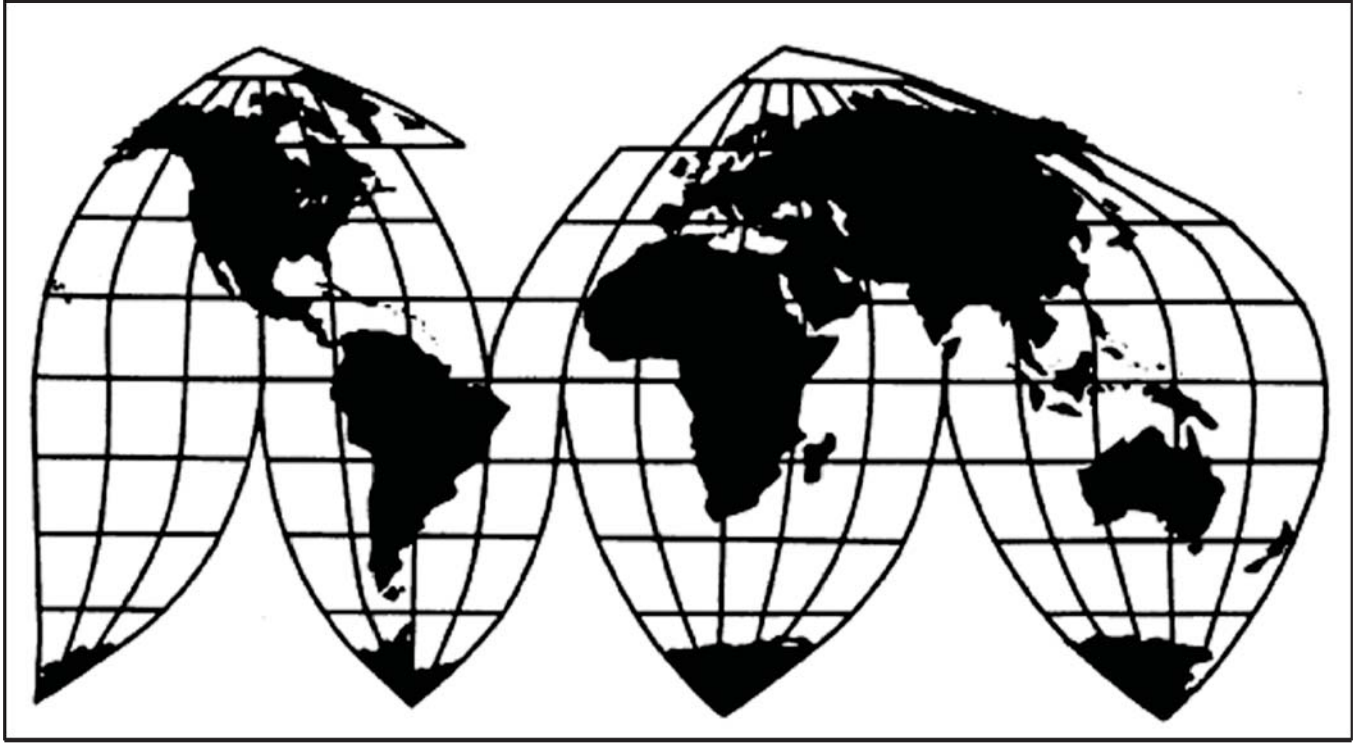
# Diffusion-Annealed, Nickel-Plated Flat-Rolled Steel Products from Japan

Investigation No. 731-TA-1206 (Final)

**Publication 4466** **May 2014**

## U.S. International Trade Commission



**Washington, DC 20436**

# U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted.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

**UNITED STATES INTERNATIONAL TRADE COMMISSION**

Investigation No. 731-TA-1206 (Final)

DIFFUSION-ANNEALED, NICKEL-PLATED FLAT-ROLLED STEEL PRODUCTS FROM JAPAN

## DETERMINATION

On the basis of the record[1] developed in the subject investigation, the United States International Trade Commission (Commission) determines,[2] pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act), that an industry in the United States is materially injured by reason of imports from Japan of diffusion-annealed, nickel-plated flat-rolled steel products, provided for primarily in subheadings 7210.90.60 and 7212.50.00 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce (Commerce) to be sold in the United States at less than fair value (LTFV).

## BACKGROUND

The Commission instituted this investigation effective March 27, 2013, following receipt of a petition filed with the Commission and Commerce by Thomas Steel Strip Corporation, Warren, Ohio. The final phase of the investigation was scheduled by the Commission following notification of a preliminary determination by Commerce that imports of diffusion-annealed, nickel-plated flat-rolled steel products from Japan were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigation and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of December 11, 2013 (78 FR 75371). The hearing was held in Washington, DC, on April 1, 2014, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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

[2] Commissioner Rhonda K. Schmidtlein not participating.

# Views of the Commission

Based on the record in the final phase of this investigation, we find that an industry in the United States is materially injured by reason of imports of diffusion-annealed, nickel-plated flat-rolled steel products ("nickel plate") from Japan found by the U.S. Department of Commerce ("Commerce") to be sold in the United States at less than fair value.[1]

## I. Background

The petition in this investigation was filed on March 27, 2013 by Thomas Steel Strip Corp. ("Thomas Steel" or "Thomas"), the sole U.S. producer of nickel plate. Thomas Steel appeared at the hearing and submitted prehearing and posthearing briefs.

Metal One America, Inc. ("Metal One"), Nippon Steel & Sumitomo Metal Corp. ("Nippon Steel"), and Toyo Kohan Co., Ltd. ("Toyo Kohan") (collectively, "Respondents") appeared at the hearing and jointly submitted prehearing and posthearing briefs opposing imposition of duties. Metal One imports and Nippon Steel and Toyo Kohan produce and export the subject merchandise. The Procter & Gamble Company ("P&G" or "Duracell"), a U.S. purchaser of nickel plate, also appeared at the hearing and filed prehearing and posthearing briefs opposing imposition of duties.

U.S. industry data are based on Thomas Steel's questionnaire response, as it accounted for all U.S. production of nickel plate over the period of investigation ("POI"), which encompasses calendar years 2011 through 2013. U.S. import data are based on questionnaire responses from four importers of nickel plate over the POI. These four firms accounted for more than 90 percent of total imports from Japan and more than 75 percent of total imports from all sources between 2011 and 2013 under the relevant HTS statistical reporting numbers. The two Japanese producers of subject nickel plate that submitted questionnaire responses accounted for approximately *** percent of production of nickel plate in Japan and approximately *** percent of all imports of subject nickel plate in 2013.[2]

## II. Domestic Like Product

### A. In General

In determining whether an industry in the United States is materially injured or threatened with material injury by reason of imports of subject merchandise, the Commission first defines the "domestic like product" and the "industry."[3] Section 771(4)(A) of the Tariff Act of 1930, as amended ("the Tariff Act"), defines the relevant domestic industry as the "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of

[1] Commissioner Schmidtlein did not participate in this investigation.

[2] Confidential Report ("CR") at IV-1, VII-3, Public Report ("PR") at IV-1, VII-3.

[3] 19 U.S.C. § 1677(4)(A).

the product."[4] In turn, the Tariff Act defines "domestic like product" as "a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation."[5]

The decision regarding the appropriate domestic like product in an investigation is a factual determination, and the Commission has applied the statutory standard of "like" or "most similar in characteristics and uses" on a case-by-case basis.[6] No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.[7] The Commission looks for clear dividing lines among possible like products and disregards minor variations.[8] Although the Commission must accept Commerce's determination as to the scope of the imported merchandise that is subsidized or sold at less than fair value,[9] the Commission determines what domestic product is like the imported articles Commerce has identified.[10]

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[4] 19 U.S.C. § 1677(4)(A).

[5] 19 U.S.C. § 1677(10).

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

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

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

[9] *See*, *e.g., USEC, Inc. v. United States*, 34 Fed. Appx. 725, 730 (Fed. Cir. 2002) ("The ITC may not modify the class or kind of imported merchandise examined by Commerce."); *Algoma Steel Corp. v. United States*, 688 F. Supp. 639, 644 (Ct. Int'l Trade 1988), *aff'd*, 865 F.3d 240 (Fed. Cir.), *cert. denied*, 492 U.S. 919 (1989).

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

### B. Product Description

Commerce defined the scope of the imported merchandise under investigation as follows:

{F}lat-rolled, cold-reduced steel products, regardless of chemistry; whether or not in coils; either plated or coated with nickel or nickel-based alloys and subsequently annealed (i.e. "diffusion-annealed"); whether or not painted, varnished or coated with plastic or other metallic or nonmetallic substances; and less than or equal to 2.0 mm in nominal thickness. For purposes of this investigation, "nickel-based alloys" include all nickel alloys with other metal in which nickel accounts for at least 80 percent of the alloy by volume.[11]

Nickel plate is used primarily to produce cans and end caps of alkaline and lithium batteries. It is a flat-rolled steel product, plated or coated with nickel or with a nickel-base alloy and subsequently annealed.[12] Annealing causes the formation of a thin layer of iron-nickel alloy between the steel substrate and the nickel coating, which prevents the nickel coating from separating from the steel substrate during subsequent fabrication operations. Nickel plate is used to make battery cans because it can be shaped into deep cans and the nickel coating creates resistance to corrosion by electrolytes in the batteries.[13] Approximately 90 percent of U.S. shipments of domestically produced and imported nickel plate in 2013 were used to produce battery cans and end caps. Because of its resistance to corrosion from motor fuel additives, nickel plate is also used for the production of fuel, power-steering, and other automotive fluid lines.[14]

### C. Domestic Like Product Analysis and Conclusion

In the preliminary phase of this investigation, Thomas Steel argued that the Commission should define a single domestic like product coextensive with the definition of the subject merchandise. Thomas Steel also maintained that the domestic like product should not be defined to include other types of corrosion-resistant carbon steel flat-rolled products ("CORE").[15] In our preliminary determination, we found a single domestic like product coextensive with the scope definition.[16]

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[11] *Notice of Affirmative Final Determination of Sales at Less Than Fair Value: Diffusion-Annealed, Nickel-Plated Flat Rolled Steel Products from Japan*, 79 Fed. Reg. 19868 (Apr. 10, 2014).

[12] CR at I-7, PR at I-6.

[13] CR at I-8, PR at I-6.

[14] CR at I-8, PR at I-6.

[15] Petition at 33, 39; Thomas Postconference Brief at 4-5. Respondents do not dispute Thomas Steel's definition.

[16] *See Diffusion-Annealed, Nickel-Plated Flat Rolled Steel Products from Japan*, Inv. No. 731-TA-1206 (Preliminary) ("Preliminary Determination"), USITC Pub. 4395 at 8 (May 2013). The Commission considered the issue of whether to include CORE in the domestic like product definition and concluded that it was not appropriate to do so.

In the final phase of this investigation, Thomas Steel again asks the Commission to find a single like product coextensive with the scope of the investigation.[17] Respondents do not challenge this definition. The record does not contain any new information concerning the domestic like product factors.[18] Accordingly, for the same reasons set forth in the preliminary determination, we define a single domestic like product that is coextensive with the scope of the investigation: diffusion-annealed, nickel-plated, flat-rolled steel products.

## III. Domestic Industry

The domestic industry is defined as the domestic "producers as a whole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product."[19] In defining the domestic industry, the Commission's general practice has been to include in the industry producers of all domestic production of the like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.

In the preliminary phase of this investigation, we defined the domestic industry as consisting of Thomas Steel because it was the sole producer of nickel plate in the United States.[20] In this final phase of the investigation, Thomas Steel remains the sole domestic producer of nickel plate.[21] Accordingly, we again define the domestic industry as consisting of Thomas Steel.

## IV. Material Injury by Reason of Subject Imports

Based on the record in the final phase of this investigation, we find that an industry in the United States is materially injured by reason of imports of diffusion-annealed, nickel-plated flat-rolled steel products from Japan that Commerce has found to be sold in the United States at less than fair value.

### A. Legal Standards

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured or threatened with material injury by reason of the imports under investigation.[22] In making this determination, the Commission must consider the volume of subject imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic

[17] Thomas Prehearing Brief at 6.

[18] *See generally* CR at I-7-11, PR at I-6-8.

[19] 19 U.S.C. § 1677(4)(A).

[20] Preliminary Determination, USITC Pub. 4395 at 9.

[21] CR /PR at Table III-1. Parties have not raised any arguments regarding the definition of the domestic industry. There are no related party issues in this investigation.

[22] 19 U.S.C. §§ 1671d(b), 1673d(b).

like product, but only in the context of U.S. production operations.[23] The statute defines "material injury" as "harm which is not inconsequential, immaterial, or unimportant."[24] In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.[25] No single factor is dispositive, and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."[26]

Although the statute requires the Commission to determine whether the domestic industry is "materially injured or threatened with material injury by reason of" unfairly traded imports,[27] it does not define the phrase "by reason of," indicating that this aspect of the injury analysis is left to the Commission's reasonable exercise of its discretion.[28] In identifying a causal link, if any, between subject imports and material injury to the domestic industry, the Commission examines the facts of record that relate to the significance of the volume and price effects of the subject imports and any impact of those imports on the condition of the domestic industry. This evaluation under the "by reason of" standard must ensure that subject imports are more than a minimal or tangential cause of injury and that there is a sufficient causal, not merely a temporal, nexus between subject imports and material injury.[29]

In many investigations, there are other economic factors at work, some or all of which may also be having adverse effects on the domestic industry. Such economic factors might include nonsubject imports; changes in technology, demand, or consumer tastes; competition among domestic producers; or management decisions by domestic producers. The legislative history explains that the Commission must examine factors other than subject imports to ensure that it is not attributing injury from other factors to the subject imports, thereby inflating an otherwise tangential cause of injury into one that satisfies the statutory material

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[23] 19 U.S.C. § 1677(7)(B). The Commission "may consider such other economic factors as are relevant to the determination" but shall "identify each {such} factor ... and explain in full its relevance to the determination." 19 U.S.C. § 1677(7)(B).

[24] 19 U.S.C. § 1677(7)(A).

[25] 19 U.S.C. § 1677(7)(C)(iii).

[26] 19 U.S.C. § 1677(7)(C)(iii).

[27] 19 U.S.C. §§ 1671d(a), 1673d(a).

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

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

injury threshold.[30] In performing its examination, however, the Commission need not isolate the injury caused by other factors from injury caused by unfairly traded imports.[31] Nor does the "by reason of" standard require that unfairly traded imports be the "principal" cause of injury or contemplate that injury from unfairly traded imports be weighed against other factors, such as nonsubject imports, which may be contributing to overall injury to an industry.[32] It is clear that the existence of injury caused by other factors does not compel a negative determination.[33]

Assessment of whether material injury to the domestic industry is "by reason of" subject imports "does not require the Commission to address the causation issue in any particular way" as long as "the injury to the domestic industry can reasonably be attributed to the subject imports" and the Commission "ensure{s} that it is not attributing injury from other sources to

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

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

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

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

the subject imports."[34] [35] Indeed, the Federal Circuit has examined and affirmed various Commission methodologies and has disavowed "rigid adherence to a specific formula."[36]

The Federal Circuit's decisions in *Gerald Metals, Bratsk*, and *Mittal Steel* all involved cases where the relevant "other factor" was the presence in the market of significant volumes of price-competitive nonsubject imports. The Commission interpreted the Federal Circuit's guidance in *Bratsk* as requiring it to apply a particular additional methodology following its finding of material injury in cases involving commodity products and a significant market presence of price-competitive nonsubject imports.[37] The additional "replacement/benefit" test looked at whether nonsubject imports might have replaced subject imports without any benefit to the U.S. industry. The Commission applied that specific additional test in subsequent cases, including the *Carbon and Certain Alloy Steel Wire Rod from Trinidad and Tobago* determination that underlies the *Mittal Steel* litigation.

*Mittal Steel* clarifies that the Commission's interpretation of *Bratsk* was too rigid and makes clear that the Federal Circuit does not require the Commission to apply an additional test nor any one specific methodology; instead, the court requires the Commission to have "evidence in the record" to "show that the harm occurred 'by reason of' the LTFV imports," and requires that the Commission not attribute injury from nonsubject imports or other factors to

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[34] *Mittal Steel*, 542 F.3d at 877-78; *see also id.* at 873 ("While the Commission may not enter an affirmative determination unless it finds that a domestic industry is materially injured 'by reason of' subject imports, the Commission is not required to follow a single methodology for making that determination ... {and has} broad discretion with respect to its choice of methodology.") *citing United States Steel Group v. United States*, 96 F.3d 1352, 1362 (Fed. Cir. 1996) and S. Rep. 96-249 at 75.

[35] Commissioner Pinkert does not join this paragraph or the following three paragraphs. He points out that the Federal Circuit, in *Bratsk*, 444 F.3d 1369, and *Mittal Steel*, held that the Commission is *required*, in certain circumstances when considering present material injury, to undertake a particular kind of analysis of non-subject imports, albeit without reliance upon presumptions or rigid formulas. *Mittal Steel* explains as follows:

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

542 F.3d at 878.

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

[37] *Mittal Steel*, 542 F.3d at 875-79.

subject imports.[38] Accordingly, we do not consider ourselves required to apply the replacement/benefit test that was included in Commission opinions subsequent to *Bratsk*.

The progression of *Gerald Metals, Bratsk*, and *Mittal Steel* clarifies that, in cases involving commodity products where price-competitive nonsubject imports are a significant factor in the U.S. market, the Court will require the Commission to give full consideration, with adequate explanation, to non-attribution issues when it performs its causation analysis.[39]

The question of whether the material injury threshold for subject imports is satisfied notwithstanding any injury from other factors is factual, subject to review under the substantial evidence standard.[40] Congress has delegated this factual finding to the Commission because of the agency's institutional expertise in resolving injury issues.[41]

### B. Conditions of Competition and the Business Cycle[42]

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

#### 1. Demand Considerations

The principal application for nickel plate in the United States is in battery manufacturing, with limited use in other applications such as automotive fuel line manufacturing. Approximately 90 percent of the consumption of nickel plate is used in the manufacture of batteries, 90 percent of which is used for alkaline battery manufacturing and 10 percent for lithium batteries.[43] In the United States, the alkaline battery market is driven

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

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

[40] We provide in our respective discussions of volume, price effects, and impact a full analysis of other factors alleged to have caused any material injury experienced by the domestic industry.

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

[42] Negligibility under 19 U.S.C. § 1677(24) is not an issue in this investigation. During the most recent 12-month period prior to the filing of the petition for which adjusted import data are available, subject imports from Japan accounted for *** percent of total imports. CR/PR at Table IV-2.

[43] CR at II-1, PR at II-1.

primarily by the demand for AA size batteries.[44] Thus, U.S. demand for nickel plate is derived in large part from the demand for batteries.[45]

In recent years, some battery makers have shifted to thinner and lighter steel in an effort to reduce costs. As a consequence, the total volume (by weight) of nickel plate used by battery manufacturers to make a given quantity of batteries has been declining somewhat over the long term.[46] There is a seasonal aspect to nickel plate sales, as the period of highest demand is from June through October, when battery demand rises due to summer power outages and holiday gift needs.[47]

Nickel plate for use in batteries is purchased in the United States by both battery manufacturers and can stampers. Can stampers operate metal stamping facilities that convert nickel plate into battery cans and end caps.[48] There are three primary U.S. battery manufacturers: Duracell (owned by - and referred to occasionally in this proceeding as - P&G), Energizer, and Rayovac.[49] Duracell is the largest of the three.[50] In November 2012, Energizer announced that it was closing two of its U.S. battery manufacturing facilities. It closed these facilities in late 2013 and consolidated its remaining U.S. battery production in North Carolina.[51] Battery makers are often associated with particular can stampers, ***. Duracell is associated with can stamper Cly-Del, Energizer is associated with can stamper H&T Waterbury, and Rayovac is associated with can stamper PECA.[52]

When purchasing nickel plate, battery manufacturers use different sourcing strategies.[53] Energizer states that it prefers a *** of nickel plate and ***,[54] whereas Duracell prefers to dual source and consequently purchases nickel plate from more than one source.[55]

Thomas Steel asserts that U.S. demand for nickel plate is *** and relatively inelastic.[56] It also asserts that the shift to thinner nickel plate has not greatly affected demand.[57] Respondents contend that U.S. demand is declining due to Energizer's decision to close two U.S. facilities and consolidate its remaining U.S. battery production in North Carolina, and

[44] *See* CR at II-12, PR at II-6.

[45] CR at II-12, PR at II-6.

[46] *See, e.g.*, Thomas Posthearing Brief at II-11.

[47] CR at II-16, PR at II-8.

[48] CR at II-2, PR at II-1.

[49] CR at II-1, PR at II-1.

[50] *See* CR at II-1, PR at II-1.

[51] Joint Respondent Prehearing Brief at 50; Thomas Posthearing Brief at II-37; CR at II-1, PR at II-1. Evidence on the record suggests that ***. CR at II-15, PR at II-7-8; *see also* Tr. at 151, 161 (Singh), 162 (Salo).

[52] Joint Respondent Prehearing Brief at 8. ***. CR at II-2-3, n.9, PR at II-1-2, n.9.

[53] Some battery manufacturers negotiate the purchase of nickel plate on behalf of their associated can stamper. CR at V-4-5, PR at V-2-3.

[54] Specifically, ***. Joint Respondent Prehearing Brief at 13.

[55] CR at II-26, PR at II-13.

[56] Thomas Prehearing Brief at 7.

[57] Thomas Posthearing Brief at II-11.

further argue that demand has decreased due to improved yield.[58] P&G anticipates that demand for nickel plate will be fairly steady.[59] Thomas Steel and purchaser *** reported increased demand for nickel plate within the automotive sector,[60] but U.S. shipments of nickel plate to the automotive sector remained *** of total U.S. shipments throughout the POI.[61]

Demand as measured by apparent U.S. consumption decreased over the period of investigation, falling from *** short tons in 2011 to *** short tons in 2012, and then to *** short tons in 2013.[62]

### 2. Supply Considerations

There are very few producers of nickel plate worldwide that are capable of supplying the U.S. market. As previously stated, Thomas Steel is the sole U.S. producer of nickel plate. It is owned by Tata Steel, which also has a subsidiary (Hille & Mueller) that produces nickel plate in Germany.[63] Thomas Steel's capacity was stable at *** short tons a year from 2011 to 2013.[64] Thomas Steel supplies a large majority of the U.S. market, but its share of U.S. shipments of nickel plate decreased from *** percent in 2011 to *** percent in 2012, and then to *** percent in 2013.[65]

Subject imports supply most of the rest of the U.S. market.[66] Subject imports as a share of apparent U.S. consumption increased from *** percent in 2011 to *** percent in 2012, and then to *** percent in 2013.[67] Responding Japanese producers of nickel plate are capable of meeting *** standards for nickel plate under certain specifications.[68] Subject imports are used *** in battery manufacturing.[69] The overwhelming percentage of subject imports during the POI were ***.[70]

During the period of investigation a very small share of the U.S. market was served by nonsubject imports from Korea and Germany.[71] Imports from Korea were used exclusively for *** and the relatively small number of imports from Germany were used for batteries and

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[58] Joint Respondent Prehearing Brief at 8.

[59] P&G Prehearing Brief at 3.

[60] CR at II-22, PR at II-11.

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

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

[63] *See* CR at II-2, III-2, PR at II-1, III-2. Thomas Steel also purchases the majority of its hot-rolled steel for nickel plate from Tata Steel IJmuiden BV ("IJmuiden"), an affiliated company in the Netherlands. *Id.* at n.4.

[64] CR/PR at Table III-2.

[65] CR/PR at Table IV-4.

[66] CR/PR, Table IV-4.

[67] CR/PR at Table IV-4.

[68] *** CR/PR at Table II-6. ***. CR at VII-3, PR at VII-3.

[69] *See* CR/PR at Tables II-1 and IV-5.

