

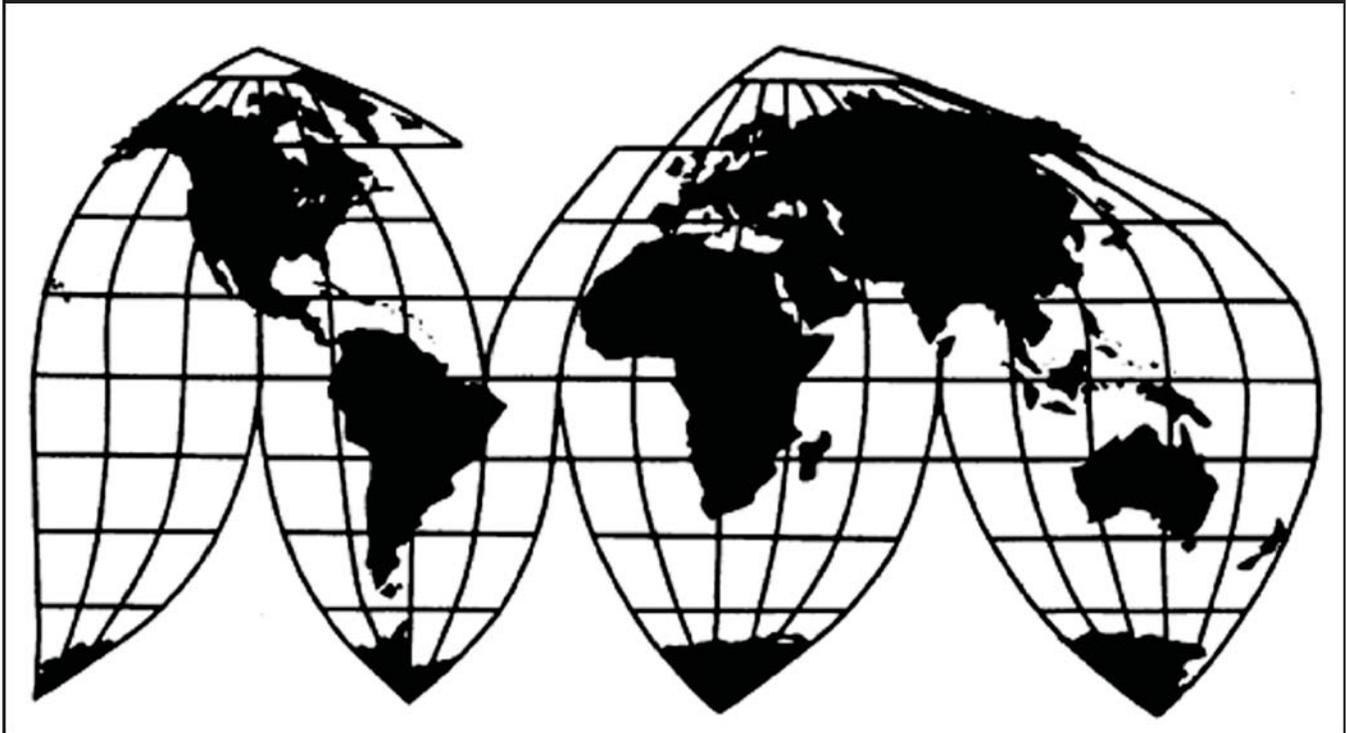
# Certain Activated Carbon From China

Investigation No. 731-TA-1103 (Second Review)

Publication 4797

June 2018

**U.S. International Trade Commission**



Washington, DC 20436

# U.S. International Trade Commission

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## UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigation No. 731-TA-1103 (Second Review)  
Certain Activated Carbon from China

### DETERMINATION

On the basis of the record<sup>1</sup> developed in the subject five-year review, the United States International Trade Commission (“Commission”) determines, pursuant to the Tariff Act of 1930 (“the Act”), that revocation of the antidumping duty order on certain activated carbon from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

### BACKGROUND

The Commission, pursuant to section 751(c) of the Act (19 U.S.C. 1675(c)), instituted this review on February 1, 2018 (83 F.R. 4681) and determined on May 7, 2018 that it would conduct an expedited review (83 F.R. 24345, May 25, 2018).

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



## Views of the Commission

Based on the record in this five-year review, we determine under section 751(c) of the Tariff Act of 1930, as amended (“the Tariff Act”), that revocation of the antidumping duty order on certain activated carbon (“activated carbon”) from China would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

### I. Background

#### A. The Original Investigation

On March 8, 2006, U.S. producers Calgon Carbon Corporation (“Calgon”) and Cabot Norit Americas Inc. (“Norit”) filed a petition with the Commission and the Department of Commerce (“Commerce”) alleging that imports of activated carbon from China were being sold at less than fair value (“LTFV”). On March 2, 2007, Commerce determined that imports of activated carbon from China were being sold at LTFV.<sup>1</sup> On April 13, 2007, the Commission found that an industry in the United States was materially injured by reason of LTFV imports of activated carbon from China.<sup>2</sup> On April 27, 2007, Commerce issued its antidumping duty order on imports of activated carbon from China.<sup>3</sup>

#### B. The First Review

The Commission instituted the first five-year review of the antidumping duty order on activated carbon from China on March 1, 2012.<sup>4</sup> The Commission found the domestic interested party and respondent interested party group responses to be adequate. In particular, it determined that the respondent interested group response was adequate because the responding parties accounted for a significant volume of subject imports from China in

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<sup>1</sup> *Final Determination of Sales at Less Than Fair Value: Certain Activated Carbon from the People’s Republic of China*, 72 Fed. Reg. 9508 (March 2, 2007) and *Notice of Amended Final Determination of Sales at Less Than Fair Value: Certain Activated Carbon from the People’s Republic of China*, 72 Fed. Reg. 15099 (March 30, 2007).

<sup>2</sup> *Certain Activated Carbon from China*, 72 Fed. Reg. 19723 (April 19, 2007). *Certain Activated Carbon from China*, Inv. No. 731-TA-1103 (Final), USITC Pub. 3913 (April 2007) (“Original Determination”).

<sup>3</sup> *Notice of Antidumping Duty Order: Certain Activated Carbon from the People’s Republic of China*, 72 Fed. Reg. 20988 (April 27, 2007).

<sup>4</sup> *Activated Carbon from China; Institution of a Five-Year Review*, 77 Fed. Reg. 12614 (March 1, 2012).

2011.<sup>5</sup> The Commission conducted a full review and reached an affirmative determination.<sup>6</sup> Commerce subsequently issued a notice continuing the order effective on March 18, 2013.<sup>7</sup>

### C. The Current Review

The Commission instituted the current five-year review on February 1, 2018.<sup>8</sup> The Commission received a joint response to its notice of institution from domestic interested parties Calgon, Norit, and ADA Carbon Solutions, LLC (“ADA”) (collectively the “Domestic Industry”) and found the Domestic Industry’s group response to be adequate. The Commission also received a joint response from respondent interested parties Carbon Activated Corporation (“CAC”), an importer, and Carbon Activated (Tianjin) Co., Ltd. (“CA Tianjin”), a foreign exporter, (collectively the “Respondents”) but found the Respondents’ group response to be inadequate because they did not account for a substantial share of imports or exports of subject merchandise in 2017.<sup>9</sup> The Commission did not find any circumstances that would warrant conducting a full review and therefore determined that it would conduct an expedited review of the order pursuant to section 751(c)(3) of the Tariff Act.<sup>10</sup> On June 4, 2018, the Domestic Industry and Respondents filed final comments with the Commission pursuant to 19 C.F.R. § 207.62(d).

*Data/Response Coverage.* U.S. industry data for this review are based on information provided by the Domestic Industry in response to the notice of institution and supplemental responses. The Domestic Industry estimates that it accounted for 100 percent of domestic production of activated carbon in 2017.<sup>11</sup> U.S. import data are based on Commerce’s official import statistics.<sup>12</sup> Foreign industry data and related information are based on information from the original investigation, the first review, Global Trade Atlas (“GTA”) data, public data, and information provided by the parties.<sup>13</sup> U.S. importer CAC accounted for approximately \*\*\* percent of U.S. imports of activated carbon in 2017; foreign exporter CA Tianjin accounted for

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<sup>5</sup> First Review, Explanation of Commission Determination on Adequacy.

<sup>6</sup> *Certain Activated Carbon from China*, Investigation No. 731-TA-1103 (Review), USITC Pub. 4381 (Feb. 2013) (“First Review”) at 1; *Certain Activated Carbon from China*, 78 Fed. Reg. 13894 (March 1, 2013).

<sup>7</sup> *Certain Activated Carbon from the People’s Republic of China: Continuation of Antidumping Duty Order*, 78 Fed. Reg. 16654 (March 18, 2013).

<sup>8</sup> *Certain Activated Carbon from China: Institution of a Five-Year Review*, 83 Fed. Reg. 4681 (February 1, 2018).

<sup>9</sup> Vice Chairman Johanson and Commissioner Broadbent found the respondent interested party group response to be adequate and voted to conduct a full review of the order.

<sup>10</sup> Second Review, Explanation of Commission Determination on Adequacy.

<sup>11</sup> Confidential Report, Memorandum INV-QQ-046 (April 25, 2018) (“CR”) at Table I-1, Public Report (“PR”) at Table I-1.

<sup>12</sup> CR/PR at Table I-4.

<sup>13</sup> Due to the expedited nature of this investigation, we have relied on the information available, which includes import and export data, and information from industry reports that may include products that are outside the scope of investigation.

\*\*\* percent of estimated exports of activated carbon from China to the United States in that year.<sup>14</sup>

#### **D. Respondents' Comments on the Commission's Determination to Conduct an Expedited Review**

As an initial matter, we address Respondents' arguments that the Commission improperly voted to expedite this review, and that it should reconsider and conduct a full review.<sup>15</sup> In their final comments, Respondents for the first time argue that, at \*\*\* percent of subject imports and \*\*\* percent of exports of subject merchandise in 2017, they accounted for a substantial share of total imports and exports, and are therefore entitled to a full review. Further, they contend that the facts available provision of the statute<sup>16</sup> should not be applied to them, and that the Commission acted arbitrarily because it voted for a full review under similar circumstances in the first review.

We decline to reconsider our adequacy determination. Respondents themselves stated in their comments on adequacy that the facts were "sufficient to support an expedited review by the Commission" with no argument proffered at the adequacy phase regarding the adequacy of their group response.<sup>17</sup> Furthermore, the Commission found each Respondent's individual response to be adequate, so the Commission is not applying the facts available provision to these parties. Rather, the group response was deemed to not be adequate by a majority of the Commission.<sup>18</sup>

The Commission has statutory authority to conduct expedited reviews if interested parties provide inadequate responses, and Commission rules provide that it will assess the aggregate interested party response to its notice of institution. Whether responses are adequate is evaluated on a case-by-case basis, and the Commission has never set strict numerical guidelines with respect to what constitutes an adequate group response. The finding by the majority of the Commission regarding the adequacy of the responding interested party group response in this review, and the majority's subsequent determination to conduct an expedited review, were consistent with the Commission's earlier guidance when its five-year

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<sup>14</sup> CR/PR at Table I-1. CA Tianjin's estimated share of exports to the United States was calculated as the quantity of its reported exports divided by the quantity of total U.S. imports from China reported for 2017 using Commerce's official import statistics. CR at I-3; PR at I-2.

<sup>15</sup> Respondents' Comments on Second Sunset Determination dated June 4, 2018 ("Respondents' Final Comments") at 1-6.

<sup>16</sup> 19 U.S.C. §1675(c)(3)(B).

<sup>17</sup> Respondents' Comments on Adequacy of Domestic Interested Parties' Response dated April 16, 2018 ("Respondents' Comments on Adequacy") at 1 ("Carbon Activated believes that the facts are sufficient to support an expedited review by the Commission leading to the conclusion that revocation of the antidumping duty ("AD") order on Activated Carbon from China would not likely lead to the continuation or recurrence of material injury.").

<sup>18</sup> Second Review, Explanation of Commission Determination on Adequacy.

review regulations were promulgated and with its discretion to determine when a group response is adequate.<sup>19</sup>

Respondents argue that the coverage by the responses in the adequacy phase of this review is similar to that in the first review. However, Respondents incorrectly compare the participation by foreign producers and exporters through questionnaire responses in the first full review<sup>20</sup> to the response data for the adequacy determination in the current review.<sup>21</sup> In the adequacy phase of the first review, the response by responding interested parties represented a substantial share of subject imports, with four of the six largest importers of subject merchandise responding to the Commission's notice of institution, while only one importer responded to the notice of institution in this review.<sup>22</sup> As noted above, the respondent interested parties' group response at the adequacy phase in the current review accounted for only \*\*\* percent of subject imports and \*\*\* percent of exports of subject merchandise to the United States in 2017. Therefore, the participation levels at the adequacy phase in the two reviews, contrary to respondents' argument, are not similar.

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<sup>19</sup> 19 U.S.C. §1675(c)(3)(B); 19 C.F.R. §207.62. Respondents argue that the Commission applied a more rigorous substantial share standard for adequacy in this review than the significant volume standard for adequacy it applied in the first review. Respondent's Final Comments at 3. Commission guidance that originally was set out when the Commission's five-year review regulations were promulgated stated that respondent group responses "accounting for less than 25 percent of ...subject imports or production of subject merchandise ... will normally be considered to be a strong indication of inadequate responses by ... foreign producers/importers..." *Notice of Proposed Amendments to Rules of Practice and Procedure, International Trade Commission*, 62 Fed. Reg. 55185, 55190 (Oct. 23, 1997). In finalizing its regulations, the Commission did not adopt numerical guidelines, noting however, that the Commission has the discretion to take into account several considerations in evaluating adequacy, and both the considerations examined and the weight they are accorded may vary from review to review. *Notice of Final Rulemaking, Rules of Practice and Procedure, International Trade Commission*, 63 Fed. Reg. 30599, 30603 (June 5, 1998) ("NOFR"). The Commission has discretion to consider the level of respondent group responses as a share of, and in the context of, total imports and exports, as it did here. The NOFR states that examining the level of interested parties' responses "encompasses an examination of the responding parties' share of ...subject imports, or foreign production or exports." NOFR at 30603.

<sup>20</sup> In the first review (which was a full review), foreign producer questionnaires (not the responses to the notice of institution) accounted for approximately \*\*\* percent of Chinese production of activated carbon in 2011 and approximately \*\*\* percent of exports from China to the United States in that year. CR at I-33; Memorandum INV-LL-010 dated January 23, 2013, EDIS No. 641160 ("First Review CR") at IV-11.

<sup>21</sup> Respondents' Final Comments at 1, 4.

<sup>22</sup> Compare First Review CR at I-1, n.4, with First Review CR at IV-4. CR at I-2-3; PR at I-1-2 & Table I-1. The actual share of imports accounted for by the respondent group response in the first review is contained in a privileged document, but consistent with the higher number of importers responding in the adequacy phase of the first review, it is greater than the share of imports accounted for by the respondent group response in this review.

Respondents also argue that the Commission acted arbitrarily because Commissioner Kearns voted in this adequacy determination but not in the *Folding Gift Boxes from China* adequacy determination which was held on the same day.<sup>23</sup> Their argument is unavailing. Both the CIT and the Federal Circuit’s predecessor, the U.S. Court of Customs and Patent Appeals,<sup>24</sup> have acknowledged that an institutional response from the Commission does not *require* that all Commissioners participate in the proceeding. On the contrary, as long as a majority of the sitting Commissioners participate in a determination, the determination constitutes valid action by the Commission.<sup>25</sup> Moreover, if a Commissioner chooses not to participate in a determination, the Courts may not inquire into the Commissioner’s reasons for not voting.<sup>26</sup>

## II. Domestic Like Product and Industry

### A. Domestic Like Product

In making its determination under section 751(c) of the Tariff Act, the Commission defines the “domestic like product” and the “industry.”<sup>27</sup> 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 under this subtitle.”<sup>28</sup> The Commission’s practice in five-year reviews is to examine the domestic like product definition from the original

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<sup>23</sup> We note that Commissioner Kearns voted in a third adequacy determination held that day, *Fresh Tomatoes from Mexico: Investigation No. 731-TA-747 (Fourth Review)*.

<sup>24</sup> Decisions of the Court of Customs and Patent Appeals are considered to have the same binding effect as the decisions of the Federal Circuit. *See South Corp. v. United States*, 690 F.2d 1368, 1368 (Fed. Cir. 1982).

<sup>25</sup> *Voss International Corp. v. United States*, 628 F.2d 1328, 1332 (C.C.P.A. 1980) (in an investigation where one Commissioner abstained from voting, one was absent, and four Commissioners voted, two affirmatively and two negatively, the Court held that “a valid affirmative determination of injury ... was reached ... by the Commission, since a legally constituted quorum of four members did participate in the determination of injury by voting, and there was an evenly divided vote.”); *Nippon Steel Corp. v. United States*, 433 F. Supp.2d 1336, 1341 (Ct. Int’l Trade 2006) (Commissioner Miller, who was in office at the time of the vote but departed shortly thereafter, had prerogative to abstain in voting on remand).

<sup>26</sup> *Nippon Steel*, 433 F. Supp. 2d at 1341, referring to *Voss International*, 628 F.2d at 1332.

<sup>27</sup> 19 U.S.C. § 1677(4)(A).

