

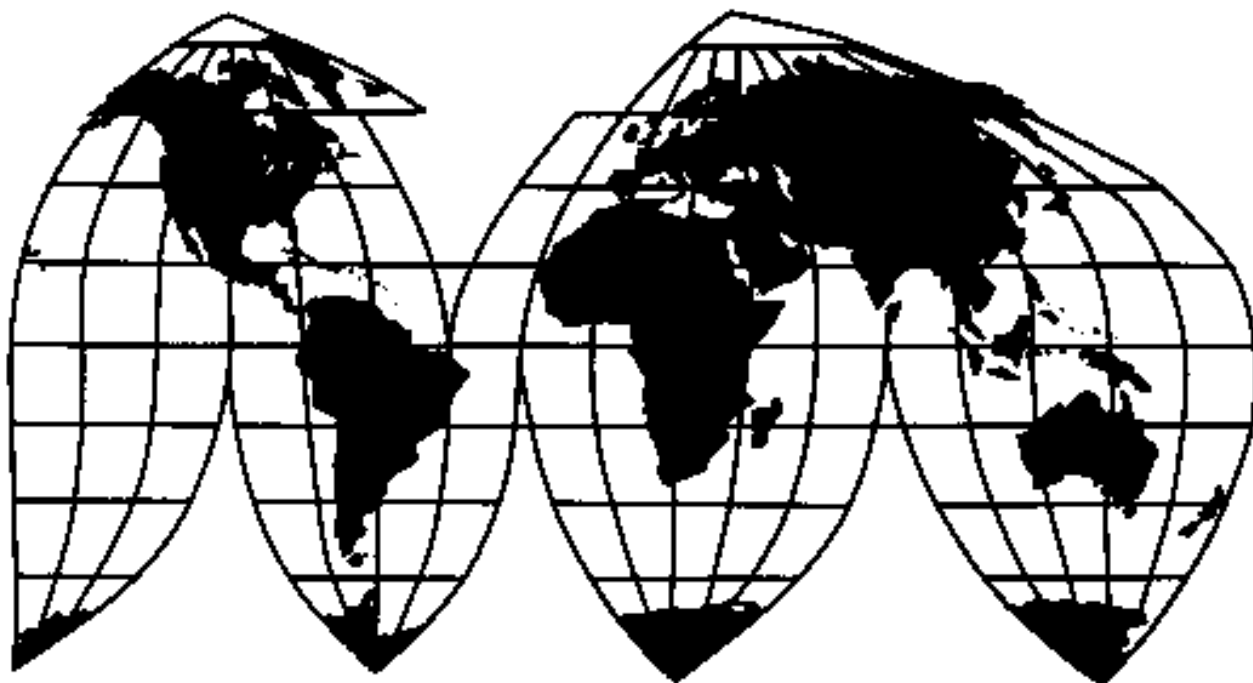
# Purified Carboxymethylcellulose From Finland, Mexico, Netherlands, and Sweden

Investigations Nos. 731-TA-1084-1087 (Final)

Publication 3787

June 2005

U.S. International Trade Commission



# U.S. International Trade Commission

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# U.S. International Trade Commission

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Note.—Information that would reveal confidential operations of individual concerns may not be published and therefore has been deleted from this report.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

## GLOSSARY OF TERMS

|                  |   |
|------------------|---|
| AUV .....        | Average unit value                              |
| COGS .....       | Cost of goods sold                              |
| Commission ..... | U.S. International Trade Commission             |
| f.o.b. ....      | Free on board                                   |
| <i>FR</i> .....  | <i>Federal Register</i>                         |
| HTS .....        | Harmonized Tariff Schedule of the United States |
| PRWs .....       | Production and related workers                  |
| R&D .....        | Research and development expenses               |
| SG&A .....       | Selling, general, and administrative            |