[70] CR/PR at Table IV-1. During the POI, Metal One was the exclusive importer of nickel plate for Toyo Kohan. CR at IV-2, PR at IV-2. Nippon Steel reported that its sales in the United States "have always been very small volumes." *Id.*

[71] *See* CR/PR at Table IV-4.

other *** applications.[72] Nonsubject imports as a share of the U.S. market also increased over the POI, from *** percent in 2011 to *** percent in 2012, and then to *** percent in 2013.[73] Some producers in nonsubject countries produce substitute products that are not suitable for use in the U.S. market.[74]

### 3. Substitutability and Other Conditions

We find that there is a moderate degree of substitutability between subject imports and the domestic like product, with a higher degree of substitutability when two producers have qualified for the same specification with the same battery manufacturers. Most responding purchasers indicated that domestic and Japanese nickel plate always or usually met minimum quality specifications.[75] Qualification is an important condition of competition in the U.S. nickel plate market. Before supplying a can stamper or battery manufacturer, a nickel plate producer usually first undergoes a qualification process.[76] The process of becoming qualified can take up to 18 months, and qualification for one purchaser's specifications, such as AA size battery cans, may not transfer to other specifications, even for the same purchaser.[77] Furthermore, if a battery manufacturer changes its specifications or a supplier has not recently provided nickel plate, the nickel plate producer must re-qualify before being eligible to supply it again with nickel plate. Qualification generally occurs in multiple phases and, at each phase, the nickel plate producer supplies the battery manufacturer with increasing quantities of nickel plate, ***.[78]

There is significant, albeit limited, overlap in the products that Thomas and the subject producers have been qualified to supply to battery manufacturers in the United States. In particular, there is overlap to supply nickel plate to Duracell across several key specifications.[79] ***.[80] Thomas Steel is the ***. Thomas supplies ***.[81]

Thomas Steel uses a pricing formula for nickel plate known as "RMPAM" (raw material price adjustment mechanism). RMPAM is designed to pass automatically at least some of the changes in raw material costs through to the purchaser during the life of a contract, thereby helping to insulate nickel plate producers from changes in raw material costs. Prices using RMPAM therefore consist of a non-adjustable base price plus an adjustment mechanism that

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

[73] CR/PR at Table IV-4.

[74] China, for example, produces battery cans that are first stamped from uncoated, cold-rolled steel, and the formed cans are subsequently plated with nickel in a process known as "post-plating." Tr. at 106 (Boyd), 144 (Kuroda), 165 (Singh). Duracell testified that because this process yields an inferior product, Chinese battery manufacturers are unable to compete in the U.S. market. Tr. at 161 (Singh).

[75] CR at II-43, PR at II-22; CR/PR at Table II-10.

[76] CR at II-29-38, PR at II-15-19.

[77] *See, e.g.*, Joint Respondent Prehearing Brief at 10.

[78] CR at II-30-33, PR at II-15-20.

[79] *See* CR/PR at Table II-6.

[80] CR/PR at Table II-6. ***. *Id*.

[81] CR at II-36-37, PR at II-36-37; CR/PR at Table II-6.

will increase or decrease prices whenever the cost of raw materials, generally iron ore and coking coal, rises above or falls below a certain level in a specified index.[82] There is also generally a separate nickel adjustment that is added to or subtracted from the base price.[83] ***.[84]

Producers and importers reported that the vast majority of nickel plate sales occur on a contractual basis, with a small percentage of spot sales.[85] Thomas Steel has indicated that it generally ***.[86] *** reported that their ***.[87] *** indicated that ***.[88] Thomas reported that ***, and ***.[89] In addition, the record indicates that there can be a lag between the time a contract is awarded and when a supplier actually begins supplying the purchaser with nickel plate.[90] The record indicates that lags during the POI could range from six to 12 months.[91]

### C. Volume of Subject Imports

Section 771(7)(C)(i) of the Tariff Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."[92]

In analyzing the volume of subject imports, we have focused on U.S. shipments of subject imports rather than U.S. imports.[93] Shipments of subject imports rose throughout the POI, increasing from *** short tons in 2011 to *** short tons in 2012, and then to *** short tons in 2013, despite declining apparent U.S. consumption.[94] During this time, U.S. shipments of subject imports as a share of apparent consumption increased from *** percent in 2011 to *** percent in 2012, and then to *** percent in 2013.[95]

The subject imports gained market share at the expense of the domestic industry. From 2011 to 2013, subject imports as a share of the U.S. market increased by *** percentage points,

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[82] CR at V-11, PR at V-5. The base price sometimes includes a separate raw material component for nickel and/or hot-rolled steel. *See* CR at V-11-12, PR at V-5.

[83] CR at V-11, PR at V-5.

[84] CR at V-11, PR at V-5. For example, ***. *Id.*at V-11-12, PR at V-5.

[85] CR/PR at Table V-1.

[86] *See, e.g.,* Preliminary Determination, USITC Pub. 4395 at 14; CR/PR at Table V-1; CR at V-7, PR at V-4.

[87] CR at V-8, PR at V-4.

[88] CR at V-8, PR at V-4.

[89] CR at V-7-8, PR at V-4.

[90] *See, e.g.,* CR at V-15, PR at V-6.

[91] CR at V-15, PR at V-6.

[92] 19 U.S.C. § 1677(7)(C)(i).

[93] In this investigation, we find that U.S. shipment data is more relevant to our inquiry when examining the volume of subject imports because ***. CR at II-25, PR at II-12. There is nothing in the record to suggest that ***. Imports of nickel plate from Japan were *** short tons in 2011, *** short tons in 2012, and *** short tons in 2013. CR/PR at Table IV-2.

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

[95] CR/PR at Table IV-4.

whereas the domestic producer lost *** percentage points of the U.S. market.[96] U.S. shipments of the domestic like product as a share of apparent consumption fell from *** percent in 2011 to *** percent in 2012, and then to *** percent in 2013.[97] Subject imports as a ratio of U.S. production increased overall from *** percent in 2011 to *** percent in 2013.[98]

The shift in volume of shipments from the domestic producers to the subject imports occurred almost exclusively with nickel plate intended for use in manufacturing AA cans, which is the largest application in the battery market.[99] U.S. shipments of the domestic like product designated for AA cans fell from *** short tons in 2011 to *** short tons in 2012, and then to *** short tons in 2013.[100] In contrast, U.S. shipments of subject imports for use in AA cans *** during the POI, from *** short tons in 2011 to *** short tons in 2012, and then to *** short tons in 2013.[101] AA battery cans were the only end use application for which there was a significant increase in subject imports.

Parties agree that the primary shift in AA can volume occurred in 2012 and into 2013 as a result of Duracell's decision in December 2011 to reallocate the source of its AA can material from Thomas Steel to Toyo Kohan.[102] ***.[103]

We have also considered respondents' arguments that market-wide shifts to use of *** were responsible for Thomas Steel's lower volumes of shipments in 2012 and 2013.[104] Such shifts, at most, would have had a minimal effect on Thomas Steel's shipments and fail to explain the increase in subject imports or the loss of market share by Thomas to the subject imports.[105] They also do not address why the shift in *** AA can volume occurred.[106] Furthermore, we

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[96] CR at IV-10, PR at IV-4. The share of the overall U.S. market accounted for by nickel plate from Japan increased from *** percent in 2011 to *** percent in 2013. For alkaline batteries, the largest application for nickel plate in the U.S. market, nickel plate from Japan accounted for *** percent of all U.S. shipments for this application in 2011 and *** percent in 2013. For AA cans, the largest component of alkaline battery sales in the United States, nickel plate from Japan accounted for *** percent of all U.S. shipments for this application in 2011 and *** percent in 2013. CR/PR at Tables IV-4 and IV-5.

[97] CR/PR at Table IV-4.

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

[99] *See* CR/PR at Table IV-5. Shipments of nickel plate for use in AA cans were far greater than shipments for any other battery specification.

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

[101] *See* CR/PR at Table IV-5.

[102] CR at IV-5, PR at IV-2; Tr. at 208 (Wood) ("Everybody on both panels today has openly acknowledged that there's a volume shift. That's a big . . . part of the reason that we're here.").

[103] *See* CR/PR at Table V-14 (***); *see also* Boyd Declaration, Thomas Prehearing Brief at Exhibit 1; P&G Questionnaire Response at Attachment 6 ("***") (showing bid data in dollars per pound). We discuss these transactions further in the discussion of price effects below.

[104] Joint Respondent Posthearing Brief at 4.

[105] *See* Thomas Posthearing Brief at II-11-12.

[106] Indeed, respondents acknowledged at the hearing that Toyo Kohan was already using thinner gauge steel and that the shift to thinner gauge steel that occurred for Thomas Steel during the POI concerned pricing Product 4. Tr. at 191-92 (Porter). Product 4 *** and therefore any shift to a thinner gauge that occurred in Product 4 could not have been responsible for Duracell's shift in purchases for AA cans from Thomas Steel to Toyo Kohan. ***. CR/PR at Tables V-7-8.

have considered respondents' arguments that Thomas Steel's loss in shipments was due to lower demand caused by Energizer closing two of its plants in late 2013.[107] This additional loss for Thomas does not diminish its loss of AA can material sales to subject imports ***.

For the foregoing reasons, we conclude that the volume of subject imports is significant, both in absolute terms and relative to consumption and production in the United States. The increase in subject import volume relative to consumption and production in the United States is also significant.[108]

### D. Price Effects of the Subject Imports

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

(I) there has been significant price underselling by the imported merchandise as compared with the price of domestic like products of the United States, and

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.[109]

As stated above, we find that nickel plate from Japan is moderately substitutable with domestic nickel plate and that a higher degree of substitutability exists when both domestic and subject producers have qualified for the same specification with the same battery manufacturer. Purchasers named price as one of the three most important factors in purchasing decisions, more often than any factor other than quality.[110] Additionally, five out of seven purchasers stated that price was a "very important" consideration in their purchasing decisions.[111] We therefore find that price is an important consideration in nickel plate purchasing decisions.

The Commission collected data on six pricing products.[112] *** and *** of subject merchandise provided usable pricing data, although not all firms reported pricing for all products for all quarters. Reported pricing data accounted for approximately *** percent of the U.S. producer's shipments of the domestic like product and *** percent of the subject imports for 2013.[113]

We find that the record shows mixed underselling and overselling in the quarterly comparisons throughout the POI, with underselling occurring in the greatest number of

[107] Joint Respondent Posthearing Brief at 4; Joint Respondent Prehearing Brief at 18.

[108] Subject imports ranged from the equivalent of *** of domestic production over the POI. The ratio of subject imports to domestic production was *** percent in 2011, *** percent in 2012, and *** percent in 2013. CR/PR at Table IV-2.

[109] 19 U.S.C. § 1677(7)(C)(ii).

[110] CR/PR at Table II-4.

[111] CR/PR at Table II-5.

[112] CR at V-17-18, PR at V-7-8.

[113] CR at V-18-19, PR at V-8.

instances. We also note that underselling occurred predominantly in 2011.[114] Subject imports undersold the domestic like product in 35 of 61 comparisons at margins ranging from 0.0 to 44.9 percent and oversold the domestic like product in the remaining 26 instances at margins ranging from 0.3 to 34.0 percent.[115] In 2011, subject import prices undersold the domestic like product in 19 out of 20 comparisons at margins ranging from 0.2 to 44.9 percent.[116]

As we explained above, shifts in market share during the POI were largely a function of Duracell's decision to shift sourcing of AA can material from Thomas Steel to Toyo Kohan; nickel plate for use in AA cans was a purchaser specification for which both Thomas and Toyo Kohan were qualified throughout the POI. Therefore, we have given particular focus to these sales and price comparisons in our analysis of underselling data. Thomas Steel was the primary supplier for this specification prior to the POI.[117] ***, but faced consistent downward pricing pressure early in the POI due to low-priced subject imports.[118] In the December 2011 bid, Toyo Kohan was awarded the *** of this business.[119] Price comparison data for products 1A and 1B, which are ***, show that subject imports undersold the domestic like product in the first three quarters of 2011 by margins of *** to *** percent, confirming some downward price pressure by subject imports in this period, after which ***.[120] U.S. prices declined consistently beginning in the third quarter of 2011.[121]

Beginning in late 2011, the record indicates that Duracell exhibited a pattern of awarding the majority or the entirety of allocations to the lowest bidder, even at narrow margins of underselling, indicating that lower prices were the driving factor behind its shift in allocations toward subject imports.[122] In December 2011, Thomas Steel bid $*** per short ton

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[114] CR/PR at Tables V-2-8. The price comparison data in Tables V-2-5 pertain to actual sales made on a quarterly basis and not contracts awarded.

[115] CR/PR at Table V-10. Our analysis of price comparison data discussed in the text considered products 1A and 1B separately. We note that our analysis is not affected by whether we consider products 1A and 1B combined. Combining products 1A and 1B, subject imports undersold the domestic like product in 35 of 56 comparisons at margins ranging from 0.0 to 44.9 percent, and oversold the domestic like product in the remaining 21 instances at margins ranging from 0.3 to 34.0 percent. CR/PR at Table V-10.

The parties disagree whether we should disregard the data for Product 5. We find that inclusion or exclusion of this product, involving relatively small quantities of shipments, CR/PR at Table V-8, does not substantially affect our analysis.

[116] CR/PR at Tables V-2-8.

[117] *See* Thomas Prehearing Brief at 1-3.

[118] *See* Thomas Prehearing Brief at Exhibits 1-4 (declarations of Mr. Boyd and Mr. Hartman); Thomas Posthearing Brief at 1-2, II-6-7; P&G Posthearing Brief at Exhibit 10.

[119] P&G Questionnaire Response at Attachment 6 ("***") (showing bid data in dollars per pound); Thomas Prehearing Brief at Exhibit 2 ("Second Boyd Declaration").

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

[121] CR/PR at Table V-2-3.

[122] ***.

for Duracell's AA can business.[123] Toyo Kohan bid $*** per short ton.[124] Duracell subsequently shifted the *** of this allocation to Toyo Kohan.[125] ***. ***.[126] ***.[127]

We find that the record clearly shows that ***. Throughout the investigation, Duracell has maintained that it did not reallocate volume for price reasons, but rather ***.[128] Even accepting Duracell's assertion that it has a policy of dual sourcing suppliers, the record warrants our finding that Duracell's purchasing decisions are responsive to price, given an established pattern of awarding increased sales to the lowest bidder.

Based on this evidence, we find significant subject import underselling that allowed imports to gain critical sales at the expense of the domestic industry.

We do not, however, find that subject imports depressed prices for the domestic product to a significant degree. The domestic producer's prices for all but one product decreased over the POI, with decreases ranging from 10.7 to 22.6 percent.[129] Prices for all subject imports decreased as well over the POI, with decreases ranging from 0.5 to 13.0 percent.[130] Although these decreases are significant, we are not able to determine whether, or to what extent, these decreases were caused by subject imports or whether they result from other conditions of competition in this industry. As discussed earlier, raw material costs make up a significant component of nickel plate prices, and the record shows that raw material costs declined over the POI.[131] The effect of raw material costs on domestic prices is difficult to measure with any precision because, as noted above, the price adjustment mechanisms include some but not all raw material costs, some of the raw material adjustments are lagged, and the adjustments occur only when raw material costs move outside a range.

The fact that most sales are based on contracts that are typically six months or longer makes it more difficult to establish a direct causal link between subject imports and domestic price levels, and the price adjustment mechanism does not allow prices to adjust as frequently to competition from imports as they would if most sales were on a spot basis. In light of the foregoing, we find that there is insufficient evidence on the record that an effect of the subject imports was to depress prices of the domestic like product to a significant degree.

We have also considered price suppression. The domestic industry's ratio of cost of goods sold ("COGS") to net sales increased from *** percent in 2011 to *** percent in 2012 and then to *** percent in 2013. Most of this increase can be attributed to the significant drop

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[123] *** (showing bid data in dollars per pound); CR/PR at Table V-14 (showing bid data converted to dollars per short ton).

[124] CR/PR at Table V-14; *** (showing bid data in dollars per pound).

[125] CR/PR at Table V-14. *** Thomas Prehearing Brief at Exhibit 3, Appendix C ("Third Hartman Declaration"). This is in line with *** Thomas Posthearing Brief at Exhibit 1 ("Third Boyd Declaration").

[126] *** (showing bid data in dollars per pound); CR/PR at Table V-14. We have also examined bid sheets submitted by Duracell and they indicate that ***.

[127] *** (showing bid data in dollars per pound); CR/PR at Table V-14. ***. ***. *** Third Hartman Declaration at 4. ***. *Id*.

[128] CR at II-27, PR at II-14.

[129] CR/PR at Table V-9.

[130] CR/PR at Table V-9.

[131] CR/PR at Table E-1 and Figures V-1, V-2, and V-3.

in revenues which largely reflects the loss of sales to subject imports.[132] As the domestic industry was not able to reduce its direct labor and other factory costs commensurate with its lower sales volumes, despite a reduction in its workforce, total COGS increased relative to net sales.[133] Although raw material costs decreased significantly during the POI, this decrease closely tracked the value of net sales and therefore had little impact on the COGS to net sales ratio.[134] In light of the fact that both raw material costs and demand were decreasing throughout the POI, we cannot conclude that subject imports prevented a price increase which otherwise would have occurred to a significant degree.

For the reasons stated above, we find underselling to be significant and conclude that competitively priced subject imports, which were priced lower than the domestic like product in critical transactions, led to significant effects on the domestic industry in the form of lost market share.

### E. Impact of the Subject Imports[135]

Section 771(7)(C)(iii) of the Tariff Act provides that in examining the impact of subject imports, the Commission "shall evaluate all relevant economic factors which have a bearing on the state of the industry."[136] These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, research and development, and factors affecting domestic prices. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."

The domestic industry's output, employment, and financial performance all declined over the POI. As the domestic industry's market share fell from *** percent in 2011 to *** percent in 2013,[137] its production of nickel plate declined from *** short tons in 2011 to ***

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[132] CR/PR at Table E-1. Thomas Steel's total net sales value decreased by *** percent during the POI.

[133] CR/PR at Table E-1. Thomas Steel's direct labor cost decreased by less than *** percent during the POI while its other factory costs decreased by *** percent.

[134] CR/PR at Table E-1. Total raw material costs decreased by *** percent during the POI.

[135] The statute instructs the Commission to consider the "magnitude of the dumping margin" in an antidumping proceeding as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determination of sales at less value, Commerce found antidumping duty margins of 45.42 to 77.70 percent for imports from Japan. *Notice of Affirmative Final Determination of Sales at Less Than Fair Value: Diffusion-Annealed, Nickel-Plated Flat-Rolled Steel Products From Japan*, 79 Fed. Reg. 19868 (Apr. 10, 2014).

[136] 19 U.S.C. § 1677(7)(C)(iii); *see also* SAA at 851 and 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.").

[137] CR/PR at Table IV-4.

short tons in 2012, and then to *** short tons in 2013.[138] Because annual capacity remained stable at *** short tons, failing production caused capacity utilization to decline from *** percent in 2011 to *** percent in 2013.[139] The domestic industry's U.S. shipments declined from *** short tons in 2011 to *** short tons in 2012 and then to *** short tons in 2013.[140] Inventories rose from *** short tons in 2011 to *** short tons in 2013.[141]

The number of production related workers declined from *** in 2011 to *** in 2012, and then to *** in 2013.[142] Hours worked per worker, wages paid, and hourly wages showed minor fluctuations, and productivity declined, from 2011 to 2013.[143] Thomas Steel reported that in April 2013, it shut down for a week ***.[144]

In 2011, the domestic industry's operating income was $*** and its operating margin *** percent.[145] In 2012, the domestic industry experienced *** of $*** and its operating margin was *** percent.[146] The domestic industry's financial performance declined further in 2013, when it posted *** and its operating margin was *** percent.[147] Capital and research and development expenditures declined.[148]

As previously stated, the subject imports took market share away from the domestic industry during a period when apparent consumption was declining, causing the domestic industry's output and shipments to decline. These declines in turn had a negative impact on the industry's employment and financial performance. We accordingly find that the significant and increasing volume of subject imports, which were sold at prices competitive with, and in critical transactions lower than, the domestic like product had a significant impact on the domestic industry.

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[138] CR/PR at Table III-2.

[139] CR/PR at Table III-2. A Thomas Steel official stated at the Commission's hearing that "{c}apacity utilization is vital to our business because our fixed costs are high . . . our fixed costs account for over 70 percent of our non-material costs. Because our prices generally adjust for any changes in raw material costs, we normally analyze our fixed costs in this manner. It is essential for us to produce at healthy levels of capacity utilization in order {to} spread these fixed costs." Tr. at 34 (Jarvis). At the hearing, it was also noted that AA is the largest volume battery category and thus permits nickel plate suppliers to secure production efficiencies. As described by a Thomas Steel official, the AA product category ". . . allows us to load our capacity to produce long production runs, to operate efficiently, and to cover our fixed costs." Tr. at 16 (Boyd). The decline in Thomas Steel's total sales volume between 2011 and 2013, as discussed above, in large part reflects reduced sales of ***.

[140] CR/PR at Table III-3. The domestic industry's export shipments were minimal. *Id*.

[141] CR/PR at Table III-5.

[142] CR/PR at Table III-6.

[143] CR/PR at Table III-6.

[144] CR at III-9, PR at III-5.

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

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

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

[148] Capital expenditures declined from $*** in 2011 to $*** in 2012 and then to $*** in 2013. Research and development expenses declined from $*** in 2011 to $*** in 2012 and then to $*** in 2013. CR/PR at Table VI-3.

Respondents assert that *** and market-wide shifts to *** were responsible for Thomas Steel's lower volumes of shipments in 2012 and 2013.[149] As we discussed earlier, however, the shift to wider coils and thinner gauges had a minimal effect on the domestic industry's level of shipments. Thomas Steel's *** shipments over the POI to Energizer/H&T Waterbury do not diminish its loss of AA can material sales to subject imports ***.

Respondents also assert that Thomas Steel's issue with regard to lost volume at Duracell is moot because Thomas currently has the majority of Duracell's AA can business through the end of June 2015.[150] Thomas is currently materially injured. As previously stated, its financial performance has declined, and it had to shut down to ***. It has lost workers, and lost revenue. Moreover, P&G conceded at the hearing that it shifted volume back to Thomas due to concerns that Japanese suppliers would reduce or eliminate their supply to the United States as a result of this investigation.[151] In other words, P&G concedes that the pendency of this investigation motivated it to shift volume back to the domestic industry. That shift thus does not obviate a finding of material injury by reason of subject imports.

Finally, respondents assert that there is insufficient competition between subject imports and Thomas Steel for subject imports to have caused declines in Thomas Steel's performance.[152] Duracell shifted its purchases of nickel plate used in AA cans from Thomas to Toyo Kohan, and as a result, the domestic industry experienced losses in output, employment, and financial performance. As explained above, these two suppliers competed directly for this business.

We have also considered whether there are other factors that may have had an adverse impact on the domestic industry to ensure that we are not attributing injury from such other factors to the subject imports. We recognize that falling raw material costs have likely contributed to a decline in nickel plate prices over the POI. Nonetheless, as previously noted, the domestic industry's declining financial performance was triggered by a significant shift in volume from the domestic producer to the subject producers in 2011. Moreover, because the pricing mechanisms used by both Thomas and the subject producers are intended to reduce the impact of raw material prices in allocation decisions, we cannot reasonably connect the shift in volume that occurred to any change in raw material prices.

We have also considered the role of nonsubject imports in this investigation. As previously observed, nonsubject imports from Korea were used exclusively for *** and nonsubject imports from Germany never rose above *** percent of U.S. apparent consumption.[153] [154] Therefore, the record indicates that nonsubject imports were either

[149] Joint Respondent Posthearing Brief at 4.

[150] Joint Respondent Posthearing Brief at 2.

[151] Tr. at 126 (Jacobsen); *see also* P&G Posthearing Brief at 11.

[152] Joint Respondent Prehearing Brief at 51.

[153] CR/PR at Tables IV-4-5.

[154] Commissioner Pinkert finds that, regardless of whether nickel plate would constitute a commodity product for purposes of a Bratsk/Mittal Steel analysis, nonsubject imports would not have replaced subject imports during the period of investigation if the subject imports had exited the U.S. market. Nonsubject imports competed *** in the *** sector of the U.S. market, while subject imports competed *** in the battery sector of the U.S. market. CR/PR at Table IV-5.

insignificant or did not compete for the segment of the nickel plate industry used to manufacture alkaline batteries.

## V. Conclusion

For the reasons stated above, we determine that an industry in the United States is materially injured by reason of imports of diffusion-annealed, nickel-plated flat-rolled steel products from Japan that are sold in the United States at less than fair value.

