay, good. 20 Thank you for those answers and I have no further questions. VICE CHARMAN JOHANSON: Commissioner Broadbent? 21 COMMISSIONER BROADBENT: Yeah, I had a few more. 22 23 This is for the industry witnesses please Mr. 24 Anderson and Mr. Carey. What determines a purchaser's decision to source according to a spot sale or a short-term 25

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73

1 contract or longer term contracts?

2	MR. ANDERSON: Mark Anderson.
3	Some of the large steel companies have such a
4	large volume of vanadium requirements on an annual basis
5	that they have to go or feel that they have to go
б	contracts to make sure that they have that material covered
7	and I guess other guys have much smaller vanadium
8	requirements and have less mills that they're trying to
9	cover on vanadium contracts, so they just elect to try and
10	purchase on the spot market.
11	MR. CAREY: This is Dave Carey.
12	I would agree with Mark's comments.
13	COMMISSIONER BROADBENT: Okay, so you don't have
14	one purchaser kind of sitting there saying do I go spot? Do
15	I go contract? They are either more generally contract or
16	more generally spot?
17	MR. CAREY: This is Dave again.
18	As the tollees I would see would have a contract
19	and then they would make any access needs with spot
20	business. In some cases you have the smaller companies that
21	Mark mentioned that would just buy on spot as need be.
22	COMMISSIONER BROADBENT: Okay. So if purchasers
23	chose between spot sales and contracts for their sourcing
24	decisions, wouldn't the offer of contract prices influence
25	spot sales prices as well as the other way around?

1 MR. ANDERSON: Mark Anderson. 2 The contract sales are all based on the prior 3 month average for all the spot sales and then there's a 4 discount applied to that average number. A discount is set. 5 Like for 2016 it was mostly negotiated and set in 6 October/November timeframe, so that just carries throughout 7 the entire year. So the contract sales are all directly tied back to those spot sales and I don't see vice versus. 8 9 I don't see how that would apply. 10 COMMISSIONER BROADBENT: So the spot sales affect the contract prices, but not vice versus? 11 12 MR. ANDERSON: Correct. 13 COMMISSIONER BROADBENT: Okay. Do you agree 14 with that? 15 MR. CAREY: I do agree with that. The 16 publications base their published price on spot sales. COMMISSIONER BROADBENT: Okay. Mr. Totaro, back 17 on profitability. You state that 2014 was a more profitable 18 year because of the higher steel making and higher published 19 20 prices. I just wanted to kind of see if we can get into this a little bit. With respect to Ms. Lutz's graph on page 21 22 4, I'm seeing only a slight elevation in 2014 compared to 23 2013 or 2015. Does that mean that the slight decrease in 24 2015 in steel production affected financial profitability of the industry? 25

1 MR. TOTARO: The 10 percent decrease in 2015 combined with the decreases -- the much larger decreases in 2 3 prices, yes, I think those two combined affected the 4 profitability. COMMISSIONER BROADBENT: Okay. You stated that 5 б there were higher published Ryan's Notes prices in 2014, but 7 2014 is when we see the largest increase in imports from Korea and the greatest underselling, so why were the 8 9 published prices high in the 2014? 10 MR. TOTARO: I don't know exactly why. I know that when we sought to find direct evidence of the 11 12 influences of Korean imports where we found that or where we 13 were able to find specific information was in 2015, but I don't have --14 15 COMMISSIONER BROADBENT: Wait. What did you 16 find in 2015? MR. TOTARO: The affidavits that we provided in 17 our brief, which provide explanations of the link between 18 spots sales of Korean ferrovanadium and declines in the 19 20 published prices. COMMISSIONER BROADBENT: Okay. 21 22 MR. TOTARO: That's the year where we were able to obtain that information. 23 24 COMMISSIONER BROADBENT: Okay. I want to take a look at Table VI-1 of the pre-hearing staff report which 25

1 talks about -- addresses the financial performance of AMG
2 and Bear. I'm just interested in whether some of these
3 costs and expenses are related to competitive conditions in
4 the ferrovanadium market.

Should the Commission take into account the 5 б affect of byproduct revenues on the industry's cost of goods 7 sold given that these byproducts are not part of the domestic like product. Please discuss whether and to what 8 9 affect any change in financial performance resulting from 10 changes in byproduct revenues might be considered as evidence of injury to an industry by reason of subject 11 12 imports.

MR. TOTARO: We'll be glad to address that in our brief.

15 COMMISSIONER BROADBENT: Why would AMG's other 16 factory costs increase between 2013 and 2015 and please 17 discuss whether these changes and other factory costs might 18 be considered as evidence of injury to the industry by 19 reason of the subject imports?

20 MR. TOTARO: We'll address that as well in our 21 brief.

22 COMMISSIONER BROADBENT: Okay. Footnote 4 of 23 Table VI-1 of the pre-hearing staff report refers to write 24 downs that occurred particularly in the latter portion of 25 the period of investigation. Without going into any

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77

1 specifics here because it's all PBI, I know, I'm hoping that you can address further the cause of these impairments and 2 3 whether the result in increase in the costs of goods sold 4 can be linked to import competition. MR. TOTARO: We'll address that one as well in 5 6 the brief. 7 COMMISSIONER BROADBENT: Okay, Mr. VICE CHARMAN , I think that concludes that I had for the witnesses today. 8 9 VICE CHARMAN JOHANSON: Thank you, Commissioner 10 Broadbent. Commissioner Williamson? COMMISSIONER WILLIAMSON: Just one follow-up 11 12 question. I was curious of what you could say about why the 13 Respondents aren't here today. I assume they're very busy 14 at Commerce and they didn't want to spend the money or any 15 speculation on that? 16 MR. TOTARO: I don't know. And to your point, 17 and to Commissioner Kief's point earlier, it was not our 18 intent to waste anyone time and we hoped that our appearing 19 here would provide an opportunity for you to ask any 20 questions you had. But will say that until a few days ago 21 -- since there is another party to this proceeding it was 22 only a few days ago that we learned that they would not be 23 appearing here and not filing a pre-hearing brief, so that 24 came as a surprise to us. And hopefully, our being here was 25 helpful to all of you, but no, I have no information to

1 explain why they're not here.