## GLOSSARY OF FIRMS

|                            |  |
|----------------------------|--|
| Akzo .....                 | Akzo Nobel Cellulosic Specialties, Inc.                  |
| Akzo Netherlands .....     | Akzo Nobel Surface Chemistry bv                          |
| Amtex .....                | Quimica Amtex S.A. de C.V.                               |
| Aqualon .....              | Aqualon Co., a Division of Hercules Inc.                 |
| Ashland .....              | Ashland Distribution Co.                                 |
| Azteca .....               | Azteca Milling LP  |
| Barbe .....                | Barbe America, Inc.                                      |
| Bayer .....                | Bayer Chemicals Cor. - Wolff Walsrode                    |
| BK Giuliani .....          | BK Giuliani Corp.  |
| Danisco .....              | Danisco USA  |
| Degussa .....              | Degussa Food Ingredients                                 |
| Drilling Specialties ..... | Drilling Specialties Co. (Chevron Phillips Chemical Co.) |
| Eastman .....              | Eastman Chemical Co.                                     |
| Florim .....               | Florim USA   |
| FMC .....                  | FMC Corp., FMC Biopolymer Division                       |
| Gum Technology .....       | Gum Technology Corp.                                     |
| HESI .....                 | Halliburton Energy Services, Inc.                        |
| JM Huber .....             | JM Huber Corp.   |
| Lamberti .....             | Lamberti USA Inc.  |
| Lincoln Electric .....     | The Lincoln Electric Co.                                 |
| Marubeni .....             | Marubeni Specialty Chemicals Inc.                        |
| M-I .....                  | M-I L.L.C.   |
| Mitsui .....               | Mitsui & Co. (U.S.A.), Inc.                              |
| Noviant .....              | Noviant Inc.   |
| Noviant Finland .....      | Noviant OY   |
| Noviant Netherlands .....  | Noviant BV   |
| Noviant Sweden .....       | Noviant AB   |
| Panasonic .....            | Panasonic International Trading Corp. Of America         |
| PL Thomas .....            | PL Thomas & Co., Inc.                                    |
| Polypro .....              | Polypro International, Inc.                              |
| Raw Materials .....        | Raw Materials Corp.                                      |
| Robeco .....               | Robeco Inc.  |
| S & G .....                | S & G Resources, Inc.                                    |
| Scientific Polymers .....  | Scientific Polymers, Inc.                                |
| Shin-Etsu .....            | Shin-Etsu Silicones of America, Inc.                     |
| TIC .....                  | TIC Gums   |
| Wakunaga .....             | Wakunaga of America Co. Ltd.                             |





# UNITED STATES INTERNATIONAL TRADE COMMISSION

Investigations Nos. 731-TA-1084-1087 (Final)

## PURIFIED CARBOXYMETHYLCELLULOSE FROM FINLAND, MEXICO, THE NETHERLANDS, AND SWEDEN

### DETERMINATIONS

On the basis of the record<sup>1</sup> developed in the subject investigations, the United States International Trade Commission (Commission) determines, pursuant to section 735(b) of the Tariff Act of 1930 (19 U.S.C. § 1673d(b)) (the Act), that an industry in the United States is materially injured by reason of imports from Finland, Mexico, the Netherlands, and Sweden of purified carboxymethylcellulose, provided for in subheading 3912.31.00 of the Harmonized Tariff Schedule of the United States, that have been found by the Department of Commerce (Commerce) to be sold in the United States at less than fair value (LTFV).<sup>2</sup>

### BACKGROUND

The Commission instituted these investigations effective June 9, 2004, following receipt of a petition filed with the Commission and Commerce by Aqualon Co., a division of Hercules, Inc., Wilmington, DE. The final phase of these investigations was scheduled by the Commission following notification of a preliminary determination by Commerce that imports of purified carboxymethylcellulose from Finland, Mexico, the Netherlands, and Sweden were being sold at LTFV within the meaning of section 733(b) of the Act (19 U.S.C. § 1673b(b)). Notice of the scheduling of the final phase of the Commission's investigations and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the *Federal Register* of January 10, 2005 (70 FR 1740). The hearing was held in Washington, DC, on May 12, 2005, and all persons who requested the opportunity were permitted to appear in person or by counsel.

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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)).

<sup>2</sup> Commissioner Daniel R. Pearson made negative determinations with respect to all subject countries.



## VIEWS OF THE COMMISSION

Based on the record in these investigations, we find that an industry in the United States is materially injured by reason of subject imports of purified carboxymethylcellulose from Finland, Mexico, Netherlands and Sweden that are sold at less than fair value.<sup>1</sup>

### I. BACKGROUND

Purified carboxymethylcellulose (“CMC”) is a white to off-white, non-toxic, odorless, biodegradable powder that consists of sodium CMC refined to a minimum assay of 90 percent. It is a water-soluble polymer that can be dissolved in hot or cold water.<sup>2</sup> Purified CMC is used in a variety of industries, including the food, personal care, pharmaceutical, oilfield and paper industries. It is generally valued for its properties as a binding, thickening, and stabilizing agent in these end uses.<sup>3</sup>