# PART I: INTRODUCTION

## BACKGROUND

This investigation results from a petition filed with the U.S. Department of Commerce ("Commerce") and the U.S. International Trade Commission ("USITC" or "Commission") by Thomas Steel Strip Corporation ("Thomas Steel"), Warren, Ohio, on March 27, 2013, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value ("LTFV") imports of diffusion-annealed, nickel-plated flat-rolled steel products ("diffusion-annealed, nickel-plated steel") [1] from Japan. The following tabulation provides information relating to the background of this investigation.[2] [3]

| Effective date | Action |
|---|---|
| March 27, 2013 | Petition filed with Commerce and the Commission; institution of Commission investigation (78 FR 19734, April 2, 2013) |
| April 23 | Commerce's notice of initiation (78 FR 23905) |
| May 20 | Commission's preliminary determination (78 FR 31577, May 24, 2013) |
| November 19 | Commerce's preliminary determination (78 FR 69371); scheduling of final phase of Commission investigation (78 FR 75371, December 11, 2013) |
| April 1, 2014 | Commission's hearing |
| April 10 | Commerce's final determination (79 FR 19868) |
| May 2 | Commission's vote |
| May 21, 2014 | Commission's views |

## STATUTORY CRITERIA AND ORGANIZATION OF THE REPORT

### Statutory criteria

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

> *shall consider (I) the volume of imports of the subject merchandise, (II) the effect of imports of that merchandise on prices in the United States for domestic like products, and (III) the impact of imports of such*

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

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

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

*merchandise on domestic producers of domestic like products, but only in the context of production operations within the United States; and. . . may consider such other economic factors as are relevant to the determination regarding whether there is material injury by reason of imports.*

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

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

**Organization of report**

*Part I* of this report presents information on the subject merchandise, dumping margins, and domestic like product. *Part II* of this report presents information on conditions of competition and other relevant economic factors. *Part III* presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. *Parts IV* and *V* present the volume of subject imports and pricing of domestic and

imported products, respectively. *Part VI* presents information on the financial experience of U.S. producers. *Part VII* presents the statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury as well as information regarding nonsubject countries.

## MARKET SUMMARY

The principal application for diffusion-annealed, nickel-plated steel is for the fabrication of cans and end caps used in alkaline and lithium batteries. The sole U.S. producer of diffusion-annealed, nickel-plated steel is Thomas Steel, while leading producers of diffusion-annealed, nickel-plated steel outside the United States include Toyo Kohan Co., Ltd. and Nippon Steel & Sumitomo Metal Corporation ("NSSMC") of Japan, Hille & Müller GmbH of Germany, and TCC Steel ("TCC") of Korea. The leading U.S. importers of diffusion-annealed, nickel-plated steel from Japan are Metal One America, Inc. ("Metal One") and *** Nippon Steel and Sumikin Bussan Americas ("Nippon Trading").[4] Leading importers of diffusion-annealed, nickel-plated steel from the two known nonsubject countries (Germany and Korea) include ***. U.S. purchasers of diffusion-annealed, nickel-plated steel include firms that produce batteries, produce cans for batteries, and produce automotive fuel lines.

Apparent U.S. consumption of diffusion-annealed, nickel-plated steel was approximately 50,000 short tons ($100 million) in 2013. Currently, Thomas Steel is the only known company producing diffusion-annealed, nickel-plated steel in the United States. Thomas Steel's U.S. shipments of diffusion-annealed, nickel-plated steel totaled *** short tons ($***) in 2013, and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from Japan totaled *** short tons ($***) in 2013 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value. U.S. shipments of imports from nonsubject sources totaled *** short tons ($***) in 2013 and accounted for *** percent of apparent U.S. consumption by quantity and *** percent by value.

## SUMMARY DATA AND DATA SOURCES

A summary of data collected in this investigation is presented in appendix C, table C-1. Except as noted, U.S. industry data are based on the questionnaire response of Thomas Steel, the one firm that accounted for all of U.S. production of diffusion-annealed, nickel-plated steel during 2013. U.S. imports are based on questionnaire responses of firms that accounted for the

[4] On January 1, 2014, Nippon Steel Trading America, Inc., merged with Sumikin Bussan America, forming Nippon Steel and Sumikin Bussan Americas.

vast majority of imports from subject and nonsubject sources.[5] Additional price and financial data appear in appendixes D and E.

## PREVIOUS AND RELATED INVESTIGATIONS

Although diffusion-annealed, nickel-plated steel has not been the sole product subject to any prior countervailing or antidumping duty investigations in the United States, it has been included in proceedings concerning corrosion-resistant carbon steel flat-rolled products ("CORE").[6] In 1980, the Commission instituted antidumping duty investigations on this broader product covering six countries. In 1982, the Commission instituted antidumping duty investigations covering seven countries and countervailing duty investigations covering nine countries. The Commission in 1984 instituted antidumping duty investigations covering seven countries and countervailing duty investigations covering three countries. In 1992, the Commission instituted antidumping duty investigations covering nine countries and countervailing duty investigations covering seven countries.[7] With the revocation of the orders on CORE from Germany and Korea,[8] there are at this time no outstanding antidumping duty orders or countervailing duty orders on CORE in place.[9]

In addition, diffusion-annealed, nickel-plated steel, with certain exclusions, as a subset of coated steel (which also included CORE) was covered under the most recent steel safeguard measures on certain carbon and alloy steel.[10]

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[5] Petitioners and respondents view the questionnaire data as representative of U.S. imports. Conference transcript, pp. 43-44 (Cannon) and 148 (Wood).

[6] *Antidumping Duty Orders: Certain Corrosion Resistant Carbon Steel Flat Products from Japan*, 58 FR 44163, August 19, 1993.

[7] For further detail see *Corrosion-Resistant Carbon Steel Flat Products from Germany and Korea, Inv. Nos. 701-TA-350 and 731-TA-616 and 618 (Third Review)*, USITC Publication 4388, pp. I-13-I-15.

[8] *Corrosion-Resistant Carbon Steel Flat Products from Germany and the Republic of Korea: Revocation of Antidumping and Countervailing Duty Orders*, 78 FR 16832, March 19, 2013.

[9] On February 14, 2007, Commerce revoked antidumping duty orders on CORE from multiple countries including Japan. *Revocation Pursuant to Second Five – Year ("Sunset") Reviews of Antidumping and Countervailing Duty Orders: Certain Corrosion – Resistant Carbon Steel Flat Products from Australia, Canada, Japan, and France*, 72 FR 7010, February 14, 2007. Prior to this, certain diffusion-annealed, nickel-plated steel specifications were excluded from these orders through scope or changed circumstances rulings.

[10] For further information see *Corrosion-Resistant Carbon Steel Flat Products from Germany and Korea, Inv. Nos. 701-TA-350 and 731-TA-616 and 618 (Third Review)*, USITC Publication 4388, p. I-16.

## NATURE AND EXTENT SALES AT LTFV

On April 10, 2014, Commerce published a notice in the *Federal Register* of its final determination of sales at LTFV with respect to imports from Japan.[11] Table I-1 presents Commerce's dumping margins with respect to imports of diffusion-annealed, nickel-plated steel from Japan.

**Table I-1**
**Diffusion-annealed, nickel-plated steel: Commerce's final weighted-average LTFV margins with respect to imports from Japan**

| Exporter/producer | Preliminary dumping margin (percent) |
|---|---|
| Toyo Kohan Co., Ltd. | 45.42 |
| Nippon Steel & Sumitomo Metal Corporation | 77.70 |
| All others | 45.42 |

*Source*: 79 FR 19868, April 10, 2014.

## THE SUBJECT MERCHANDISE

### Commerce's scope

Commerce has defined the scope of this investigation as follows:

> *flat-rolled, cold-reduced steel products, regardless of chemistry; whether or not in coils; either plated or coated with nickel or nickel-based alloys and subsequently annealed (i.e., ''diffusion-annealed''); whether or not painted, varnished or coated with plastics or other metallic or nonmetallic substances; and less than or equal to 2.0 mm in nominal thickness. For purposes of this investigation, ''nickel-based alloys'' include all nickel alloys with other metals in which nickel accounts for at least 80 percent of the alloy by volume.*[12]

[11] *Notice of Affirmative Final Determination of Sales at Less Than Fair Value: Diffusion-Annealed, Nickel-Plated Flat-Rolled Steel Products from Japan*, 79 FR 19868, April 10, 2014.

[12] *Notice of Affirmative Final Determination of Sales at Less Than Fair Value: Diffusion-Annealed, Nickel-Plated Flat-Rolled Steel Products from Japan*, 79 FR 19868, April 10, 2014.

### Tariff treatment

Based upon the scope set forth by Commerce, information available to the Commission indicates that the merchandise subject to this investigation is classifiable under the following provisions of the 2014 HTS: 7210.90.60 and 7212.50.00.[13]

## THE PRODUCT

### Description and applications

Diffusion-annealed, nickel-plated steel is a flat-rolled steel product, plated or coated with nickel or with a nickel-base alloy and subsequently annealed. Annealing after nickel-plating causes the formation of a thin layer of iron-nickel alloy between the steel substrate and the nickel coating, which prevents the nickel coating from flaking or separating from the substrate during fabrication operations. The principal application for diffusion-annealed, nickel-plated steel is for the fabrication of cans and end caps of alkaline and lithium batteries. Diffusion-annealed, nickel-plated steel is used for that purpose because of its strength and formability which permits the forming of deep cans, and because of the resistance of the nickel coating to corrosion by the electrolyte in the batteries. Additionally, the diffusion of iron from the substrate through the nickel coating to the outer surface of the strip enhances the electrical conductivity between the electrolyte and the metal can. Battery cans and end caps accounted for approximately 90 percent of U.S.-produced and imported diffusion-annealed, nickel-plated steel during 2013.[14] Because of its resistance to corrosion from motor fuel additives, diffusion-annealed, nickel-plated steel is also used for the manufacture of fuel, power-steering, and other automotive fluid lines.

### Manufacturing processes

The manufacture of diffusion-annealed, nickel-plated steel begins with the receipt of hot-rolled, low-carbon steel strip. For battery applications, the hot-rolled steel must have been manufactured to "consistently high standards of steel cleanliness ( . . . ), excellent shape and a low crown profile."[15] The hot-rolled strip is uncoiled and processed through a pickling line in

[13] According to petitioners, imports may also be imported under HTSUS statistical reporting numbers 7210.70.6090, 7212.40.1000, 7212.40.5000, 7219.90.0020, 7219.90.0025, 7219.90.0060, 7219.90.0080, 7220.90.0010, 7220.90.0015, 7225.99.0090, or 7226.99.0180. The Column-1 General rate of duty for all the provisions is "Free."

[14] Questionnaire responses. Imports of diffusion-annealed, nickel-plated steel from Japan were exclusively for battery applications. Japanese respondents' postconference brief, p. 40 and Japanese respondents' prehearing brief, p. 19.

[15] Petitioner's postconference brief, p. 47. Cleanliness requirements include the minimization of the number of non-metallic inclusions and the control of their shape and size.

which the surface of the strip is cleaned by acid to remove surface oxide. The cleaned steel is next slit into multiple coils of suitable width for further processing. It is then reduced to its ordered thickness in a series of passes in a cold-rolling mill.[16] The steel is next processed through electrolytic cleaning to remove oils and contamination from the cold-rolling process, followed by electroplating with nickel.[17] Nickel alloy coatings are produced ***.[18]

After nickel plating, the steel is annealed. Annealing is a process applied to cold-reduced flat-rolled steel products to restore ductility lost in cold reduction.[19] It involves heating steel to a temperature at which recrystallization occurs, followed by controlled cooling.[20] In the case of diffusion-annealed, nickel-plated steel, annealing also causes the formation, through diffusion of nickel and iron atoms, of a thin layer of nickel-iron alloy between the steel substrate and the nickel coating. The presence of the diffused alloy layer improves the adherence of the nickel coating to the substrate and prevents their separation during fabrication of battery cans, end caps, and other finished products. The diffused alloy layer also enhances the electrical conductivity between the electrolyte in a battery and the can.

One method of annealing diffusion-annealed, nickel-plated steel is batch annealing, in which the coils of steel are subjected to a long heat-treating cycle by varying the temperature within a furnace that surrounds them. An alternative method, continuous annealing, requires the steel to be uncoiled and passed in single thickness through one or more furnaces. The heat-treating cycle is determined by the temperature distribution within the furnaces and the rate at which the steel passes through the furnaces. Thomas Steel ***.[21] [22]

After annealing, diffusion-annealed, nickel-plated steel is rolled on a temper mill. Temper rolling reduces the thickness of the steel very slightly, but has the primary purpose of improving the shape (flatness) of the steel, establishing the surface roughness (by using rolls of suitable roughness) and suppressing yield-point elongation (a property that is present in the as-annealed state for almost all steel and that could result in defects during fabrication).[23]

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[16] The cold-rolling mill may be a reversing mill in which several reduction passes of the strip are made in back-and-forth directions, or a tandem mill comprising several individual mill stands though which the strip passes consecutively.

[17] Electrolytic cleaning and electroplating may be combined in a single processing line.

[18] USITC staff interview with ***, April 8, 2013.

[19] Lankford, William T., Jr., Norman L. Samways, Robert F. Craven and Harold E. McGannon, eds. *The Making, Shaping and Treating of Steel, Tenth Edition.* Pittsburgh: Association of Iron and Steel Engineers, 1988. p. 1110.

[20] Lankford, et al. *The Making, Shaping and Treating of Steel, Tenth Edition.* pp. 1110-1111.

[21] USITC staff interview with ***, April 8, 2013.

[22] According to purchaser PECA, ***. On the other hand, Thomas Steel would offer lower prices for the lower-quality material. Joint Posthearing Brief and Responses to Questions from Commissioners of Metal One America, Inc., Nippon Steel & Sumitomo Metal Corporation, and Toyo Kohan Co., Ltd., Exhibit 2: Declaration of Carl Walton, pp. 1-2. See also Posthearing Brief and Responses to Commissioners' Questions of Thomas Steel Corporation, p. II-24 (***.)

[23] Lankford, et al. *The Making, Shaping and Treating of Steel, Tenth Edition.* p.1118.

Finishing operations on diffusion-annealed, nickel-plated steel may include slitting to ordered width and packaging for shipment.[24]

## DOMESTIC LIKE PRODUCT ISSUES

No issue with respect to the domestic like product has been raised in this investigation. The petitioner proposed that the Commission define the domestic like product as co-extensive with the scope in this investigation.[25] For the purposes of the preliminary phase of this investigation, respondents also proposed that the Commission define the domestic like product as co-extensive with the scope in this investigation.[26] In this final phase of the investigation, no party requested that the Commission collect data concerning other possible domestic like products in their comments on the Commission's draft questionnaires.

The petitioner contends that while diffusion-annealed, nickel-plated steel is a subset of CORE, there is a clear dividing line between the diffusion-annealed, nickel-plated steel and other CORE products.[27] The following discussion compares diffusion-annealed, nickel-plated steel with the broad universe of CORE products.

Diffusion-annealed, nickel-plated steel is more narrowly defined than CORE to include only coated or plated steel in which the plating material is nickel or nickel alloy, while CORE can include other plating materials such as zinc and aluminum.[28] Furthermore, diffusion-annealed, nickel-plated steel requires annealing to take place after the coating or plating is applied, while some types of CORE are annealed prior to plating.[29] Thomas Steel, the only U.S. producer of diffusion-annealed, nickel-plated steel,[30] produces non-diffused nickel-plated steel on the same production lines as diffusion-annealed, nickel-plated steel. Thomas Steel also produces cold-rolled and nickel-zinc coated products but not galvanized, aluminum coated, or plated steel.

Unlike CORE, which has a variety of end uses (including for use in the manufacture of automobile bodies, in appliances, and in commercial and residential buildings and other construction applications),[31] diffusion-annealed, nickel-plated steel is used primarily for batteries applications. As discussed further in Part II of this report, few substitute products were reported for use in batteries. The only substitute products reported for diffusion-

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[24] Petition, p. 11.

[25] Conference transcript, pp. 41 and 84 (Cannon), petitioner's postconference brief, p. 4, and petitioner's prehearing brief, p. 6.

[26] Conference transcript, p. 155 (Wood and Schaefer).

[27] Petition, pp. 34-39.

[28] Petition, p. 36. See also, *Corrosion-Resistant Carbon Steel Flat Products from Germany and Korea, Inv. Nos. 701-TA-350 and 731-TA-616 and 618 (Third Review)*, USITC Publication 4388, March 2013, pp. I-28-29 ("Steel coated with zinc (galvanized), aluminum, or any of several zinc-aluminum alloys comprise almost all of the product at issue (i.e. CORE)."

[29] Ibid., p. I-29.

[30] There are approximately 18 firms that produce CORE in the United States. Ibid., p. I-34.

[31] Ibid., p. I-28.

annealed, nickel-plated steel were *** for use in automotive fuel lines. In addition, as described further in Part II, diffusion-annealed, nickel-plated steel is mainly sold to battery end-users; CORE, in contrast, is sold to automotive, construction, and other end users, as well as to steel service centers and distributors (28.7 percent in 2010, 29.0 percent in 2011, and 27.7 percent in January-June 2012).[32] Finally, there is a difference between CORE prices (average unit values for U.S. producers' U.S. shipments were $834 in 2010, $929 in 2011, and $920 in January-June 2012)[33] and diffusion-annealed, nickel-plated steel (average unit values for the U.S. producer's shipments were $*** in 2010, $*** in 2011, $*** in 2012, and $*** in 2013).

[32] Ibid., pp. II-1-II-2.
[33] Ibid., p. IV-3.

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

## U.S. MARKET CHARACTERISTICS

The major applications for diffusion-annealed, nickel-plated steel in the United States are battery manufacturing (approximately 90 percent of consumption) and other applications such as automotive fuel line manufacturing (approximately 10 percent of consumption).[1] Within battery manufacturing, about 90 percent of the consumption of diffusion-annealed, nickel-plated steel is for alkaline battery manufacturing and 10 percent is for lithium battery manufacturing.[2]

There are three major U.S. alkaline battery producers: Duracell, Energizer, and Rayovac. In terms of size, *** ranked Duracell as the largest U.S. alkaline battery producer, followed by Energizer, and then Rayovac.[3] In 2012, however, Energizer announced upcoming closures of production facilities in Maryville, Missouri, and St. Albans, Vermont, as well as the "streamlining" of its plant in Asheboro, North Carolina. The two plants were shut down in September 2013 (Vermont) and November 2013 (Missouri).[4]

Diffusion-annealed, nickel-plated steel must be made into a battery can or end cap (henceforth, "cans") before being used to encase a battery. Battery manufacturers purchase cans from can stampers (i.e., metal stamping firms that take diffusion-annealed, nickel-plated steel and convert it into cans) or purchase diffusion-annealed, nickel-plated steel directly, and convert it into cans within their own facilities.[5] For example, Thomas Steel stated that it supplies diffusion-annealed, nickel-plated steel to can stamper Cly-Del for use in Duracell's AA, AAA, and AAAA batteries, but supplies product directly to Duracell for Duracell's C and D batteries.[6]

Battery makers are often associated with particular can stampers. Thomas Steel (referred to by some firms as "Tata Steel," its parent company) described can stamper Cly-Del as typically producing cans for Duracell, can stamper H&T Waterbury as typically producing cans for Energizer, and can stamper PECA as typically producing cans for Rayovac[7] ***. PECA

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[1] Conference transcript, p. 16 (Hartman), and questionnaire responses.

[2] Conference transcript, p. 48 (Hartman).

[3] *** ranked PECA between Energizer and Rayovac, but PECA has not manufactured alkaline batteries in the United States since 2008. See petitioner's prehearing brief, p. 1. In 2013, the New York Times described Duracell as the largest U.S. battery producer, followed up Energizer. See "Duracell Offers Praise, and Power, for Everyday Heroes," *New York Times*, July 22, 2013. *** also supplied an internet article stating that the battery makers ranked in terms of size are Duracell (largest), Energizer (second-largest), and Rayovac (third-largest). See email from counsel for ***, March 13, 2014. Petitioner also described Duracell as the battery "industry leader." Hearing transcript, p. 16 (Boyd).

[4] Petitioner's posthearing brief, pp. 7-8 and II-37, and P&G's posthearing brief, p. 26.

[5] Petition, exhibit 10, pp. 1-2. Respondents stated that ***. Respondents' prehearing brief, p. 8.

[6] Hearing transcript, p. 19 (Boyd).

[7] Petitioner's conference exhibits, slide 3.

stated that possible reasons for these close associations include the lengthy qualification process for diffusion-annealed, nickel-plated steel; the uniqueness of each battery producer's production process (and concomitant need for producer-specific material); and the process improvements made possible by working closely with only one supplier.[8] ***, and Thomas Steel submitted a description of the U.S. market confirming this practice.[9]

## U.S. PURCHASERS

The Commission received questionnaires from eight purchasers, including ***. These six firms' purchases represented more than *** percent of 2013 reported purchases by responding purchasers. Two additional *** purchasers, ***, submitted questionnaires for purchases of product from the United States and/or Korea. Purchase data from all responding purchasers as a share of apparent U.S. consumption (see *Part IV*) was more than 90 percent in 2011, 2012, and 2013.[10]

Five U.S. purchasers identified *** as their largest supplier (by share of 2013 purchases). Most such purchasers reported that ***. Two purchasers, ***, named their largest supplier as ***, while *** named *** as its largest supplier.

Over 2011-13, ***.[11] ***.[12] [13]

## CHANNELS OF DISTRIBUTION

U.S. producer Thomas Steel and U.S. importers of Japanese product sold mainly to battery end users (i.e., both battery producers and can stampers), as shown in table II-1. In contrast, *** were for *** products. ***.

**Table II-1**
**Diffusion-annealed, nickel-plated steel: U.S. producer's and U.S. importers' U.S. shipments, by sources and channels of distribution, 2011-13**

* * * * * * *

[8] PECA postconference brief, p. 3.

[9] Petition, exhibit 10, appendix B. ***.

[10] *** purchasers reported ***. *** purchasers reported having ***.

[11] Petitioner described ***.

[12] See respondents' prehearing brief, pp. 23 and 55, petitioner's prehearing brief, p. 5 and exhibit 2, and hearing transcript, ***.

[13] Considering ***, total purchases of diffusion-annealed, nickel-plated steel fell over 2011-13 for ***. However, purchases were flat for *** over 2011-13 (with a ***). ***.

## GEOGRAPHIC DISTRIBUTION

Diffusion-annealed, nickel-plated steel is sold to a relatively small number of purchasers in geographically concentrated areas. U.S. producer Thomas Steel reported selling diffusion-annealed, nickel-plated steel to ***. Importers of Japanese product reported selling to ***. For Thomas Steel, *** percent of its sales of diffusion-annealed, nickel-plated steel were shipped ***, with *** percent of its sales shipped ***. Metal One shipped *** of its Japanese product ***, and ***, while Nippon Trading shipped *** of its Japanese product ***.

## SUPPLY AND DEMAND CONSIDERATIONS

### U.S. supply

#### Domestic production

Based on available information, the U.S. producer of diffusion-annealed, nickel-plated steel has the ability to respond to changes in demand with moderately large changes in the quantity of shipments of U.S.-produced material to the U.S. market. The main contributing factor to the moderately large degree of responsiveness of supply is the availability of excess capacity. However, responsiveness is somewhat constrained by the lack of alternative markets, limited inventories, and limited ability to produce alternatives to diffusion-annealed, nickel-plated steel.

##### *Industry capacity*

Thomas Steel reported capacity utilization that declined from *** in 2011 to *** in 2013. At the staff conference, Thomas Steel reported that its capacity utilization before 2009 was sometimes substantially higher, in the range of 76.3 to 86.2 percent.[14] Thomas Steel's capacity has remained unchanged at *** since ***. In April 2013, Thomas Steel shut down for one week due to lack of orders.[15]

Thomas Steel described the barriers to entry into production of diffusion-annealed, nickel-plated steel as high due to the cost of building a new plant.[16]

##### *Alternative markets*

Exports represented less than *** percent of Thomas Steel's shipments by quantity during 2011-13.

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[14] Conference transcript, public exhibit of Thomas Steel, p. 11.
[15] Hearing transcript, p. 35 (Jarvis).
[16] Hearing transcript, pp. 91-92 (Boyd and Jarvis).

### *Inventory levels*

For Thomas Steel, inventories rose from *** percent of total shipments in 2011 to *** percent in 2013. At the conference, Thomas Steel noted that, because of the lead times involved in production, it tends to hold larger inventories than can stampers of diffusion-annealed, nickel-plated steel.[17]

### *Production alternatives*

Thomas Steel also produced *** on the same equipment that it used to produce diffusion-annealed, nickel-plated steel. However, it produced this product in volumes representing *** percent or less of its total production, including diffusion-annealed, nickel-plated steel. It added that shifting to an alternate product (e.g., ***) would require ***.

### *Supply constraints*

When asked if it had had any difficulty in supplying any of its customers since January 1, 2011, ***. In the preliminary phase, Thomas Steel noted an incident in *** in which *** increased its demand ***.