2	COMMISSIONER WILLIAMSON: Okay. I think you can
3	see by the number of questions that we had that it was
4	useful and very useful for us to have you here and we
5	appreciate it.
6	I will also sort of say you have an unfair
7	you have a disadvantage here. Last week we had a hearing on
8	shrimp and all of our taste buds were engaged. And when you
9	get ferrovanadium, it just doesn't compete. But we
10	appreciate you all the questions and answers that you've
11	given us today and it's been very helpful. Thank you.
12	MR. TOTARO: You're welcome. Glad to be here.
13	VICE CHARMAN JOHANSON: Thank you, Commissioner
14	Williamson.
15	Yeah, the shrimp hearing really caught our
16	attention because we all like shrimp, but geology is quite
17	interesting as well. I really enjoyed that part of
18	preparing for today's hearing, but thank you again for
19	appearing here today.
20	This concludes Commissioners' questions. Staff,
21	do you have any questions?
22	MR. CORKRAN: Douglas Corkran, Office of
23	Investigations.
24	Thank you, VICE CHARMAN Johanson. Staff has no
25	additional questions.

VICE CHARMAN JOHANSON: Thank you, Mr. Corkran. 1 We will now turn to the Petitioner's closing. 2 3 MR. BISHOP: Closing remarks on behalf of 4 Petitioners will be given by John B. Totaro, Jr., of Neville 5 Peterson. Mr. Totaro you have five minutes. 6 CLOSING REMARKS OF JOHN B. TOTARO, JR. 7 MR. TOTARO: Thank you. The United States is and will remain an 8 9 undeniably attractive market for Korean ferrovanadium producers because the U.S. steel industry is such a large 10 consumer of ferrovanadium. While demand from U.S. steel 11 12 makers was lower in 2015 than in previous years, this fact 13 did not stop imports of ferrovanadium from Korea from 14 entering the United States at growing volumes and these 15 imports were consistently sold at below market prices in 16 order to gain market share in a declining market. 17 The steadily increasing volume of imports from 18 Korea was interrupted when the domestic industry filed its petition; however, we are confident that without import 19 20 relief imports from Korea will resume and will displace 21 market share currently held by domestically produced 22 ferrovanadium and will again cause declines in published 23 prices in the U.S. market. 24 Subject imports would again easily gain market share because of the importance of price and purchasing 25

1 decisions and the high degree of substitutability of ferrovanadium from all sources. The material injury to the 2 3 U.S. industry is reflected in the negative trends in its 4 profitability and shipment volumes in the year prior to the 5 filing of the petition. The industry is extremely 6 vulnerable to the continued affects of subject imports due 7 to its high fixed costs and the sensitivity of formula-base contract sales to changes in published spot prices. 8 9 Based on the domestic producers and tollees' 10 financial data on the record, it is clear that these firms continued operations are at risk unless import relief is 11 12 imposed to address the damaging affects of subject imports. 13 In summary, we submit that the information on

14 the record in terms of volume, price, and impact 15 demonstrates that the domestic ferrovanadium industry is 16 material injured and that there is a causal link between 17 that injury and dumped imports of ferrovanadium from Korea. 18 Furthermore, there is significant evidence on 19 the record demonstrating that the industry is threatened

Thank you for your time today and thank you for your attention as you consider the facts on the record and the arguments presented by the BPRA and its members in making your final determination in this case. Thank you. VICE CHARMAN JOHANSON: Thank you, Mr. Totaro.

with further material injury by the subject imports.

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81

1	I will now turn to the closing statement.
2	Post-hearing briefs, statements responsive to questions and
3	requests of the Commission and corrections to the transcript
4	must be filed by March 28, 2017. Closing of the record and
5	final release of data to parties occurs on April 12, 2017
6	and final comments are due on April 14, 2017 and this
7	hearing is now adjourned.
8	(Whereupon, at 11:29 a.m., the hearing was
9	concluded.)
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CERTIFICATE OF REPORTER

TITLE: In The Matter Of: Ferrovanadium from Korea

INVESTIGATION NOS.: 731-TA-1315

HEARING DATE: 3-21-17

LOCATION: Washington, D.C.

NATURE OF HEARING: Final

I hereby certify that the foregoing/attached transcript is a true, correct and complete record of the above-referenced proceeding(s) of the U.S. International Trade Commission.

- DATE: 3-21-17
- SIGNED: Mark A. Jagan Signature of the Contractor or the Authorized Contractor's Representative

I hereby certify that I am not the Court Reporter and that I have proofread the above-referenced transcript of the proceedings of the U.S. International Trade Commission, against the aforementioned Court Reporter's notes and recordings, for accuracy in transcription in the spelling, hyphenation, punctuation and speaker identification and did not make any changes of a substantive nature. The foregoing/attached transcript is a true, correct and complete transcription of the proceedings.

SIGNED: Gregory Johnson Signature of Proofreader

> I hereby certify that I reported the above-referenced proceedings of the U.S. International Trade Commission and caused to be prepared from my tapes and notes of the proceedings a true, correct and complete verbatim recording of the proceedings.

SIGNED:

Larry Flowers Signature of Court Reporter