The petition in these investigations was filed on June 9, 2004, by the Aqualon Company (“Aqualon”), a division of Hercules, Inc.<sup>4</sup> Aqualon is the only domestic producer of purified CMC.<sup>5</sup> Respondents in the investigations included the members of the Noviant Group (collectively, “Noviant”), *i.e.*, the Finnish producer and exporter Noviant OY, the Dutch producer and exporter Noviant BV, and the Swedish producer and exporter Noviant AB, as well as the U.S. importer Noviant Inc.<sup>6</sup> Noviant Inc. accounted for a substantial share of all subject imports in 2004.<sup>7</sup> Respondents also included the Mexican producer and exporter Quimica Amtex S.A. de C.V. (“Amtex”) and the Dutch producer and exporter Akzo Nobel Surface Chemistry BV (“Akzo”).<sup>8</sup>

During the three-year period of investigation, the subject imports had a significant adverse effect on the domestic industry. The record of these final phase investigations indicates that in 2002, the first year of the period of investigation, the industry lost significant amounts of market share to the subject imports as a result of aggressive subject import pricing. In 2003 and 2004, the final two years of the period, the domestic industry chose to compete more closely on price in order to regain the market share lost to subject imports in 2002. Although the industry succeeded in regaining substantial amounts of its lost market share in 2003 and 2004, the industry’s decision to lower its prices to meet subject import competition resulted in significant declines in the industry’s pricing and profitability levels during the last part of the period of investigation.

### II. DOMESTIC LIKE PRODUCT

#### A. In General

To determine whether an industry in the United States is materially injured or threatened with material injury by reason of imports of the subject merchandise, the Commission first defines the

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<sup>1</sup> Commissioner Daniel R. Pearson dissenting. Commissioner Pearson joins sections II and III of these views, which discuss the domestic like product and the domestic industry. For his discussion of the remaining issues in this proceeding, see Dissenting Views of Commissioner Daniel R. Pearson.

<sup>2</sup> Confidential Staff Report (“CR”) at I-7, Public Staff Report (“PR”) at I-6.

<sup>3</sup> CR at I-8-9, PR at I-7.

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

<sup>5</sup> CR at I-2, PR at I-1.

<sup>6</sup> CR at I-1-2, PR at I-1.

<sup>7</sup> CR at I-1-2, PR at I-1.

<sup>8</sup> CR/PR at I-2.

“domestic like product” and the “industry.”<sup>9</sup> Section 771(4)(A) of the Tariff Act of 1930, as amended (“the Act”), defines the relevant domestic industry as the “producers as a [w]hole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”<sup>10</sup> In turn, the Act defines “domestic like product” as “a product which is like, or in the absence of like, most similar in characteristics and uses with, the article subject to an investigation.”<sup>11</sup>

The decision regarding the appropriate domestic like product(s) in an investigation is a factual determination, and the Commission has applied the statutory standard of “like” or “most similar in characteristics and uses” on a case-by-case basis.<sup>12</sup> No single factor is dispositive, and the Commission may consider other factors it deems relevant based on the facts of a particular investigation.<sup>13</sup> The Commission looks for clear dividing lines among possible like products, and disregards minor variations.<sup>14</sup> Although the Commission must accept Commerce’s determinations as to the scope of the imported merchandise sold at less than fair value, the Commission determines what domestic product is like the imported articles that Commerce has identified.<sup>15</sup>

## **B. Product Description**

In its scope definition, Commerce defined the subject merchandise as “all purified carboxymethylcellulose” (“purified CMC”).<sup>16</sup> Commerce defines purified CMC as being:

a white to off-white, non-toxic, odorless, biodegradable powder, comprising sodium CMC that has been refined and purified to a minimum assay of 90 percent . . . Purified CMC is CMC that has undergone one or more purification operations which, at a minimum, reduce the remaining salt and other by-product portion of the product to less than ten percent.<sup>17</sup>

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<sup>9</sup> 19 U.S.C. § 1677(4)(A).

<sup>10</sup> Id.

<sup>11</sup> 19 U.S.C. § 1677(10).

<sup>12</sup> See, e.g., NEC Corp. v. Department of Commerce, 36 F. Supp.2d 380, 383 (Ct. Int’l Trade 1998); Nippon Steel Corp. v. United States, 19 CIT 450, 455 (1995); Torrington Co. v. United States, 747 F. Supp. 744, 749 n.3 (Ct. Int’l Trade 1990), aff’d, 938 F.2d 1278 (Fed. Cir. 1991) (“every like product determination ‘must be made on the particular record at issue’ and the ‘unique facts of each case’”).