## Subject imports from Japan

Based on available information, producers of diffusion-annealed, nickel-plated steel from Japan have the ability to respond to changes in demand with large changes in the quantity of shipments of diffusion-annealed, nickel-plated steel to the U.S. market. The main contributing factors to the large degree of responsiveness of supply are the excess capacity, the existence of alternate markets, and moderate inventories, constrained by a limited ability to produce alternate products to diffusion-annealed, nickel-plated steel, and existing contractual arrangements.[18]

### *Industry capacity*

Japanese producers' capacity increased by more than *** short tons between 2011 and 2013, due to increased capacity ***.[19] ***. After a small rise in 2012, Japanese capacity utilization fell to *** percent in 2013, down from *** percent in 2011. There has been a long-run trend toward less battery production in Japan, although there are still three Japanese

[17] Conference transcript, p. 85 (Hartman).

[18] Japanese respondents described the combination of existing contracts and the length of the qualification process (see below) as meaning that Japanese producers had "no opportunity" to increase shipments to the United States until ***. Japanese respondents' posthearing brief, p. 12.

[19] Japanese respondents' postconference brief, pp. 43-45.

battery producers. Parties also described Japanese production of diffusion-annealed, nickel-plated steel as continuing to serve automotive and lithium battery end uses.[20]

***Alternative markets***

In 2011 and 2013, Japanese producers sold *** of their shipments in their home market, with the balance *** between the U.S. and third-country markets. Of that balance, a larger share went to third-country markets. In 2012, however, the share sold to the U.S. market was *** that of third-country markets, as the share sold to the Japanese market fell below *** percent. Japanese producers' shipments to their home market fell by *** over 2011 to 2013.

***Inventory levels***

Japanese producers' end-of-period inventories were equivalent to between *** and *** percent of shipments during 2011-13.

***Production alternatives***

***. Petitioners stated that Toyo Kohan and Nippon Steel could convert tin mill facilities to production of diffusion-annealed, nickel-plated steel, and added that U.S. imports of diffusion-annealed, nickel-plated are priced at $2,000 per ton while U.S. imports of tin mill products are priced at $1,200 per ton.[21] As noted previously, ***.

**Nonsubject imports**

The only sources of nonsubject imports during 2011-13 were Germany and Korea, which accounted for *** percent of all U.S. imports in 2013. These imports are used mostly for ***. At the hearing, a witness for Duracell stated that Chinese producers cannot currently produce diffusion-annealed, nickel-plated steel of high enough quality for Duracell's battery production.[22]

**New suppliers**

No purchasers were aware of any new suppliers of diffusion-annealed, nickel-plated steel in the U.S. market since January 1, 2011.

**Factors affecting supply**

*** stated that there had not been any significant changes to the product range, product mix, or marketing of diffusion-annealed, nickel-plated steel since January 1, 2011. *** agreed, while *** named several demand factors described below.

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[20] Hearing transcript, pp. 59-60 (Cannon) and 156-157 (Ohori).
[21] Conference transcript, pp. 10 (Cannon) and 25 (Hartman).
[22] Hearing transcript, p. 194 (Jacobsen).

## U.S. demand

Based on available information, the overall demand for diffusion-annealed, nickel-plated steel is likely to experience moderate-to-small changes in response to changes in price. The main contributing factors are the limited range of substitute products and the moderate cost share of diffusion-annealed, nickel-plated steel in its principal end-use product, batteries.

### Demand characteristics

As discussed earlier, most demand for diffusion-annealed, nickel-plated steel comes from producers of alkaline batteries. Among alkaline batteries, the most-produced single specification is size AA; other common sizes are C, D, AAA, and AAAA (used in 9-volt batteries). Petitioner stated that about 50 percent of all its production of diffusion-annealed, nickel-plated steel is for use in making AA batteries.[23] See *Part IV* for more information on U.S. consumption of diffusion-annealed, nickel-plated steel by battery specification.

### Apparent U.S. consumption

Apparent U.S. consumption of diffusion-annealed, nickel-plated steel was slightly (*** percent) lower in 2013 than in 2011. Apparent U.S. consumption decreased by *** percent in 2012 and by *** percent in 2013. According to Thomas Steel, U.S. consumption of diffusion-annealed, nickel-plated steel declined by about 20 percent in 2008 when PECA ceased producing batteries in the United States, but has remained relatively stable since then.[24]

### End uses

Diffusion-annealed, nickel-plated steel is used in alkaline batteries, lithium batteries,[25] and automotive applications, although the majority of material is used for alkaline batteries. Duracell stated that lithium batteries tend to be used in high-end energy uses such as vehicles and cell phones, while alkaline batteries remain the preferred option for household products.[26] While there has been some substitution of lithium-ion batteries for some high-end household devices, Duracell did not expect lithium-ion batteries to replace the majority of the "very large and dynamic" alkaline battery market.[27] At the conference, Thomas Steel stated that in automotive applications, its primary competitor is "another Asian supplier" and not Japanese

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[23] Hearing transcript, p. 16 (Boyd).

[24] Conference transcript, p. 31 (Jarvis).

[25] In the preliminary phase, when asked specifically whether the diffusion-annealed, nickel-plated steel that they sold in the United States was sold to lithium-battery makers, *** stated that it was. *** elaborated that it supplies ***.

[26] Hearing transcript, p. 158 (Singh).

[27] P&G's posthearing brief, pp. 23-24.

producers.[28] Japanese respondents also stated that neither Toyo Kohan nor NSSMC had supplied any Japanese diffusion-annealed, nickel-plated steel for U.S. automotive fuel line applications.[29]

**Cost share**

*** estimates of the cost share of diffusion-annealed, nickel-plated steel in batteries were larger than those provided by ***. Thomas Steel stated that diffusion-annealed, nickel-plated steel is *** percent of the cost of an alkaline battery cell, *** percent of the cost of a lithium battery cell, and *** percent of the cost of an automotive fuel line. Metal One reported that diffusion-annealed, nickel-plated steel is *** percent of the cost of an alkaline battery cell and *** percent of the cost of a lithium battery cell.[30]

Purchasers and battery producers *** described diffusion-annealed, nickel-plated steel as accounting for *** percent of the cost of a finished battery. *** described diffusion-annealed, nickel-plated steel as accounting for *** percent of the cost of a battery can or end cap, depending on specifications.

Among automotive purchasers, *** named *** as an end use, but while *** stated that diffusion-annealed, nickel-plated steel accounted for *** percent of the final product, *** stated that it accounted for *** percent.

**Substitute products**

There are few substitutes for diffusion-annealed, nickel-plated steel. *** stated that there are no substitutes for diffusion-annealed, nickel-plated steel. However, *** listed post-plated corrosion-resistant steel as a potential substitute, but added that ***.[31] *** listed *** as potential substitutes in automotive fuel lines. It added that changes in the price of these substitutes *** affected the price of diffusion-annealed, nickel-plated steel.

*** added that offshoring battery production was a potential substitute that had affected the price of diffusion-annealed, nickel-plated steel. Duracell estimated that imported batteries (primarily from China and Indonesia) accounted for 10 percent of U.S. battery consumption. It elaborated that Chinese batteries may be lower quality and not as popular with consumers, but that another competing battery producer (***) had begun some production in

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[28] Conference transcript, p. 83 (Hartman).

[29] Japanese respondents' postconference brief, p. 40.

[30] Nippon Trading estimated that diffusion-annealed, nickel-plated steel is *** percent of the cost of ***.

[31] Some manufacturers, particularly in Asia, produce battery cans from uncoated cold-rolled steel and then coat the formed cans with nickel—a process called "post-plating." According to testimony, post-plated battery cans may be less expensive than those produced from diffusion-annealed, nickel-plated steel, but they are not as reliable and the post-plating process is less environmentally friendly. There is a trend toward using diffusion-annealed, nickel-plated steel rather than post-plated cold-rolled steel in alkaline battery production. Transcript, p. 106 (Boyd), p. 144 (Kuroda), p. 165 (Singh).

Indonesia of batteries now shipped to the United States and sold to consumers.[32] It added that it is committed to U.S. battery production and was continuing to make investments in its U.S. plant.[33]

**Business cycles**

***General conditions***

Thomas Steel explained that the business cycle for diffusion-annealed, nickel-plated steel differs from that of other steel products because diffusion-annealed, nickel-plated steel is more similar to a finished steel product, and has a different set of customers from other steel products. Thus, as Thomas Steel stated, diffusion-annealed, nickel-plated steel is generally less susceptible to wider economy business cycles than are other steel products.[34]

*** described the business cycle for diffusion-annealed, nickel-plated steel as consisting of higher demand from June through October. It attributed higher demand during these months to higher battery demand due to the increased risk of summer electrical storms and battery-makers' preparation for Christmas demand. At the conference, Duracell described a similar business cycle.[35] Moreover, six purchasers (***) listed similar seasonal business cycles for batteries, with one adding back-to-school season as another time of increased demand. *** described making *** percent of its yearly purchases of diffusion-annealed, nickel-plated steel in ***.

*** also described business cycles for diffusion-annealed, nickel-plated steel. *** described the business cycle as seasonal, following demand for batteries. *** indicated that one major business cycle determinant for diffusion-annealed, nickel-plated steel is the ***.[36]

Four purchasers described distinctive conditions of competition in the diffusion-annealed, nickel-plated steel market. *** described the market as affected by conditions of competition in the battery market, including competition for U.S. battery-makers from imported batteries. *** described the market as affected by raw material price fluctuations (which ***) and steelmakers' capacity. *** indicated that performance expectations at the battery-maker also affected the market for diffusion-annealed, nickel-plated steel. At the hearing, Duracell stated that it sells its U.S.-produced batteries globally, and faces strong competition globally from foreign-produced batteries.[37]

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[32] Hearing transcript, pp. 151 and 161 (Singh) and 162-63 (Salo), and P&G's posthearing brief, p. 25. U.S. import data on HTS 8506.10, which includes batteries, show a small decline (by value) in imports from China, which is the predominant import source, over 2011-13. Imports from all countries show a very small decline (by value) over 2011-13. See also petitioner's posthearing brief, p. 8 fn. 30.

[33] Hearing transcript, p. 158 (Jacobsen).

[34] Conference transcript, p. 59 (Hartman).

[35] Conference transcript, p. 185 (Nguyen).

[36] Specifically, *** reported that ***. In contrast to ***, ***. Petitioner's prehearing brief, exhibit 1. See also P&G's prehearing brief, p. 2, and P&G's posthearing brief, pp. 11-12.

[37] Hearing transcript, p. 155 (Singh).

Importers *** and purchasers *** indicated that there were not any business cycles nor other distinctive conditions of competition for diffusion-annealed, nickel-plated steel.

***Changes in conditions***

*** indicated that there had not been any changes in the business cycles or conditions of competition for diffusion-annealed, nickel-plated steel since January 1, 2011. However, *** stated that there had, referencing its description of business cycles and conditions of competition above. Purchaser *** stated that this antidumping duty investigation had "significantly impacted" the U.S. market and purchasers' sourcing. *** indicated that lower raw material prices had led to lower prices for diffusion-annealed, nickel-plated steel.

**Demand trends**

While batteries remain ubiquitous with U.S. and global consumers, the outlook for U.S. battery demand and production (and thus U.S. demand for diffusion-annealed, nickel-plated steel) is flat or unchanged. In a public interview from February 2012, Duracell President Stassi Anastassov described global demand for alkaline batteries growing "very rapidly" as they replaced older zinc batteries.[38] However, *** while U.S. consumers continue to own a large number of battery-using devices, the switch to longer-lasting alkaline cells, as well as increased device design to use smaller batteries, has led to a slight decline in demand for batteries.[39]

Purchasers *** reported that demand for their final products (***) had been decreasing since January 1, 2011, and purchaser *** reported that such demand had been fluctuating. However, *** reported that demand for their final products had been increasing. Eight purchasers reported that changes in the demand for their firm's end use products had resulted in changes to their demand for diffusion-annealed, nickel-plated steel. They cited specific factors such as ***, increased yield efficiency in using diffusion-annealed, nickel-plated steel, general decreases in demand for U.S. batteries, and increased demand for automotive components.

In general, questionnaire respondents were more optimistic about demand for diffusion-annealed, nickel-plated steel outside the United States than within the United States, (table II-2) and sometimes described U.S. battery makers as under competitive pressure from imported batteries, with concomitant effects on U.S. demand for diffusion-annealed, nickel-plated steel.[40] Duracell estimated that approximately 10 percent of total U.S. demand for alkaline batteries is met by imports.[41]

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[38] He also described the typical American household as having 39 to 40 devices using a battery. Petition, exhibit 7, pp. 3-8. Similarly, respondents submitted the summary of a report on battery demand projecting increased global demand for both alkaline and lithium-ion batteries. Respondents' prehearing brief, exhibit 6.

[39] ***.

[40] See also conference transcript, p. 166 (Nguyen and Medeiros).

**Table II-2**

**Diffusion-annealed, nickel-plated steel: Firms' responses regarding demand, by number of responding firms**

| Item | Increase | Decrease | Fluctuate | No change |
|---|---|---|---|---|
| **Demand in the United States** | | | | |
| U.S. producer | *** | *** | *** | *** |
| Importers | 1 | 0 | 1 | 1 |
| Purchasers | 2 | 4 | 1 | 0 |
| **Demand outside the United States** | | | | |
| U.S. producer | *** | *** | *** | *** |
| Importers | 3 | 0 | 0 | 0 |
| Purchasers | 3 | 1 | 1 | 0 |

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

### *Demand in the United States*

*** described U.S. demand for diffusion-annealed, nickel-plated steel as declining since January 1, 2011, due to increased imports of batteries (the ultimate end use), purchasers requiring a decreased thickness (gauge) of the product, and yield improvements by can stampers. It added that, since 2010, the thinner gauges along with a shift toward AA and AAA batteries (and away from other batteries that required heavier gauges) had meant that a larger portion of each ton of product was used in lower-thickness applications than before, resulting in declining overall demand.[42] However, it also added that ***.[43]

*** described demand as having fluctuated since January 1, 2011, because ***. *** described demand as not changing over the same period. *** stated that its customers have described their demand for diffusion-annealed, nickel-plated steel as ***.[44]

Among purchasers of product for use in batteries, four reported a decrease in U.S. demand for diffusion-annealed, nickel-plated steel due to reduced U.S. battery production. ***.[45] *** reported rising U.S. demand for diffusion-annealed, nickel-plated steel due to increased demand for batteries.

(…*continued*)

[41] P&G's posthearing brief, p. 25.

[42] See also petition, exhibit 28, ***. However, in ***. Regarding the use of thinner diffusion-annealed, nickel-plated steel in batteries, at the conference, PECA described thinner product as more difficult to produce and more difficult for can makers to use, as thicker product makes defects less evident than thinner product does. Conference transcript, pp. 173 (Walton). In its posthearing brief, petitioner described the impact of thinner gauge product on demand as "relatively minor." Petitioner's posthearing brief, p. II-11.

[43] Petitioner's posthearing brief, p. II-11.

[44] Duracell estimated the switch to wider product for the production of AA cans would have reduced product usage by *** short tons since Cly-Del installed the machinery to produce such products in July 2012. P&G's posthearing brief, p. 15.

Additionally, with regard to demand for diffusion-annealed, nickel-plated steel for the automotive sector, Thomas Steel described longer automotive warranties and the use of more corrosive fuels such as ethanol as driving more automotive-sector demand for diffusion-annealed, nickel-plated steel.[46] Among purchasers of diffusion-annealed, nickel-plated steel for the automotive sector, *** described increased U.S. demand due to its customers making ***.

***Demand outside the United States***

Both the United States and Asia are large battery-producing regions that demand most of the world's production of diffusion-annealed, nickel-plated steel. NSSMC stated that 50 percent of world battery production is in Asia.[47] On the other hand, Thomas Steel described the United States as home to about 50 percent of the world's battery production, and a higher-priced market than Asia for diffusion-annealed, nickel-plated steel.[48] Petitioner also offered ***.[49] Thomas Steel also described battery production in Europe as declining somewhat more than U.S. battery production.[50]

*** described demand for diffusion-annealed, nickel-plated steel outside of the United States as having increased since January 1, 2011. *** described increased demand from Asia, with *** adding that its customers have told it that demand in Asia and Africa is rising at *** percent per year. It added that the largest battery producers are focusing their growth strategies on these markets. Respondents submitted excerpts from a Japanese research report that projected that Chinese and other non-Japanese Asian production of alkaline battery cells would increase from *** cells in 2013 to *** cells in 2015 and then *** cells in 2018. The report similarly projected that lithium-ion battery cell production in that region would *** cells in 2018.[51] Similarly, NSSMC stated that it expected increased Asian demand both due to increased Asian consumer demand for alkaline batteries using diffusion-annealed, nickel-plated steel (as opposed to other batteries using post-plated steel) and due to increased Asian production of lithium-ion batteries for multiple applications.[52] [53]

(…*continued*)

[45] At the hearing, Duracell forecast steady demand for batteries in the United States. Hearing transcript, p. 124 (Singh).

[46] Conference transcript, p. 16 (Hartman).

[47] Hearing transcript, p. 144 (Kuroda).

[48] Hearing transcript, p. 47 (Cannon).

[49] Petitioner's posthearing brief, exhibit 8.

[50] Hearing transcript, p. 90 (Hartman).

[51] Respondents' prehearing brief, pp. 58-59. Similarly, Toyo Kohan indicated that it expects increased battery production in Asia. Hearing transcript, p. 142 (Aimoto).

[52] Hearing transcript, pp. 144 (Kuroda) and 155 (Singh).

[53] Japanese consumer demand for batteries has been falling, as has production of batteries in Japan. See petitioner's posthearing brief, p. II-11, and respondents' prehearing brief, exhibit 4.

Among purchasers, three described demand for diffusion-annealed, nickel-plated steel as increasing or fluctuating outside the United States, citing increased Asian battery production, increased European battery demand, and increased use of direct inject engines in the automotive sector. Duracell added that it anticipates high demand from developing Asia, as wealthier consumers in that region begin purchasing more batteries made with diffusion-annealed, nickel-plated steel (as opposed to lower quality batteries made with other materials).[54] *** stated that its demand for diffusion-annealed, nickel-plated steel was decreasing due to ***.

## SUBSTITUTABILITY ISSUES

The degree of substitution between domestic and imported diffusion-annealed, nickel-plated steel depends upon such factors as relative prices, quality, and conditions of sale. Based on available data, staff believes that there is moderate degree of substitutability between domestically-produced diffusion-annealed, nickel-plated steel and diffusion-annealed, nickel-plated steel imported from subject sources, depending on the relevance of quality-related factors (concerns raised by PECA) with Thomas Steel's product, and on how much Japanese material can be qualified at particular U.S. purchasers.

### Lead times

The U.S. producer and importers of Japanese diffusion-annealed, nickel-plated steel sell their products somewhat differently, resulting in somewhat different lead times. *** *** reported that *** of *** 2013 sales of diffusion-annealed, nickel-plated steel were produced to order, with lead times of *** days. *** stated that *** percent of *** 2013 sales of Japanese diffusion-annealed, nickel-plated steel were from inventory, with lead times of *** days. *** further explained that receiving material from Japan takes between *** depending on the purchaser, ***.

### Knowledge of country sources

All eight purchasers indicated they had marketing/pricing knowledge of domestic product, six (all but ***) of Japanese product, and four of product from nonsubject countries, including Germany, Korea, and China.

As shown in table II-3, most purchasers and many of their customers always make purchasing decisions based on the producer of diffusion-annealed, nickel-plated steel, but generally not on the country of origin of the product.

[54] P&G's prehearing brief, p. 3.

**Table II-3**

**Diffusion-annealed, nickel-plated steel: Purchasing decisions based on producer and country of origin, by number of reporting firms**

| Purchaser/customer decision | Always | Usually | Sometimes | Never |
|---|---|---|---|---|
| Purchaser makes decision based on producer | 7 | 0 | 0 | 1 |
| Purchaser's customers make decision based on producer | 4 | 0 | 1 | 3 |
| Purchaser makes decision based on country | 0 | 0 | 2 | 6 |
| Purchaser's customers make decision based on country | 0 | 0 | 0 | 5 |

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

## Factors affecting purchasing decisions

Thomas Steel and purchasers offered different descriptions of the importance of price in purchasing decisions. Thomas Steel described price as the most important purchasing factor when purchasers are comparing qualified suppliers.[55] However, Duracell stated that it relies on a range of purchasing factors, including non-price factors such as quality and having more than one supplier.[56]

The most often cited top three factors firms consider in their purchasing decisions for diffusion-annealed, nickel-plated steel were quality, price/cost, availability, and delivery, as shown in table II-4.[57]

**Table II-4**

**Diffusion-annealed, nickel-plated steel: Ranking of factors used in purchasing decisions as reported by U.S. purchasers, by number of reporting firms**

| Factor | First | Second | Third | Total |
|---|---|---|---|---|
| Quality/meeting technical and performance specifications | 6 | 1 | 0 | 7 |
| Reliability/ safety | 1 | 0 | 0 | 1 |
| Availability/dual source of supply | 0 | 3 | 0 | 3 |
| Price/cost | 0 | 2 | 3 | 5 |
| Delivery | 0 | 1 | 2 | 3 |
| *** | 0 | 0 | 1 | 1 |
| Global procurement | 0 | 0 | 1 | 1 |
| Other[1] | 1 | 0 | 0 | 1 |

[1] Other factors include ***.

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

[55] See hearing transcript, pp. 15 (Boyd) and 96 (Cannon).

[56] See P&G's prehearing brief, p. 2, ***, and hearing transcript, p. 122 (Singh).

[57] Automotive purchasers *** both ranked ***.

When asked to describe the characteristics used to determine the quality of diffusion-annealed, nickel-plated steel, purchasers offered lengthy lists and descriptions including tensile strength, corrosion-resistance, chemical properties (such as inclusion of particular metals), minimal defects, grain size and depth, and the extent of nickel-iron diffusion. Some purchasers explained that the quality of product matters both for the ability of users to process it into cans for batteries and for its performance (e.g., avoiding battery failure, visual appearance) once in the battery.

Four of eight purchasers (including ***) reported that they never purchase the lowest-priced diffusion-annealed, nickel-plated steel, while three reported they sometimes do, and *** reported that it usually does.

When asked if they purchased diffusion-annealed, nickel-plated steel from one source although a comparable product was available at a lower price from another source, seven purchasers reported "yes," citing qualification of only one supplier (either because other suppliers had failed or because qualification was expensive for the purchaser), quality, lead times, transportation costs, supplier relationships, and dual sourcing. In responding, purchasers cited many issues that have been discussed elsewhere in this section.

Seven of eight purchasers indicated that they do not order diffusion-annealed, nickel-plated steel from one country source over other sources of supply. ***. ***.[58] On the other hand, PECA stated that it had moved away from dual sourcing when its volumes demanded fell after the closure of Panasonic's U.S. battery producing facility in approximately 2008, but reconsidered that strategy after the Japanese earthquake and tsunami of 2011.[59]

Five purchasers stated that there are no grades, types, or sizes of diffusion-annealed, nickel-plated steel that are available only from a single source. However, three stated that there were. *** stated that ***. *** also stated that ***. *** explained that each supply source has its own grades.

**Importance of specified purchase factors**

Purchasers were asked to rate the importance of 18 factors in their purchasing decisions (table II-5). The factors most often rated as "very important" included availability, overall cost effectiveness, processability, product consistency, and reliability of supply. *** were the two purchasers stating that price was "somewhat important."

[58] ***.

[59] It added that it was unable to qualify Thomas Steel after that, as discussed more below. Hearing transcript, pp. 131 and 135 (Walton).

**Table II-5**
**Diffusion-annealed, nickel-plated steel: Importance of purchase factors, as reported by U.S. purchasers, by number of responding firms**

| Factor | Very important | Somewhat important | Not important |
|---|---|---|---|
| Availability | 7 | 0 | 0 |
| Delivery terms | 3 | 3 | 1 |
| Delivery time | 3 | 4 | 0 |
| Discounts offered | 1 | 5 | 1 |
| Extension of credit | 1 | 5 | 1 |
| Global relationship with supplier | 4 | 3 | 0 |
| Minimum quantity requirements | 2 | 2 | 3 |
| Overall cost effectiveness | 6 | 1 | 0 |
| Packaging | 1 | 4 | 2 |
| Price | 5 | 2 | 0 |
| Processability of material | 7 | 0 | 0 |
| Product consistency | 7 | 0 | 0 |
| Product range | 2 | 5 | 0 |
| Quality exceeds industry standards | 3 | 4 | 0 |
| Quality meets industry standards | 5 | 2 | 0 |
| Reliability of supply | 7 | 0 | 0 |
| Technical support/service | 4 | 3 | 0 |
| U.S. transportation costs | 1 | 6 | 0 |

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

## Product qualification

### Qualification process

U.S. purchasers, ***, qualify their suppliers of diffusion-annealed, nickel-plated steel. Their qualification process includes purchasing samples of product and using it to make end caps and cans, which are then used to make batteries. The batteries are then tested for cell performance, shelf-life, and leakage. These purchasers certify a supplier's diffusion-annealed, nickel-plated steel only after this process is complete.[60] Certification may only apply to material used for a particular type of battery, and thus certification for other types of batteries may be a separate process. However, sometimes suppliers may be invited to bid on products for which they are not yet qualified, as discussed later.