<sup>28</sup> 19 U.S.C. § 1677(10); *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); *Timken Co. v. United States*, 913 F. Supp. 580, 584 (Ct. Int’l Trade 1996); *Torrington Co. v. United States*, 747 F. Supp. 744, 748-49 (Ct. Int’l Trade 1990), *aff’d*, 938 F.2d 1278 (Fed. Cir. 1991); *see also* S. Rep. No. 249, 96<sup>th</sup> Cong., 1<sup>st</sup> Sess. 90-91 (1979).

investigation and consider whether the record indicates any reason to revisit the prior findings.<sup>29</sup>

Commerce has defined the imported merchandise within the scope of the order under review as follows:

*The merchandise subject to the order is certain activated carbon. Certain activated carbon is a powdered, granular, or pelletized carbon product obtained by “activating” with heat and steam various materials containing carbon, including but not limited to coal (including bituminous, lignite, and anthracite), wood, coconut shells, olive stones, and peat. The thermal and steam treatments remove organic materials and create an internal pore structure in the carbon material. The producer can also use carbon dioxide gas (CO<sub>2</sub>) in place of steam in this process. The vast majority of the internal porosity developed during the high temperature steam (or CO<sub>2</sub> gas) activated process is a direct result of oxidation of a portion of the solid carbon atoms in the raw material, converting them into a gaseous form of carbon.*

*The scope of the order covers all forms of activated carbon that are activated by steam or CO<sub>2</sub>, regardless of the raw material, grade, mixture, additives, further washing or post-activation chemical treatment (chemical or water washing, chemical impregnation or other treatment), or product form. Unless specifically excluded, the scope of the order covers all physical forms of certain activated carbon, including powdered activated carbon (“PAC”), granular activated carbon (“GAC”), and pelletized activated carbon.*

*Excluded from the scope of the order are chemically activated carbons. The carbon-based raw material used in the chemical activation process is treated with a strong chemical agent, including but not limited to phosphoric acid, zinc chloride, sulfuric acid or potassium hydroxide, that dehydrates molecules in the raw material, and results in the formation of water that is removed from the raw material by moderate heat treatment. The activated carbon created by chemical activation has internal porosity developed primarily due to the action of the chemical dehydration agent. Chemically activated carbons are typically used to activate raw materials with a lignocellulosic component such as cellulose, including wood, sawdust, paper mill waste and peat.*

*To the extent that an imported activated carbon product is a blend of steam and chemically activated carbons, products containing 50 percent or more steam (or CO<sub>2</sub> gas) activated carbons are within the scope, and those containing more than 50 percent*

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<sup>29</sup> See, e.g., *Internal Combustion Industrial Forklift Trucks from Japan*, Inv. No. 731-TA-377 (Second Review), USITC Pub. 3831 at 8-9 (Dec. 2005); *Crawfish Tail Meat from China*, Inv. No. 731-TA-752 (Review), USITC Pub. 3614 at 4 (July 2003); *Steel Concrete Reinforcing Bar from Turkey*, Inv. No. 731-TA-745 (Review), USITC Pub. 3577 at 4 (Feb. 2003).

*chemically activated carbons are outside the scope. This exclusion language regarding blended material applies only to mixtures of steam and chemically activated carbons.*

*Also excluded from the scope are reactivated carbons. Reactivated carbons are previously used activated carbons that have had adsorbed materials removed from their pore structure after use through the application of heat, steam and/or chemicals.*

*Also excluded from the scope is activated carbon cloth. Activated carbon cloth is a woven textile fabric made of or containing activated carbon fibers. It is used in masks and filters and clothing of various types where a woven format is required.*

*Any activated carbon meeting the physical description of subject merchandise provided above that is not expressly excluded from the scope is included within the scope. The products subject to the order are currently classifiable under the Harmonized Tariff Schedule of the United States (“HTSUS”) subheading 3802.10.00. Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the scope of the order is dispositive.<sup>30</sup>*

The scope of this review is essentially unchanged from that in the original investigation and prior review.<sup>31</sup> Activated carbon is carbon material obtained by “activating” various materials containing high levels of carbon, including coal, wood, and coconut shells, by heating in the presence of steam or carbon dioxide. The thermal treatments increase the porosity and surface area, which allows greater adsorption of chemical species onto the solid carbon. The surface area and pore structure of activated carbon depend greatly on the raw materials and processing methods used. The primary use for activated carbon is the separation of small concentrations of chemical species from liquid and gas streams.<sup>32</sup>

Coal is the primary raw material for activated carbon in both the United States and China. Coal-based activated carbon is used widely by municipal water treatment authorities to remove undesirable tastes and odors from drinking water and to eliminate contaminants from industrial waste water. Other uses of coal-based activated carbon include removing color and impurities from food and chemicals, as well as removing mercury and dioxins from flue gas emissions. Coconut-based activated carbon is used primarily in the gold mining and cigarette filter industries, as well as being a price premium product for home water filters. Activated carbon is non-toxic and has no adverse environmental effects, although once activated carbon has been used, it may take on the toxicity of adsorbed materials. Activated carbon is sold in three basic forms: powdered, granular, and pelletized.<sup>33</sup>

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<sup>30</sup> *Certain Activated Carbon from the People’s Republic of China: Final Results of Expedited Sunset Review of the Antidumping Duty Order*, 83 Fed. Reg. 12476 (June 11, 2018).

<sup>31</sup> Original Determination at 5-6; First Review at 4-5; CR at I-11-12; PR at I-8-9.

<sup>32</sup> CR at I-13-15; PR at I-10-11. Original Determination at 3.

<sup>33</sup> CR at I-13-17; PR at I-10-12. Original Determination at 3 & n.4.

In the original investigation, the Commission considered and rejected respondents' arguments that the domestic like product should be defined more broadly than the scope to include chemically activated carbon and reactivated carbon. The Commission found one domestic like product that was coextensive with Commerce's scope of investigation, activated carbon.<sup>34</sup>

In the first five-year review, the Commission found the record did not indicate that the characteristics and uses of domestically produced activated carbon had changed since the prior proceedings or that the like product definition should be revisited. None of the responding parties argued for a different definition of the domestic like product, and the Commission found a single domestic like product that was coextensive with Commerce's scope of the investigation, activated carbon.<sup>35</sup>

In the current review, the record does not indicate any changes to the characteristics of activated carbon since the prior proceedings.<sup>36</sup> The Domestic Industry agrees with the Commission's definition of the domestic like product in the prior proceedings, and Respondents do not object to it. We therefore define the domestic like product as activated carbon that is coextensive with Commerce's scope of investigation.

## **B. Domestic Industry and Related Parties**

Section 771(4)(A) of the Tariff Act defines the relevant industry 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."<sup>37</sup> 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.

This review raises the issue of whether appropriate circumstances exist to exclude any producer from the domestic industry pursuant to section 771(4)(B) of the Tariff Act, known as the related parties provision. This provision allows the Commission, if appropriate circumstances exist, to exclude from the domestic industry producers that are related to an exporter or importer of subject merchandise or which are themselves importers.<sup>38</sup> Exclusion of

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<sup>34</sup> Original Determination, USITC Pub. 3913 at 6-10.

<sup>35</sup> First Review, USITC Pub. 4381 at 6.

<sup>36</sup> See generally CR at I-11-20; PR at I-8-14.

<sup>37</sup> 19 U.S.C. § 1677(4)(A). The definitions in 19 U.S.C. § 1677 are applicable to the entire subtitle containing the antidumping and countervailing duty laws, including 19 U.S.C. §§ 1675 and 1675a. See 19 U.S.C. § 1677.

<sup>38</sup> See *Torrington Co v. United States*, 790 F. Supp. 1161, 1168 (Ct. Int'l Trade 1992), *aff'd without opinion*, 991 F.2d 809 (Fed. Cir. 1993); *Sandvik AB v. United States*, 721 F. Supp. 1322, 1331-32 (Ct. Int'l Trade 1989), *aff'd mem.*, 904 F.2d 46 (Fed. Cir. 1990); *Empire Plow Co. v. United States*, 675 F. Supp. 1348, 1352 (Ct. Int'l Trade 1987).

such a producer is within the Commission's discretion based upon the facts presented in each investigation.<sup>39</sup>

In the original investigations, the Commission considered whether appropriate circumstances existed to exclude domestic producers Calgon, Norit, and California Carbon from the domestic industry based on the related parties provision. All three U.S. producers imported subject merchandise and Calgon was \*\*\*.<sup>40</sup> The Commission found that appropriate circumstances did not exist to exclude Calgon or Norit from the domestic industry, as their interests lay primarily in production rather than importation and neither had significantly benefitted from its subject imports.<sup>41</sup> In contrast, the Commission found that appropriate circumstances existed to exclude California Carbon from the domestic industry as its interest lay primarily in importation rather than production, based on its \*\*\*.<sup>42</sup> The Commission thus defined the domestic industry as all known producers of activated carbon, except for California Carbon.

In the first review, the Commission considered whether appropriate circumstances existed to exclude U.S. producer Calgon from the domestic industry due to its imports of subject merchandise and its foreign affiliation. However, the Commission did not exclude it from the domestic industry, again finding that Calgon's interests lay primarily in domestic production rather than importation.<sup>43</sup> The Commission thus defined the domestic industry as all domestic producers of activated carbon.

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<sup>39</sup> The primary factors the Commission has examined in deciding whether appropriate circumstances exist to exclude a related party include the following:

- (1) the percentage of domestic production attributable to the importing producer;
- (2) the reason the U.S. producer has decided to import the product subject to investigation (whether the firm benefits from the LTFV sales or subsidies or whether the firm must import in order to enable it to continue production and compete in the U.S. market);
- (3) whether inclusion or exclusion of the related party will skew the data for the rest of the industry;
- (4) the ratio of import shipments to U.S. production for the imported product; and
- (5) whether the primary interest of the importing producer lies in domestic production or importation. *Changzhou Trina Solar Energy Co. v. USITC*, 100 F. Supp.3d 1314, 1326-31(Ct. Int'l. Trade 2015); see also *Torrington Co. v. United States*, 790 F. Supp. at 1168.

<sup>40</sup> Original Determination, Confidential Version, EDIS Document No. 273377 at 15.

<sup>41</sup> Original Determination, Confidential Version, EDIS Document No. 273377 at 15-16. Calgon and Norit's ratios of subject imports to domestic production in 2006 were, respectively, \*\*\* and \*\*\*. *Id.*

<sup>42</sup> California Carbon \*\*\*. Original Determination, Confidential Version, EDIS Document No. 273377 at 17.

<sup>43</sup> Calgon's ratio of subject imports to domestic production ranged between \*\*\* and \*\*\* percent during the first review period. First Review, Confidential Version, EDIS Document 504816 at 8-9 & n. 22. The Commission also considered the fact that domestic producer \*\*\* purchased subject imports during the review period but found that it had not controlled large volumes of subject imports and that it was not a related party. *Id.* at 9 & n.21.

In the current review, the Domestic Industry states that it agrees with the Commission's prior definition of the domestic industry.<sup>44</sup> Respondents do not object to it.<sup>45</sup> During the review period, Calgon imported subject merchandise and was affiliated with a wholly owned subsidiary, Chinese producer/exporter Calgon Carbon (Suzhou) Co. Ltd.<sup>46</sup> Thus, Calgon is a related party, and we must determine whether appropriate circumstances exist to exclude Calgon from the domestic industry.

Calgon was \*\*\* domestic producer of activated carbon in 2017 when it produced \*\*\* of activated carbon. It \*\*\* into the United States in 2013 and \*\*\* in 2014; it has not imported any subject merchandise since 2014.<sup>47</sup> No party has advocated for its exclusion from the domestic industry. Given Calgon's focus on domestic production, and the lack of any evidence that it has benefitted from its relationship with its subsidiary, we find that appropriate circumstances do not exist to exclude Calgon from the domestic industry. We therefore define the domestic industry as all domestic producers of activated carbon.

### **III. Revocation of the Antidumping Duty Order Would Likely Lead to Continuation or Recurrence of Material Injury Within a Reasonably Foreseeable Time**

#### **A. Legal Standards**

In a five-year review conducted under section 751(c) of the Tariff Act, Commerce will revoke an antidumping or countervailing duty order unless: (1) it makes a determination that dumping or subsidization is likely to continue or recur and (2) the Commission makes a determination that revocation of the antidumping or countervailing duty order "would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time."<sup>48</sup> The SAA states that "under the likelihood standard, the Commission will engage in a counterfactual analysis; it must decide the likely impact in the reasonably foreseeable future of an important change in the status quo – the revocation or termination of a proceeding and the

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<sup>44</sup> Domestic Industry Substantive Response to the Notice of Institution (March 5, 2018) ("Domestic Industry's Response") at 19.

<sup>45</sup> Respondents' Substantive Response to Notice of Initiation (March 5, 2018) ("Respondents' Response") at 12.

<sup>46</sup> CR at I-26; PR at I-18. Domestic Industry's Response at 16, Domestic Industry's Response to Additional Questions (March 22, 2018) ("Domestic Industry Supplemental Response") at 2. Norit and ADA have not imported subject merchandise during the review period. The Domestic Industry reports that California Carbon no longer produces activated carbon, but instead imports activated carbon from China and focuses its operations on reactivation. Domestic Industry's Response at 16; Domestic Industry Supplemental Response at 2-3.

<sup>47</sup> Domestic Industry's Supplemental Response at 2.

<sup>48</sup> 19 U.S.C. § 1675a(a).

elimination of its restraining effects on volumes and prices of imports.”<sup>49</sup> Thus, the likelihood standard is prospective in nature.<sup>50</sup> The U.S. Court of International Trade has found that “likely,” as used in the five-year review provisions of the Act, means “probable,” and the Commission applies that standard in five-year reviews.<sup>51</sup>

The statute states that “the Commission shall consider that the effects of revocation or termination may not be imminent, but may manifest themselves only over a longer period of time.”<sup>52</sup> According to the SAA, a “‘reasonably foreseeable time’ will vary from case-to-case, but normally will exceed the ‘imminent’ timeframe applicable in a threat of injury analysis in original investigations.”<sup>53</sup>

Although the standard in a five-year review is not the same as the standard applied in an original investigation, it contains some of the same fundamental elements. The statute provides that the Commission is to “consider the likely volume, price effect, and impact of imports of the subject merchandise on the industry if the orders are revoked or the suspended investigation is terminated.”<sup>54</sup> It directs the Commission to take into account its prior injury determination, whether any improvement in the state of the industry is related to the order or the suspension agreement under review, whether the industry is vulnerable to material injury if an order is revoked or a suspension agreement is terminated, and any findings by Commerce

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<sup>49</sup> SAA at 883-84. The SAA states that “{t}he likelihood of injury standard applies regardless of the nature of the Commission’s original determination (material injury, threat of material injury, or material retardation of an industry). Likewise, the standard applies to suspended investigations that were never completed.” *Id.* at 883.

<sup>50</sup> While the SAA states that “a separate determination regarding current material injury is not necessary,” it indicates that “the Commission may consider relevant factors such as current and likely continued depressed shipment levels and current and likely continued {sic} prices for the domestic like product in the U.S. market in making its determination of the likelihood of continuation or recurrence of material injury if the order is revoked.” SAA at 884.

<sup>51</sup> See *NMB Singapore Ltd. v. United States*, 288 F. Supp. 2d 1306, 1352 (Ct. Int’l Trade 2003) (“‘likely’ means probable within the context of 19 U.S.C. § 1675(c) and 19 U.S.C. § 1675a(a)”), *aff’d mem.*, 140 Fed. Appx. 268 (Fed. Cir. 2005); *Nippon Steel Corp. v. United States*, 26 CIT 1416, 1419 (2002) (same); *Usinor Industeel, S.A. v. United States*, 26 CIT 1402, 1404 nn.3, 6 (2002) (“more likely than not” standard is “consistent with the court’s opinion;” “the court has not interpreted ‘likely’ to imply any particular degree of ‘certainty’”); *Indorama Chemicals (Thailand) Ltd. v. United States*, 26 CIT 1059, 1070 (2002) (“standard is based on a likelihood of continuation or recurrence of injury, not a certainty”); *Usinor v. United States*, 26 CIT 767, 794 (2002) (“‘likely’ is tantamount to ‘probable,’ not merely ‘possible’”).

<sup>52</sup> 19 U.S.C. § 1675a(a)(5).

<sup>53</sup> SAA at 887. Among the factors that the Commission should consider in this regard are “the fungibility or differentiation within the product in question, the level of substitutability between the imported and domestic products, the channels of distribution used, the methods of contracting (such as spot sales or long-term contracts), and lead times for delivery of goods, as well as other factors that may only manifest themselves in the longer term, such as planned investment and the shifting of production facilities.” *Id.*

<sup>54</sup> 19 U.S.C. § 1675a(a)(1).

regarding duty absorption pursuant to 19 U.S.C. § 1675(a)(4).<sup>55</sup> The statute further provides that the presence or absence of any factor that the Commission is required to consider shall not necessarily give decisive guidance with respect to the Commission's determination.<sup>56</sup>

In evaluating the likely volume of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether the likely volume of imports would be significant either in absolute terms or relative to production or consumption in the United States.<sup>57</sup> In doing so, the Commission must consider "all relevant economic factors," including four enumerated factors: (1) any likely increase in production capacity or existing unused production capacity in the exporting country; (2) existing inventories of the subject merchandise, or likely increases in inventories; (3) the existence of barriers to the importation of the subject merchandise into countries other than the United States; and (4) 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.<sup>58</sup>

In evaluating the likely price effects of subject imports if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider whether there is likely to be significant underselling by the subject imports as compared to the domestic like product and whether the subject imports are likely to enter the United States at prices that otherwise would have a significant depressing or suppressing effect on the price of the domestic like product.<sup>59</sup>

In evaluating the likely impact of imports of subject merchandise if an order under review is revoked and/or a suspended investigation is terminated, the Commission is directed to consider all relevant economic factors that are likely to have a bearing on the state of the industry in the United States, including but not limited to the following: (1) likely declines in output, sales, market share, profits, productivity, return on investments, and utilization of capacity; (2) likely negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment; and (3) likely negative effects on the existing development and production efforts of the industry, including efforts to develop a derivative or more advanced version of the domestic like product.<sup>60</sup> All relevant economic factors are to be considered within the context of the business cycle and the conditions of competition that are

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<sup>55</sup> 19 U.S.C. § 1675a(a)(1). In its second administrative review in 2010, Commerce determined that antidumping duties were being absorbed on Jacobi Carbon AB's U.S. sales of the subject merchandise through its affiliated importer. CR at I-9; PR at I-6.

<sup>56</sup> 19 U.S.C. § 1675a(a)(5). Although the Commission must consider all factors, no one factor is necessarily dispositive. SAA at 886.

<sup>57</sup> 19 U.S.C. § 1675a(a)(2).

<sup>58</sup> 19 U.S.C. § 1675a(a)(2)(A-D).

<sup>59</sup> See 19 U.S.C. § 1675a(a)(3). The SAA states that "{c}onsistent with its practice in investigations, in considering the likely price effects of imports in the event of revocation and termination, the Commission may rely on circumstantial, as well as direct, evidence of the adverse effects of unfairly traded imports on domestic prices." SAA at 886.

<sup>60</sup> 19 U.S.C. § 1675a(a)(4).

distinctive to the industry. As instructed by the statute, we have considered the extent to which any improvement in the state of the domestic industry is related to the orders under review and whether the industry is vulnerable to material injury upon revocation.<sup>61</sup>

No respondent Chinese producer participated in this expedited review, and therefore there is no data on the record from Chinese producers regarding such factors as capacity, production, and shipment patterns. Chinese exporter CA Tianjin provided data on its exports to the United States. The record, therefore, contains limited new information with respect to the activated carbon industry in China. There is also limited information on the activated carbon market in the United States during the period of review. Although we received information from the Domestic Industry and U.S. importer CAC we did not receive any purchaser responses to our questionnaires.<sup>62</sup> Accordingly, for our determination, we rely as appropriate on the facts available from the original investigation and first review, and the limited new information on the record in this second five-year review.