<sup>13</sup> See, e.g., S. Rep. No. 96-249, at 90-91 (1979).

<sup>14</sup> See, e.g., Nippon, 19 CIT at 455; Torrington, 747 F. Supp. at 748-49; see also, e.g., S. Rep. No. 96-249, at 90-91 (1979) (Congress has indicated that the domestic like product standard should not be interpreted in “such a narrow fashion as to permit minor differences in physical characteristics or uses to lead to the conclusion that the product and article are not ‘like’ each other, nor should the definition of ‘like product’ be interpreted in such a fashion as to prevent consideration of an industry adversely affected by the imports under consideration.”)

<sup>15</sup> See, e.g., Hosiden Corp. v. Advanced Display Mfrs., 85 F.3d 1561, 1568 (Fed. Cir. 1996) (Commission may find single domestic like product corresponding to several different classes or kinds defined by Commerce); Torrington, 747 F. Supp. at 748-52 (affirming Commission’s determination of six domestic like products in investigations where Commerce found five classes or kinds).

<sup>16</sup> Final Determinations of Sales at Less Than Fair Value: Purified Carboxymethylcellulose from Finland, Mexico, the Netherlands, and Sweden, 70 FR 28275, 28278, 28279, 28280 (May 17, 2005). Purified CMC is currently classified under subheading 3912.31.00 of the Harmonized Tariff Schedule of the United States (HTSUS). Id.

<sup>17</sup> Id. Purified CMC is sometimes called “purified sodium CMC, polyanionic cellulose, or cellulose gum.”

Purified CMC is a water-soluble polymer in powder form that can be dissolved in hot or cold water.<sup>18</sup> Purified CMC is used for a variety of end uses in a range of products and industries.<sup>19</sup> It is used as a thickening agent and stabilizer in foods (including dairy products, beverages, syrups, baked goods, and pet foods) and as a raw material in the production of oilfield drilling fluids. It is also used as a thickener and adhesion promoter in personal care products, such as toothpaste and denture adhesive, and as a granulation aid, binder and thickener in pharmaceutical products.<sup>20</sup> In addition, the product is used as a binder and thickener in paper, ceramics, and textiles.<sup>21</sup>

Commerce excluded three other forms of CMC from the scope of these investigations: unpurified or crude CMC (often called “technical CMC”),<sup>22</sup> CMC in fluidized polymer suspensions,<sup>23</sup> and CMC that is cross-linked through heat treatment.<sup>24</sup>

### C. Analysis

In our preliminary determinations, we found that there was one domestic like product in these investigations, consisting of all purified CMC.<sup>25</sup> In these final phase investigations, we again find that the domestic like product consists of all forms of purified CMC.<sup>26</sup> The record shows that, although purified CMC is produced in a variety of grades and used for a number of purposes in the major end use industries,<sup>27</sup> all forms of purified CMC share the same basic chemical composition and are valued by purchasers as thickening, binding or stabilizing agents.<sup>28</sup> Moreover, while there is a somewhat limited level of substitutability among the various grades of purified CMC, higher-purity grades of purified CMC

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<sup>18</sup> CR at I-7, PR at I-6.

<sup>19</sup> CR at I-8-9, PR at I-7.

<sup>20</sup> CR at I-8-9, PR at I-7. CMC is typically listed on food labels as “cellulose gum.” Preliminary Staff Conference Transcript (“Prelim. Tr.”) at 59 (Herak).

<sup>21</sup> CR at I-9, PR at I-7.

<sup>22</sup> “Crude” or “technical” CMC is a form of CMC that contains significantly higher levels of salts and other by-products than purified CMC. Petition at 3, *see also* CR at I-8; PR at I-6. Crude CMC contains, on average, 30 percent by weight of salts and other impurities, while purified CMC has been purified to a level containing less than 10 percent of salts and other impurities. *Id.* Crude or technical CMC is used primarily in detergents to inhibit redeposit of soils and as a production process aid and fabric sizing in the textile industry. CR at I-10, PR at I-7.