In the preliminary phase, *** described qualification for battery applications as involving *** more material supplied, rising from *** to as much as ***.[61] It continued that the

[60] At the hearing, Thomas Steel and PECA described the qualification process similarly, as involving progressively larger orders of product, which in turn is used to make batteries that are then tested. Hearing transcript, p. 26 (Hartman) and p. 134 (Walton).

[61] See also *** postconference brief, *** and *** postconference brief, ***. At the conference, Thomas Steel also described a qualification process in which material supplied rises as the process continues. See conference transcript, p. 23 (Hartman).

total time for these qualifications can be ***. *** described both can stampers and battery makers as requiring qualification.

Producers, importers, and purchasers described the qualification process for diffusion-annealed, nickel-plated steel as long, expensive,[62] and thorough. PECA stated that as different battery makers use different "ingredients" to make their batteries, each must have its own certification process for diffusion-annealed, nickel-plated steel.[63] Thomas Steel described its customers as "highly demanding" and noted that they perform periodic audits of Thomas Steel's facilities as well as working with Thomas Steel to improve the quality of its product.[64] PECA explained that battery makers' interest in thorough qualification stems from the complexity of a battery along with issues of performance and liability.[65] PECA also stated that battery producers require requalification of battery materials that have not been used for some time.[66] Purchasers also described their desire to maintain dual-sourcing on product restrained somewhat by the cost of qualifying new suppliers.[67] They further indicated that qualification was more difficult for new suppliers than for established suppliers, and described needing to update qualification when products changed.[68]

All eight purchasers reported requiring their suppliers to be qualified in order to sell diffusion-annealed, nickel-plated steel to their firms. Purchasers described their qualification processes as rigorous and difficult, covering issues of quality, material properties, performance, reliability, consistency, processability, defect rates, and more. Most purchasers indicated that the qualification process could take 6 to 18 months and would involve multiple evaluation phases. Several battery-segment purchasers described suppliers as needing to have their diffusion-annealed, nickel-plated steel used in making trial batteries to test its performance before qualification is granted. *** elaborated that trials are often performed using different batches of coils (to ensure consistent ability to meet qualification), making the process of qualification an expensive one for purchasers.[69]

Petitioner and respondents differed over the role of qualification in purchases of diffusion-annealed, nickel-plated steel. Petitioner stated that while final qualification may take 12-18 months, replacement of domestic product with imported product can actually take place in as little 3-4 months.[70] Petitioner also described price as often playing a role in whether a product is qualified or not.[71] On the other hand, Duracell described the qualification process as taking 6 to 18 months before commercial sales begin, and as often resulting in only one supplier

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[62] For example, see P&G's postconference brief, p. 17.

[63] Hearing transcript, p. 137 (Walton).

[64] Conference transcript, p. 22 (Hartman).

[65] Conference transcript, p. 183 (Walton).

[66] Conference transcript, p. 132 (Walton).

[67] Conference transcript, pp. 177-78 (Medeiros and Nguyen) and 181 (Jacobsen).

[68] Conference transcript, p. 180 (Nguyen) and p. 183 (Walton).

[69] Both *** attached lengthy descriptions of their qualifications processes to their purchasers' questionnaires.

[70] Hearing transcript, pp. 9-10 (Cannon).

[71] Hearing transcript, pp. 26-29 (Hartman).

being available for a particular product and/or at a particular plant.[72] Similarly, PECA stated that Thomas Steel, because it was not qualified at PECA, did not compete with Toyo Kohan for sales to PECA over 2011-13, instead selling to PECA only for emergency situations and for purposes of evaluation.[73] ***.

**Bidding without qualification**

Thomas Steel and respondents disagree over whether lack of formal qualification meant that suppliers were not submitting competitive bids. For example, Thomas Steel stated that prices are often quoted before the qualification process begins.[74] Duracell described such quotations as for "benchmarking" purposes only, to ensure that suppliers can offer a price "within the ballpark" to justify the costs of qualification.[75] Commission questionnaires in the final phase asked producers, importers, and purchasers about their involvement in bidding processes in which bids were accepted from suppliers that were not formally qualified.

*** indicated that it had offered to supply or been invited to submit bids to customers of diffusion-annealed, nickel-plated steel even though it was not yet qualified to supply such material to the customer. *** described itself in *** as ***.

*** stated that it had bid on material for which it was not yet qualified at ***. *** added that the risk to *** is too large to permit ***. *** stated that it had bid material for which it was not qualified as some purchasers solicit multiple bids, including from non-qualified sources, and then invite any winning bidders into qualification programs. It added that it ***. *** indicated that it had never bid on supplying material for which it was not qualified, and *** described doing so only as part of a qualification process.

Purchasers offered extensive descriptions of the circumstances under which suppliers may bid to supply diffusion-annealed, nickel-plated steel even if they are not yet qualified. *** stated that the qualification process precedes bidding. *** stated that it does not allow bidding before qualification, but ***. *** stated that it ***. *** allow unqualified bids to see if they *** should ***. *** stated that it does allow unqualified suppliers to bid ***.

**Qualification status of suppliers at U.S. purchasers**

In their questionnaires, purchasers submitted information on which suppliers are qualified at which purchasers. Additionally, producers and importers submitted information on these qualifications. These submissions are summarized in table II-6. Note that table II-6 is a summary of the statements of various respondents, and not a staff assessment of how much qualification affects competition between U.S. and subject imports.

[72] Hearing transcript, pp. 121-122 (Singh) and 177 (Salo).
[73] Hearing transcript, p. 128 (Walton).
[74] Hearing transcript, pp. 19-20 (Boyd), and petitioner's posthearing brief, p. 3.
[75] Hearing transcript, pp. 183-84 (Jacobsen).

**Table II-6**
**Diffusion-annealed, nickel-plated steel: supplier qualifications at purchasers, as reported by purchasers and other sources.**

* * * * * * *

Further information on the status of U.S. and Japanese material at various purchasers follows below.

***Qualification of Japanese material by U.S. purchasers***

Parties disagreed over how much Japanese material is qualified at U.S. purchasers. At the conference, Metal One stated that it is not qualified to provide product to one large purchaser of diffusion-annealed, nickel-plated steel, and is only qualified to provide a limited number of products to another purchaser.[76] Similarly, NSSMC stated that it is only qualified at one U.S. battery producer, and for relatively small volumes.[77] However, Thomas Steel stated that both it and Toyo Kohan are qualified or capable of being qualified in short order at all the major U.S. battery producers. It added that Toyo Kohan, while not technically qualified at Energizer,[78] is invited to bid, just as Thomas Steel is invited to bid on some PECA requests even though Thomas Steel is not qualified for every PECA product.[79] It further stated that NSSMC is qualified at all the major Asian manufacturers and has additional U.S. qualifications pending.[80] ***.[81]

***Qualification of Thomas Steel's product by PECA***

At the conference, PECA described ceasing its purchases of product from Thomas Steel after PECA's sister company ceased alkaline battery production in 2008. At the hearing, it elaborated that it changed its specifications in 2009 to a thinner gauge of diffusion-annealed, nickel-plated steel, requiring suppliers to re-qualify. It added that Thomas Steel is not currently qualified to supply PECA with diffusion-annealed, nickel-plated steel, although it continues to try to qualify Thomas Steel's product. PECA also stated that it preferred using Japanese product due to its lower defect rate, as much as fourteen times lower than that of Thomas Steel during

[76] Conference transcript, p. 143 (Philipson).
[77] Hearing transcript, p. 143 (Kuroda).
[78] ***.
[79] Conference transcript, p. 24 (Hartman).
[80] Conference transcript, p. 26 (Hartman), and petitioner's postconference brief, exhibit 9.
[81] Japanese respondents' postconference brief, p. 38.

the time it had purchased from both Thomas Steel and Toyo Kohan.[82] Thomas Steel stated that it had improved to a 0.3 percent rejection rate on its shipments of diffusion-annealed, nickel-plated steel.[83] [84]

***. ***.[85]

### Failure to qualify

Purchasers were asked whether any suppliers had failed in their attempts to certify their diffusion-annealed, nickel-plated steel since January 1, 2011. Three (*** indicated that no suppliers had failed. The remaining five purchasers indicated that a supplier had failed, with *** citing *** as the failed supplier, one citing ***, and *** citing ***.[86] Among those citing ***, ***. ***. *** stated that ***.

### Changes in purchasing patterns

Purchasers were asked about changes in their purchasing patterns from different sources since 2011 (table II-7). In further comments, *** reported decreased purchases of U.S. product due to *** and fluctuating purchases of Japanese product due to ***. *** stated that it had reduced purchases of Japanese product relative to purchases of U.S. product due to ***. *** reported decreased purchases of U.S. product due to ***. *** reported increased purchases of product from Japan, but did not elaborate. *** reported that ***.

**Table II-7**

**Diffusion-annealed, nickel-plated steel: Changes in purchase patterns from U.S., subject, and nonsubject countries**

| Source of purchases | Did not purchase | Decreased | Increased | Constant | Fluctuated |
|---|---|---|---|---|---|
| United States | 0 | 4 | 2 | 1 | 1 |
| Japan | 3 | 1 | 1 | 0 | 2 |
| Germany | 3 | 1 | 0 | 0 | 1 |
| Korea | 5 | 0 | 1 | 0 | 0 |
| Other | 6 | 0 | 0 | 0 | 1 |

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

[82] Conference transcript, pp. 126-131 (Walton), PECA's postconference brief, answers to staff questions, p. 7, and PECA's postconference brief, attachment 1. See also hearing transcript, pp. 133-34 (Walton) and Japanese respondents' posthearing brief, exhibits 2 and 4.

[83] Conference transcript, p. 39 (Hartman) and p. 189 (Cannon). See also petitioner's postconference brief, p. 24, petitioner's prehearing brief, p. 26, and petitioner's posthearing brief, pp. II-21 and II-23.

[84] See also hearing transcript, pp. 173-74 (Wood and Yamashita). ***.

[85] Petitioner's posthearing brief, pp. 4, II-24, and exhibit 1.

[86] See also ***.

**Importance of purchasing domestic product**

Purchasers did not name many requirements to purchase domestic product other than customer requirements or ***. Three purchasers (***) reported that 100 percent of their 2013 purchases of diffusion-annealed, nickel-plated steel were purchases that did not require domestic product. *** reported that 40 percent of its 2013 purchases were domestic product as required by customers, and *** percent were purchases that did not require domestic product. *** reported that *** percent of their purchases were purchases were domestic product because ***. No purchasers reported any purchases under "Buy America" regulations for purchasing U.S.-produced product.

Purchasers were also asked if they had a preference for purchasing diffusion-annealed, nickel-plated steel from only one country, or from multiple countries. *** answered that it purchased from one country as directed by its customer. *** responded that they have only one qualified source of supply, ***. *** answered that they would like to have multiple sources of supply (including for reasons of avoiding supply interruption and unnecessary cost increases), and thus *** added that it needs to purchase from import sources as there is only one domestic producer.

**Comparisons of domestic products, subject imports, and nonsubject imports**

Purchasers were asked a number of questions comparing diffusion-annealed, nickel-plated steel produced in the United States, subject countries, and nonsubject countries. First, purchasers were asked for a country-by-country comparison on the same 18 factors (table II-8) for which they were asked to rate the importance.

Most purchasers reported that U.S., Japanese, and nonsubject diffusion-annealed, nickel-plated steel were comparable on most factors. However, half or more of purchasers indicated that U.S. product was superior to Japanese product in terms of availability, global relationship, and U.S. transportation costs, while a majority also reported that Japanese product was superior to U.S. product in terms of processability (the ease with which material can be used), product consistency, and quality exceeding industry standards.

**Table II-8**

**Diffusion-annealed, nickel-plated steel: Purchasers' comparisons between U.S.-produced and imported product**

| Factor | U.S. vs. Japan | | | U.S. vs. nonsubject countries | | | Japan vs. nonsubject countries | | |
|---|---|---|---|---|---|---|---|---|---|
| | S | C | I | S | C | I | S | C | I |
| Availability | 4 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 0 |
| Delivery terms | 2 | 3 | 1 | 0 | 4 | 0 | 0 | 2 | 0 |
| Delivery time | 3 | 3 | 0 | 1 | 2 | 1 | 0 | 2 | 0 |
| Discounts offered | 0 | 4 | 1 | 0 | 4 | 0 | 1 | 1 | 0 |
| Extension of credit | 1 | 4 | 1 | 0 | 4 | 0 | 0 | 2 | 0 |
| Global relationship with supplier | 3 | 2 | 1 | 2 | 2 | 0 | 0 | 2 | 0 |
| Minimum quantity requirements | 1 | 5 | 0 | 0 | 4 | 0 | 0 | 2 | 0 |
| Overall cost effectiveness | 0 | 5 | 1 | 0 | 3 | 1 | 1 | 1 | 0 |
| Packaging | 0 | 5 | 1 | 0 | 4 | 0 | 0 | 2 | 0 |
| Price[1] | 2 | 4 | 0 | 1 | 2 | 1 | 1 | 1 | 0 |
| Processability of material | 0 | 2 | 4 | 0 | 4 | 0 | 1 | 1 | 0 |
| Product consistency | 0 | 1 | 5 | 0 | 4 | 0 | 2 | 0 | 0 |
| Product range | 2 | 4 | 0 | 0 | 4 | 0 | 0 | 2 | 0 |
| Quality exceeds industry standards | 1 | 0 | 5 | 0 | 4 | 0 | 2 | 0 | 0 |
| Quality meets industry standards | 1 | 3 | 2 | 0 | 4 | 0 | 1 | 1 | 0 |
| Reliability of supply | 1 | 5 | 0 | 1 | 3 | 0 | 1 | 1 | 0 |
| Technical support/service | 1 | 4 | 1 | 0 | 4 | 0 | 0 | 2 | 0 |
| U.S. transportation costs[1] | 3 | 2 | 1 | 0 | 3 | 1 | 0 | 2 | 0 |

[1] A rating of superior means that price/U.S. transportation costs is generally lower. For example, if a firm reported "U.S. superior," it meant that the U.S. product was generally priced lower than the imported product.

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

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

## Comparison of U.S.-produced and imported product

At the conference and the hearing, parties disagreed over whether U.S. product had had difficulty meeting purchasers' quality standards relative to Japanese product. *** stated that quality requirements for diffusion-annealed, nickel-plated steel are "extremely high" and must be met.

In order to determine whether U.S.-produced diffusion-annealed, nickel-plated steel can generally be used in the same applications as imports from Japan other countries, U.S. producers, importers, and purchasers were asked whether the products can "always," "frequently," "sometimes," or "never" be used interchangeably. As shown in table II-9, producers and importers were more likely to describe material from different sources as always or frequently interchangeable than purchasers were.

**Table II-9**

**Diffusion-annealed, nickel-plated steel: Interchangeability between product produced in the United States and in other countries, by country pairs**

* * * * * * *

In further comments, *** indicated that diffusion-annealed, nickel-plated steel is "never" interchangeable between two suppliers because subtle differences in the product can impact both battery performance and production, even if both suppliers are qualified. It added that qualification must be repeated for each battery size, and that qualifying on one can size does not mean that a supplier is qualified on another can size. *** stated that alkaline-battery-grade hot-band steel (a raw material for diffusion-annealed, nickel-plated steel) is only available from Germany, Japan, and Korea, with *** adding that differences in the hot-band steel from different sources can also affect the interchangeability of diffusion-annealed, nickel-played steel. *** noted that it also has only qualified *** for some products. Similarly, *** cited issues of qualification and quality differences as restraining interchangeability. In contrast, *** stated that if their customers approve and the product suppliers are qualified, the product can be interchangeable.

As can be seen from table II-10, most responding purchasers reported that domestically-produced and Japanese diffusion-annealed, nickel-plated steel "always" or "usually" met minimum quality specifications. *** indicated that domestically-produced diffusion-annealed, nickel-plated steel "sometimes" met minimum quality specifications.

**Table II-10**

**Diffusion-annealed, nickel-plated steel: Ability to meet minimum quality specifications, by source and number of reporting firms[1]**

| Source | Always | Usually | Sometimes | Rarely or never |
|---|---|---|---|---|
| United States | 3 | 3 | 2 | 0 |
| Japan | 3 | 2 | 0 | 1 |
| Germany | 1 | 2 | 1 | 1 |
| Korea | 1 | 0 | 0 | 0 |

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

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

In addition, producers, importers, and purchasers were asked to assess how often differences other than price were significant in sales of diffusion-annealed, nickel-plated steel from the United States, subject, or nonsubject countries. As seen in table II-11, purchasers were far more likely than the producer, or even most importers, to describe factors other than price as "always" or "frequently" significant.

**Table II-11**

**Diffusion-annealed, nickel-plated steel: Significance of differences other than price between product produced in the United States and in other countries, by country pair**

* * * * * * *

In further comments, among importers, *** stated that ***. *** stated that ***.

Among purchasers, *** described diffusion-annealed, nickel-plated steel as "not a commodity product" and described differences in product quality and producer capacity, as important in purchasing decisions, as well as competitive price offers. *** stated that in general, Japanese steel quality is the highest in the world, and higher quality means that there is lower yield loss and less down time for battery producers. However, it added that ***. It added that due to its desire to ***, it may purchase from ***. *** indicated that customer acceptance is important, and *** stated that transportation costs for *** are high.

## ELASTICITY ESTIMATES

This section discusses elasticity estimates; parties were encouraged to comment on these estimates in their prehearing or posthearing briefs. None did so.

### U.S. supply elasticity

The domestic supply elasticity[87] for diffusion-annealed, nickel-plated steel measures the sensitivity of the quantity supplied by U.S. producers to changes in the U.S. market price of diffusion-annealed, nickel-plated steel. The elasticity of domestic supply depends on several factors including the level of excess capacity, the ease with which producers can alter capacity, producers' ability to shift to production of other products, the existence of inventories, and the availability of alternate markets for U.S.-produced diffusion-annealed, nickel-plated steel. Analysis of these factors earlier indicates that the U.S. industry has a moderately large ability to increase shipments to the U.S. market; an estimate in the range of 4 to 8 is suggested.

### U.S. demand elasticity

The U.S. demand elasticity for diffusion-annealed, nickel-plated steel measures the sensitivity of the overall quantity demanded to a change in the U.S. market price of diffusion-annealed, nickel-plated steel. This estimate depends on factors discussed earlier such as the existence, availability, and commercial viability of substitute products, as well as the component share of the diffusion-annealed, nickel-plated steel in the production of downstream products. Based on the available information, the aggregate demand for diffusion-

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

annealed, nickel-plated steel is likely to be somewhat inelastic; a range of -0.5 to -1.0 is suggested.[88]

**Substitution elasticity**

The elasticity of substitution depends upon the extent of product differentiation between the domestic and imported products.[89] Product differentiation, in turn, depends upon such factors as quality (e.g., chemistry, appearance, etc.) and conditions of sale (e.g., availability, sales terms/ discounts/ promotions, etc.). Questionnaire respondents differed widely over the substitutability of U.S. and Japanese product. The elasticity of substitution between U.S.-produced diffusion-annealed, nickel-plated steel and imported diffusion-annealed, nickel-plated steel is likely to be in the range of 2 to 4.

[88] Petitioner described demand as "relatively inelastic." Petitioner's prehearing brief, p. 7.

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

# PART III: U.S. PRODUCER'S PRODUCTION, SHIPMENTS, AND EMPLOYMENT

The Commission analyzes a number of factors in making injury determinations (see 19 U.S.C. §§ 1677(7)(B) and 1677(7)(C)). Information on the dumping margins is presented in *Part I* of this report and information on the volume and pricing of imports of the subject merchandise is presented in *Part IV* and *Part V*. Information on the other factors specified is presented in this section and/or *Part VI* and (except as noted) is based on the questionnaire response of one firm that accounted for the all of U.S. production of diffusion-annealed, nickel-plated steel during 2011-13.

## U.S. PRODUCER

The Commission issued a U.S. producer questionnaire to one firm based on information contained in the petition. Petitioner Thomas Steel provided useable data on its productive operations.[1] Staff believes that this response represents all U.S. production of diffusion-annealed, nickel-plated steel.[2]

Table III-1 lists the U.S. producer of diffusion-annealed, nickel-plated steel, its position on the petition, production location, related and/or affiliated firms, total production in 2013, and share of total production.

**Table III-1**
**Diffusion-annealed, nickel-plated steel: Thomas Steel's position on the petition, production location, production in 2013, and share of reported production in 2011-13**

| Firm | Position on petition | U.S. production locations | Related and/or affiliated firms in the United States | 2013 production (short tons) | Share of production (percent) |
|---|---|---|---|---|---|
| Thomas Steel | Petitioner | Warren, OH | None[1] | *** | 100.0 |

[1] Thomas Steel is owned by Tata Steel, Ltd. (India), and is related through this parent firm to producer Hille & Mueller GmbH (Germany).

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

[1] Two other firms, ***, reported in the preliminary phase of the investigation no production of diffusion-annealed, nickel-plated steel.

[2] Thomas Steel states that it is the only U.S. producer. Petitioner's postconference brief, p. 5. The Japanese respondents also state that Thomas Steel is the only U.S. producer. Japanese respondents' postconference brief, p. 7.

As indicated in table III-1, Thomas Steel is related to Hille & Mueller GmbH, a foreign producer of diffusion-annealed, nickel-plated steel in Germany.[3] In addition, as discussed below, Thomas Steel *** imported or purchased diffusion-annealed, nickel-plated steel from Japan from U.S. importers.

## U.S. PRODUCTION, CAPACITY, AND CAPACITY UTILIZATION

Table III-2 and figure III-1 present U.S. producer Thomas Steel's production, capacity, and capacity utilization. While Thomas Steel's capacity remained stable during 2011-13, its production declined in both 2012 and 2013, ending *** percent lower than in 2011.[4] This decline in production is attributed by Thomas Steel primarily to the replacement of a large volume of its shipments to a major customer (***) by Japanese producer Toyo Kohan, beginning in December 2011.[5] Moreover, Thomas Steel stated that this reduced sales volume resulted in the firm's first ever shutdown for one week in April 2013.[6] Thomas Steel's capacity utilization declined in 2012 and 2013, ending *** percentage points lower than in 2011. Thomas Steel stated that it views capacity utilization of 62-63 percent as break even and capacity utilization in excess of 70 percent as required to enable the firm to invest in equipment.[7] In addition, Thomas Steel considers 95 percent capacity utilization as full capacity, particularly for scheduling purposes, given the long lead times which can cause issues.[8]

**Table III-2**
**Diffusion-annealed, nickel-plated steel: Thomas Steel's capacity, production, and capacity utilization, 2011-13**

* * * * * * *

**Figure III-1**
**Diffusion-annealed, nickel-plated steel: Thomas Steel's capacity, production, and capacity utilization, 2011-13**

* * * * * * *

[3] Tata Steel, Plating Production Sites found at http://www.tatasteeleurope.com/en/company/activities/plating/production_sites/, retrieved on January 24, 2014.

[4] Thomas Steel purchases the majority of its hot-rolled substrate used in the production of diffusion-annealed, nickel-plated steel from Tata Steel Ijmuiden BV, an affiliated company in the Netherlands, as well as from U.S. Steel and ArcelorMittal for automotive market applications. Hearing transcript, p. 98 (Jarvis) and Petitioner's posthearing brief, p. II-17.

[5] Conference transcript, pp. 33-34 (Jarvis) and p. 8 (Cannon) and email from ***, February 21, 2014.

[6] Petitioner's prehearing brief, p. 28 and hearing transcript, p. 35 (Jarvis).

[7] Conference transcript, p. 45 (Jarvis).

[8] Conference transcript, p. 57 (Jarvis).