## **B. Conditions of Competition and the Business Cycle**

In evaluating the likely impact of the subject imports on the domestic industry if an order is revoked, the statute directs the Commission to consider all relevant economic factors “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>63</sup> The following conditions of competition inform our determination.

### **1. Demand Conditions**

In the original investigation, the Commission found that apparent U.S. consumption increased by \*\*\* percent over the period of investigation, and market participants generally agreed that demand for activated carbon had increased. Petitioners stated demand for activated carbon was expected to grow moderately over the next several years due to new regulations governing clean air and water, the increased popularity of bottled water and other beverages, and new mercury emissions standards for coal utilities.<sup>64</sup>

In the first review, the Commission found that demand for activated carbon continued to increase; it also found that mercury abatement applications in coal-fired electric power plants contributed importantly to the increase in consumption. Market participants differed on how U.S. Environmental Protection Agency (“EPA”) mercury abatement regulations, which

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<sup>61</sup> The SAA states that in assessing whether the domestic industry is vulnerable to injury if the order is revoked, 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 may also demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.” SAA at 885.

<sup>62</sup> CR/PR at I-1 & n.4.

<sup>63</sup> 19 U.S.C. § 1675a(a)(4).

<sup>64</sup> Original Determination, USITC Pub. 3913 at 13; Confidential Original Determination, EDIS Document No. 27377 at 18.

went into effect in April 2012, would affect future demand for activated carbon. Some market participants believed that these new regulations could cause demand for activated carbon to rise, while others believed that the regulations would not have that effect. Some coal-fired electrical plant operators were considering converting to natural gas as a less expensive energy source, or shutting down due to the anticipated cost of the new regulations, either of which would reduce the effect of the EPA regulation on future demand of activated carbon. The Commission noted that the new regulations were subject to legal challenges.<sup>65</sup>

In this second five-year review, apparent U.S. consumption of activated carbon was 496.2 million pounds in 2017, up \*\*\* percent since 2006, as both domestic producers' U.S. shipments and total U.S. imports increased.<sup>66</sup> Respondents argue that demand will likely continue to increase.<sup>67</sup> Although the Domestic Industry acknowledges that demand has increased in recent years, it states that the increase in demand for powdered activated carbon anticipated in the first five-year review did not occur due to continued litigation over the mercury abatement regulations and continued low prices in the United States for natural gas. The low natural gas prices have encouraged the conversion of coal-fired electricity plants, which use activated carbon, to natural gas.<sup>68</sup>

## 2. Supply Conditions

In the original investigations, the Commission found that the principal suppliers of activated carbon to the U.S. market were domestic producers, followed by subject imports and nonsubject imports. The Commission determined that all the activated carbon produced domestically and virtually all the subject imports were coal-based, while almost all the nonsubject imports were coconut-based. The Commission found that the domestic producers' reported capacity utilization increased over the period. The domestic producers claimed that their facilities were designed for, and depended on, running at full capacity, except for scheduled maintenance shutdowns.<sup>69</sup>

In the first review, the Commission found that the domestic industry's capacity increased over the period of review, and that the domestic industry was the largest supplier to the U.S. market, followed by nonsubject imports and then subject imports. Nonsubject imports were predominantly coconut-based activated carbon, while producers in both the United States and China predominantly produced coal-based activated carbon.<sup>70</sup>

In this second five-year review, U.S. producers' shipments accounted for 58.3 percent of apparent U.S. consumption in 2017, nonsubject imports accounted for 38.2 percent, and

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<sup>65</sup> First Review, USITC Pub. 4381 at 10-11.

<sup>66</sup> CR\PR at Table I-5.

<sup>67</sup> Respondents' Final Comments at 12.

<sup>68</sup> Domestic Industry's Final Comments in Support of Continuation of Antidumping Order ("Domestic Industry's Final Comments") at 4; Domestic Industry's Response at 19; CR at I-17; PR at I-12.

<sup>69</sup> Original Determination, USITC Pub. 3913 at 14-15.

<sup>70</sup> First Review, USITC Pub. 4381 at 12 & n.59.

subject imports accounted for 3.5 percent.<sup>71</sup> The leading sources of nonsubject imports in the U.S. market were India, Sri Lanka, the Philippines, Germany, Australia, and Canada.<sup>72</sup> Both the Domestic Industry and Respondents acknowledge that nonsubject imports have increased their share of the U.S. market since the original investigation.<sup>73</sup> The Domestic Industry maintains that domestic producers have the ability to respond to changes in demand for activated carbon \*\*\*.<sup>74</sup> <sup>75</sup> Activated carbon from China is not currently subject to other antidumping or countervailing duty investigations outside the United States.<sup>76</sup>

### 3. Substitutability and Other Conditions

In the original investigation, a majority of market participants reported that the domestic like product and subject imports were generally interchangeable, although the data were more mixed regarding interchangeability between the domestic like product and the nonsubject imports. The Commission determined that the most commonly stated reason for the lack of interchangeability was the unavailability in the United States of domestically produced coconut-based activated carbon. The Commission noted the different physical structures of coconut- and coal-based activated carbon, and noted that Petitioners acknowledged that they were not completely interchangeable.<sup>77</sup> In particular, coconut-based activated carbon usually had greater hardness and smaller pores than carbon-based activated carbon, making it more suitable for certain applications, such as gold mining, cigarette filters, and specialty-oriented home water filters.<sup>78</sup> The Commission also found that the price of coal, the principal input in the domestic producers' manufacture of activated carbon, increased significantly over the period of investigation. The Commission further found that electricity and natural gas, also used in the production process, accounted for an increasing share of the total cost of goods sold ("COGS") because of increasing energy costs over the period.<sup>79</sup>

In the first review, the Commission found that the domestic like product and subject imports were generally substitutable. The Commission found that this substitutability was not

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<sup>71</sup> CR/PR at Table I-6.

<sup>72</sup> Respondents' Response at 2 & Exhibit 1.

<sup>73</sup> Domestic Industry's Final Comments at 4-5; Respondents' Final Comments at 9-10.

<sup>74</sup> Domestic Industry Response at 18. The Domestic Industry states that U.S. production was higher in 2017 than in 2011 and 2006. Domestic Industry's Final Comments at 4.

<sup>75</sup> On March 9, 2018, Japanese firm Kuraray Co., Ltd. acquired Calgon. Respondents argue that the Domestic Industry failed to disclose this important change to the domestic industry which took place four days after the Domestic Industry filed their Response to the Notice of Institution. Respondents' Comments on Adequacy at 1-2.

<sup>76</sup> CR at I-38; PR at I-28. Respondents note that the European Union ("EU") repealed the antidumping duties on powdered activated carbon on August 18, 2014. Respondents' Comments on Adequacy at 2-3.

<sup>77</sup> Original Determination, USITC Pub. 3913 at 15-16.

<sup>78</sup> Original Determination, USITC Pub. 3913 at 16.

<sup>79</sup> Original Determination, USITC Pub. 3913 at 15.

limited by the fact that most Chinese producers supplied direct-activated carbon while the domestic industry supplied direct-activated and reagglomerated activated carbon because both the domestic industry and the Chinese producers could produce both types of carbon.<sup>80</sup> The Commission found that raw material costs, principally the cost of metallurgical coal, increased substantially over the review period and constituted a significant share of total COGS.<sup>81</sup>

In this second five-year review, we find the domestic like product and subject imports would likely be generally substitutable and that price would continue to be an important factor in purchasing decisions if the order were revoked. We do not find any new information on this record that indicates any changes in substitutability since the prior proceedings. China and the United States both produce primarily coal-based activated carbon, which increases their substitutability.<sup>82</sup> In the first review, the Commission found that responding purchasers of subject imports reported end uses in the same major markets as the domestic producers, including air filtration, water filtration and purification, food processing, and pollution control.<sup>83</sup> Although Respondents state that China exports several types of activated carbon that are not produced in the United States, they have not provided information on the importance of these products to the U.S. market.<sup>84</sup>

In this review, based on available information, nonsubject imports continue to be predominantly coconut-based, which may limit their substitutability with predominantly coal-based domestic like product and subject imports.<sup>85</sup> In the original investigation, the Commission found that predominantly coal-based subject imports and predominantly coconut-based nonsubject imports were sold for different end uses.<sup>86</sup> While Respondents argue that subject imports and nonsubject imports are interchangeable, the data from the first review is mixed.<sup>87</sup>

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<sup>80</sup> First Review, USITC Pub. 4381 at 13.

<sup>81</sup> First Review, USITC Pub. 4381 at 13.

<sup>82</sup> CR at I-13; PR at I-10.

<sup>83</sup> First Review, USITC Pub. 4381 at 23 & n.134.

<sup>84</sup> Respondents' Final Comments at 12-13.

<sup>85</sup> Activated carbon from four sources of nonsubject imports in the U.S. market in 2017, India, Indonesia, the Philippines, and Sri Lanka, were primarily coconut-based. CR/PR at Table I-4. CR at I-40-42; PR at I-29-31.

<sup>86</sup> Original Determination, USITC Pub. 3913 at 16. *See also* Confidential Original Determination, EDIS Document No. 273377 at 24. In the first review, nonsubject imports continued to be predominantly coconut-based. First Review, USITC Pub. 4381 at 12 & n.59.

<sup>87</sup> Respondents' Final Comments at 11. Respondents cite to the fact that in the first review all three U.S. producers said that subject imports were always interchangeable with nonsubject imports. A majority of importers and U.S. purchasers, however, said that they were only sometimes interchangeable. First Review, USITC Pub. 4381 at Table II-4.

## C. Likely Volume of Subject Imports

### 1. The Original Investigation and Prior Five-Year Review

In the original investigation, the Commission found that the volume of subject imports was significant both in absolute terms and relative to consumption and production in the United States, and that the increase in that volume was also significant.<sup>88</sup> The volume of subject imports from China increased by \*\*\* percent from 2003 to 2005, before declining in 2006.<sup>89</sup>

The Commission also found that the increase in nonsubject imports over the period of investigation did not diminish the significance of the increase in subject import volume because of the limited substitutability between the predominantly coal-based domestic like product and the predominantly coconut-based nonsubject imports.<sup>90</sup>

In the first five-year review, subject import volume and market penetration were both well below their levels in the original period of investigation. The Commission found that the order had a restraining effect on import volume, and that a significant volume of subject imports were likely if the order were revoked.<sup>91</sup> The Commission found that the industry in China had more than ample excess capacity to produce additional subject merchandise and that it had incentives to increase shipments to the United States. The record indicated that there were more than 200 subject Chinese producers of activated carbon that produced more than 240 million metric tons of coal-based activated carbon.<sup>92</sup> The responding Chinese producers alone reported significant capacity, excess capacity, and inventories that could be used to increase shipments to the United States.<sup>93</sup> Because the capacity of all Chinese producers of activated carbon was far greater than that of the producers providing data to the Commission, information in the record concerning the reporting producers' capacity and capacity utilization indicated that the overall industry had the ability to significantly increase exports of activated carbon to the United States.<sup>94</sup>

The Commission also found that the industry producing subject merchandise in China had incentives to increase exports to the United States significantly upon revocation. The United States had the \*\*\* market for activated carbon in the world and U.S. prices were

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<sup>88</sup> Original Determination, USITC Pub. 3913 at 17.

<sup>89</sup> Original Determination, USITC Pub. 3913 at 17. Confidential Version, EDIS Document No. 273377 at 25-26. The Commission found that subject import volume declined rapidly after preliminary duties were announced by Commerce in October 2006. *Id.*

<sup>90</sup> Original Determination, USITC Pub. 3913 at 18.

<sup>91</sup> First Review, USITC Pub. 4381 at 14.

<sup>92</sup> First Review, USITC Pub. No. 4381 at 15.

<sup>93</sup> First Review, USITC Pub. No. 4381 at 15; Confidential Version, EDIS Document No. 504816 at 20-21.

<sup>94</sup> First Review, USITC Pub. No. 4381 at 15.

attractive.<sup>95</sup> Chinese producers of activated carbon were export oriented and exported subject merchandise worldwide. The Commission found that the size of the U.S. market and the likely pricing available would make it likely that these Chinese producers would use their excess capacity to direct further exports to the United States upon revocation. Furthermore, subject imports had maintained a significant ongoing presence in the U.S. market during the review, indicating that the U.S. market was important to Chinese producers. The Commission also found it significant that Chinese exports of powdered activated carbon were covered by an EU antidumping measure, and that powdered activated carbon was the form of activated carbon used in mercury abatement, a source of potential future growth in U.S. demand. The Commission found that the EU measure increased the incentive for Chinese producers to sell additional activated carbon into the U.S. mercury abatement market.<sup>96</sup>

Chinese respondents alleged that shortages of coal in China would have a restraining effect on any exports of activated carbon in the reasonably foreseeable future. The Commission disagreed, finding that there was no evidence in the record of widespread coal shortages in China during the period of review or of an inability of subject Chinese producers to acquire the type of metallurgical coal used to make activated carbon; furthermore, to the extent that there were coal shortages, they did not appear to have had an effect on the subject producers' production or exports of activated carbon during the period of review.<sup>97</sup> The Commission concluded that the volume of subject imports, both in absolute terms and relative to production and consumption in the United States, would likely be significant in the reasonably foreseeable future if the order were revoked.<sup>98</sup>

## 2. The Current Review

During the current period of review, subject imports had a limited presence in the U.S. market. Subject import volume decreased overall, from 34.5 million pounds in 2012 to 17.4 million pounds in 2017,<sup>99</sup> which was the lowest volume of subject imports since 2007.<sup>100</sup> The domestic industry accounted for 58.3 percent of apparent U.S. consumption in 2017, nonsubject imports accounted for 38.2 percent, and subject imports accounted for 3.5 percent.<sup>101</sup>

While the limited volume of subject imports during the review period indicates that the order has had a disciplining effect, the record indicates that the subject producers maintain

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<sup>95</sup> First Review, USITC Pub. No. 4381 at 15-16. Confidential Version, EDIS Document No. 504816 at 22.

<sup>96</sup> First Review, USITC Pub. No. 4381 at 16-17.

<sup>97</sup> First Review, USITC Pub. No. 4381 at 16.

<sup>98</sup> First Review, USITC Pub. No. 4381 at 17.

<sup>99</sup> CR/PR at Table I-4.

<sup>100</sup> Original Determination, Public Report, USITC Pub. 3913 at Table C-2 (2003-2006); First Review, Public Report, USITC Pub. 4381 at Table C-1 (2007-2011); and CR/PR at Table I-4 (2012-2017). See also, Domestic Industry's Response at 5-6 & Exhibit 1.

<sup>101</sup> CR/PR at Table I-6.

both a strong interest in supplying the U.S. market and the ability to increase the amount they supply. The limited available data support the conclusion that subject imports are well-positioned to capture additional sales and significant market share within a reasonably foreseeable time if the order were revoked.

The industry in China is the largest global exporter of activated carbon, exporting 566.5 million pounds of activated carbon in 2017, with a value of \$318.7 million, based on GTA data.<sup>102</sup> Chinese production has increased since the original investigation and Chinese shipments \*\*\* from 2005 to 2015.<sup>103</sup>

The Chinese industry continues to have high levels of production capacity and excess capacity. Over 80 Chinese producers/exporters remain actively engaged in the production and/or exportation of activated carbon.<sup>104</sup> The available information indicates that the Chinese activated carbon industry had production capacity in 2015 of \*\*\* and excess capacity of \*\*\*,<sup>105</sup> which was more than the domestic industry's total production of activated carbon in 2017, 360.0 million pounds.<sup>106</sup>

Subject producers are likely to direct additional exports to the United States upon revocation of the order. The industry in China is highly export-oriented; it shipped \*\*\* in the three years for which data were available, 2005, 2010, and 2015.<sup>107</sup> Several Chinese producers are major worldwide suppliers of activated carbon, and based on Chinese export statistics as reported by GTA, China's total exports of activated carbon increased from 512.7 million pounds in 2013 to 566.5 million pounds in 2017, or by 10.5 percent.<sup>108</sup> The volume of Chinese exports of activated carbon in 2017 (566.5 million pounds) was substantially larger than apparent U.S. consumption in that year (496.2 million pounds).<sup>109</sup>

Chinese producers have demonstrated their continued interest in the U.S. market. The United States is the world's \*\*\* consumer of activated carbon, and even with the order in place, it was the eighth largest market for China's exports of activated carbon.<sup>110</sup> Thus, the record indicates that producers in China have continued efforts to direct activated carbon to

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<sup>102</sup> CR/PR at Table I-9 & Table I-10. These data may be overstated as they contain products outside the scope of review.

<sup>103</sup> Domestic Industry Response at 7, citing (\*\*\*).

<sup>104</sup> Domestic Industry's Response at 6-7. \*\*\*. *Id.* at Exhibit 3 at 340.

<sup>105</sup> Domestic Industry Response at 7-8 & n.5. The Domestic Industry states that the capacity and overcapacity of the activated carbon industry in China may actually be much higher. *Id.* The Domestic Industry's estimate of China's capacity and overcapacity were calculated using data from *The Global and China Activated Carbon Industry Report, 2016-2020* and \*\*\*. Data cited from these industry reports may encompass product outside the scope of review.

<sup>106</sup> CR/PR at Table I-3.

<sup>107</sup> Domestic Industry Response at 10. Although its ratio of exports to total shipments is projected to fall by 2020, the Chinese industry's total exports are projected to continue to increase. *Id.*

<sup>108</sup> CR/PR at Table I-9. Domestic Industry's Final Comments at 8.

<sup>109</sup> CR/PR at Table I-5 and I-9; Domestic Industry's Final Comments at 9.

<sup>110</sup> CR/PR at Table I-9. Domestic Industry Response at 11 & Exhibit 6, Exhibit 3 at 137.

the large U.S. market notwithstanding the order, indicating the attractiveness of the U.S. market and the Chinese industry's interest in it.