<sup>23</sup> Fluidized Polymer Suspensions (“FPS”) are proprietary suspensions of cellulose ethers, including CMC, in a non-hydrated (i.e., non-water-based) state. Petition at 3, n. 6, *see also* CR at I-8, PR at I-7. FPS is designed primarily for customers who prefer liquid handling to dry powder handling. *Id.* CMC in the FPS form is contained in a non-aqueous solution and the active CMC concentration is up to 45 percent. According to Petitioner, this form of CMC is priced substantially higher than the powder forms of CMC. *Id.*

<sup>24</sup> Cross-linked sodium CMC is a partially soluble and highly absorbent polymer produced by acidifying an aqueous solution of sodium CMC and heating it to achieve cross-linking, which occurs when cellulose polymer chains are linked together by covalent linkages. Petition at 3, n. 7. Purified CMC does not have these linkages. Cross-linked CMC is used as a disintegrant in pharmaceutical tablets.

<sup>25</sup> Purified Carboxymethylcellulose from Finland, Mexico, Netherlands, and Sweden, Inv. Nos. 731-TA-1084-1087, USITC pub. No. 3713 at 4-7 (“Prelim. Det.”).

<sup>26</sup> In these final phase investigations, the parties agree that the domestic like product should be defined as purified CMC. Aqualon’s Prehearing Brief at 5-7; Noviant’s Prehearing Brief at 3 & App. A.

<sup>27</sup> CR at I-7-9, PR at I-7. The various grades of purified CMC may differ with respect to viscosity, solubility, and “level of substitution;” these characteristics provide grades with slightly difference performance characteristics. Petition at 4-6.

<sup>28</sup> CR at I-8-9, PR at I-8; Petition at 4.

are substitutable, to some extent, with lower-purity grades.<sup>29</sup> In addition, market participants generally appear to consider all grades of purified CMC to be part of the same general product category.<sup>30</sup>

The large majority of purified CMC sales are made in the same channel of distribution, with most domestic and subject purified CMC being sold to end users.<sup>31</sup> The record also shows that Aqualon manufactures all of its purified CMC using the same production processes, facilities and employees.<sup>32</sup> Finally, prices for purified CMC vary somewhat by specification and end use, with average unit values for the domestic product ranging, for example, from \$\*\*\* per pound in the oilfield sector to \$\*\*\* in the personal care and pharmaceutical segment of the market and \$\*\*\* in the “other uses” sector of the market in 2004.<sup>33</sup>

On the whole, the record of these final phase investigations shows that the various grades of purified CMC represent a continuum of products. All forms of purified CMC share the same general characteristics and uses, are interchangeable to a limited degree, are produced using similar production processes, facilities, and employees, and are sold in the same channels of trade. Thus, we find one domestic like product, consisting of all purified CMC, as that term is defined in the scope of these investigations.<sup>34</sup>

### III. DOMESTIC INDUSTRY

The domestic industry is defined as the “producers as a [w]hole of a domestic like product, or those producers whose collective output of a domestic like product constitutes a major proportion of the total domestic production of the product.”<sup>35</sup> In defining the domestic industry, the Commission’s general practice has been to include in the industry all domestic production of the domestic like product, whether toll-produced, captively consumed, or sold in the domestic merchant market.<sup>36</sup>

Based on our finding that the domestic like product consists of all purified CMC, we find that the domestic industry consists of Aqualon, the only domestic producer of purified CMC.<sup>37 38</sup>

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<sup>29</sup> E.g., Prelim. Tr. at 59-60 (Herak); CR at I-11-12, PR at I-9; Petitioners Prehearing Brief at 7.

<sup>30</sup> See CR/PR at App. D; see also Petition at Exhibit 1H (*IMR International Quarterly Review of Food Hydrocolloids, Third Quarter 2003*).

<sup>31</sup> CR at I-13 & Table I-4, PR at I-10 & Table I-4.

<sup>32</sup> See CR at I-10-11, PR at I-8; Petitioners Postconference Brief at Answers to Staff Questions, p. 1.

<sup>33</sup> CR/PR at Table I-5.

<sup>34</sup> We also find that crude CMC and CMC in FPS form are not part of the domestic like product in these investigations. The record indicates that these two forms of CMC are significantly different from purified CMC in terms of their physical characteristics and end uses, production processes, and pricing levels. CR at I-7-13 & Appendix D, PR at I-5-10 & Appendix D. Noviant and Aqualon agree that these two products should not be part of the domestic like product. See Aqualon Prehearing Brief at 8-12; Noviant Prehearing Brief at 3 & App. A;

<sup>35</sup> 19 U.S.C. § 1677(4)(A).