Reported constraints in Thomas Steel's manufacturing process include ***. Thomas Steel reported producing or anticipated producing *** other product (***) on the same equipment, machinery, and using the same production and related workers employed to produce diffusion-annealed, nickel-plated steel. The production of this other product accounted for *** percent or less of total production during 2011-13. Thomas Steel also produces a small quantity of nickel-zinc coated or plated steel in the same facility as diffusion-annealed, nickel-plated steel, but this steel is not diffusion annealed or produced on the same production lines as diffusion-annealed, nickel-plated steel.[9]

## U.S. PRODUCER'S U.S. SHIPMENTS AND EXPORTS

Table III-3 presents Thomas Steel's U.S. shipments, export shipments, and total shipments. Thomas Steel's U.S. shipments, in terms of both quantity and value, followed a similar pattern to Thomas Steel's production, declining each year during 2011-13, ending lower than in 2011 by *** percent and *** percent, respectively. Thomas Steel attributed its decline in U.S. shipments to the loss of 80 percent of the AA can business for a major customer (***) to imports from Japan, as well as an inability to obtain significant offers from another customer, PECA, and ***.[10] Thomas Steel had *** internal consumption and *** transfers to related firms, accounting for less than *** percent of total U.S. shipments in any given year during 2011-13. Thomas Steel also had *** export shipments, accounting for less than *** percent of total shipments in 2011, 2012, and 2013.[11]

**Table III-3**
**Diffusion-annealed, nickel-plated steel: Thomas Steel's U.S. shipments, exports shipments, and total shipments, 2011-13**

* * * * * * *

Table III-4 presents Thomas Steel's actual and expected production based on its order books. Based upon order books, Thomas Steel projects its production to be *** short tons in 2014. Thomas Steel attributed this *** percent increase over 2013 production levels to ***.[12]

[9] Petition p. 38.

[10] Petitioner's postconference brief, p. 3 and email from ***, February 21, 2014. See Parts II and V for more discussion of these market changes.

[11] Thomas Steel stated that exports were to ***. Exports to ***. In addition, Thomas Steel noted that ***. Petitioner's posthearing brief, p. II-35, and exhibit 1, p. 2.

[12] Email from ***, February 21, 2014.

**Table III-4**
**Diffusion-annealed, nickel-plated steel: Thomas Steel's order books, by quarter, January 2014-December 2014**

* * * * * * *

## U.S. PRODUCER'S INVENTORIES

Table III-5 presents Thomas Steel's end-of-period inventories and the ratio of these inventories to Thomas Steel's production, U.S. shipments, and total shipments during 2011-13**.** Thomas Steel's inventories between 2011 and 2013 increased in absolute terms, as well as a ratio to U.S. production, U.S. shipments and total shipments. Thomas Steel noted that the bulk of the inventories of diffusion-annealed, nickel-plated steel are held by itself rather than its customers, due to the longer lead times necessary to produce diffusion-annealed, nickel-plated steel compared with producing a battery can or automotive fuel line.[13] Thomas Steel also reported that it holds in inventory a certain amount of safety stock on a short-term basis, which is adjusted for seasonal demand.[14]

**Table III-5**
**Diffusion-annealed, nickel-plated steel: Thomas Steel's inventories, 2011-13**

* * * * * * *

## U.S. PRODUCER'S IMPORTS AND PURCHASES

Thomas Steel *** imported or purchased diffusion-annealed, nickel-plated steel since January 1, 2011.

## U.S. EMPLOYMENT, WAGES, AND PRODUCTIVITY

Table III-6 shows Thomas Steel's employment-related data during 2011-13. The number of PRWs declined by *** (*** percent) in 2012 and declined by *** (*** percent) in 2013, ending with *** fewer PRWs (*** percent) than in 2011. Thomas Steel attributed the decline in employment in 2012, as it did with production and shipments, to the lost sales volume to a major customer (***).[15] Total hours worked followed a similar pattern to the number of PRWs, ending in 2013 *** percent lower than in 2011. Hours worked per PRW, wages paid, and productivity ended lower in 2013 than in 2011, while hourly wages and unit labor costs were

[13] Conference transcript, p. 89 (Hartman).
[14] Conference transcript, pp. 62 (Hartman) and 89-90 (Hartman).
[15] Conference transcript, pp. 8 (Cannon), 34 (Jarvis), and 38 (Jarvis).

higher. As noted previously, Thomas Steel had the firm's first ever shutdown one week in April 2013 as ***.[16]

**Table III-6**
**Diffusion-annealed, nickel-plated steel: Thomas Steel's employment related data, 2011-13**

* * * * * * *

[16] Conference transcript, pp. 8-9 (Cannon), email from ***, February 21, 2014, and hearing transcript, p. 35 (Jarvis).

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

## U.S. IMPORTERS

The Commission issued importer questionnaires to 17 potential importers of subject diffusion-annealed, nickel-plated steel.[1] Usable questionnaire responses[2] were received from four companies, representing more than 90 percent of total imports from Japan and more than 75 percent of total imports from all sources between 2011 and 2013 under HTS statistical reporting numbers 7212.50.0000 and 7210.90.6000, broad categories under which the large majority of imports of diffusion-annealed, nickel-plated steel are believed to be imported.[3] [4] Table IV-1 lists all responding U.S. importers of diffusion-annealed, nickel-plated steel from Japan and other sources, their locations, and their shares of U.S. imports during 2011-13.

**Table IV-1**
**Diffusion-annealed, nickel-plated steel: U.S. importers, source of imports, U.S. headquarters, and shares of imports in 2011-13**

| Firm | Headquarters | Share of imports by source (percent) | | | |
|---|---|---|---|---|---|
| | | Japan | Germany | Korea | All other sources |
| Hille & Mueller USA, Inc. | Warren, OH | *** | *** | *** | *** |
| Metal One America, Inc. | Rosemont, IL | *** | *** | *** | *** |
| Nippon Steel and Sumikin Bussan Americas, Inc. (“Nippon Trading”) | Pittsburgh, PA | *** | *** | *** | *** |
| Procon Metals, Inc. | Warren, OH | *** | *** | *** | *** |
| Total | | *** | *** | *** | *** |

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

[1] The Commission issued questionnaires to those firms identified in the petition, along with firms that, based on a review of data provided by U.S. Customs and Border Protection (“Customs”), may have accounted for at least 90 percent of total imports under HTS statistical reporting numbers 7212.50.0000 and 7210.90.6000 in 2011-13, and 90 percent of total imports under other HTS subheadings under which diffusion-annealed, nickel-plated steel is believed to be imported during 2011-13. The thirty-four importers that had certified in the preliminary phase of the investigation that they had not imported diffusion-annealed, nickel-plated steel from any country at any time since January 1, 2010 were not included.

[2] Firms also reported importing products such as non-diffusion-annealed, nickel-plated steel, hot dipped galvanized coils, and electrolytic copper plated steel under these two HTS statistical reporting numbers.

[3] Petition, p. 15.

[4] Respondents in the preliminary phase of the investigation asserted that the questionnaire responses represent all of the subject imports. Japanese respondents’ postconference brief, p. 8. Petitioner notes that there are only two Japanese producers known to export to the United States. Petition, p. 22. The Commission received questionnaire responses from *** these producers’ U.S. importers.

## U.S. IMPORTS

Table IV-2 and figure IV-1 present data for U.S. imports of diffusion-annealed, nickel-plated steel from Japan and all other sources. As shown in table IV-2, U.S. imports from Japan represent the substantial majority of imports of diffusion-annealed, nickel-plated steel. Moreover, more than *** percent of U.S. imports from Japan were by Metal One, the exclusive U.S. importer for Japanese producer Toyo Kohan.[5] Japanese producer NSSMC, which imports exclusively through Nippon Trading, the other importer of subject merchandise, reported that its sales in the United States of subject merchandise, "have always been very small volumes" and that it is "qualified to supply only one specification of nickel-plated steel to Duracell."[6] Nippon Trading reported that ***.[7]

**Table IV-2**
**Diffusion-annealed, nickel-plated steel: U.S. imports by source, 2011-13**

* * * * * * *

**Figure IV-1**
**Diffusion-annealed, nickel-plated steel: U.S. imports by source, 2011-13**

* * * * * * *

Imports from Japan, by quantity, increased by *** percent in 2012, primarily as a result of the ***. This was followed in 2013 by a *** percent decline, when ***.[8] Imports from Japan declined by *** percent between 2011 and 2013.

Imports from Japan are used in battery applications.[9] Imports from Korea, ***.[10] The increase in imports from Korea was due to ***.[11] The imports from Germany were by ***.[12]

Between 2011 and 2013, the ratio of U.S. imports from Japan to U.S. production increased by *** percentage points, and the ratio of U.S. imports from nonsubject sources increased by *** percentage points.

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[5] Japanese respondents' postconference brief, p. 8.

[6] Hearing transcript, p. 143 (Kuroda)

[7] Conference transcript, p. 145 (Hori), Japanese respondents' postconference brief, p. 9, and email from ***, March 5, 2014.

[8] Email from ***, February 27, 2014.

[9] Japanese respondents' postconference brief, p. 35.

[10] Petition, p. 60, conference transcript, p. 149 (Yamashita), and email from ***, April 16, 2013.

[11] Email from ***, April 16, 2013.

[12] *** response to the importers' questionnaire, and email from ***, April 22, 2013.

## NEGLIGIBILITY

The statute requires that an investigation be terminated without an injury determination if imports of the subject merchandise are found to be negligible.[13] Negligible imports are generally defined in the Tariff Act of 1930, as amended, as imports from a country of merchandise corresponding to a domestic like product where such imports account for less than 3 percent of the volume of all such merchandise imported into the United States in the most recent 12-month period for which data are available that precedes the filing of the petition or the initiation of the investigation. However, if there are imports of such merchandise from a number of countries subject to investigations initiated on the same day that individually account for less than 3 percent of the total volume of the subject merchandise, and if the imports from those countries collectively account for more than 7 percent of the volume of all such merchandise imported into the United States during the applicable 12-month period, then imports from such countries are deemed not to be negligible.[14] Imports from Japan accounted for 62.4 percent of the quantity of merchandise entered into the United States during March 2012-February 2013 under HTS statistical reporting numbers 7212.50.0000 and 7210.90.6000. Based on questionnaire data, imports from Japan accounted for *** percent of total imports of diffusion-annealed, nickel-plated steel, by quantity, during 2012.

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

### Apparent U.S. consumption

Table IV-3 and figure IV-2 present data on apparent U.S. consumption and U.S. market shares for diffusion-annealed, nickel-plated steel between 2011 and 2013. [15] Apparent U.S. consumption, by quantity and value, declined in 2012 and 2013, ending *** percent and *** percent lower, respectively, in 2013 compared with 2011.[16] Thomas Steel's U.S. shipments declined each year, ending *** percent lower than in 2011, while U.S. shipments of imports from

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

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

[15] Three importers, ***, reported that shipment data do not reconcile due to transit rejects, yield/scrap loss, or resale of secondary quality coil.

[16] Japanese respondents argue that this decline can be attributed to the closure of two U.S. facilities by battery producer Energizer and the shift to wider coils and thinner gauges of diffusion-annealed, nickel-plated steel. Japanese respondents' prehearing brief, p. 2, Japanese respondents' posthearing brief, p. 4, and hearing transcript, pp. 191-192 (Porter).

Thomas Steel contends that the effect of thinner gauge is relatively minor, noting that wider coils only affected one specification, Duracell's *** production, and that there have been no changes during the period of investigation to a thinner gauge steel. Thomas Steel's posthearing brief, pp. II-11-12 and hearing transcript, pp. 87–88 (Hartman and Wilkes).

Japan increased each year, ending *** percent higher than in 2011. These changes were ***.[17] As further described later in Part IV, the decline between 2011 and 2013 in U.S. shipments of batteries, specifically *** was partially offset with increases in U.S. shipments in ***. U.S. shipments of imports from Japan over the same period increased for ***. U.S. shipments of imports from Korea, which were ***, increased primarily due to ***.[18]

**Table IV-3**
**Diffusion-annealed, nickel-plated steel: U.S. shipments of domestic product, U.S. shipments of imports, and apparent U.S. consumption, 2011-13**

* * * * * * *

**Figure IV-2**
**Diffusion-annealed, nickel-plated steel: Apparent U.S. consumption, by sources, 2011-13**

* * * * * * *

## U.S. market shares

U.S. market share data are presented in table IV-4 and figure IV-3. The U.S. producer's market share declined by *** percentage points between 2011 and 2013, declining by *** percentage points between 2011 and 2012 and by *** percentage points in 2013. Following an opposite trend to the U.S. producer's market share, the share accounted for by imports from Japan was *** percentage points higher in 2013 than in 2011, increasing by *** percentage points between 2011 and 2012 and by *** percentage points in 2013. The share accounted for by imports from all other sources, mainly ***, increased from *** percent in 2011 to *** percent in 2013, or by *** percentage points. As noted earlier in this report, imports from Korea were for use in ***.[19]

**Table IV-4**
**Diffusion-annealed, nickel-plated steel: U.S. consumption and market shares, 2011-13**

* * * * * * *

**Figure IV-3**
**Diffusion-annealed, nickel-plated steel: Apparent consumption, by sources, 2011-13**

* * * * * * *

[17] Email from ***, February 21, 2014, and email from ***, February 27, 2014.
[18] Email from ***, April 16, 2013.
[19] Email from ***, April 16, 2013 and Japanese respondents' postconference brief, p. 35.

## U.S. shipments by application

Table IV-5 and figures IV-4-7 present U.S. producer's and importers' U.S. shipments of diffusion-annealed, nickel-plated steel for use in specific applications. The applications with the largest share of U.S. shipments during 2011-13 were AA cans and D cans (*** percent and *** percent, respectively, by quantity). U.S. shipments of these, along with end-caps, accounted for smaller shares of U.S. shipments in 2013 than in 2011, while the shares accounted for by each of the other applications increased. These two applications also accounted for *** percent and *** percent, respectively of Thomas Steel's U.S. shipments and *** percent and *** percent, respectively of U.S. shipments of imports from Japan, by quantity during 2011-13. As previous noted in this report, ***.

The average unit values of each application for each source declined between 2011 and 2013, with the exception of ***. The average unit values of U.S. shipments of imports from Japan were lower than those of U.S. shipments of domestically produced diffusion-annealed, nickel-plated steel in aggregate and for alkaline battery applications as a whole in 2011, 2012, and 2013. They were similarly lower in each year for AA cans and D cans, but mixed for other applications for which comparisons were available.

**Table IV-5**
**Diffusion-annealed, nickel-plated steel: U.S. shipments, by application, 2011-13**

* * * * * * *

**Figure IV-4**
**Diffusion-annealed, nickel-plated steel: U.S. shipments used in alkaline battery end uses, by source, 2011-13**

* * * * * * *

**Figure IV-5**
**Diffusion-annealed, nickel-plated steel: Share of U.S. shipments used in alkaline battery end uses, by source, 2011-13**

* * * * * * *

**Figure IV-6**
**Diffusion-annealed, nickel-plated steel: U.S. shipments used in non-alkaline-battery end uses, by source, 2011-13**

* * * * * * *

**Figure IV-7**
**Diffusion-annealed, nickel-plated steel: Share of U.S. shipments used in non-alkaline-battery end uses, by source, 2011-13**

* * * * * * *

# PART V: PRICING DATA

## FACTORS AFFECTING PRICES

### Raw material costs

Raw materials accounted for between *** and *** percent of Thomas Steel's costs of goods sold during 2011-13, and are thus a substantial portion of the total cost of diffusion-annealed, nickel-plated steel.[1]

*** indicated that the main raw materials used to produce diffusion-annealed, nickel-plated steel were hot-rolled sheet coil (produced, in turn, by integrated steel mills from iron ore and coking coal) and electrolytic nickel. *** added that the prices of these raw materials are the major factors in determining the prices of diffusion-annealed, nickel-plated steel.

*** described hot-rolled steel prices as unstable or trending downwards recently. It added that nickel prices have also fluctuated in a downward trend due to supply increases and weaker demand. It expected all these trends to continue in the short term. *** also described nickel prices as having fluctuated in recent years, and ***.

Trends in the prices of iron ore, coking coal, and nickel are presented in figures V-1, V-2, and V-3. See *Part VI* for more information on raw material costs.

**Figure V-1**
**Diffusion-annealed, nickel-plated steel: Trends in the prices of raw material iron ore, January 2011-December 2013**

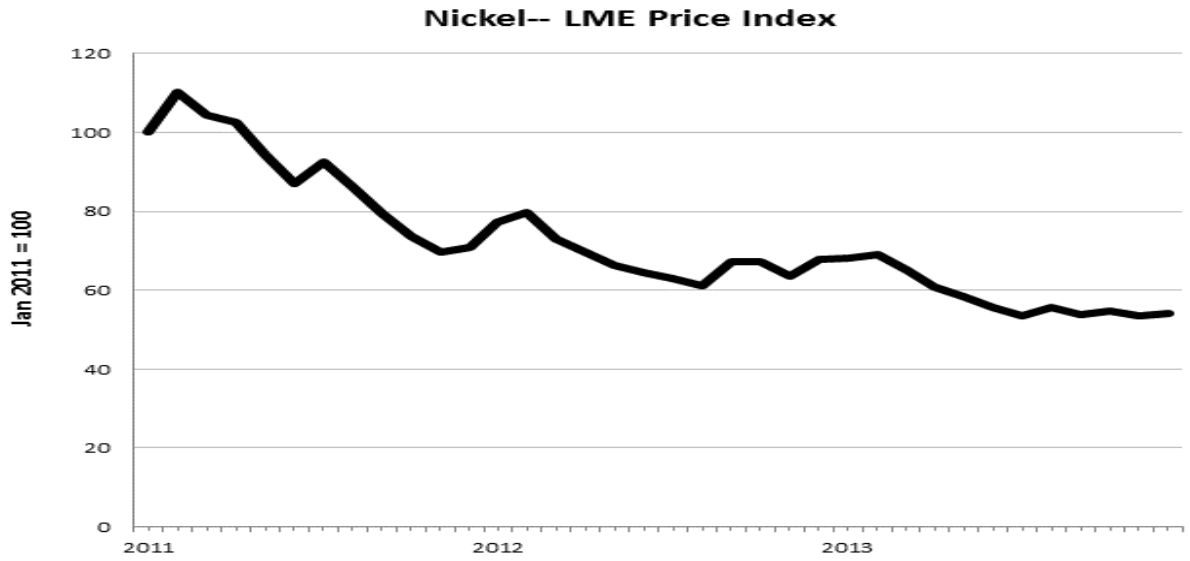
* * * * * * *

**Figure V-2**
**Diffusion-annealed, nickel-plated steel: Trends in the prices of raw material coking coal, January 2011-December 2013**

* * * * * * *

[1] Calculating raw materials as a percent of costs of goods sold without the adjustment for related company profit or loss on transferred inputs, raw materials represented between *** and *** percent of Thomas Steel's costs of goods sold during 2011-13. See *Part VI* for more discussion of regarding the above-referenced adjustment.

**Figure V-3**
**Diffusion-annealed, nickel-plated steel: Trends in the prices of raw material nickel, January 2011-December 2013**




*Source:* Data from LME, and staff calculations.

### U.S. inland transportation costs

U.S. inland transportation costs are a small part of the cost of diffusion-annealed, nickel-plated steel. Thomas Steel reported that U.S. inland transportation costs for diffusion-annealed, nickel-plated steel were *** percent of the total delivered cost. Metal One reported transportation costs of *** percent for its product from Japan, and Nippon Trading reported transportation costs of *** percent for its product from Japan.

*** arrange transportation for *** product, while *** arrange transportation for their customers. Importers of Japanese product ***.

## PRICING PRACTICES

### Pricing methods

#### Level of price negotiations

Price negotiations for diffusion-annealed, nickel-plated steel may involve multiple levels of negotiation, depending on the customer and the order. As discussed in *Part II*, sales of

diffusion-annealed, nickel-plated steel may go directly to battery makers or may go through can stampers first. Even when such sales go to can stampers, ***. However, Thomas Steel also stated that ***.[2]

Thomas Steel stated that ***.[3] ***. At the hearing, Duracell stated that it negotiates for itself and its can stamper. However, can stamper PECA stated that it negotiates for its purchases of diffusion-annealed, nickel-plated steel.[4]

***.

Most purchasers described their purchases as requiring negotiations with their suppliers. *** stated that *** did not. Among battery producers, *** described ***. *** stated that it negotiates *** with qualified sources, and ***.

Among can-stampers, *** described ***. *** stated that its purchases do involve negotiations, but ***.

**Global negotiations**

Battery producers may negotiate prices for diffusion-annealed, nickel-plated steel on a global, rather than U.S.-only, basis. P&G, which owns Duracell, stated that it negotiates prices for diffusion-annealed, nickel-plated steel for its global operations, including sales through U.S. can stampers such as Cly-Del.[5] ***.

Purchasers were asked whether their firms typically negotiate with suppliers simultaneously for purchases of diffusion-annealed, nickel-plated steel both inside and outside the United States. Three purchasers, including *** answered that they did not. Five purchasers, including ***, answered that they at least sometimes do. *** described its ***.

However, Thomas Steel stated that it does not offer a global price, and characterized purchasers' desire for a global price as a coded way of demanding "the lowest price in the globe."[6]

**Contracts and spot sales**

As shown in table V-1, U.S. producer Thomas Steel and U.S. importers reported their 2013 U.S. commercial shipments of diffusion-annealed, nickel-plated steel by type of sale. Most such shipments are made under contracts.

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[2] Petition, exhibit 10, p. 2.

[3] Petitioner's postconference brief, p. 45.

[4] Hearing transcript, pp. 164 (Singh) and 199 (Salo and Walton). Also at the hearing, Thomas Steel stated that the battery maker usually controls price negotiations. Hearing transcript, p. 94 (Boyd).

[5] Conference transcript, p. 113 (Medeiros).

[6] Hearing transcript, p. 106 (Boyd).

**Table V-1**

**Diffusion-annealed, nickel-plated steel: U.S. producer's and importers' shares of U.S. commercial shipments by type of sale, 2013**

| Type of sale | U.S. producer | Importers |
|---|---|---|
| **Long-term contracts** | *** | *** |
| **Short-term contracts** | *** | *** |
| **Spot sales** | *** | *** |
| **Total** | **100** | **100** |

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

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

In questionnaire responses, Thomas Steel stated that it negotiated *** basis. Thomas Steel added that it also negotiated ***[7] ***. ***.[8] It also submitted a *** in which it ***.[9]

Among importers, importers of Japanese product (***) reported using ***, while importers of nonsubject product (***) reported using ***. For their sales of product from Japan, *** reported that *** percent of *** sales were made ***, while *** reported that *** percent of its sales were ***, *** percent were under short-term contracts, and the balance were spot sales. *** described *** contracts as *** contracts that ***. *** indicated that *** contracts are *** and ***.

At the hearing, Thomas Steel stated that if it offered a large discount to one major customer, it would need to do so for other customers as well.[10] ***.[11] ***.[12]

**Purchasers' responses on contracts**

Six purchasers indicated that they did not purchase diffusion-annealed, nickel-plated steel under contracts committing a certain percentage of their purchases. Two, ***, reported that they did. *** explained that due to extensive qualification procedures for diffusion-annealed, nickel-plated steel from its customer, it had made a long-term commitment to that customer for the majority of its sales. Although answering no, *** stated that ***, it does ***.

Can stampers were also asked whether their firms worked under contracts negotiated with their suppliers by their own customers (i.e., battery producers). *** answered that it did, noting that the ***. *** answered that it did not, but added that ***. *** stated that the ***.

*** purchasers reported that they did not vary their purchases from a given supplier based on prices offered for a specified time period. *** noted specifically that changes in the overall price due to the raw material formula did not change purchasing levels.

[7] See ***.

[8] In the preliminary phase, *** indicated that ***.

[9] Petition, exhibit 24.

[10] Hearing transcript, p. 22 (Boyd).

[11] Petitioner's posthearing brief, pp. 11-12.

[12] Email from ***.

Three purchasers reported that they had changed suppliers of diffusion-annealed, nickel-plated steel since January 1, 2011, and five stated that they had not. ***. *** indicated that ***.

Three purchasers reported that they purchase diffusion-annealed, nickel-plated steel daily, one purchases weekly, and four purchase monthly. Seven responding purchasers reported that they had not made changes to their purchasing pattern since January 1, 2011. *** reported that increased demand had forced changes to its purchasing patterns. Most purchasers contact one to two suppliers before making a purchase; two purchasers (***) reported contacting one to five suppliers.