Respondents acknowledge that the order restrained high volumes of subject imports over a decade ago, but argue that this discipline is no longer needed given the decline in subject imports since 2011, which has been more than offset by an increase in nonsubject imports.<sup>111</sup> Given the discipline of the order, however, the volume of subject imports with the order in place is not indicative of the likely level of subject imports without the discipline of the order. Further, over 60 percent of the nonsubject imports are primarily coconut-based activated carbon, which may have limited substitutability with subject imports; these coconut-based nonsubject imports would not be a restraint on likely increases in subject imports in the U.S. market if the order were revoked.<sup>112</sup>

Respondents contend that the supply of activated carbon in China is limited, and more constrained than the Domestic Industry's data suggests. According to Respondents, the Chinese government's increased enforcement of environmental regulations has increased home market demand, forced factories to close, and increased costs. They further maintain that there is a coal shortage and that many producers lack export licenses.<sup>113</sup> Respondents' arguments that it is difficult and costly to export activated carbon from China to the United States are unavailing because China is the largest global exporter of activated carbon, and its total exports of activated carbon have increased substantially since 2005.<sup>114</sup>

Respondents also argue that there is less of an incentive for Chinese exporters to ship activated carbon to the U.S. market given the termination of the EU order on powdered activated carbon.<sup>115</sup> However, the record indicates that the large capacity and excess capacity of the Chinese industry provides a strong incentive for Chinese producers to export globally. While the European Union market may now be more open to imports from China than during the first review, this would not be likely to prevent Chinese producers from exporting additional product to the U.S. market if the order were revoked. Chinese exporters have the excess capacity to export substantial volumes to both markets. Indeed, Chinese exporters continued to export to both the U.S. market and the EU market before and after the termination of the EU order in 2014.<sup>116</sup>

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<sup>111</sup> Respondents' Response at 2 & Exhibit 1; Respondents' Final Comments at 9-10.

<sup>112</sup> Nonsubject imports from India, Indonesia, Sri Lanka, and the Philippines are primarily coconut-based, and nonsubject imports from these countries constituted 61.9 percent of nonsubject imports in 2016 and 2017. CR at I-38-42; PR at I-28-31. CR/PR at Table I-4.

<sup>113</sup> Respondents' Final Comments at 19.

<sup>114</sup> CR at I-33, 35; PR at I-24-25. Domestic Industry Response, Exhibit 3 at 224.

<sup>115</sup> Respondents' Comments on Adequacy at 2-3.

<sup>116</sup> CR/PR at Table I-9. Respondents also argue that volume effects on the domestic industry would be minimal upon revocation because subject imports would be more likely to replace nonsubject imports than the domestic like product. Based on calculations using 2003 to 2006 data, Respondents maintain that upon revocation subject imports and nonsubject imports would both be \*\*\* than the domestic like product, and therefore, subject imports would compete more directly with the nonsubject imports than the domestic like product. Respondents' Final Comments at 13-16.

Based on the above, we find that subject producers would likely increase their exports to the United States if the antidumping duty order were revoked. This is demonstrated, in particular, by the large size of the industry in China and its export orientation, and the continued interest of Chinese producers in the U.S. market. Accordingly, based on the available information, we conclude that the volume of subject imports would likely be significant, both in absolute terms and relative to U.S. consumption, should the order be revoked.

#### **D. Likely Price Effects**

##### **1. The Original Investigation and Prior Five-Year Review**

In the original investigation, the Commission found, based on the general substitutability between the domestic like product and subject imports, that price was the most important single factor affecting purchasing decisions, as long as the activated carbon met the specifications required for the end use in question. Price was identified by numerous purchasers as either the most important or second most important factor in purchasing decisions. Purchasers found the domestic like product and subject imports to be fairly comparable, except in price, where almost all purchasers reported that the domestic like product was higher in price than the subject imports.<sup>117</sup>

The Commission found that there had been significant price underselling of the domestic like product by the subject imports throughout the period of investigation; subject imports undersold the domestic like product in 34 out of 36 quarters from 2003 to 2005, and in 11 out of 12 quarters in 2006.<sup>118</sup> It found that price movements varied and did not show a clear trend over the period of investigation; therefore, the Commission did not find subject imports had depressed domestic prices to a significant degree.<sup>119</sup> The Commission, however, found that subject imports had prevented domestic price increases that otherwise would have occurred to a significant degree. It noted that the domestic industry's COGS as a ratio to net sales increased steadily throughout the period of investigation. Despite increased demand, domestic producers were unable to raise prices to cover their increasing costs as significant volumes of lower priced subject imports entered the U.S. market. The Commission thus determined that there was evidence of price suppression in the form of a cost-price squeeze.

The Commission found that confirmed lost sales and lost revenues provided additional support for finding that subject imports had taken sales from U.S. producers and had

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Respondents' arguments assume that the prices of the subject imports would not change upon revocation. We disagree. As discussed below, we find that subject imports would likely undersell the domestic like product if the order were revoked, as they did in the original investigation and in the first review. Moreover, as stated above, nonsubject imports continue to be predominantly coconut-based, which may limit their substitutability with the predominantly coal-based subject imports.

<sup>117</sup> Original Determination, USITC Pub. 3913 at 19.

<sup>118</sup> Original Determination, USITC Pub. 3923 at 20.

<sup>119</sup> Original Determination, USITC Pub. 3913 at 19-20.

suppressed prices to a significant degree. It found that price was by and large the reason for choosing the Chinese product, and that many of the lost sales were to municipal water treatment facilities which, in many cases, had to accept the lowest-priced product that met their required standards.<sup>120</sup>

In the first review, the Commission found that there was a general degree of substitutability between activated carbon produced in the United States and China, and that price remained an important factor in purchasing decisions. Despite the increase in prices over the review period and the discipline of the order, the Commission found that subject imports undersold the domestic like product in 60 of 66 quarterly price comparisons.<sup>121</sup>

The Commission found that the substitutability of the domestic like product and the subject imports, the importance of price in purchasing decisions, and the incentives for Chinese producers to increase their exports to the U.S. market made it likely that Chinese producers would price their product more aggressively to gain market share in the absence of the order. It also found that subject imports would likely undersell the domestic like product at even larger margins than in the first review.<sup>122</sup> The Commission concluded that upon revocation of the order, subject imports would likely significantly undersell the domestic like product and have a significant depressing or suppressing effect on prices within a reasonably foreseeable time.<sup>123</sup>

## **2. The Current Review**

In the current review, the U.S. market for activated carbon remains price-sensitive as a result of the substitutable nature of the domestic like product and the subject merchandise. This review, due to its expedited nature, does not contain product-specific pricing data. We have found, however, that subject import volumes from China would likely increase significantly upon revocation of the order. Given the continued attractiveness of the U.S. market and the importance of price to purchasers, subject producers would be likely to resume the behavior observed in the original investigation, offering subject merchandise in the U.S. market at low prices to gain sales and market share. These subject imports would likely undersell the domestic like product, as they did during the original investigation and the first review even with the order in place. Consequently, there would likely be significant underselling by subject imports from China.

Respondents contend that average unit values (“AUVs”) for subject imports from China are significantly higher than AUVs for each of the four countries with higher import volumes in the United States than China. They maintain that there is a price premium for subject

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<sup>120</sup> Original Determination, USITC Pub. 3913 at 21. The Commission found that subject import prices rose significantly during 2006, particularly in the last two quarters, and found that the improvement in the pricing data for 2006 was related to the pendency of the investigation. Original Determination, USITC Pub. 3913 at 20, n.125.

<sup>121</sup> First Review, USITC Pub. 4381 at 18-19.

<sup>122</sup> First Review, USITC Pub. 4381 at 19.

<sup>123</sup> First Review, USITC Pub. 4381 at 19.

merchandise because it includes several products that are not produced in the United States.<sup>124</sup> Chinese export statistics show that the AUVs of Chinese exports of activated carbon to countries other than the United States averaged \$0.52 per pound in 2017, while the AUV of Chinese exports to the United States averaged \$1.02 per pound in that year.<sup>125</sup> Thus, Chinese exporters are exporting activated carbon at low AUVs to other markets, even if that is not currently the situation in the U.S. market. Moreover, there is evidence on the record that the majority of activated carbon produced in China is coal-based commodity grade carbon.<sup>126</sup> We see no indication in this record that upon revocation, the Chinese industry would be limited to exporting only high value activated carbon to the U.S. market.

Because of the substitutability between the domestic like product and subject imports, and because price continues to be an important factor in purchasing decisions, the likely significant volume of subject imports, which would likely undersell the domestic like product, would likely force the domestic industry to lower prices, restrain price increases, or lose sales. In light of these considerations, we conclude that subject imports would likely have significant depressing or suppressing effects on prices for the domestic like product and/or gain market share at the domestic industry's expense.

## **E. Likely Impact**

### **1. The Original Investigation and the Prior Five-Year Review**

In the original investigation, the Commission found that subject imports were having a significant adverse impact on the domestic industry producing activated carbon. It found that trade data indicators were mixed, but many of the domestic industry's financial indicators declined from 2003 to 2005, before recovering only somewhat in 2006.<sup>127</sup>

The Commission found that the decrease in the domestic industry's performance indicators occurred as subject imports entered the U.S. market in significant volumes and gained market share almost exclusively at the expense of the domestic industry. At the same time, subject imports undersold the domestic like product, typically by double-digit margins, and suppressed domestic prices to a significant degree, such that domestic producers were unable to raise prices sufficiently to cover increasing raw material and energy costs.<sup>128</sup>

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<sup>124</sup> Respondents' Response at 3 & Exhibit 1.

<sup>125</sup> Domestic Industry's Response at 13 & Exhibit 6. The U.S. market is the only one where Chinese exporters face an antidumping duty order. CR at I-38; PR at 1-28.

<sup>126</sup> Domestic Industry's Response, Exhibit 3 at 222.

<sup>127</sup> Original Determination, USITC Pub. 3913 at 21-22. The Commission found that the improvements in the domestic industry's condition in 2006 were related to the pendency of the investigation, and therefore gave less weight to the data for 2006 for purposes of its material injury analysis. It found that domestic prices increased after the petition was filed and that subject import volume declined after preliminary duties were imposed in October 2006. Original Determination, USITC Pub. 3913 at 17.

<sup>128</sup> Original Determination, USITC Pub. 3913 at 23.

The Commission concluded that subject imports had an adverse impact on the condition of the domestic industry during the period of investigation. Further, the Commission found that the modest improvement in 2006 occurred after the filing of the petition, as the domestic industry was able to raise prices and gained market share when the volume of subject imports decreased following the imposition of the preliminary duty deposits by Commerce.<sup>129</sup>

The Commission acknowledged that nonsubject imports were in the U.S. market during the period of investigation, but found that they declined in 2006. The Commission noted that nonsubject imports were sold for different end uses and were typically priced higher. The higher prices of the nonsubject imports, as well as the fact that the primary cause of material injury to the domestic industry was the intense price suppression caused by the subject imports, demonstrated to the Commission that the nonsubject imports were not a factor affecting prices. The Commission concluded that the domestic industry was materially injured by reason of subject imports from China that were sold at less than fair value.<sup>130</sup>

In the first five-year review, the Commission found that most indicators of the domestic industry's performance showed considerable improvement, including capacity, production, and shipments. The domestic industry was profitable throughout the period of review and both operating income and operating margins increased. Capital expenditures also increased. Given these data, the Commission did not find the domestic industry to be vulnerable.<sup>131</sup>

Nonetheless, the Commission found that the volume of subject imports would likely increase significantly if the order were revoked, and lead to continuation or recurrence of material injury to the domestic industry. Although demand was expected to increase moderately in the future, it found that increased demand during the original investigation did not preclude material injury by reason of subject imports. Given its findings that additional volumes of subject imports would likely undersell the domestic like product and likely have significant depressing or suppressing effects on prices for the domestic like product, the Commission found that the domestic industry would need to respond to subject imports by either foregoing sales and ceding market share, or by cutting or restraining prices in the face of increasing costs for raw materials. The resulting loss of production or revenues would likely cause deterioration in the financial performance of the domestic industry.<sup>132</sup>

The Commission considered the role of nonsubject imports. It found that they held a relatively small but increasing portion of the market. However, it noted that nonsubject imports were predominantly coconut-based, with generally different end-use applications and less direct competition with the coal-based subject imports and domestic like product for the majority of end-use applications.<sup>133</sup>

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<sup>129</sup> Original Determination, USITC Pub. 3913 at 23-24.

<sup>130</sup> Original Determination, USITC Pub. at 3913 at 24.

<sup>131</sup> First Review, USITC Pub. 2013 at 21-22.

<sup>132</sup> First Review, USITC Pub. 2013 at 22-23.

<sup>133</sup> First Review, USITC Pub. 2013 at 23.

## 2. The Current Review

In this expedited review, the most recent information available on the domestic industry's condition is limited to that collected from the domestic industry in this review. The U.S. industry's production capacity, production, total shipments, and total sales were higher in 2017 than in 2006 and 2011.<sup>134</sup> The industry's operating margin, however was negative 2.3 percent with an operating loss of negative \$8.6 million in 2017.<sup>135</sup> The domestic industry's market share was 58.3 percent, its capacity utilization rate was 71.0 percent in 2017, and its COGS to net sales ratio was 85.1 percent.<sup>136</sup>

Respondents contend that the domestic industry is not vulnerable, given Kuraray's acquisition of Calgon, \*\*\* in 2017, and moderately increasing demand.<sup>137</sup> The Domestic Industry maintains that it is vulnerable.<sup>138</sup> The limited evidence in this expedited review is insufficient for us to make a finding on whether the domestic industry is vulnerable to the continuation or recurrence of material injury in the event of revocation of the order.

Based on the information in this review, we find that revocation of the order would likely lead to a significant volume of subject imports and that these imports would likely undersell the domestic like product to a significant degree, resulting in likely significant depression or suppression of the domestic industry's prices and/or losses in market share. We find that the increased subject import competition that would likely occur after revocation of the order would likely have a significant impact on the domestic industry. The domestic industry would likely lose market share to subject imports and/or experience lower prices due to competition from subject imports, which would adversely impact its production, shipments, sales, and/or revenue. These reductions would likely have a direct adverse impact on the domestic industry's profitability and employment levels, as well as its ability to raise capital and make and maintain necessary capital investments.

We have also considered the role of factors other than subject imports, including demand and the presence of nonsubject imports, so as not to attribute likely injury from other factors to the subject imports. Although demand may continue to increase moderately in the reasonably foreseeable future, we do not find it likely that any modest increase in demand would offset the likely impact of the subject imports if the order were revoked, given the size and export orientation of the Chinese industry, and its history of underselling U.S. producers' prices in the U.S. market.

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<sup>134</sup> The domestic industry's production capacity for activated carbon was \*\*\* pounds in 2006, \*\*\* pounds in 2011, and 507.0 million pounds in 2017. Its production was \*\*\* pounds in 2006, \*\*\* pounds in 2011, and 360.0 million pounds in 2017. Its total U.S. shipments were \*\*\* pounds in 2006, \*\*\* pounds in 2011, and 289.1 million pounds in 2017. Its total net sales in value was \*\*\* in 2006, \*\*\* in 2011, and \$369.8 million in 2017. CR/PR at Table I-3.

<sup>135</sup> CR/PR at Table I-3.

<sup>136</sup> CR/PR at Table I-3 & Table I-6.

<sup>137</sup> Respondents' Final Comments at 18.

<sup>138</sup> Domestic Industry Final Comments at 14.

We recognize that nonsubject imports have increased their presence in the U.S. market over time.<sup>139</sup> However, nonsubject imports are predominantly coconut-based rather than coal-based, and are used largely in different end uses than the domestic like product and the subject imports. Because the domestic industry maintains a substantial share of the U.S. market, and subject imports will likely compete head-to-head with the domestic like product upon revocation, the likely increase in subject imports will likely take market share away from the domestic industry, and only to a lesser extent from nonsubject imports, due to their more limited substitutability with subject imports. Consequently, the subject imports will likely have adverse effects distinct from any that may be caused by nonsubject imports.<sup>140</sup>

Accordingly, we conclude that, if the antidumping duty order on activated carbon from China were to be revoked, subject imports would likely have a significant impact on domestic producers of activated carbon within a reasonably foreseeable time.

#### **IV. Conclusion**

For the above reasons, we determine that revocation of the antidumping duty order on activated carbon from China would likely lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

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<sup>139</sup> Nonsubject imports accounted for \*\*\* percent of the market in 2006, \*\*\* percent in 2011, and 38.2 percent in 2017. CR/PR at Table I-6.

<sup>140</sup> Respondents' argument that subject and nonsubject imports are interchangeable because \*\*\* over the review is unavailing given that we would expect subject import volume to decline under the discipline of the order. Respondents' Final Comments at 11.

# INFORMATION OBTAINED IN THE REVIEW

## BACKGROUND

On February 1, 2018, the U.S. International Trade Commission (“Commission”) gave notice, pursuant to section 751(c) of the Tariff Act of 1930, as amended (“the Act”),<sup>1</sup> that it had instituted a review to determine whether revocation of the antidumping duty order on certain activated carbon from China would likely lead to the continuation or recurrence of material injury to a domestic industry.<sup>2</sup> All interested parties were requested to respond to this notice by submitting certain information requested by the Commission.<sup>3 4</sup> The following tabulation presents information relating to the background and schedule of this proceeding:

Effective or statutory date	Action
February 1, 2018	Notice of initiation and institution by Commerce and Commission
May 7, 2018	Commission’s vote on adequacy
June 1, 2018	Commerce’s results of its expedited review
July 2, 2018	Commission’s statutory deadline to complete expedited review

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<sup>1</sup> 19 U.S.C. 1675(c).

<sup>2</sup> *Certain Activated Carbon from China; Institution of a Five-Year Review*, 83 FR 4681, February 1, 2018. In accordance with section 751(c) of the Act, the U.S. Department of Commerce (“Commerce”) published a notice of initiation of a five-year review of the subject antidumping duty order concurrently with the Commission’s notice of institution. *Initiation of Five-Year (Sunset) Reviews*, 83 FR 4641, February 1, 2018. Pertinent *Federal Register* notices are referenced in app. A, and may be found at the Commission’s website ([www.usitc.gov](http://www.usitc.gov)).

<sup>3</sup> As part of their response to the notice of institution, interested parties were requested to provide company-specific information. That information is presented in app. B. Summary data compiled in prior proceedings is presented in app. C.

<sup>4</sup> Interested parties were also requested to provide a list of three to five leading purchasers in the U.S. market for the subject merchandise. A response was received from parties and the following three firms were named as the top purchasers of certain activated carbon by the domestic interested parties \*\*\*. Purchaser questionnaires were sent to these three firms and no firm responded to the Commission’s request for information.

## RESPONSES TO THE COMMISSION’S NOTICE OF INSTITUTION

### Individual responses

The Commission received two submissions in response to its notice of institution in the subject review. They were filed on behalf of the following entities:

1. Calgon Carbon Corporation (“Calgon”), Cabot Norit Americas Inc. (“Norit”), and ADA Carbon Solutions, LLC (“ADA”), domestic producers of activated carbon (collectively referred to herein as “domestic interested parties”) and
2. Carbon Activated Corporation (“CAC”), a U.S. importer of activated carbon, and its wholly owned Chinese exporter of activated carbon, Carbon Activated Tianjin Co., Ltd. (“CA Tianjin”) (collectively referred to herein as “respondent interested parties”).

A complete response to the Commission’s notice of institution requires that the responding interested party submit to the Commission all the information listed in the notice. Responding firms are given an opportunity to remedy and explain any deficiencies in their responses. A summary of the number of responses and estimates of coverage for each is shown in table I-1.

**Table I-1**

**Certain activated carbon: Summary of responses to the Commission’s notice of institution**

Type of interested party	Completed responses	
	Number	Coverage
Domestic:		
U.S. producer	1	100% <sup>1</sup>
Respondent:		
U.S. importer and foreign exporter	1	***% <sup>2</sup> and ***% <sup>3</sup> , respectively

<sup>1</sup> In their response to the notice of institution, domestic interested parties estimated that they account for this share of total U.S. production of activated carbon during 2017. Domestic interested parties’ response to the notice of institution, March 5, 2018, p. 16.

<sup>2</sup> The coverage figure is the estimated share of the quantity of total U.S. imports of certain activated carbon from China in 2017 accounted for by the responding firm. The estimate was calculated as the quantity of reported imports (\*\*\* pounds) divided by the quantity of total U.S. imports from China reported for 2017 in Commerce’s official import statistics (17.4 million pounds). Respondent interested parties’ response to the notice of institution, March 5, 2018, p. 9.

<sup>3</sup> The coverage figure is the estimated share of the quantity of total exports to the United States of certain activated carbon from China in 2017 accounted for by the responding firm. The estimate was calculated as the quantity of reported exports (\*\*\* pounds) divided by the quantity of total U.S. imports from China reported for 2017 in Commerce’s official import statistics (17.4 million pounds). Respondent interested parties’ response to the notice of institution, March 5, 2018, p. 10.

### Party comments on adequacy

The Commission received two submissions from parties commenting on the adequacy of responses to the notice of institution and whether the Commission should conduct an expedited or full review. These submissions were filed on behalf of the following entities: (1) domestic interested parties Calgon, Norit, and ADA<sup>5</sup> and (2) respondent interested parties CAC and CA Tianjin.<sup>6</sup>

The domestic interested parties argue that their response, which accounts for virtually all of U.S. production of the domestic like product, is fully responsive to the Commission's notice of institution. Accordingly, they argue that the Commission should conclude that the domestic interested parties' group response to the notice of institution is adequate. The domestic interested parties did not comment on the adequacy of respondent interested party responses or whether the Commission should conduct an expedited or full review.<sup>7</sup>

The respondent interested parties argue that although the facts on the record in this review are sufficient to support conducting an expedited review, the Commission should conduct a full review based on questions raised by the domestic interested parties' response to the notice of institution. Specifically, they argue that the domestic interested parties' response omits the following information concerning changes in the market that provides a compelling basis for the Commission to conduct a full sunset review:<sup>8</sup> (1) the acquisition of Calgon by the Japanese activated carbon producer/exporter Kuraray Co., Ltd., announced in September 2017 and finalized on March 9, 2018, and (2) the repeal of the European Union ("EU") antidumping duty order on powdered activated carbon from China in August 2014. The respondent interested parties also argue that these deficiencies, coupled with the adequate response filed by respondent interested parties, evidence the need for a full review in this proceeding.<sup>9</sup>

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<sup>5</sup> Domestic interested parties' comments on adequacy, April 16, 2018.

<sup>6</sup> Respondent interested parties' comments on adequacy, April 16, 2018.

<sup>7</sup> Domestic interested parties' comments on adequacy, April 16, 2018, pp. 1-2.

<sup>8</sup> They argue that "{t}hese omissions are in addition to the not insignificant omissions identified in the Commission's several questions seeking clarification from Domestic Interested Parties, not all of which appear to have been addressed." Respondent interested parties' comments on adequacy, April 16, 2018, p. 1.

<sup>9</sup> Respondent interested parties' comments on adequacy, April 16, 2018, pp. 1-3.

## THE ORIGINAL INVESTIGATION AND SUBSEQUENT REVIEW

### The original investigation

The original investigation resulted from a petition filed on March 8, 2006 with Commerce and the Commission by Calgon, Pittsburgh, Pennsylvania, and Norit, Marshall, Texas.<sup>10</sup> On March 2, 2007, Commerce determined that imports of certain activated carbon from China were being sold at less than fair value (“LTFV”).<sup>11</sup> The Commission determined on April 13, 2007 that the domestic industry was materially injured by reason of LTFV imports of certain activated carbon from China.<sup>12</sup> On April 27, 2007, Commerce issued its antidumping duty order with the final weighted-average dumping margins ranging from 61.95 percent to 228.11 percent.<sup>13</sup>

### The first five-year review

The first five-year review of the antidumping duty order on imports of certain activated carbon from China was instituted by the Commission and initiated by Commerce on March 1, 2012.<sup>14</sup> On June 4, 2012, the Commission determined that it would conduct a full review of the antidumping duty order on certain activated carbon from China.<sup>15</sup> On June 6, 2012, Commerce published its determination that revocation of the antidumping duty order on certain activated carbon from China would be likely to lead to continuation or recurrence of dumping.<sup>16</sup> On February 22, 2013, the Commission notified Commerce of its affirmative determination.<sup>17</sup> Effective March 18, 2013, Commerce issued a continuation of the antidumping duty order on imports of certain activated carbon from China.<sup>18</sup>

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<sup>10</sup> *Certain Activated Carbon From China, Investigation No. 731-TA-1103 (Final)*, USITC Publication 3913, April 2007, p. I-1.

<sup>11</sup> *Final Determination of Sales at Less Than Fair Value: Certain Activated Carbon from the People's Republic of China*, 72 FR 9508, March 2, 2007 and *Notice of Amended Final Determination of Sales at Less Than Fair Value: Certain Activated Carbon From the People's Republic of China*, 72 FR 15099, March 30, 2007.

<sup>12</sup> *Certain Activated Carbon From China*, 72 FR 19723, April 19, 2007.

<sup>13</sup> *Notice of Antidumping Duty Order: Certain Activated Carbon From the People's Republic of China*, 72 FR 20988, April 27, 2007.

<sup>14</sup> *Activated Carbon From China; Institution of a Five-Year Review*, 77 FR 12614, March 1, 2012; and *Initiation of Five-Year (“Sunset”) Review*, 77 FR 12562, March 1, 2012.

<sup>15</sup> *Certain Activated Carbon from China, Investigation No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. 1.

<sup>16</sup> *Certain Activated Carbon From the People's Republic of China: Final Results of Expedited Sunset Review of the Antidumping Duty Order*, 77 FR 33420, June 6, 2012.

<sup>17</sup> *Certain Activated Carbon From China*, 78 FR 13894, March 1, 2013.

<sup>18</sup> *Certain Activated Carbon From the People's Republic of China: Continuation of Antidumping Duty Order*, 78 FR 16654, March 18, 2013.

## PREVIOUS AND RELATED INVESTIGATIONS

Certain activated carbon has been the subject of one prior antidumping duty investigation in the United States. On January 26, 2006, domestic producers Calgon and Norit filed a petition alleging that an industry in the United States was materially injured and threatened with material injury by reason of LTFV imports of certain activated carbon and chemically activated carbon from China, collectively referred to as “activated carbon.” As a result of the filing, the Commission instituted investigation no. 731-TA-1102 (Preliminary): Activated Carbon from China.<sup>19</sup> Subsequently, on February 15, 2006, petitioners withdrew their petition at Commerce and the Commission. Accordingly, Commerce did not initiate its investigation by that date and the Commission discontinued its investigation effective that date.<sup>20</sup>

## ACTIONS AT COMMERCE

Commerce has not conducted any changed circumstances reviews, critical circumstances reviews, or anti-circumvention findings since the completion of the last five-year review. In addition, Commerce has not issued any company revocations since the imposition of the order.

### Scope rulings

There have been three scope rulings since the imposition of the order. Commerce received a scope ruling request from Cherishmet to determine whether carbon activated by the hydro-thermal catalytic chemical activation process protected by U.S. Patent No. 6,858,192 was within the scope. On July 26, 2007, Commerce ruled that carbon activated by Cherishmet’s patented process was within the scope of the antidumping duty order.<sup>21</sup>

On November 14, 2008, Commerce received a letter from Rolf C. Hagen (USA), Corp. (“Hagen”) requesting a scope ruling regarding certain fish tank filter products imported by Hagen, that contain no more than 500 grams of activated carbon or a combination of activated carbon and zeolite.<sup>22</sup> On November 20, 2008, petitioners Calgon and Norit submitted comments stating that they agreed with Hagen's scope ruling request. Based on Commerce’s review of Hagen's scope request, on December 7, 2009, Commerce issued a final scope ruling stating that certain Chinese-origin fitted fish

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<sup>19</sup> *Activated Carbon From China*, 71 FR 5688, January 26, 2006.

<sup>20</sup> *Activated Carbon From China*, 71 FR 9155, February 15, 2006.

<sup>21</sup> *Notice of Scope Rulings*, 72 FR 62438, November 5, 2007.

<sup>22</sup> *Notice of Scope Rulings*, 75 FR 14138, March 24, 2010.

tank filters containing (1) less than 500 grams of activated carbon or (2) a combination of activated carbon and zeolite are outside the scope of the order.<sup>23</sup>

Commerce received a scope ruling request from Tobacco Import USA. On December 17, 2012, Commerce determined that hookah charcoal tablets imported by Tobacco Import USA are not within the scope of the antidumping duty order.<sup>24</sup>

### **Duty absorption findings**

In Commerce's second administrative review, Commerce determined that antidumping duties were being absorbed on Jacobi Carbon AB's U.S. sales of the subject merchandise through its affiliated importer, given that Jacobi Carbon AB did not rebut the duty absorption presumption with evidence that the unaffiliated U.S. purchaser paid the full duty ultimately assessed on the subject merchandise.<sup>25</sup>

### **Administrative reviews**

Commerce has conducted four antidumping duty administrative reviews since the completion of the last five-year review. Table I-2 lists the results of each completed review. In addition, on June 7, 2017, Commerce initiated administrative reviews covering the period April 1, 2016 to March 31, 2017, but has not published results as of April 2018.<sup>26</sup>

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<sup>23</sup> *Certain Activated Carbon From the People's Republic of China: Notice of Initiation and Preliminary Results of Changed Circumstances Review, and Intent To Revoke Order in Part*, 74 FR 4736, January 27, 2009; *Certain Activated Carbon From the People's Republic of China: Notice of Rescission of Changed Circumstances Review*, 75 FR 981, January 7, 2010; and memorandum from Jerry Huang, International Trade Compliance Analyst, to John M. Andersen, Acting Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, regarding "Final Scope Ruling: Antidumping Duty Order on Certain Activated Carbon from the People's Republic of China," December 7, 2009.

<sup>24</sup> *Notice of Scope Rulings*, 78 FR 32373, May 30, 2013.

<sup>25</sup> *Certain Activated Carbon From the People's Republic of China: Notice of Preliminary Results of the Second Antidumping Duty Administrative Review, and Preliminary Rescission in Part*, 75 FR 26927, May 13, 2010.

<sup>26</sup> *Initiation of Antidumping and Countervailing Duty Administrative Reviews*, 82 FR 26444, June 7, 2017.

**Table I-2****Certain activated carbon: Summary of Commerce's final results of antidumping duty administrative reviews conducted since the last five-year review**

Exporter	Final weighted-average dumping margin (dollars per kilogram)			
	2012-13 <sup>1</sup>	2013-14	2014-15	2015-16
Beijing Pacific Activated Carbon Products Co., Ltd.	*	*	*	0.22
Calgon Carbon (Tianjin) Co., Ltd	0.22	1.05	1.357	*
Carbon Activated Tianjin Co., Ltd	*	1.05	*	0.22
Datong Juqiang Activated Carbon Co., Ltd	0.22	0.00	0.02	0.00
Datong Municipal Yunguang Activated Carbon Co., Ltd	0.22	1.05	1.357	0.22
Jacobi Carbons AB	0.18	1.05	1.756	0.22
Jilin Bright Future Chemicals Company, Ltd	0.22	1.05	1.357	0.22
Ningxia Guanghua Cherishmet Activated Carbon Co., Ltd	0.28	1.05	1.357	0.22
Ningxia Huahui Activated Carbon Co., Ltd	0.22	1.05	1.357	0.22
Ningxia Mineral and Chemical Limited	0.22	1.05	1.357	0.22
Shanxi Dapu International Trade Co., Ltd	*	*	1.357	*
Shanxi DMD Corporation	0.22	1.05	1.357	*
Shanxi Industry Technology Trading Co., Ltd	*	1.05	1.357	0.22
Shanxi Sincere Industrial Co., Ltd	0.22	1.05	1.357	0.22
Shanxi Tianxi Purification Filter Co., Ltd	*	*	1.357	0.22
Sinoacarbon International Trading Co., Ltd	*	*	1.357	*
Tancarb Activated Carbon Co., Ltd	*	1.05	1.357	0.22
Tianjin Channel Filters Co., Ltd	0.22	1.05	1.357	0.22
Tianjin Maijin Industries Co., Ltd	*	1.05	1.357	0.22
China wide	2.42	*	*	*

<sup>1</sup> The Court of International Trade sustained Commerce's second remand results pertaining to the sixth administrative review of the antidumping duty order on certain activated carbon from China covering the period of April 1, 2012, through March 31, 2013. On February 6, 2017, Commerce notified the public that the final judgment in this case was not in harmony with the final results of the administrative review and that Commerce amended the final result. Table I-2 shows the amended final results.

Note.—Asterisk (\*) indicates that the exporter was not included in the review during the given period.

Source: *Certain Activated Carbon From the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2012-2013*, 79 FR 70163, November 25, 2014; *Certain Activated Carbon From the People's Republic of China: Notice of Court Decision Not in Harmony With Final Results of Administrative Review and Notice of Amended Final Results*, 82 FR 10333, February 6, 2017; *Certain Activated Carbon From the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2013-2014*, 80 FR 61172, October 9, 2015; *Certain Activated Carbon From the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2014-2015*, 81 FR 62088, September 8, 2016; *Certain Activated Carbon From the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2015-2016*, 82 FR 51607, November 7, 2017.

## Current five-year review

Commerce is conducting an expedited review with respect to certain activated carbon from China and intends to issue the final results of this review based on the facts available not later than June 1, 2018.<sup>27</sup>

### THE PRODUCT

#### Commerce's scope

In its continuation order following the first five-year review, Commerce defined the scope as follows:

*The merchandise subject to the order is certain activated carbon. Certain activated carbon is a powdered, granular, or pelletized carbon product obtained by "activating" with heat and steam various materials containing carbon, including but not limited to coal (including bituminous, lignite, and anthracite), wood, coconut shells, olive stones, and peat. The thermal and steam treatments remove organic materials and create an internal pore structure in the carbon material. The producer can also use carbon dioxide gas (CO<sub>2</sub>) in place of steam in this process. The vast majority of the internal porosity developed during the high temperature steam (or CO<sub>2</sub> gas) activated process is a direct result of oxidation of a portion of the solid carbon atoms in the raw material, converting them into a gaseous form of carbon.*

*The scope of the order covers all forms of activated carbon that are activated by steam or CO<sub>2</sub>, regardless of the raw material, grade, mixture, additives, further washing or post-activation chemical treatment (chemical or water washing, chemical impregnation or other treatment), or product form. Unless specifically excluded, the scope of the order covers all physical forms of certain activated carbon, including powdered activated carbon ("PAC"), granular activated carbon ("GAC"), and pelletized activated carbon.*

*Excluded from the scope of the order are chemically activated carbons. The carbon-based raw material used in the chemical activation process is treated with a strong chemical agent, including but not limited to phosphoric acid, zinc chloride, sulfuric acid or potassium hydroxide, that dehydrates molecules in the raw material, and results in the formation of water that is removed from the raw material by moderate heat treatment. The activated carbon created by chemical activation has internal porosity developed primarily due to the action of the*

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<sup>27</sup> Letter from James C. Doyle, Director, Office V, AD/CVD Operations, Enforcement and Compliance, U.S. Department of Commerce to Michael Anderson, April 13, 2018.

*chemical dehydration agent. Chemically activated carbons are typically used to activate raw materials with a lignocellulosic component such as cellulose, including wood, sawdust, paper mill waste and peat.*

*To the extent that an imported activated carbon product is a blend of steam and chemically activated carbons, products containing 50 percent or more steam (or CO<sub>2</sub> gas) activated carbons are within the scope, and those containing more than 50 percent chemically activated carbons are outside the scope. This exclusion language regarding blended material applies only to mixtures of steam and chemically activated carbons.*

*Also excluded from the scope are reactivated carbons. Reactivated carbons are previously used activated carbons that have had adsorbed materials removed from their pore structure after use through the application of heat, steam and/or chemicals.*

*Also excluded from the scope is activated carbon cloth. Activated carbon cloth is a woven textile fabric made of or containing activated carbon fibers. It is used in masks and filters and clothing of various types where a woven format is required.*

*Any activated carbon meeting the physical description of subject merchandise provided above that is not expressly excluded from the scope is included within the scope. The products subject to the order are currently classifiable under the Harmonized Tariff Schedule of the United States (“HTSUS”) subheading 3802.10.00. Although the HTSUS subheading is provided for convenience and customs purposes, the written description of the scope of the order is dispositive.<sup>28</sup>*

### **U.S. tariff treatment**

Certain activated carbon is classifiable in the Harmonized Tariff Schedule of the United States (“HTS”) under subheading 3802.10.00. The current rate of duty for certain activated carbon is 4.8 percent ad valorem. This tariff classification also includes certain items (e.g., chemically activated carbon) that are excluded from the scope of the order. Decisions on the tariff classification and treatment of imported goods are within the authority of U.S. Customs and Border Protection.

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<sup>28</sup> *Certain Activated Carbon From the People's Republic of China: Continuation of Antidumping Duty Order*, 78 FR 16654, March 18, 2013.