**Pricing formulas**

*** described diffusion-annealed, nickel-plated steel prices as typically being quoted using a formula that includes a base material price with an adjustment for selected raw materials, possibly including nickel, iron ore, and coking coal.[13] *** elaborated that its *** based on *** adjustments for nickel, from the London Metal Exchange (LME) price for nickel, and *** hot band adjustments, from the prices of iron ore and coking coal from ***.[14] ***.[15] ***.[16]

At the hearing, parties explained that part of the base price (***) may include a raw material component. That is, some of the cost of nickel and/or hot-rolled steel is accounted for in the base price, and some is accounted for in the surcharges. Petitioner characterized the raw material component as capturing all the change in the price of raw materials over the period, and stated that the raw material component of the base price had not changed over 2011-13.[17] Petitioner later added that ***.[18] Respondents, however, stated that it would be difficult to "disentangle" raw material price movements from movements in the base price.[19] They stated that ***.[20]

[13] Thomas Steel's terminology for the adjustments calls coking coal and iron ore the "Raw Material Price Adjustment Mechanism" (RMPAM) while nickel is a separate adjustment. See hearing transcript, pp. 20-22 (Boyd), questionnaire response of the firm as well as ***. Other raw materials, such as ***, may also have adjustment mechanisms. See petition, exhibit 24, p. 18, and petitioner's posthearing brief, exhibit 9 (with an example of surcharge calculations).

[14] See questionnaire response of the firm as well as ***. Respondents stated that ***. Respondents' prehearing brief, pp. 15-16. See also hearing transcript, p. 117 (Singh).

[15] P&G's posthearing brief, p. 7.

[16] P&G's posthearing brief, p. 4.

[17] Hearing transcript, p. 81 (Cannon).

[18] Petitioner's posthearing brief, p. II-34.

[19] Hearing transcript, pp. 185-190 (Porter and Wood).

[20] Japanese respondents' posthearing brief, response to Commission questions, pp. 1-6.

*** described ***.[21]

*** reported that ***. ***. Petitioner described some pricing formula negotiations as the purchaser sending the same bid sheet to multiple suppliers, with each supplier only filling in the base price.[22] Respondents indicated that PECA began using a pricing formula similar to that used by Duracell only recently.[23]

Metal One and Duracell attributed the use of formulas to decisions by Tata Steel, the parent company of Thomas Steel, in 2010 ***.[24] However, Thomas Steel stated that at least one of its customers required it to provide bids on a bid sheet that specified base prices and raw material costs, so that the customer could compare base prices between Thomas Steel and other bidders.[25] It added that adjustments have been used by the diffusion-annealed, nickel-plated steel industry (as well as the broader steel industry) for many years, although the specific formula used now started in 2008.[26] It also added that most price negotiations focus on base price, not the adjustment mechanisms.[27]

***.

Importers *** did not report using a pricing formula for their sales of diffusion-annealed, nickel-plated steel, ***.

**Commencement of shipments**

*** reported that its shipments typically begin *** after a contract is awarded, although sometimes as much as *** elapse before shipments commence. It added that ***. ***.

***.

*** stated that *** price negotiations do not ever conclude after shipments of product have already begun, i.e., requiring post-shipment billing or price adjustments. *** stated that ***.

[21] Additionally, Thomas Steel stated that one of its major customers requires the use of a bid sheet to separately identify the base price and allow the customer to make an "apples to apple" comparison. Hearing transcript, p. 21 (Boyd) and p. 45 (Cannon). See also hearing transcript, pp. 117-18 (Singh).

[22] Hearing transcript, pp. 80-81 (Boyd and Cannon).

[23] Hearing transcript, p. 152 (Porter).

[24] Conference transcript, pp. 11 (Schaefer) and 116 (Medeiros), ***, and ***. At the hearing, Thomas Steel stated that the nickel adjustment began before 2009, and that it began the hot-rolled adjustment in 2010-11. Hearing transcript, pp. 21 and 53 (Boyd). Thomas Steel noted that it also offers contracts that hedge the price of nickel forward. Hearing transcript, pp. 57-58 (Jarvis).

[25] Conference transcript, pp. 17-18 (Hartman).

[26] Conference transcript, p. 67 (Hartman) and petitioner's postconference brief, pp. 11-12.

[27] Hearing transcript, p. 50 (Boyd).

### Sales terms and discounts

The typical payment terms for both *** were net *** days, while *** uses net *** days. *** typically *** prices on *** basis.[28] *** prices on *** basis.

In addition to early payment discounts, *** reported having some volume discounts based on annual volumes ***. Four importers, including ***, reported using no discounts.[29]

### Price leadership

Three purchasers reported that Thomas Steel was the price leader in the U.S. diffusion-annealed, nickel-plated steel market, or that Thomas Steel's parent company, Tata Steel, was the global price leader in the product. Of these three, *** stated that Thomas Steel ***. *** described Thomas Steel as leading because it was the sole U.S. producer, and because Tata Steel is the largest producer of diffusion-annealed, nickel-plated steel globally. *** also stated that Tata Steel was the largest global supplier, and ***
***.[30] *** did not name a price leader.

## PRICE DATA

The Commission requested U.S. producers and importers to provide quarterly data for the total quantity and f.o.b. value of the following diffusion-annealed, nickel-plated steel products shipped to unrelated U.S. customers during January 2011 through December 2013.

**Product 1A.**-- Diffusion-annealed, nickel-plated steel, 0.010 inch, plus or minus 0.0004 in. (0.244 mm to 0.264 mm) thickness, maximum 326 mm width, with nickel plate 1.25 micron minimum one side and .625 micron minimum opposite

**Product 1B.**-- Diffusion-annealed, nickel-plated steel, 0.010 inch, plus or minus 0.0004 in. (0.244 mm to 0.264 mm) thickness, width of greater than 326 mm, with nickel plate 1.25 micron minimum one side and .625 micron minimum opposite

**Product 2.**-- Diffusion-annealed, nickel-plated steel, 0.008 inch, plus or minus 0.0004 in. (0.193 mm to 0.213 mm) thickness, with nickel plate 1.25 micron minimum one side and .625 micron minimum opposite

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[28] In the preliminary phase, *** indicated that ***.
[29] In the preliminary phase, however, ***
[30] See also hearing transcript, ***.

**Product 3.**-- Diffusion-annealed, nickel-plated steel, 0.008 inch, plus or minus 0.0004 in. (0.193 mm to 0.213 mm) thickness, with nickel plate 1.8 micron minimum one side and .375 micron minimum, but less than .625 micron, opposite

**Product 4.**-- Diffusion-annealed, nickel-plated steel, 0.0135 inch, plus or minus 0.0005 in. (0.330 mm to 0.356 mm) thickness, with nickel plate 1.0 micron minimum one side and 1.0 micron minimum opposite

**Product 5.**-- Diffusion-annealed, nickel-plated steel, 0.0153 inch, plus or minus 0.0005 in. (0.376 mm to 0.401 mm) thickness, with nickel plate 1.0 micron minimum one side and 1.0 micron minimum opposite

In the preliminary phase, *** described product 1 as used for ***. Product 1B is a wider version of product 1 than product 1A, and is an example of a new product used by battery makers to reduce battery makers' yield loss. Product 2 is used for ***. Product 3 is used for ***. Product 4 is used for ***.[31] PECA also described product 4 as a newer product replacing product 5, an older product.[32] The replacement of product 5 with product 4 is an example of a thinner-gauge product replacing a thicker-gauge one.[33]

*** and *** of Japanese material provided usable pricing data for sales of the requested products, although not all firms reported pricing for all products for all quarters.[34] Pricing data reported by these firms accounted for approximately *** percent of U.S. producer's shipments of product and *** percent of U.S. shipments of subject imports from Japan in 2013.

In the preliminary phase, Commission collected price data for product 1, which had no width restriction, consistent with the description in the petition. Japanese respondents requested that the Commission add a width restriction for the final phase of the investigation. Petitioner stated that data for products 1A and 1B should not be separated, as the only distinction is the width of slitting.[35] Respondents, on the other hand, asserted that the differences in processing costs and packaging are enough to warrant consideration of these products as separate products.[36]

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[31] Emails from ***.

[32] Conference transcript, p. 132 (Walton), and hearing transcript, p. 134 (Walton).

[33] Respondents argued that product 5 is not a representative product and is now "obsolete." Petitioner responded that product 5 was still shipped to PECA for use in D batteries as recently as ***. Petitioner's posthearing brief, p. II-5.

[34] After questionnaires were submitted, ***. *** also made revisions to its data after ***. *** indicated that ***. See emails from ***.

[35] Hearing transcript, pp. 108 (Cannon).

[36] Hearing transcript, p. 208 (Wood).

Price data for products 1A, 1B, and 2-5 are presented in tables V-2 to V-8 and figure V-4. Data for product 1 (combining data for products 1A and 1B) are presented in table V-4.

Additionally, at the hearing, Thomas Steel stated that the majority of the reason for its lower prices were lower base prices, not lower raw material prices.[37] Staff requested that ***, supply base price data for the pricing data.[38] At the hearing, Thomas Steel stated that it has six different major customers that buy its product in different ways, and so comparisons of base prices across firms is likely not as meaningful as comparing the total price (including all raw material adjustments).[39] ***.[40] Data provided are summarized in appendix D.[41]

**Table V-2**

**Diffusion-annealed, nickel-plated steel: Weighted-average f.o.b. prices and quantities of domestic and imported product 1A and margins of underselling/(overselling), by quarters, January 2011-December 2013**

* * * * * * *

**Table V-3**

**Diffusion-annealed, nickel-plated steel: Weighted-average f.o.b. prices and quantities of domestic and imported product 1B and margins of underselling/(overselling), by quarters, January 2011-December 2013**

* * * * * * *

**Table V-4**

**Diffusion-annealed, nickel-plated steel: Weighted-average f.o.b. prices and quantities of domestic and imported product 1 (products 1A and 1B together) and margins of underselling/(overselling), by quarters, January 2011-December 2013**

* * * * * * *

**Table V-5**

**Diffusion-annealed, nickel-plated steel: Weighted-average f.o.b. prices and quantities of domestic and imported product 2 and margins of underselling/(overselling), by quarters, January 2011-December 2013**

* * * * * * *

[37] Hearing transcript, pp. 20-22 (Boyd) and 37 (Jarvis).
[38] See emails from staff to ***, April 2, 2014.
[39] Hearing transcript, pp. 82-83 (Cannon).
[40] Japanese respondents' posthearing brief, response to questions, pp. 1-5.
[41] ***.

**Table V-6**

**Diffusion-annealed, nickel-plated steel: Weighted-average f.o.b. prices and quantities of domestic and imported product 3 and margins of underselling/(overselling), by quarters, January 2011-December 2013**

* * * * * * *

**Table V-7**

**Diffusion-annealed, nickel-plated steel: Weighted-average f.o.b. prices and quantities of domestic and imported product 4 and margins of underselling/(overselling), by quarters, January 2011-December 2013**

* * * * * * *

**Table V-8**

**Diffusion-annealed, nickel-plated steel: Weighted-average f.o.b. prices and quantities of domestic and imported product 5 and margins of underselling/(overselling), by quarters, January 2011-December 2013**

* * * * * * *

**Figure V-4**

**Diffusion-annealed, nickel-plated steel: Weighted-average prices and quantities of domestic and imported product, by quarters, January 2011-December 2013**

* * * * * * *

## Price trends

Prices generally decreased from January 2011 to December 2013. Table V-9 summarizes the price trends, by country and by product. As shown in the table, domestic prices decreased for all products, except product 5, with decreases ranging from 10.7 to 22.6 percent. Prices of Japanese product decreased for all products, with decreases ranging from 0.5 to 13.0 percent.

**Table V-9**

**Diffusion-annealed, nickel-plated steel: Summary of weighted-average f.o.b. prices for products 1-5 from the United States and Japan**

* * * * * * *

Petitioner described its average prices as falling about $400 per short ton over 2011-2013, and estimated that roughly half that fall was due to a fall in the base price, and the other half to raw material mechanism adjustments.[42] Parties disagreed over why prices for diffusion-annealed, nickel-plated steel fell over the period. Respondents attributed the fall *** to the use of pricing formulas with a raw material adjustment mechanism, to price competition at U.S. battery makers from imported batteries, and from battery makers' expectations that their suppliers will continue to improve production processes.[43] Petitioner attributed the fall to Japanese underselling in 2011 and its own price-cutting in response.[44]

## Price comparisons

As shown in table V-10, prices for diffusion-annealed, nickel-plated steel imported from Japan were below those for U.S.-produced diffusion-annealed, nickel-plated steel in 35 of 61 instances (considering products 1A and 1B separately); margins of underselling ranged from 0.0 to 44.9 percent. In the remaining 26 instances, prices for diffusion-annealed, nickel-plated steel from country were between 0.3 and 34.0 percent above prices for the domestic product. If products 1A and 1B are considered together as one product, then most of the above descriptive calculations are the same, except that the number of instance of overselling falls to 21.

**Table V-10**

**Diffusion-annealed, nickel-plated steel: Instances of underselling/overselling and the range and average of margins, by country, January 2011-December 2013**

| Source | Underselling | | | Overselling | | |
|---|---|---|---|---|---|---|
| | Number of instances | Range (percent) | Average margin (percent) | Number of instances | Range (percent) | Average margin (percent) |
| Japan (considering products 1A and 1B separately) | 35 | 0.0 to 44.9 | 12.4 | 26 | (0.3) to (34.0) | (4.6) |
| Japan (considering products 1A and 1B together as product 1) | 35 | 0.0 to 44.9 | 12.5 | 21 | (0.3) to (34.0) | (4.9) |

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

At the conference, parties disagreed over whether U.S. or Japanese product was less expensive. Metal One described purchasers telling it that its prices were not the lowest, and were sometimes "not competitive" with Thomas Steel, which Metal One described as the industry price leader.[45] However, Thomas Steel stated that it lost volume and needed to lower

[42] Hearing transcript, p. 52 (Cannon and Jarvis).

[43] Respondents' prehearing brief, p. 39, Japanese respondents' posthearing brief, response to Commission questions, p. 7, and hearing transcript pp. 12 (Wood) and 146-147 (Durling).

[44] *** and hearing transcript, p. 84 (Cannon).

[45] Conference transcript, pp. 137-38, 143 (Philipson).

prices in 2011 and 2012 due to pressure from lower-priced imports from Toyo Kohan. Thomas Steel contended that Toyo Kohan especially targeted the large-volume business of diffusion-annealed, nickel-plated steel for AA batteries, large volumes that Thomas Steel stated that it needs to cover its fixed costs.[46] On the other hand, respondents stated that underselling in 2011 was due to Thomas Steel "unilaterally" raising prices in 2011 (to Duracell) rather than changed behavior by subject imports.[47] Similarly, purchaser Duracell attributed Thomas Steel's falling prices in 2011 and 2012 to the pricing formula used, as prices of the commodities in the formula began to fall. It also disputed that Thomas Steel had lost much of its share of Duracell's purchases.[48]

## LOST SALES AND LOST REVENUE

### Final phase

The Commission requested U.S. producers of diffusion-annealed, nickel-plated steel to report any instances of lost sales or revenue they experienced due to competition from imports of diffusion-annealed, nickel-plated steel from Japan. In the final phase, *** submitted *** new lost revenue allegations and *** new lost sales for the period since the preliminary phase. (These final-phase allegations are presented in tables V-11 (for lost revenue) and V-12 (for lost sales). Final-phase lost revenue allegations totaled $***. Final-phase lost sales allegations totaled $***. Staff contacted *** purchasers and a summary of the information obtained follows.

**Table V-11**
**Diffusion-annealed, nickel-plated steel: U.S. producers' final-phase lost revenue allegations**

* * * * * * *

**Table V-12**
**Diffusion-annealed, nickel-plated steel: U.S. producers' final-phase lost sales allegations**

* * * * * * *

[46] Conference transcript, pp. 26-28 (Hartman), and petitioner's posthearing brief, pp. II-7 and II-8.
[47] Japanese respondents' posthearing brief, p. 8, and response to Commission questions, pp. 37-38. See also P&G's posthearing brief, pp. 13-14.
[48] Conference transcript, pp. 118-20 (Medeiros).

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***.[49]

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***.

## Preliminary phase

In the preliminary phase of this investigation, the Commission requested U.S. producers of diffusion-annealed, nickel-plated steel to report any instances of lost sales or revenue they experienced due to competition from imports of diffusion-annealed, nickel-plated steel from Japan since 2010. ***.

The allegations of lost sales and lost revenue cover ***.[50]

Thomas Steel's *** lost sales allegations totaled $*** and involved *** short tons of diffusion-annealed, nickel-plated steel. The *** lost revenue allegations totaled $*** and involved *** short tons of diffusion-annealed, nickel-plated steel. Staff contacted *** purchasers and a summary of the information obtained follows in tables V-13 and V-14, and the ensuing discussion.

In the final-phase questionnaires, purchasers were asked to provide any additional corroboration they had on the sales from the preliminary phase. None provided additional documentation, although ***.

**Table V-13**
**Diffusion-annealed, nickel-plated steel: U.S. producers' preliminary-phase lost revenue allegations**

* * * * * * *

**Table V-14**
**Diffusion-annealed, nickel-plated steel: U.S. producers' preliminary-phase lost sales allegations**

* * * * * * *

[49] ***.

[50] See petition, exhibit 10.

***

***.[51] ***.

***.[52] ***.[53] ***.[54]

***.[55] ***.[56]

***

***.

***

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***.

***

***.

[51] See also ***. ***.

[52] ***

[53] ***.

[54] See ***.

[55] ***.

[56] ***.

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

## BACKGROUND

Part VI presents Thomas Steel's financial results on diffusion-annealed, nickel-plated steel. As indicated in Part I of this report, Thomas Steel was the only U.S. producer of this product during 2011-13. Although its fiscal year ends March 31, Thomas Steel reported its financial results for calendar-year periods consistent with the trade information presented in Part III.[1]

As noted in Part I of this report, hot-rolled steel is the primary raw material input in the production of diffusion-annealed, nickel-plated steel. Although Thomas Steel purchases non-battery grade hot-rolled steel from unrelated domestic sources, the company purchases the *** of its hot-rolled steel, including *** battery grade steel, from a Dutch affiliate, Tata Steel Ijmuiden BV.[2] In its U.S. producer questionnaire response and with regard to purchases of hot-rolled steel from Tata Steel Ijmuiden BV, Thomas Steel confirmed that it complied with the Commission's questionnaire instructions regarding the elimination of profit or loss on inputs purchased from related firms.[3]

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[1] Thomas Steel's U.S. producer questionnaire was verified on February 11-12, 2014. Changes pursuant to verification are reflected in this and other relevant sections of the staff report. Staff verification report, Thomas Steel, p. 3.

[2] Tata Steel Ijmuiden BV is an integrated flat steel producer in the Netherlands with two blast furnaces and two hot-rolling mills, along with cold-rolling, galvanizing, and tinplating facilities. *Tata plans capacity increase and cost savings at Ijmuiden*, Metal Bulletin Daily, September 16, 2011, p. 20. As described by Thomas Steel, the supply relationship with this facility began prior to ownership affiliation and extends back to the mid-1970s. Thomas Steel reportedly had a number of battery grade steel suppliers from the second half of the 1980s to the early 1990s. The current facility (i.e., Tata Steel Ijmuiden BV), which was purchased by Tata Steel in 2007, along with Thomas Steel as part of the Corus Group acquisition, ultimately ***. Petitioner's postconference brief, p. 47.

***. Thomas Steel posthearing brief, Exhibit 12. As described in the verification report, ***. Staff verification report, Thomas Steel, pp. 7-8.

[3] Thomas Steel's U.S. producer questionnaire, response to question III-8. With regard to input purchases from related companies, the Commission's standard practice requires the elimination of the related company's profit or loss from the relevant cost of goods sold (COGS) reported in the financial section of the U.S. producer questionnaire. The intent of this adjustment is for the related company's actual cost to be recognized in determining the financial results reported to the Commission. Based on a review of the methodology used, Thomas Steel subsequently revised its financial results to reflect Tata Steel Ijmuiden BV's relevant profit or loss based on ***. Staff verification report, Thomas Steel, p. 9.
***. Ibid.

The following amounts (in thousands of dollars) reflect the adjustments to Thomas Steel's hot-rolled steel costs in table VI-1 for Tata Steel Ijmuiden BV's profit or (loss) on transferred inputs: ***. Consistent with the intent of this adjustment, as described above, the impact on hot-rolled steel costs

(*continued*...)

## OPERATIONS ON DIFFUSION-ANNEALED, NICKEL-PLATED STEEL

Table VI-1 presents Thomas Steel's financial results on diffusion-annealed, nickel-plated steel during 2011-13. A variance analysis of these financial results is presented in table VI-2.[4] Thomas Steel's hot-rolled steel purchases (total quantity, total purchase cost, and average per ton purchase cost) by primary supplier are presented table VI-3.

**Table VI-1**
**Diffusion-annealed, nickel plated steel: Results of operations of Thomas Steel, 2011-13**

* * * * * * *

**Table VI-2**
**Diffusion-annealed, nickel plated steel: Variance analysis on the operations of Thomas Steel, 2011-13**

* * * * * * *

**Table VI-3**
**Diffusion-annealed, nickel plated steel: Thomas Steel hot-rolled steel purchases by supplier, 2011-13**

* * * * * * *

(…*continued*)
reported in table VI-1 is subtractive for profit and additive for losses. See appendix E for Thomas Steel's financial results without the above-referenced adjustment.

[4] The Commission's variance analysis is calculated in three parts: sales variance, COGS variance, and sales, general and administrative (SG&A) expenses variance. Each part consists of a price variance (in the case of the sales variance) or a cost variance (in the case of the COGS and SG&A variances) and a volume (quantity) variance. The sales or cost variance is calculated as the change in unit price/cost times the new volume, while the volume variance is calculated as the change in volume times the old unit price/cost. Summarized at the bottom of table VI-2, the price variance is from sales, the cost/expense variance is the sum of those items from COGS and SG&A, respectively, and the net volume variance is the sum of the price, COGS, and SG&A volume variances.

A stable overall product mix enhances the utility of the Commission's variance analysis. As described by Thomas Steel during the preliminary phase of this investigation and with respect to changes in product mix, the ***. Petitioner's postconference brief, p. 46.

## Revenue

Because the majority of diffusion-annealed, nickel-plated steel revenue reflects U.S. commercial sales, relevant tables below present revenue as a single line item.[5] In addition to primary base price amounts and corresponding adjustments for changes in indices related to iron ore and coking coal, total revenue includes surcharges for nickel which, depending on the customer, ***.[6] ***.[7]

In terms of both sales volume and value, diffusion-annealed, nickel-plated steel revenue was at its highest level in 2011 followed by declines in 2012 and 2013. Verification confirmed that this pattern is attributable, in large part, to the declining sales of a ***.[8]

The revenue section of the table VI-2 variance analysis shows that sales volume and price variances were both negative between 2011-12 and 2012-13. Directionally, the negative price variances are consistent with the pattern of Thomas Steel's declining average hot-rolled steel purchase cost shown in table VI-3.[9]

## Cost of goods sold and gross profit

As shown in table VI-1, raw material costs represent the majority of total COGS and ranged from a low of *** with the relative share accounted for by hot-rolled steel and nickel remaining about the same throughout 2011-13.[10]

On an average per ton basis, the decline in the nickel component of raw material costs is generally consistent with relevant price index (see Figure V-3 in Part V). In contrast, the 2011-12 increase in the hot-rolled steel component reflects a different directional pattern as compared to the price indices for coking coal and iron ore (see Figure V-1 and Figure V-2). In addition to other relevant factors,[11] a primary reason for this divergence is the *** (see footnote 3) ; i.e., when the profit or loss adjustments in table VI-1 COGS are eliminated, the

---

[5] A relatively small share of Thomas Steel's reported revenue represents transfers and exports. Although not separately presented in table VI-1, the average sales values of transfers were somewhat higher compared to those of commercial sales. With regard to this pattern, Thomas Steel stated that "{t}he Hille & Mueller USA transfer{s} have higher prices due to product mix. Over 30 percent of the transfers are for material ***. Petitioner's postconference brief, p. 46. With respect to the company's overall operations in 2013, ***. Staff verification report, Thomas Steel, p. 4, footnote 2.

[6] Staff verification report, Thomas Steel, p. 7.

[7] ***. Ibid.

[8] Staff verification report, Thomas Steel, pp. 5-6.

[9] As shown in table VI-3, ***.

[10] ***. Staff verification report, Thomas Steel, p. 7.