## Description and uses<sup>29 30</sup>

Activated carbon is a solid material consisting primarily of carbon that has been specially treated to increase the porosity, and thus the surface area, of the material. The high surface area that results from “activation” allows greater adsorption of chemical species onto the solid carbon. The surface area and pore structure of activated carbon depend greatly on the raw materials and processing methods used. In both the United States and China, coal is the primary raw material. However, activated carbon can be produced from almost any solid material that has a high carbon content. Other common raw materials for making activated carbon are wood, coconut shells, olive stones, and peat.

Activated carbon is sold in three basic forms: powdered, granular, and pelletized. Powdered activated carbon (“PAC”) is usually defined as being predominately material that passes through an 80 mesh.<sup>31</sup> Granular activated carbon (“GAC”) has larger particles than PAC. The size range for GAC is usually specified by two mesh numbers between which most of the material is retained. For example, an 8x30 GAC predominately contains particles that pass through an 8 mesh (2.38 mm sieve openings) but do not pass through a 30 mesh (0.59 mm sieve openings). Pelletized activated carbon consists of uniformly sized cylinders with typical diameters of 2 mm and lengths of 0.5 to 2 cm. The primary benefit of pelletized activated carbon is that it produces a lower pressure drop over a fixed bed than GAC.

In addition to the size and shape of the activated carbon particles, surface area, pore size distribution, ash content, and hardness influence the efficiency of activated carbon in a given application. These properties depend on the raw materials used, as well as the activation process. The surface area and pore size distribution are related properties that determine how much of the desired chemical species will adsorb onto the activated carbon. Two characteristics of a given activated carbon sample that are related to the pore size distribution and surface area are the iodine number and the molasses number. The iodine number measures the mass of iodine that is absorbed from a standard solution by a given mass of activated carbon and is usually reported in units of milligrams of iodine absorbed per gram of activated carbon.<sup>32</sup> Since iodine is a small molecule, a high iodine number indicates the abundance of small diameter pores

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<sup>29</sup> Unless otherwise noted, this information is based on *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, pp. I-9 through I-12.

<sup>30</sup> In this section, the term activated carbon refers to both certain activated carbon (also referred to as steam-activated carbon) and chemically activated carbon.

<sup>31</sup> Mesh numbers refer to hole sizes in sieves used to separate granular materials. For example, an 80 mesh has sieve openings that are nominally 0.177 mm. Lower mesh numbers typically have larger sized holes.

<sup>32</sup> Since the iodine number is relatively simple to measure, it is often used as a substitute for surface area measurements, which require specialized equipment and highly trained technicians.

(micropores) in the activated carbon. The molasses number measures the efficiency with which a sample of activated carbon removes the color inducing molecules from a mixture of molasses and water. Since the molecules that give molasses its color are large relative to iodine, the molasses number measures the abundance of medium- to large-sized pores. A purchaser of activated carbon chooses an appropriate pore size distribution based on the size (and chemical properties) of the chemical species to be captured.

Ash content of activated carbons varies greatly according to the raw material used to produce it. Since the ash is inorganic material that cannot be “activated,” a higher ash content reduces the effectiveness of a given mass of activated carbon. Manufacturers generally control ash content by selecting low-ash starting materials. If a higher ash raw material is used, the material can undergo a post-activation, acid wash step to reduce the ash content.

Hardness is an important property for specifying granular activated carbon. Harder activated carbons produce fewer fines during shipping and use. In some applications, generation of fines can be problematic.<sup>33</sup> Some customers in water treatment prefer harder activated carbon that does not break down and change shape during repeated backwashing of the filter bed.

The primary use for activated carbon is in the separation of small concentrations of chemical species from liquid and gas streams. Because activated carbon has a low affinity for water but strongly absorbs organic and sulfur-containing chemicals, it is widely used to remove undesirable tastes and odors from drinking water and to eliminate contaminants from industrial wastewater.<sup>34</sup> In the processing of foods (e.g., sugar, corn syrup, and vegetable oils), pharmaceuticals, and alcoholic beverages, activated carbon is used to remove unwanted color and impurities. Chemical process industries use activated carbon for solvent recovery. Applications of activated carbon in gas-phase systems include air purification, automobile emissions reduction, and solvent vapor recovery.

Certain activated carbon made from coconut shells typically has different properties from certain activated carbon made from coal. Specifically, coconut-based activated carbon usually has greater hardness and smaller pore sizes than coal-based activated carbon. These differences may make coconut-based carbon better than coal-based carbon for certain applications, such as gold mining and manufacturing filters for cigarettes. The process of recovering gold from mined ore involves the adsorption of gold on activated carbon. The extra hardness of coconut-based carbon helps to reduce

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<sup>33</sup> Because chemically activated carbon is generally made using wood, it has lower hardness than certain activated carbon made from coal. Chemically activated carbons are generally powdered or pelletized due to their lower hardness.

<sup>34</sup> Frederick S. Baker, Charles E. Miller, Albert J. Repik, and E. Donald Tolles, “Carbon, Activated,” Kirk-Othmer Encyclopedia of Chemical Technology, John Wiley & Sons, Inc., 2003, Section 10.

the loss of gold that can occur when the activated carbon particles break into smaller pieces. In cigarette filters, coconut-based carbon may be better than coal-based activated carbon at adsorbing chemicals that affect the flavor of the cigarette. In other applications, these property differences may not be meaningful and either coconut- or coal-based activated carbon can be used.

PAC is one technology available for the removal of mercury and other metals from flue gas of coal-fired power plants. In December 2011, the EPA finalized national emissions standards for hazardous air pollutants from coal- and oil-fired electric generating plants. However, domestic interested parties allege that these standards for mercury emissions are currently subject to legal challenges that might not be resolved for some time.<sup>35</sup> Additionally, domestic interested parties allege that the current low prices for natural gas in the United States have encouraged electric utilities to switch from coal-fired plants to natural gas, reducing the demand for certain activated carbon for controlling mercury emissions.<sup>36</sup>

Activated carbon is non-toxic and has no adverse environmental effects. However, once the activated carbon has been used, it may take on the toxicity of adsorbed materials. Like nearly all powdered and granular materials, eye or skin exposure to activated carbon may cause mild irritation. Inhalation of the dust from powdered or granular activated carbon may cause irritation of the respiratory tract. Activated carbon is generally packaged and stored in plastic bags at weights ranging from 25 pounds to 2,000 pounds. Bags of activated carbon are shipped either by rail or by truck. Bulk delivery by truck is also common.

### **Manufacturing process<sup>37 38</sup>**

The process of making activated carbon differs based on the starting material used and whether the carbon is thermally or chemically activated. The two most common methods for producing activated carbon in the United States are thermal activation (also called steam activation) of coal, which is the process that ADA, Calgon, and Norit use, and chemical activation of wood.

The domestic industry uses both direct activation and reagglomeration<sup>39</sup> to produce certain activated carbon. Calgon activates carbon after reagglomeration, Norit primarily produces certain activated carbon by direct activation of coal, and ADA

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<sup>35</sup> Domestic interested parties' response to the notice of institution, March 5, 2018, p. 19.

<sup>36</sup> Domestic interested parties' response to the notice of institution, March 5, 2018, p. 19.

<sup>37</sup> Unless otherwise noted, this information is based on *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, pp. I-12 through I-14.

<sup>38</sup> In this section, the term activated carbon refers to both certain activated carbon (also referred to as steam-activated carbon) and chemically activated carbon.

<sup>39</sup> Reagglomeration occurs before the activation of the carbon. The starting material, typically coal, is ground to a powder. This powder is combined with a binder, such as tar, and pressed into briquettes before further grinding and activation.

exclusively produces certain activated carbon by direct activation of coal. Most Chinese producers supply direct activated carbon but a few Chinese producers can also supply reagglomerated carbon.

For both direct activation and reagglomeration, the crushed material is added to one or more rotary kilns<sup>40</sup> for the carbonization step. The raw material is heated in the kiln, in the absence of oxygen, to approximately 400 degrees Celsius. During this step, the water and volatile organic compounds are vaporized and removed from the kiln in the exhaust gases. The charred material is removed from the kiln after approximately six hours, ready for the activation step.

In thermal activation, the carbonized material is transferred to a rotary kiln or multiple hearth kiln.<sup>41</sup> The kiln is maintained at a temperature of approximately 1,000 degrees Celsius. An oxidizing agent, usually steam, is fed to the kiln. The high surface area of activated carbon is created in this step as the reaction between steam and carbon removes much of the material and leaves a porous structure. Variables, such as the pore size and surface area, are controlled by the kiln temperature and residence time of the material. After the activated carbon is removed from kiln, it can be milled and screened to final size and packaged for sale.

In the chemical activation of wood, an activating agent, typically phosphoric acid,<sup>42</sup> is added to sawdust before it is added to a rotary kiln. Both the carbonization process and the activation process take place in this kiln. The activating agent extracts moisture, reduces tar formation, and generates an open pore structure. The pores created by chemical activation are generally larger than the pores formed during thermal activation. The yield of activated carbon is generally 50 percent by weight of the raw material for chemical activation compared to 30 to 35 percent by weight for thermal activation.

In some instances, used certain activated carbon can be “reactivated.” Spent carbon is reactivated by heating it in a kiln until the adsorbed species are desorbed<sup>43</sup> or destroyed. Reactivated carbon tends to have slightly lower activity than virgin certain activated carbon. Reactivation is usually performed on granular or pelletized activated

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<sup>40</sup> A rotary kiln consists of a long cylindrical combustion chamber that is slightly tilted from horizontal. Material is added to the elevated end of the kiln. The tilt and rotation of the combustion chamber move the material out the opposite end. The feed and rotation rates control the residence time of the material.

<sup>41</sup> A multiple hearth kiln consists of a vertical column with grates at various heights in the column. Solid materials are fed into the top of the kiln and arms attached to a rotating center shaft push the material to the lower grates. Steam and/or air enter the bottom of the kiln. The residence time of the solid material in the kiln is determined by the rotation rate of the center shaft and by the feed rate, which controls the bed height on each grate.

<sup>42</sup> In addition to phosphoric acid, other chemicals, such as zinc chloride, sulfuric acid, or potassium hydroxide, can be used to chemically activate steam. Zinc chloride is no longer used in the United States because of environmental concerns regarding zinc.

<sup>43</sup> Desorption is the process in which a molecule leaves the surface to which it is adsorbed.

carbon and is rarely used on powdered activated carbon. Reactivation is sometimes performed by the end user and then reused by the same user. However, some firms take spent carbon from the end user, reactivate it, and return it to the original user. In processes where environmentally regulated chemicals are being captured on activated carbon, strict bookkeeping of the amount of regulated chemical produced and how it is disposed of is required. For this reason, firms that reactivate carbon for a user usually process the carbon as single batch and return the same carbon to the user. In some applications, such as using activated carbon to capture molecules in the gas phase, there is little risk that residual species in reactivated carbon will leach into the process. In these applications, it is possible for spent carbons from different users to be mixed together, reactivated, and sold to yet another user as “pooled” reactivated carbon.

## **THE INDUSTRY IN THE UNITED STATES**

### **U.S. producers**

During the final phase of the original investigation, the Commission received U.S. producer questionnaires from three firms: Calgon, Norit, and California Carbon Co., Inc. (“California Carbon”), which together accounted for virtually all production of certain activated carbon in the United States during 2006.<sup>44</sup> During the first five-year review, the Commission received U.S. producer questionnaires from three firms: Calgon, Norit, and ADA,<sup>45</sup> which accounted for virtually all production of certain activated carbon in the United States during 2011.<sup>46</sup> In response to the Commission’s notice of institution in this current review, domestic interested parties provided a list of three known and currently operating U.S. producers of certain activated carbon: Calgon, Norit, and ADA.<sup>47</sup>

### **Recent developments**

Since the Commission’s last five-year review, there have been two significant developments in the U.S. certain activated carbon industry. First, California Carbon, which was listed as a small U.S. producer of activated carbon in the original investigation and the previous review, is believed no longer to be producing certain activated carbon

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<sup>44</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Final)*, USITC Publication 3913, April 2007, pp. III-1 and III-4.

<sup>45</sup> ADA began production of certain activated carbon after the original order was published. *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. III-2.

<sup>46</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. III-1.

<sup>47</sup> Domestic interested parties’ response to the notice of institution, March 5, 2018, p. 16.

in the United States. Domestic interested parties \*\*\*.<sup>48</sup> Second, domestic producer Calgon was acquired by global specialty chemicals company Kuraray Co., Ltd., (“Kuraray”) of Japan.<sup>49</sup> As of March 9, 2018, Calgon has operated as a separate subsidiary of Kuraray.<sup>50</sup> Kuraray manufactures coal-based and coconut-based certain activated carbon in China, Japan, and the Philippines.<sup>51</sup>

### **U.S. producers’ trade and financial data**

The Commission asked domestic interested parties to provide trade and financial data in their response to the notice of institution of the current five-year review.<sup>52</sup> Table I-3 presents a compilation of the data submitted from all responding U.S. producers as well as trade and financial data submitted by U.S. producers in the original investigation and prior five-year review.

U.S. production of certain activated carbon in 2017 (360 million pounds) has increased by \*\*\* percent since 2011, and was \*\*\* percent higher than in 2006. In 2017, domestic industry capacity (507 million pounds) was \*\*\* the capacity reported in 2006 (\*\* pounds) and \*\*\* percent above the capacity reported in 2011. Capacity utilization in 2017 of 71.0 percent was \*\*\* percentage points above 2011 but \*\*\* percentage points below 2006.

U.S. commercial shipments and internal consumption/company transfers were higher in 2017, both in quantity and value, compared with 2006 and 2011. As a result, total U.S. shipments were \*\*\* percent and \*\*\* percent above 2011 levels, in terms of quantity and value, respectively, and \*\*\* percent and \*\*\* percent higher than 2006, in terms of quantity and value, respectively. The average unit value (dollars per pound) of total U.S. shipments was \$1.01 in 2017, \$\*\*\* below 2011 and \$\*\*\* higher than 2006.

In 2017, the increase in COGS was greater than the increase in net sales compared with 2011, resulting in a COGS/net sales ratio \*\*\* percentage points higher in 2017 than in 2011. U.S. producers reported an operating loss in 2017, as SG&A expenses outweighed gross profit. In contrast, in both 2006 and 2011, the domestic industry reported \*\*\*. Gross profit of \$55 million in 2017 was \*\*\* the amount reported in 2011 (although \*\*\* that of 2006), and SG&A expenses were up by \*\*\* percent compared with 2011 and by \*\*\* percent compared with 2006.

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<sup>48</sup> Domestic interested parties’ response to the notice of institution, March 5, 2018, p. 16; and Domestic interested parties’ response to additional questions, March 22, 2018, p. 2.

<sup>49</sup> Calgon Carbon press release, “Kuraray Completes Acquisition of Calgon Carbon,” March 9, 2018, <https://www.calgoncarbon.com/media/press-releases/2018-09-03/6927/> (accessed April 24, 2018).

<sup>50</sup> Ibid.

<sup>51</sup> Kuraray website, <http://www.kuraray-c.co.jp/en/business/kuraraycoal/> (accessed April 24, 2018).

<sup>52</sup> Individual company trade and financial data are presented in app. B.

**Table I-3**  
**Certain activated carbon: Trade and financial data submitted by U.S. producers, 2006, 2011, and 2017**

Item	2006	2011	2017
Capacity (1,000 pounds)	***	***	507,000
Production (1,000 pounds)	***	***	359,994
Capacity utilization (percent)	***	***	71.0
U.S. commercial shipments:			
Quantity (1,000 pounds)	***	***	***
Value (\$1,000)	***	***	***
Unit value (dollars per pound)	***	***	***
Internal consumption/company transfers:			
Quantity (1,000 pounds)	***	***	***
Value (\$1,000)	***	***	***
Unit value (dollars per pound)	***	***	***
Total U.S. shipments:			
Quantity (1,000 pounds)	***	***	289,129
Value (\$1,000)	***	***	291,631
Unit value (dollars per pound)	***	***	1.01
Net sales (\$1,000)	***	***	369,753
COGS (\$1,000)	***	***	314,812
COGS/net sales (percent)	***	***	85.1
Gross profit (\$1,000)	***	***	54,942
SG&A expenses (\$1,000)	***	***	63,530
Operating income (loss) (\$1,000)	***	***	(8,588)
Operating income (loss)/net sales (percent)	***	***	(2.3)

Source: For the years 2006 and 2011, data are compiled using data submitted in the Commission's original investigation and first five-year review. See app. C. For the year 2017, data are compiled using data submitted by domestic interested parties. Domestic interested parties' response to the notice of institution, March 5, 2018, exh. 7.

## DEFINITIONS OF THE DOMESTIC LIKE PRODUCT AND DOMESTIC INDUSTRY

The domestic like product is defined as the domestically produced product or products which are like, or in the absence of like, most similar in characteristics and uses with, the subject merchandise. The domestic industry is defined as the U.S. producers as a whole of the domestic like product, or those producers whose collective output of the domestic like product constitutes a major proportion of the total domestic production of the product. Under the related parties provision, the Commission may exclude a related party for purposes of its injury determination if “appropriate circumstances” exist.<sup>53</sup>

In both its original determination and its expedited first five-year review determination, the Commission found one domestic like product that was coextensive with Commerce’s scope of the investigation, certain activated carbon.<sup>54</sup> In the original determination, the Commission examined whether the definition of the domestic like product should include reactivated carbon or chemically activated carbon, neither of which are within the scope.<sup>55</sup> Applying its six factor like product analysis, the Commission concluded that neither reactivated carbon nor chemically activated carbon should be included in the like product.<sup>56</sup> In the first five-year determination, the record did not include information suggesting the characteristics and uses of domestically produced certain activated carbon have changed since the prior proceedings or that the like product definition should be revisited and none of the responding parties argued for a different definition of the domestic like product.<sup>57</sup>

In its original determination, the Commission defined the domestic industry as all domestic producers of certain activated carbon, with the exception of one firm, California Carbon, which it excluded pursuant to the related party provisions.<sup>58</sup> In the first five-year review, one domestic producer, Calgon, was a related party due to ownership relationships with foreign producers of certain activated carbon and its

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<sup>53</sup> Section 771(4)(B) of the Tariff Act of 1930, 19 U.S.C. § 1677(4)(B).

<sup>54</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Final)*, USITC Publication 3913, April 2007, p. 10 and *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. 6.

<sup>55</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Final)*, USITC Publication 3913, April 2007, pp. 7-10.

<sup>56</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Final)*, USITC Publication 3913, April 2007, p. 10.

<sup>57</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. 6.

<sup>58</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Final)*, USITC Publication 3913, April 2007, p. 12.

importation of the subject merchandise. The Commission determined that appropriate circumstances did not exist to exclude Calgon from the domestic industry.<sup>59</sup>

In its notice of institution for this review, the Commission solicited comments from interested parties regarding what they deemed to be the appropriate definitions of the domestic like product and domestic industry and inquired as to whether any related parties issues existed. According to their response to the notice of institution, the domestic interested parties agreed with the Commission's definition of the domestic like product as stated in the last five-year review but noted that they reserve the right to comment on the definitions during this proceeding.<sup>60</sup> Domestic interested parties stated that Calgon wholly-owns the subsidiary Carbon Calgon Carbon (Suzhou) Co. Inc., a foreign producer and exporter of certain activated carbon.<sup>61</sup> Respondent interested parties declined to state whether they agree with the current definitions of the domestic like product and the domestic industry and noted that they reserve the right to address the issue at a later time.<sup>62</sup>

## **U.S. IMPORTS AND APPARENT U.S. CONSUMPTION**

### **U.S. importers**

During the final phase of the original investigation, the Commission received U.S. importer questionnaires from 25 firms, which accounted for approximately 95.9 percent of total U.S. imports of certain activated carbon from China during 2006.<sup>63</sup> During the first five-year review, the Commission received U.S. importer questionnaires from \*\*\* firms, which accounted for approximately 87.1 percent of total U.S. imports of certain activated carbon from China during 2012.<sup>64</sup> In their responses to the Commission's notice of institution, the domestic interested parties provided a list of 84 potential U.S. importers of certain activated carbon<sup>65</sup> and respondent interested parties provided a list of 13 potential U.S. importers.<sup>66</sup>

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<sup>59</sup> Staff did not issue a U.S. producer questionnaire to California Carbon during the first five-year review in light of its very small production of certain activated carbon in the United States. *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. 7.

<sup>60</sup> Domestic interested parties' response to the notice of institution, March 5, 2018, p. 19.

<sup>61</sup> Domestic interested parties' response to the notice of institution, March 5, 2018, p. 16 and domestic interested parties' response to additional questions, March 27, 2018, p. 1.

<sup>62</sup> Respondent interested parties' response to the notice of institution, March 5, 2018, p. 12.

<sup>63</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Final)*, USITC Publication 3913, April 2007, p. IV-1.

<sup>64</sup> *Investigation No. 731-TA-1103 (Review): Certain Activated Carbon From China—Staff Report*, INV-LL-010, January 23, 2013, p. IV-1.

<sup>65</sup> The list of possible U.S. importers submitted by domestic interested parties likely overstates the actual number of U.S. importers of certain activated carbon because it includes  
(continued...)

## U.S. imports

Table I-4 presents the quantity, value, and unit value for imports from China as well as the other top sources of U.S. imports (shown in descending order of 2017 imports by quantity). From 2012 to 2014, the quantity of U.S. imports of certain activated carbon from China were relatively constant, but imports decreased from 34.5 million pounds (\$31.3 million) in 2014 to 24.9 million pounds (\$21.3 million) in 2015, declining further to 17.4 million pounds (\$20.5 million) by 2017. In 2012, China was the largest importer of certain activated carbon, accounting for nearly one-fifth of U.S. imports by quantity, but by 2017, China fell to the sixth-largest importer by quantity, accounting for 8.4 percent of U.S. imports of certain activated carbon. In contrast, India increased its share of imports by quantity from 18.9 percent in 2012, to 26.6 percent in 2017, moving from the second largest importer in 2012 to the largest importer in 2017. Total imports by quantity of certain activated carbon increased every year from 2012 to 2015, and then declined in 2016, before increasing to 207 million pounds (\$195 million) in 2017. The unit value (dollars per pound) of certain activated carbon from China increased from \$0.82 in 2012 to \$1.18 in 2017, and in 2017 was \$0.26 above the unit value of imports from nonsubject sources.

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(...continued)

numerous freight forwarding and logistics firms. Domestic interested parties' response to the notice of institution, March 5, 2018, exh. 8.

<sup>66</sup> Respondent interested parties' response to the notice of institution, March 5, 2018, pp. 5-6.

**Table I-4**  
**Certain activated carbon: U.S. imports, 2012-17**

Item	2012	2013	2014	2015	2016	2017
<b>Quantity (1,000 pounds)</b>						
China (subject)	34,517	30,316	34,481	24,881	18,958	17,388
India (nonsubject)	33,842	38,098	35,262	42,024	41,469	55,063
Sri Lanka (nonsubject)	33,477	33,831	30,006	23,140	25,409	28,995
Philippines (nonsubject)	12,402	15,685	16,482	20,375	21,475	22,685
Germany (nonsubject)	2,431	3,391	4,867	7,128	11,690	17,474
Canada (nonsubject)	19,208	18,788	17,788	20,701	15,258	15,932
Indonesia (nonsubject)	18,064	17,083	15,784	13,921	8,992	10,745
Japan (nonsubject)	2,587	2,938	4,882	12,194	5,466	4,261
All other imports (nonsubject)	22,030	20,033	30,403	40,889	27,541	34,535
Subtotal, nonsubject	144,041	149,847	155,475	180,371	157,300	189,689
Total imports	178,558	180,163	189,955	205,251	176,258	207,078
<b>Landed, duty-paid value (\$1,000)</b>						
China (subject)	28,401	28,907	31,274	21,323	21,882	20,472
India (nonsubject)	31,449	29,076	29,444	35,589	31,905	41,054
Sri Lanka (nonsubject)	34,866	29,939	28,723	25,226	23,846	26,211
Philippines (nonsubject)	12,883	13,124	14,468	18,137	17,011	17,195
Germany (nonsubject)	11,425	15,765	9,503	2,414	5,233	7,541
Canada (nonsubject)	27,846	18,202	16,930	20,806	19,410	18,050
Indonesia (nonsubject)	13,597	9,865	9,879	8,446	5,083	6,549
Japan (nonsubject)	17,152	17,277	18,681	22,845	13,274	13,649
All other imports (nonsubject)	23,039	23,726	30,980	33,869	31,715	43,909
Subtotal, nonsubject	172,257	156,975	158,609	167,332	147,477	174,158
Total imports	200,658	185,882	189,883	188,655	169,359	194,630
<b>Unit value (dollars per pound)</b>						
China (subject)	0.82	0.95	0.91	0.86	1.15	1.18
India (nonsubject)	0.93	0.76	0.83	0.85	0.77	0.75
Sri Lanka (nonsubject)	1.04	0.88	0.96	1.09	0.94	0.90
Philippines (nonsubject)	1.04	0.84	0.88	0.89	0.79	0.76
Germany (nonsubject)	4.70	4.65	1.95	0.34	0.45	0.43
Canada (nonsubject)	1.45	0.97	0.95	1.01	1.27	1.13
Indonesia (nonsubject)	0.75	0.58	0.63	0.61	0.57	0.61
Japan (nonsubject)	6.63	5.88	3.83	1.87	2.43	3.20
All other imports (nonsubject)	1.05	1.18	1.02	0.83	1.15	1.27
Subtotal, nonsubject	1.20	1.05	1.02	0.93	0.94	0.92
Total imports	1.12	1.03	1.00	0.92	0.96	0.94

Note.--Because of rounding, figure may not add to total shown.

Source: Official statistics of Commerce for HTS statistical reporting numbers 3802.10.0000, 3802.10.0010, 3802.10.0020, and 3802.10.0050. These data may be overstated as HS 3802.10 may contain products outside the scope of this review.

## Apparent U.S. consumption and market shares

Table I-5 presents data on U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, while table I-6 presents data on U.S. market shares of U.S. apparent consumption.<sup>67</sup> Apparent U.S. consumption in terms of quantity in 2017 (496 million pounds) was \*\*\* percent higher than in 2006, as both U.S. producers' U.S. shipments and total U.S. imports increased. Similarly, apparent U.S. consumption in terms of value in 2017 (\$292 million) was nearly \*\*\* higher than in 2006. In terms of quantity, U.S. producers accounted for the majority share of apparent consumption (58.3 percent) in 2017 while U.S. imports from China accounted for 3.5 percent. U.S. producers' share of apparent U.S. consumption in terms of quantity in 2017 (58.3 percent) was above the share in 2006 (\*\*\*) percentage points higher). U.S. producers' share of apparent U.S. consumption in terms of value has declined from \*\*\* percent in 2006 to 60.0 percent in 2017.

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<sup>67</sup> In 2006 and 2017, import data are based on official Commerce statistics. In 2011, import data are based on responses to the Commission's questionnaires. In 2006, 2011, and 2017, U.S. producers' data are based on responses to the Commission's questionnaires, which cover virtually all domestic production in all periods.

**Table I-5****Certain activated carbon: U.S. producers' U.S. shipments, U.S. imports, and apparent U.S. consumption, 2006, 2011, and 2017**

Item	2006	2011	2017
<b>Quantity (1,000 pounds)</b>			
U.S. producers' U.S. shipments	***	***	289,129
U.S. imports from—			
China	***	34,252	17,388
All nonsubject imports	***	110,734	189,689
Total imports	***	144,985	207,078
Apparent U.S. consumption	***	***	496,206
<b>Value (1,000 dollars)</b>			
U.S. producers' U.S. shipments	***	***	291,631
U.S. imports from—			
China	***	42,099	20,472
All nonsubject imports	***	133,240	174,158
Total imports	***	175,340	194,630
Apparent U.S. consumption	***	***	486,261

Source: For the years 2006 and 2011, data are compiled using data submitted in the Commission's original investigation and first five-year review. In 2006, import data are based on adjusted official Commerce statistics while in 2011 import data are based on responses to the Commission's questionnaires. In both 2006 and 2011, U.S. producers' data are based on responses to the Commission's questionnaires. *See app. C.* For the year 2017, U.S. producers' U.S. shipments are compiled from the domestic interested parties' response to the Commission's notice of institution. U.S. imports are compiled using official Commerce statistics for HTS statistical reporting numbers 3802.10.0000, 3802.10.0010, 3802.10.0020, and 3802.10.0050. Note that import data may be overstated as the HTS subheading 3802.10 may contain products outside the scope of this review.

**Table I-6**

**Certain activated carbon: Apparent U.S. consumption and U.S. market shares, 2006, 2011, and 2017**

Item	2006	2011	2017
<b>Quantity (1,000 pounds)</b>			
Apparent U.S. consumption	***	***	496,206
<b>Value (1,000 dollars)</b>			
Apparent U.S. consumption	***	***	486,261
<b>Share of consumption based on quantity (percent)</b>			
U.S. producers' share	***	***	58.3
U.S. imports from--			
China	***	***	3.5
All other sources	***	***	38.2
Total imports	***	***	41.7
<b>Share of consumption based on value (percent)</b>			
U.S. producers' share	***	***	60.0
U.S. imports from--			
China	***	***	4.2
All other sources	***	***	35.8
Total imports	***	***	40.0

Source: For the years 2006 and 2011, data are compiled using data submitted in the Commission's original investigation and first five-year review. In 2006, import data are based on adjusted official Commerce statistics while in 2011 import data are based on responses to the Commission's questionnaires. In both 2006 and 2011, U.S. producers' data are based on responses to the Commission's questionnaires. *See app. C.* For the year 2017, U.S. producers' U.S. shipments are compiled from the domestic interested parties' response to the Commission's notice of institution. U.S. imports are compiled using official Commerce statistics for HTS statistical reporting numbers 3802.10.0000, 3802.10.0010, 3802.10.0020, and 3802.10.0050. Note that import data may be overstated as the HTS subheading 3802.10 may contain products outside the scope of this review.

## THE INDUSTRY IN CHINA

### Chinese producers

During the final phase of the original investigation, the Commission received foreign producer/exporter questionnaires from eight firms, which accounted for approximately \*\*\* percent of U.S. imports of certain activated carbon from China during 2006.<sup>68</sup> During the first five-year review, the Commission received foreign producer/exporter questionnaires from four firms, which accounted for approximately \*\*\* percent of production of certain activated carbon from China during 2011, and approximately \*\*\* percent of exports from China to the United States of certain activated carbon during 2011.<sup>69</sup>

Domestic producers provided in their response to the notice of institution data regarding capacity, shipments, and exports of producers of certain activated carbon from China.<sup>70</sup> According to the domestic interested parties, based on information from \*\*\*, China is the world's largest producer and exporter of certain activated carbon, with more than 80 producers/exporters. The domestic interested parties estimate capacity in China was \*\*\* pounds in 2015, and that excess capacity of \*\*\* pounds was greater than U.S. production in 2017 of 360.0 million pounds. The domestic interested parties, citing the Global and China Activated Carbon Industry Report, 2016-2020, report that the certain activated carbon industry in China operated at 69.8 percent utilization in 2015.

### Recent developments

Respondent interested parties allege that there have been major supply and demand shifts in China since the last review.<sup>71</sup> First, respondent interested parties allege that since 2014, the Chinese government has increased enforcement of environmental regulations and forced closures of activated carbon factories not in compliance. Respondent interested parties allege these closures have caused a shortage of activated carbon within China and required manufacturers to upgrade equipment to satisfy these new and stricter enforcement measures at significant costs.<sup>72</sup> Second, respondent interested parties allege there is currently a severe shortage of raw coal in China to closure of coal mines after recent accidents, which has caused raw material costs for activated carbon manufacturers to increase.<sup>73</sup> Respondent interested parties allege that

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<sup>68</sup> *Investigation No. 731-TA-1103 (Final): Certain Activated Carbon From China—Staff Report*, INV-EE-028, March 16, 2007, p. VII-1

<sup>69</sup> *Investigation No. 731-TA-1103 (Review): Certain Activated Carbon From China—Staff Report*, INV-LL-010, January 23, 2013, p. IV-11.

<sup>70</sup> Domestic interested parties' response to the notice of institution, March 5, 2018, pp. 6-11.

<sup>71</sup> Respondent interested parties' response to the notice of institution, March 5, 2018, p. 11.

<sup>72</sup> *Ibid.*

<sup>73</sup> *Ibid.*

the combination of these factors have caused activated carbon prices in China to increase by 35 to 45 percent since 2014, increasing the preference of Chinese producers to sell into the home market.<sup>74</sup>

### Chinese producers' trade data

Presented in table I-7 are data on the Chinese industry's home market shipments, imports, and exports of certain activated carbon as provided by the domestic interested parties in their response to the Commission's notice of institution in this second five-year review (based on \*\*\*).

**Table I-7**

**Certain activated carbon: China's home market shipments, imports, and exports, 2005, 2010, 2015, and projected 2020**

\* \* \* \* \*

According to the data provided by the domestic interested parties, exports from China as a share of total production of certain activated carbon declined by \*\*\* percentage points from 2005 to \*\*\* percent in 2015, as the \*\*\* percent increase in total shipments over the period outpaced the \*\*\* percent growth in exports. Domestic interested parties also note, citing Trade Data Monitor China, that the United States is the eighth largest market for exports of certain active carbon from China.<sup>75</sup>

In its response to the notice of institution for this current review, one foreign exporter of certain activated carbon (CA Tianjin) presented data regarding its exports to the United States. Because the responding firm is not a producer, it did not provide capacity or production data. CA Tianjin reported that it accounted for approximately \*\*\* percent of the total export volume to the United States of certain activated carbon from China in 2017. Table I-8 presents CA Tianjin's exports to the United States from China of certain activated carbon during 2017, as well as production, capacity, and export data compiled from questionnaire responses in the original investigation for 2006 and in the first five five-year review for 2011.

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<sup>74</sup> Ibid.

<sup>75</sup> Domestic interested parties' response to the notice of institution, March 5, 2018, p. 11.

**Table I-8****Certain activated carbon: Reported production, capacity, and exports to the United States by producers/exporters in China, 2006, 2011, and 2017**

Item	2006	2011	2017
Capacity (1,000 pounds)	55,100	***	NA
Production (1,000 pounds)	50,551	***	NA
Capacity utilization (percent)	91.7	***	NA
Exports to the United States:			
Quantity (1,000 pounds)	27,209	***	***
Value (\$1,000)	NA	***	***

Source: For the years 2006 and 2011, data are compiled using data reported in the Commission's original investigation and first five-year review. During the final phase of the original investigation, the Commission received foreign producer/exporter questionnaires from eight firms, which accounted for approximately \*\*\* percent of U.S. imports of certain activated carbon from China during 2006. *Investigation No. 731-TA-1103 (Final): Certain Activated Carbon From China—Staff Report*, INV-EE-028, March 16, 2007, p. VII-1 During the first five-year review, the Commission received foreign producer/exporter questionnaires from four firms, which accounted for approximately \*\*\* percent of production of certain activated carbon from China during 2011, and approximately \*\*\* percent of exports from China to the United States of certain activated carbon during 2011. *Investigation No. 731-TA-1103 (Review): Certain Activated Carbon From China—Staff Report*, INV-LL-010, January 23, 2013, p. IV-11. For the year 2017, data are compiled using data submitted CA Tianjin, which accounted for approximately \*\*\* percent of the total export volume to the United States of certain activated carbon from China in 2017. Respondent interested parties' response to the notice of institution, March 5, 2018, p. 10.

Table I-9 presents export data for certain activated carbon from China in descending order of quantity for 2017. Japan is the largest export destination for certain activated carbon from China, accounting for one-fifth of 2017 exports, followed by Korea, accounting for 13.0 percent of 2017 exports. The United States was the eighth largest export destination for certain activated carbon from China in 2017 and accounted for 3.3 percent of exports. Exports of certain activated carbon from China to the United States have declined year-over-year four of the past five years and were 53.2 percent lower in 2017 compared with 2012.

**Table I-9**

**Certain activated carbon: Exports from China, by destination, 2012-17**

Item	Calendar year					
	2012	2013	2014	2015	2016	2017
<b>Quantity (1,000 pounds)</b>						
Japan	139,146	136,674	137,479	109,293	108,184	112,655
Korea	57,005	67,281	71,286	83,189	78,581	73,852
Belgium	26,063	26,742	32,721	35,108	49,303	42,744
Italy	24,276	23,800	24,178	24,668	33,551	37,528
Netherlands	46,099	33,542	43,675	40,834	34,650	35,142
Germany	17,569	13,750	16,563	15,173	13,450	17,799
Taiwan	17,657	14,469	14,576	16,561	21,196	20,839
United States	39,957	33,766	31,256	33,630	26,281	18,687
India	13,747	10,990	13,581	15,796	13,987	17,892
Indonesia	7,522	10,130	17,144	11,604	13,709	12,775
All other	142,649	141,510	143,870	155,394	160,483	176,576
Total	531,690	512,653	546,330	541,250	553,374	566,490

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

Source: Global Trade Information Services, Inc., Global Trade Atlas, HTS subheading 3802.10. These data may be overstated as HS 380210 may contain products outside the scope of this review.