[11] At the preliminary phase of this investigation and in addition to the impact of the related party profit or loss adjustment, Thomas Steel noted that 1) published price indices reflect market prices, as opposed to the actual cost of production recognized for accounting purposes; and that 2) there is a lag time, estimated to be 180 days, between acquisition of the underlying primary raw materials used to

(*continued*...)

average hot-rolled steel component of COGS and the average hot-rolled steel purchase cost from Tata Steel Ijmuiden BV (adjusted for net yield) *** and reflect the same directional trend (see footnote 12).[12] [13]

The smaller components of COGS are other factory costs (ranging from a low of *** percent of total COGS in 2012 to a high of *** percent of COGS in 2011) and direct labor (ranging from a low of *** percent of total COGS in 2011 to a high of *** percent of COGS in 2013). On an average per ton basis (see table VI-1), direct labor was lowest in 2011 when sales volume was at its highest levels. In contrast, other factory costs were higher in 2011 and then somewhat lower in 2012 and 2013.[14] Thomas Steel indicated that the relatively higher level of average other factory costs in 2011 was related to ***.[15] With regard to additional factors contributing to Thomas Steel's lower average other factory costs in 2012 and 2013, as compared to 2011, a number of cost cutting measures were reportedly undertaken by the company: an 8.5 percent reduction in the company's workforce, reduced maintenance,

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(…*continued*)
produce hot-rolled steel and the production of diffusion-annealed, nickel plated steel. In general, the 180-day estimate would encompass Tata Steel Ijmuiden BV's acquisition of primary raw materials (coking coal and iron ore), conversion of these materials into hot-rolled steel, shipment of the hot-rolled steel to the U.S., and subsequent conversion (cold-rolling, plating, and annealing) at Thomas Steel. Petitioner's postconference brief, p. 32.

[12]

* * *

Staff verification report, Thomas Steel, p. 9, footnote 9. As indicated in the verification report, the second line item above is a staff estimate, as opposed to a reconciliation; e.g., it incorporates the period-specific net yield adjustment for ***. Ibid.

[13] Footnote 12 above also illustrates the importance of ***. Staff verification report, Thomas Steel, p. 8, footnote 6. USITC auditor notes (prehearing).

[14] Other factory costs represent a combination of fixed, variable, and mixed (semi-fixed/semi-variable) costs. All things being equal, the directional trend of other factory costs (on an average basis and as a share of total COGS), would tend to be the opposite of the directional trend of corresponding production and sales volume due to the presence of fixed manufacturing costs and changes in fixed cost absorption. Direct labor, while nominally a variable cost, often reflects the same general pattern as other factory costs. With regard to the importance of fixed costs, a Thomas Steel official stated at the Commission's hearing that "{c}apacity utilization is vital to our business because our fixed costs are high . . . our fixed costs account for over 70 percent of our non-material costs. Because our prices generally adjust for any changes in raw material costs, we normally analyze our fixed costs in this manner. It is essential for us to produce at healthy levels of capacity utilization in order spread these fixed costs." Hearing transcript, p. 34 (Jarvis). At the Commission's hearing, it was also noted that AA is the largest volume battery category and thus permits nickel plate suppliers to secure production efficiencies. As described by a Thomas Steel official, the AA product category ". . . allows us to load our capacity to produce long production runs, to operate efficiently and to cover our fixed costs." Hearing transcript, p. 16 (Boyd). As indicated in the *Revenue* section above, the decline in Thomas Steel's total sales volume between 2011-13 in large part reflects reduced sales of ***.

[15] Petitioner's postconference brief, pp. 47-48. As indicated in the capital expenditures section below, while the above-referenced ***.

improved energy efficiency, and outsourced shipping, IT support, and logistics. Quality control programs during were also noted as activity which reduced costs and positively impacted the pattern of COGS in general. At the preliminary staff conference, a Thomas Steel company official stated that "{t}aken together, our cost cuts reduce our break-even point. In fact, we have taken out fixed costs in order to mitigate the impacts of falling sales volume and revenues."[16]

Notwithstanding some variability in average direct labor and other factory costs, the deterioration in gross profit ratio (total gross profit divided by total revenue), as shown in table VI-1, primarily reflects the negative impact of consecutive declines in average sales value which were magnified by higher raw material costs between 2011-12 (due to higher average hot-rolled steel cost offsetting the decline in average nickel cost) and then partially offset by lower average raw material costs between 2012-13.[17] As shown in table VI-1 and in conjunction with lower average sales value, the deterioration in gross profit ratio between 2012-13 reflects higher relative levels of both direct labor and other factory costs. As indicated in footnote 14, a pattern of increasing other factory costs and direct labor (on both an average and relative basis) is generally consistent with corresponding declines in production and sales volume.

**SG&A expenses and operating income or loss**

Total SG&A expenses, the majority of which is classified as G&A (General and Administrative), were at about the same absolute level in 2011 and 2012 and then declined somewhat in 2013.[18] While the decline in 2013 SG&A expenses is generally consistent with lower sales, it appears largely to reflect the impact of previously-noted cost cutting measures.[19] Notwithstanding the lower absolute level of SG&A expenses in 2013, the SG&A expense ratio (total SG&A expense divided by total revenue) reached its highest level in that year.

While Thomas Steel's operating results were negatively impacted by somewhat higher SG&A expense ratios (increasing from *** percent of sales in 2011 to *** percent of sales in 2013), the majority of the decline in operating results (from operating profit in 2011 to operating losses in 2012 and 2013) is explained by the revenue and cost factors impacting gross profitability (see *Cost of goods sold and gross profit* section).

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[16] Conference transcript, p. 34, pp. 38-39 (Jarvis). All things being equal, as indicated in footnote 14, declining production and sales volume would generally result in a pattern of increasing average other factory costs; i.e., in the absence of cost-cutting measures and other relevant factors, the decline in Thomas Steel's average other factory costs, between 2011 and 2012 specifically, would appear counterintuitive.

[17] ***.

[18] 2012 SG&A expenses include ***. Staff verification report, Thomas Steel, p. 4 and p. 10.

[19] ***. Petitioner's postconference brief, p. 48. With regard to its SG&A expenses in general, Thomas Steel stated that ***. Ibid.

## CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES

Table VI-3 presents capital expenditures and research and development (R&D) expenses related to the Thomas Steel's operations on diffusion-annealed, nickel-plated steel.[20]

**Table VI-3**
**Diffusion-annealed, nickel plated steel: Capital expenditures and research and development expenses**

* * * * * * *

Capital expenditures were consistently lower than corresponding depreciation expense (see table VI-1) and were at their highest level in 2011. As described by Thomas Steel, the higher level of capital expenditures in 2011 was related to ***.[21]

As shown in table VI-3, total R&D expenses declined somewhat during the period. Although not specifying what reduced activity accounted for this decline, Thomas Steel stated that ***.[22]

## CAPITAL AND INVESTMENT

The Commission requested that Thomas Steel describe any actual or potential negative effects of imports of diffusion-annealed, nickel plated steel from Japan on its growth, investment, ability to raise capital, development and production efforts, or the scale of capital investments. The company's responses are presented below.

### Actual negative effects

Thomas Steel ***.

### Anticipated negative effects

Thomas Steel ***.

[20] As reported by Thomas Steel and with respect to operations on diffusion-annealed, nickel-plated steel, total assets were *** in 2011, *** in 2012, and *** in 2013. ***.

[21] Petitioner's postconference brief, p. 48.

[22] Petitioner's postconference brief, p. 49.

# PART VII: THREAT CONSIDERATIONS AND INFORMATION ON NONSUBJECT COUNTRIES

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

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

---

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

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

*(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),*

*(VIII) the actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and*

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

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

[2] Section 771(7)(F)(iii) of the Act (19 U.S.C. § 1677(7)(F)(iii)) further provides that, in antidumping investigations, ". . . the Commission shall consider whether dumping in the markets of foreign countries (as evidenced by dumping findings or antidumping remedies in other WTO member markets against the same class or kind of merchandise manufactured or exported by the same party as under investigation) suggests a threat of material injury to the domestic industry."

## THE INDUSTRY IN JAPAN

The Commission issued foreign producers' or exporters' questionnaires to three firms believed to produce and/or export diffusion-annealed, nickel-plated steel from Japan.[3] Two firms, Toyo Kohan and NSSMC, indicated they were manufacturers of diffusion-annealed, nickel-plated steel. These two firms reported that they accounted for approximately *** of overall production of diffusion-annealed, nickel-plated steel in Japan in 2013 and all exports to the United States of diffusion-annealed, nickel-plated steel from Japan during 2011-13.[4] The third firm, Katayama, reported only that it ***.[5] [6]

### Operations on diffusion-annealed, nickel-plated steel

Table VII-1 presents information on the diffusion-annealed, nickel-plated steel operations of the responding producers and exporters in Japan. Japanese production capacity increased during 2011-13 because NSSMC converted a line that produced both tin plate and diffusion-annealed, nickel-plated steel into a line dedicated only to diffusion-annealed, nickel-plated steel. It cited increased efficiencies of a focused line, ***, and an increasing demand in Asia as reasons for the switch.[7] [8] Toyo Kohan, however, has had a ***.[9]

Japanese production of diffusion-annealed, nickel-plated steel increased by *** percent from 2011 to 2012 ***.[10] Production declined in 2013 by *** percent, ending *** percent lower than 2011. Lower production in 2013 relative to 2011 reflected a *** percent decrease in home market shipments and a *** percent decrease in total exports, offset by a *** percent increase in end-of-period inventories.

---

[3] These firms were identified through a review of information submitted in the petition and contained in proprietary Customs records.

[4] NSSMC and Toyo Kohan separately estimated they accounted for *** percent and *** percent, of total exports to the United States of diffusion-annealed, nickel-plated steel from Japan in 2013. Foreign producers' questionnaire responses, section II-8 nn. 3-4, and Japanese respondents' prehearing brief, p. 7.

[5] Petitioners and respondents believe Katayama produces the subject product, but had no information on their U.S exports. Petition, p. 22; conference transcript, p. 149; email from ***, February 12, 2014.

[6] An additional firm, Metal One, reported that ***. Email from ***, April 11, 2013; and conference transcript, p. 136 (Phillipson)

[7] Hearing transcript, p. 143 (Kuroda), *** foreign producer's questionnaire response, and respondents' joint postconference brief, p. 43.

[8] Japanese tin plate production, which as recently as 2010 was more than 1 million metric tons (1.1 million short tons), declined over 2011-13, ending at 947,000 metric tons (1.04 million short tons) in 2013. "Japanese Steel Production, production of finished steel," Japan Iron and Steel Federation, found at http://www.jisf.or.jp/en/statistics/production/documents/product_s_1401.xls.

[9] *** questionnaire response, section II-2 and II-4.

[10] ***. Email from ***, April 2, 2014.

*** increased its total shipments by *** percent from 2012 to 2013, driven by ***. In contrast, *** total shipments declined by *** percent from 2012 to 2013. *** exports to the United States declined from *** short tons in 2012 to *** short tons in 2013, or by *** percent. In addition, the firm's exports to all other markets declined by *** short tons or *** percent between 2012 and 2013. *** states that these declines were mostly due to ***.[11]

The Japanese firms project ***. NSSMC and Toyo Kohan project exports to third country markets to increase between 2013 and 2015 by approximately *** percent and *** percent, respectively.[12] NSSMC predicts increased exports to alkaline and lithium-ion battery markets in Asia in the near future. The firm points to the transition from the use of post-plated cold-rolled steel to diffusion-annealed, nickel-plated steel in alkaline battery production, and increased use of electric cars using lithium-ion batteries.[13] Toyo Kohan also predicts increased exports to Asian, noting that the firm's customers, including Panasonic,[14] are expanding capacity in Japan, China, and in other Asian markets. Toyo Kohan highlights its joint venture in China, Hunan TOYO-LEED Material Science & Technology Co., Ltd, that produces diffusion-annealed, nickel-plated steel for use in batteries.[15] Like NSSMC, Toyo Kohan notes the increased use of batteries using diffusion-annealed, nickel-plated steel for better performance and environmental considerations.[16] In addition, Toyo Kohan reported that ***.[17]

Total capacity utilization for the responding Japanese producers declined ***.[18] While both producers project increased capacity utilization in 2014 and 2015, they differed on actual performance during 2011-13. ***.[19] ***.[20]

NSSMC's end-of-period inventories ***.[21] Toyo Kohan's inventories ***.[22]

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[11] Email from ***, February 28, 2014.

[12] Toyo Kohan's foreign producers' questionnaire response, section II-8; NSSMC's foreign producers' questionnaire response, section II-8.

[13] Hearing transcript, p. 144 (Kuroda).

[14] Panasonic announced in 2013 plans to increase production of lithium-ion batteries particularly for use in automobiles. "Driving profits: Panasonic to expand in lithium-ion batteries," Reuters, August 21, 2013, found at http://www.reuters.com/article/2013/08/21/panasonic-autos-batteries-idUSL4N0GM1ZB20130821.

[15] Hearing transcript, p. 142 (Aimoto) and "Toyo Kohan Establishes Nickel Plating Company in China," Japan Metal Bulletin, April 272, 2010, found at http://www.japanmetalbulletin.com/?p=5541.

[16] Hearing transcript, p. 142 (Aimoto) and pp. 202-203 (Ohori).

[17] Email from ***, February 28, 2014.

[18] Ibid.

[19] NSSMC's foreign producers' questionnaire response, section II-8.

[20] Toyo Kohan's foreign producers' questionnaire response, section II-8.

[21] NSSMC's foreign producers' questionnaire response, section II-8; Email from ***, April 17, 2013.

[22] Toyo Kohan's foreign producers' questionnaire response, section II-8.

**Table VII-1**
**Diffusion-annealed, nickel-plated steel: Data for producers in Japan, 2011-13 and projected, 2014-15**

* * * * * * *

## Production by application

Table VII-2 presents 2013 Japanese production of diffusion-annealed, nickel-plated steel for use in specific applications. The largest share was for use in alkaline batteries, followed by automobile applications (***) and other applications (***). While alkaline battery applications held the greatest share of 2013 production ***, NSSMC's second largest application was ***, while for Toyo Kohan it was ***. Battery sales in Japan declined during 2011-13, falling from 3.5 billion units in 2011 to 2.7 billion units in 2013, with alkaline batteries declining from 1.4 billion units to 1.1 billion units over the same period.[23]

**Table VII-2**
**Diffusion-annealed, nickel-plated steel: Japanese production, by application, 2013**

* * * * * * *

## Alternative products

*** reported producing other products made on the same equipment and machinery used to produce diffusion-annealed, nickel-plated steel. NSSMC reported producing tinplate on the same lines, accounting for ***.[24] The share of NSSMC's total production accounted for by *** fell from *** percent in 2011, to *** percent in 2012, and to *** percent in 2013, after ***. Toyo Kohan produced ***, representing a declining share of its total production, falling from *** percent in 2011 to *** percent in 2013. Toyo Kohan states that ***.[25] Table VII-3 presents data on Japanese producers' alternative products.

[23] "Primary battery sales statistics by volume," Battery Association of Japan, found at http://www.baj.or.jp/e/statistics/04.html.

[24] Hearing transcript, p. 143 (Kuroda) and NSSMC's foreign producers' questionnaire response, section II-4.

[25] Toyo Kohan's foreign producers' questionnaire response, section II-3.

**Table VII-3**
**Diffusion-annealed, nickel-plated steel: Japanese producers' capacity, production, and capacity utilization for alternative products, 2011-13 and projected, 2014-15**

* * * * * * *

## U.S. INVENTORIES OF IMPORTED MERCHANDISE

Table VII-4 presents data on U.S. importers' reported inventories of diffusion-annealed, nickel-plated steel. [26] As a ratio of imports and of U.S. shipments of imports, inventories of imports from Japan increased between 2011 and 2012, but then in 2013 declined by ***. As noted earlier in this report, importers of diffusion-annealed, nickel-plated steel from Japan sold all or virtually all from U.S. inventories. Respondents contend that it is not possible to use diffusion-annealed, nickel-plated steel produced for one customer to supply another.[27]

**Table VII-4**
**Diffusion-annealed, nickel-plated steel: U.S. importers' inventories, 2011-13**

* * * * * * *

## U.S. IMPORTERS' OUTSTANDING ORDERS

The Commission requested diffusion-annealed, nickel-plated steel from Japan and nonsubject sources after December 31, 2013. Table VII-5 presents the quantity of orders by the two U.S. importers reporting that they had imported or arranged for the importation of diffusion-annealed, nickel-plated steel from Germany and Korea. Both importers of diffusion-annealed, nickel-plated steel from Japan during 2011-13 reported ***.[28]

**Table VII-5**
**Diffusion-annealed, nickel-plated steel: U.S. importers' orders for delivery subsequent to December 31, 2013, by period**

* * * * * * *

[26] Three importers, ***, reported that shipment and inventory data do not reconcile due to transit rejects, yield/scrap loss, or resale of secondary quality coil.

[27] Japanese respondents' postconference brief, p.44.

[28] Email from ***, March 5, 2014 and email from ***, February 27, 2014. Toyo Kohan projected exports to the United States of ***.

## ANTIDUMPING OR COUNTERVAILING DUTY ORDERS IN THIRD-COUNTRY MARKETS

No producer, importer, or foreign producer reported any countervailing or antidumping duty orders on diffusion-annealed, nickel-plated steel from Japan in third-country markets.

## INFORMATION ON NONSUBJECT COUNTRIES

Production of diffusion-annealed, nickel-plated steel appears to be limited to China, Germany, Japan, Korea, and the United States.[29] In Japan, there are three producers: the respondents, Toyo Kohan and NSSMC, and a third firm, Katayama, which is active in the Asian market, but which has not exported to the United States.[30] In Germany, Hille & Mueller, owned by the Tata Steel, the parent of Thomas Steel Strip, is a major supplier to the European market. In Korea, TCC is the only identified producer.[31] In China, a few small producers serve the China market.[32] Two such firms, Hymax-Smarthill and Hunan Toyo-Leed, were identified by the petitioner.[33] Hunan Toyo-Leed is a joint venture affiliate of Japanese respondent Toyo Kohan.[34]

[29] Petition, p. 41.

[30] Testimony at the Commission's staff conference indicated that Katayama is a producer of diffusion-annealed, nickel-plated steel and serves the domestic market in Japan with, perhaps, some exports to Asia. Conference transcript, p. 149 (Mr. Wood). See also, email from ***, February 12, 2014. See also, Slides to accompany the testimony of Thomas Strip Steel Corporation, p. 4.

[31] *** Questionnaire response of ProCon Metals, Inc.

[32] Conference transcript, p. 149 (Mr. Yamashita).

[33] Slides to accompany the testimony of Thomas Strip Steel Corporation, p. 4.

[34] Conference transcript, p. 149 (Mr. Yamashita).

# APPENDIX A

# *FEDERAL REGISTER* NOTICES

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

| Citation | Title | Link |
|---|---|---|
| 78 FR 19734, April 2, 2013 | *Institution of Antidumping Duty Investigation and Scheduling of Preliminary Phase Investigation* | http://www.gpo.gov/fdsys/pkg/FR-2013-04-02/pdf/2013-07584.pdf |
| 78 FR 23905, April 23, 2013 | *Diffusion-Annealed, Nickel-Plated Flat-Rolled Steel Products from Japan: Initiation of Antidumping Duty Investigation* | http://www.gpo.gov/fdsys/pkg/FR-2013-04-23/pdf/2013-09572.pdf |
| 78 FR 69371, November 19, 2013 | *Diffusion-Annealed, Nickel-Plated Flat-Rolled Steel Products From Japan: Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination* | http://www.gpo.gov/fdsys/pkg/FR-2013-11-19/pdf/2013-27577.pdf |
| 78 FR 75371 December 11, 2013 | *Diffusion-Annealed, Nickel-Plated Flat-Rolled Steel Products From Japan; Scheduling of the Final Phase of an Antidumping Investigation* | http://www.gpo.gov/fdsys/pkg/FR-2013-12-11/pdf/2013-29484.pdf |
| 79 FR 19868 April 20, 2014 | *Notice of Affirmative Final Determination of Sales at Less Than Fair Value: Diffusion-Annealed, Nickel- Plated Flat-Rolled Steel Products From Japan* | http://www.gpo.gov/fdsys/pkg/FR-2014-04-10/pdf/2014-08106.pdf |

# APPENDIX B

# LIST OF HEARING WITNESSES

## CALENDAR OF PUBLIC HEARING

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

**Subject:** Diffusion-Annealed, Nickel-Plated Flat-Rolled Steel Products from Japan

**Inv. No.:** 731-TA-1206 (Final)

**Date and Time:** April 1, 2014 - 9:30 a.m.

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

**OPENING REMARKS:**

Petitioner (**James R. Cannon, Jr.**, Cassidy Levy Kent (USA) LLP)
Respondents (**J. Christopher Wood**, Gibson, Dunn & Crutcher LLP)

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

Cassidy Levy Kent (USA) LLP
Washington, DC
on behalf of

Thomas Steel Strip Corporation

**William Boyd**, President *and* Chief Executive Officer, Thomas Steel Strip Corporation

**Jon Jarvis**, Vice President Finance, Thomas Steel Strip Corporation

**Michael C. Hartman**, Director of Quality & Technical Services, Thomas Steel Strip Corporation

**Stephen A. Wilkes**, Director, U.S. Governmental & Regulatory Affairs, Tata Steel

**Thomas Jones**, President, Local 3523 U.S.W.

**James R. Cannon, Jr.** )
) – OF COUNSEL
**Ulrika K. Swanson** )

**In Opposition to the Imposition of**
**Antidumping Duty Order:**

Gibson, Dunn & Crutcher LLP
Washington, D.C.
on behalf of

Nippon Steel & Sumitomo Metal Corporation ("NSSMC")
Toyo Kohan Co., Ltd. ("Toyo Kohan")

**Takahiro Aimoto**, Group Leader, Thin Steel Sales Group, Toyo Kohan

**Motoko Yamashita**, Group Leader, Business Development Group I, Toyo Kohan

**Naoko Kawaguchi**, Associate Manager, Thin Steel Sales Group, Toyo Kohan

**Kanta Kuroda**, General Manager, Tin Mill Products Global Marketing Department, Nippon Steel & Sumitomo Metal Corporation

**Hiroya Ohori**, President, HSL Japan

**J. Christopher Wood** ) – OF COUNSEL

Covington & Burling LLP
Washington, D.C.
on behalf of

The Procter & Gamble Company ("P&G")

**Linda J. Jacobsen**, Associate Director ESS Duracell Purchases, P&G

**Melissa M. Salo**, Purchasing Group Manager ESS Purchases, P&G

**Nitesh Singh**, Senior Purchasing Manager ESS Purchases, P&G

**David R. Grace** ) – OF COUNSEL

**In Opposition to the Imposition of**
**Antidumping Duty Order (continued):**

Curtis, Mallet-Prevost, Colt & Mosle LLP
Washington, D.C.
on behalf of

Panasonic Energy Corporation of America ("PECA")

**Carl Walton**, Director of Operations, PECA
(Materials Division)

**Miki Nakai**, Planning/Purchasing Manager, PECA
(Materials Division)

**James P. Durling** )
) – OF COUNSEL
**Daniel L. Porter** )

Crowell & Moring LLP
Washington, D.C.
on behalf of

Metal One America, Inc. ("Metal One")

**Stephen Philipson**, Sales Manager, International
Division, Metal One

**Alexander H. Schaefer** ) – OF COUNSEL

**REBUTTAL/CLOSING REMARKS:**

Petitioner (**James R. Cannon, Jr.**, Cassidy Levy Kent (USA) LLP)
Respondents (**James P. Durling**, Curtis, Mallet-Prevost, Colt & Mosle LLP)

# APPENDIX C

# SUMMARY DATA

**Table C-1 is confidential in its entirety.**

# APPENDIX D

# BASE AND TOTAL PRICES

After the hearing, staff requested that***, the firms that indicated that they used pricing formulas with a base price and raw material adjustment components, supply their base price data for the pricing products for which they provided data. *** provided these data in ***. The following figures show the ***. See *Part V* for more information on these data.

**Figure D-1**
**Diffusion-annealed, nickel-plated steel: *** base and total prices.**

* * * * * * *

# APPENDIX E

# U.S. PRODUCER'S FINANCIAL RESULTS EXCLUDING ADJUSTMENT FOR PROFIT OR LOSS ON INPUT PURCHASED FROM RELATED COMPANY

**Table E-1**
**Diffusion-annealed, nickel plated steel: Results of operations of Thomas Steel (excluding adjustment for profit or loss on input purchased from related company), 2011-13**

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