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

Certain activated carbon from China is not currently subject to other antidumping or countervailing duty investigations outside the United States. The European Union (“EU”) previously imposed antidumping duties on powdered activated carbon from China.<sup>76</sup> The EU repealed the antidumping duties on powdered activated carbon with Commission Implementing Regulation (EU) No 898/2014 of August 18, 2014.

### THE GLOBAL MARKET<sup>77</sup>

Information regarding capacity and exports in markets outside the United States - to the extent that meaningful data are available - are presented below and in table I-10. With respect to foreign nonsubject industry information, publicly available information regarding international producers of activated carbon in Australia, Canada, Germany, India, Indonesia, Japan, the Netherlands, the Philippines, and Sri Lanka follow. The Philippines, Indonesia, and Sri Lanka export a large portion of the world’s coconut shell derived activated carbon.<sup>78</sup>

#### Australia

Australia has at least four producers of activated carbon: Activated Carbon Technologies,<sup>79</sup> Iluka Resources,<sup>80</sup> James Cumming & Sons,<sup>81</sup> and Tronox.<sup>82</sup> Total production capacity for Australia is unknown, but exports of activated carbon from Australia were 58.5 million pounds (26,600 metric tons) in 2017.<sup>83</sup> Australia has been a

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<sup>76</sup> See European Commission (“EC”) Regulations No 1006/96 of June 3, 1996; No 1011/2002 of June 10, 2002; and No 649/2008 of July 8, 2008. The European antidumping duty was only on powdered activated carbon; there were no European antidumping duty on other types of certain activated carbon.

<sup>77</sup> Unless otherwise noted, this information is based on *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, pp. IV-11 through IV-16.

<sup>78</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. IV-12.

<sup>79</sup> Activated Carbon Technologies web site, <http://www.activatedcarbon.com.au/factory.htm> (accessed April 17, 2018).

<sup>80</sup> Iluka Resources web site, <https://www.iluka.com/products/products-available> (accessed April 17, 2018).

<sup>81</sup> James Cumming & Sons web site, <http://jamescumming.com.au/activated-carbon/activated-carbon/> (accessed April 17, 2018).

<sup>82</sup> Tronox web site, <http://www.tronox.com/our-company/global-operations/kwinana-australia/> (accessed April 17, 2018).

<sup>83</sup> Global Trade Information Services, Inc., Global Trade Atlas, HS subheading 380210, (accessed April 17, 2018).

viable competitor to China for coal-based certain activated carbon, both in terms of price and the amount available for export.<sup>84</sup>

### Canada

A joint venture of Cabot Norit Canada and Westmoreland Coal Company operates Canada's only activated carbon plant, located in Bienfait, Saskatchewan.<sup>85</sup> On September 30, 2014, the joint venture partners announced a plan to double production capacity at the plant.<sup>86</sup> The additional 35 million pounds of production capacity for powdered activated carbon was commissioned in 2016.

### Germany

Germany has one producer of activated carbon: CarboTech AC GmbH of Essen. CarboTech AC has an annual production capacity of 22.0 million pounds (10,000 metric tons) and primarily uses coal as the raw material for producing activated carbon.<sup>87</sup> Germany has been a viable competitor to China for coal-based certain activated carbon, both in pricing and in the amount of certain activated carbon available for export.<sup>88</sup> The German producer of certain activated carbon makes a specialized powdered product that has competed with domestically produced certain activated carbon in the mercury removal market.<sup>89</sup>

### India

India has at least six producers of activated carbon: Active Char Products of Cochin (annual capacity 11.0 million pounds; 5,000 metric tons), Adsorbent Carbons of Chennai (unknown annual capacity), Core Carbons of Coimbatore (13.2 million pounds; 6,000 metric tons), Genuine Shell Carb of Coimbatore (7.7 million pounds; 3,500 metric tons), Indo German Carbons of Cochin (13.2 million pounds; 6,000 metric tons), and Raj

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<sup>84</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. IV-12.

<sup>85</sup> The plant was originally a joint venture between Cabot Norit Canada and Sherritt International, but Westmoreland acquired Sherritt's share of the plant in 2014.

<sup>86</sup> Westmoreland Coal Company news release, "Westmoreland and Cabot Corporation Announce Activated Carbon Capacity Expansion," September 30, 2014, <http://westmoreland.com/2014/09/westmoreland-and-cabot-corporation-announce-activated-carbon-capacity-expansion/> (accessed April 17, 2018).

<sup>87</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. IV-12.

<sup>88</sup> *Ibid.*

<sup>89</sup> *Ibid.*

Carbon of Tuticorin (18.3 million pounds; 8,300 metric tons).<sup>90</sup> Total annual production capacity for India exceeds 63.4 million pounds (28,800 metric tons). Indian producers primarily make activated carbon by steam activation of coconut shells.

### **Indonesia**

Indonesia has more than 10 companies producing activated carbon, primarily using coconut shells as a raw material. Total annual production capacity in Indonesia exceeds 121.7 million pounds (55,000 metric tons).<sup>91</sup> Indonesia is also beginning to produce and export more coal-based certain activated carbon.<sup>92</sup>

### **Japan**

Japan has at least 13 companies producing activated carbon. Total annual capacity for the activated carbon industry in Japan exceeds 225.3 million pounds (100,000 metric tons).<sup>93</sup> Japanese producers use coal, coconut shell, and sawdust as raw materials in the production of activated carbon. In 2017, exports of activated carbon from Japan were 24.2 million pounds (11,000 metric tons).<sup>94</sup>

### **Netherlands**

The Netherlands has one producer of activated carbon: NORIT Nederland B.V.<sup>95</sup> NORIT Nederland's two plants in Klazienaveen and Zaandam have a combined annual production capacity of 79.4 million pounds (36,000 metric tons). These plants use peat as the primary raw material for producing activated carbon.

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<sup>90</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. IV-13, and Raj Carbon Web site, <http://www.rajcarbon.com/about.html> (accessed April 18, 2018).

<sup>91</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. IV-13.

<sup>92</sup> *Ibid.*

<sup>93</sup> *Ibid.*

<sup>94</sup> Global Trade Information Services, Inc., Global Trade Atlas, HS subheading 380210, (accessed April 18, 2018).

<sup>95</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. IV-13.

## Philippines

The Philippines has at least six companies producing activated carbon: BF Industries of Davao, Cenapro Chemical Corporation<sup>96</sup> of Mandaue City, Davao Central Chemical Corporation of Davao, Pacific Activated Carbon Company of Tagoloan, Philippine-Japan Active Carbon Corporation of Davao, and Premium A.C. Corporation of Davao.<sup>97</sup> The activated carbon industry in the Philippines has a combined capacity of over 94.1 million pounds (42,000 metric tons) and primarily produces activated carbon from coconut shells. Japanese firms own many of the activated carbon firms in the Philippines in whole or in part.

## Sri Lanka

Sri Lanka has at least three companies producing activated carbon: Bieko Link Carbons of Colombo, Haycarb PLC of Colombo, and Jacobi Carbons of Colombo.<sup>98</sup> These firms primarily produce CAC from coconut shells. Total production capacity in Sri Lanka is unknown, but the activated carbon industry in Sri Lanka exported more than 92.4 million pounds (41,900 metric tons) of activated carbon in 2017.<sup>99</sup>

## Global exports

Table I-10 presents the largest global export sources of activated carbon during 2012-17.

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<sup>96</sup> Cenapro Chemical Corporation is a joint venture of Kuraray Co., Ltd., of Japan. Kuraray website, <http://www.kuraray-c.co.jp/en/business/kuraraycoal/> (accessed April 24, 2018).

<sup>97</sup> *Certain Activated Carbon From China, Inv. No. 731-TA-1103 (Review)*, USITC Publication 4381, February 2013, p. IV-14.

<sup>98</sup> Ibid.

<sup>99</sup> Global Trade Information Services, Inc., Global Trade Atlas, HS subheading 380210, (accessed April 18, 2018).

**Table I-10****Activated carbon: Global exports by major sources, 2012-17**

Item	2012	2013	2014	2015	2016	2017
<b>Value (\$1,000)</b>						
China	332,743	349,994	332,509	313,254	288,239	318,736
United States	212,716	230,872	264,395	264,952	279,479	303,735
Netherlands	145,879	127,118	154,451	133,833	128,287	134,524
India	106,540	100,519	108,581	113,454	115,757	141,121
Belgium <sup>1</sup>	102,180	123,326	128,960	119,597	115,839	115,620
Philippines	104,035	94,461	102,461	111,686	105,600	110,806
Sri Lanka	77,211	81,181	84,125	74,073	74,906	82,347
Japan	76,100	78,603	79,211	78,093	70,906	75,814
Germany	84,291	78,786	76,355	54,285	62,779	70,338
United Kingdom	55,291	50,752	56,664	48,317	46,537	48,842
All other	226,595	196,591	212,233	239,229	232,533	256,904
Total <sup>2</sup>	1,523,582	1,512,204	1,599,944	1,550,773	1,520,862	1,658,786

<sup>1</sup> Belgium has no known sources of virgin activated carbon. Chemviron operates a reactivation facility in Feluy, Belgium. See Chemviron website, <http://www.chemviron.eu/about-us/company/> (accessed April 19, 2018).

<sup>2</sup> Because of rounding, figures may not add to total shown.

Source: Global Trade Information Services, Inc., Global Trade Atlas, HS subheading 3802.10. These data may be overstated as HS 380210 may contain products outside the scope of this review.

**APPENDIX A**

***FEDERAL REGISTER NOTICES***



The Commission makes available notices relevant to its investigations and reviews on its website, [www.usitc.gov](http://www.usitc.gov). In addition, the following tabulation presents, in chronological order, *Federal Register* notices issued by the Commission and Commerce during the current proceeding.

Citation	Title	Link
83 FR 4641 February 1, 2018	<i>Initiation of Five-Year (Sunset) Reviews</i>	<a href="https://www.gpo.gov/fdsys/pkg/FR-2018-02-01/pdf/2018-02005.pdf">https://www.gpo.gov/fdsys/pkg/FR-2018-02-01/pdf/2018-02005.pdf</a>
83 FR 4681 February 1, 2018	<i>Certain Activated Carbon From China; Institution of a Five-Year Review</i>	<a href="https://www.gpo.gov/fdsys/pkg/FR-2018-02-01/pdf/2018-01342.pdf">https://www.gpo.gov/fdsys/pkg/FR-2018-02-01/pdf/2018-01342.pdf</a>
83 FR 24345 May 25, 2018	<i>Activated Carbon From China; Scheduling of an Expedited Five-Year Review</i>	<a href="https://www.gpo.gov/fdsys/pkg/FR-2018-05-25/pdf/2018-11273.pdf">https://www.gpo.gov/fdsys/pkg/FR-2018-05-25/pdf/2018-11273.pdf</a>



**APPENDIX B**  
**COMPANY-SPECIFIC DATA**



**RESPONSE CHECKLIST FOR U.S. PRODUCERS**

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**RESPONSE CHECKLIST FOR U.S. IMPORTERS**

\* \* \* \* \*

**RESPONSE CHECKLIST FOR FOREIGN PRODUCERS**

\* \* \* \* \*



**APPENDIX C**

**SUMMARY DATA COMPILED IN PRIOR PROCEEDINGS**



**Table C-1**  
**CAC: Summary data concerning the U.S. market, 2003-06**

\* \* \* \* \*

**Table C-2**

**CAC: U.S. imports and U.S. shipments, by sources, 2003-06, based on questionnaire responses**

Source	Calendar year			
	2003	2004	2005	2006
<b>Quantity (1,000 pounds)</b>				
China	58,706	74,816	79,131	76,054
Nonsubject countries	21,188	39,789	51,939	49,350
Total	79,894	114,605	131,069	125,404
<b>Value (1,000 dollars)<sup>1</sup></b>				
China	18,225	25,592	24,953	24,848
Nonsubject countries	17,692	30,717	33,106	33,549
Total	35,917	56,309	58,059	58,397
<b>Unit value (per pound)<sup>1</sup></b>				
China	\$0.31	\$0.34	\$0.32	\$0.33
Nonsubject countries	0.84	0.77	0.64	0.68
Total	0.45	0.49	0.44	0.47
<b>U.S. shipments quantity (1,000 pounds)</b>				
China	56,896	70,475	75,709	84,264
Nonsubject countries	20,208	34,268	41,365	45,457
Total	77,104	104,743	117,073	129,721
<b>U.S. shipments value (1,000 dollars)<sup>2</sup></b>				
China	24,479	30,546	33,156	38,289
Nonsubject countries	20,800	30,873	39,078	44,990
Total	45,279	61,420	72,234	83,279
<b>U.S. shipments unit value (per pound)<sup>2</sup></b>				
China	\$0.43	\$0.43	\$0.44	\$0.45
Nonsubject countries	1.03	0.90	0.94	0.99
Total	0.59	0.59	0.62	0.64
<sup>1</sup> Landed, duty-paid. <sup>2</sup> F.o.b. point of U.S. shipment.				
Note.—Because of rounding, figures may not add to the totals shown.				
Source: Compiled from data submitted in response to Commission questionnaires.				

Table C-3

Certain activated carbon: Summary data concerning the U.S. market, 2007-11, January-June 2011, and January-June 2012

(Quantity=1,000 pounds, value=1,000 dollars, unit values, unit labor costs, and unit expenses are per pound; period changes=percent, except where noted)

Item	Reported data					January-June		Period changes					Jan.-June 2011-12
	2007	2008	2009	2010	2011	2011	2012	2007-11	2007-08	2008-09	2009-10	2010-11	
U.S. consumption quantity:													
Amount	***	***	***	***	***	***	***	***	***	***	***	***	***
Producers' share (1)	***	***	***	***	***	***	***	***	***	***	***	***	***
Importers' share (1):													
China	***	***	***	***	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***	***	***	***	***
Total imports	***	***	***	***	***	***	***	***	***	***	***	***	***
U.S. consumption value:													
Amount	***	***	***	***	***	***	***	***	***	***	***	***	***
Producers' share (1)	***	***	***	***	***	***	***	***	***	***	***	***	***
Importers' share (1):													
China	***	***	***	***	***	***	***	***	***	***	***	***	***
All other sources	***	***	***	***	***	***	***	***	***	***	***	***	***
Total imports	***	***	***	***	***	***	***	***	***	***	***	***	***
U.S. shipments of imports from:													
China:													
Quantity	37,446	35,249	32,736	27,914	34,252	15,806	16,905	-8.5	-5.9	-7.1	-14.7	22.7	7.0
Value	31,576	41,023	44,657	34,750	42,099	18,749	20,225	33.3	29.9	8.9	-22.2	21.2	7.9
Unit value	\$0.84	\$1.16	\$1.36	\$1.24	\$1.23	\$1.19	\$1.20	45.8	38.0	17.2	-8.7	-1.3	0.9
Ending inventory quantity	12,661	15,337	7,836	7,801	10,414	9,525	9,634	-17.7	21.1	-48.9	-0.4	33.5	1.1
All other sources:													
Quantity	60,151	78,619	83,868	105,304	110,734	54,779	56,844	84.1	30.7	6.7	25.6	5.2	3.8
Value	60,984	86,224	93,808	115,200	133,240	62,692	78,618	118.5	41.4	8.8	22.8	15.7	25.4
Unit value	\$1.01	\$1.10	\$1.12	\$1.09	\$1.20	\$1.14	\$1.38	18.7	8.2	2.0	-2.2	10.0	20.8
Ending inventory quantity	18,300	22,020	35,512	34,689	38,136	38,819	41,924	108.4	20.3	61.3	-2.3	9.9	8.0
All sources:													
Quantity	97,597	113,868	116,604	133,217	144,985	70,586	73,749	48.6	16.7	2.4	14.2	8.8	4.5
Value	92,560	127,247	138,465	149,950	175,340	81,442	98,843	89.4	37.5	8.8	8.3	16.9	21.4
Unit value	\$0.95	\$1.12	\$1.19	\$1.13	\$1.21	\$1.15	\$1.34	27.5	17.8	6.3	-5.2	7.4	16.2
Ending inventory quantity	30,961	37,357	43,348	42,490	48,550	48,344	51,558	56.8	20.7	16.0	-2.0	14.3	6.6
U.S. producers:													
Average capacity quantity	***	***	***	***	***	***	***	***	***	***	***	***	***
Production quantity	***	***	***	***	***	***	***	***	***	***	***	***	***
Capacity utilization (1)	***	***	***	***	***	***	***	***	***	***	***	***	***
U.S. shipments:													
Quantity	***	***	***	***	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***	***	***	***	***
Export shipments:													
Quantity	***	***	***	***	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***	***	***	***	***
Ending inventory quantity	***	***	***	***	***	***	***	***	***	***	***	***	***
Inventories/total shipments (1)	***	***	***	***	***	***	***	***	***	***	***	***	***
Production workers	***	***	***	***	***	***	***	***	***	***	***	***	***
Hours worked (1,000s)	***	***	***	***	***	***	***	***	***	***	***	***	***
Wages paid (\$1,000)	***	***	***	***	***	***	***	***	***	***	***	***	***
Hourly wages	***	***	***	***	***	***	***	***	***	***	***	***	***
Productivity (pounds per hour)	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit labor costs	***	***	***	***	***	***	***	***	***	***	***	***	***
Net sales:													
Quantity	***	***	***	***	***	***	***	***	***	***	***	***	***
Value	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit value	***	***	***	***	***	***	***	***	***	***	***	***	***
Cost of goods sold (COGS)	***	***	***	***	***	***	***	***	***	***	***	***	***
Gross profit or (loss)	***	***	***	***	***	***	***	***	***	***	***	***	***
SG&A expenses	***	***	***	***	***	***	***	***	***	***	***	***	***
Operating income or (loss)	***	***	***	***	***	***	***	***	***	***	***	***	***
Capital expenditures	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit COGS	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit SG&A expenses	***	***	***	***	***	***	***	***	***	***	***	***	***
Unit operating income or (loss)	***	***	***	***	***	***	***	***	***	***	***	***	***
COGS/sales (1)	***	***	***	***	***	***	***	***	***	***	***	***	***
Operating income or (loss)/ sales (1)	***	***	***	***	***	***	***	***	***	***	***	***	***

(1) "Reported data" are in percent and "period changes" are in percentage points.

Note.--Financial data are reported on a fiscal year basis and may not necessarily be comparable to data reported on a calendar year basis. Because of rounding, figures may not add to the totals shown. Unit values and shares are calculated from the unrounded figures.

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