<sup>36</sup> United States Steel Group v. United States, 873 F. Supp. 673, 681-84 (Ct. Int’l Trade 1994), aff’d, 96 F.3d 1352 (Fed. Cir. 1996).

<sup>37</sup> CR at I-2, PR at I-1.

<sup>38</sup> Commissioner Pearson does not join the remaining sections of these views. For his discussion of the cumulation, injury and causation, and threat, see Dissenting Views of Commissioner Daniel R. Pearson.

## IV. CUMULATION<sup>39</sup>

### A. In General

For purposes of evaluating the volume and price effects for a determination of material injury by reason of the subject imports, section 771(7)(G)(i) of the Act requires the Commission to assess cumulatively the volume and effect of imports of the subject merchandise from all countries as to which petitions were filed and/or investigations self-initiated by Commerce on the same day, if such imports compete with each other and with the domestic like product in the U.S. market.<sup>40</sup> In assessing whether subject imports compete with each other and with the domestic like product,<sup>41</sup> the Commission has generally considered four factors, including:

- (1) the degree of fungibility between the subject imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
- (2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;
- (3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and
- (4) whether the subject imports are simultaneously present in the market.<sup>42</sup>

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for determining whether the subject imports compete with each other and with the domestic like product.<sup>43</sup> Only a “reasonable overlap” of competition is required.<sup>44</sup>

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<sup>39</sup> We find that none of the subject imports from any of the subject countries are negligible in these final phase investigations. The subject imports from Finland, Mexico, the Netherlands, and Sweden were all above the three percent negligibility threshold during the most recent twelve-month period for which data were available preceding the filing of the petition. CR/PR at Table IV-2; 19 U.S.C. § 1677(24).

<sup>40</sup> 19 U.S.C. § 1677(7)(G)(i). There are four exceptions to the cumulation provision, none of which applies to these investigations. See, e.g., 19 U.S.C. § 1677(7)(G)(ii).

<sup>41</sup> The SAA expressly states that “the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition.” SAA at 848, citing Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898, 902 (Ct. Int’l Trade 1988), aff’d, 859 F.2d 915 (Fed. Cir. 1988).

<sup>42</sup> See, e.g., Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan, Invs. Nos. 731-TA-278 to 280 (Final), USITC Pub. 1845 (May 1986), aff’d, Fundicao Tupy, 678 F. Supp. 898, aff’d, 859 F.2d 915.

<sup>43</sup> See, e.g., Wieland Werke, AG v. United States, 718 F. Supp. 50 (Ct. Int’l Trade 1989).

<sup>44</sup> See, e.g., Goss Graphic System, Inc. v. United States, 33 F. Supp. 2d 1082, 1087 (Ct. Int’l Trade 1998) (“cumulation does not require two products to be highly fungible”); Mukand Ltd. v. United States, 937 F. Supp. 910, 916 (Ct. Int’l Trade 1996); Wieland Werke, 718 F. Supp. at 52 (“Completely overlapping markets are not required.”)

**A. Preliminary Determination**

In our preliminary determinations, we cumulated the subject imports from Finland, Mexico, Netherlands, and Sweden.<sup>45</sup> We noted that the subject producer in Finland had shipped a limited volume of merchandise into the food and personal care sectors of the CMC market, whereas a large portion of the other subject imports were shipped into these end use categories. We also noted that there were small volumes of Swedish and Mexican imports sold into the paper and oilfield markets, where the Finnish imports were concentrated during the period.<sup>46</sup> However, we found that most market participants reported that the domestic and subject merchandise were interchangeable with one another, that the large majority of domestic and the subject merchandise were sold to end users of purified CMC, and that the market for purified CMC was a nationwide one.<sup>47</sup>

**B. Arguments of the Parties**

**1. Petitioner's Arguments**

Aqualon argues that the Commission should cumulate the subject imports from Finland, Mexico, the Netherlands, and Sweden.<sup>48</sup> Aqualon contends that purified CMC is a highly fungible commodity with a high degree of substitution among the different grades.<sup>49</sup> Aqualon notes that \*\*\* importer responses and \*\*\* purchaser responses indicated that the domestic product and the subject importers were always or frequently interchangeable with each other.<sup>50</sup> Aqualon also argues that there is a reasonable level of competition in the various end use sectors of the market, with all four subject countries competing in the oilfield sector of the market and three of the four subject countries competing in the food, personal care, and paper/board sectors.<sup>51</sup>

Aqualon further contends there is a fair degree of competitive overlap between the domestic merchandise and imports from Finland and Mexico, noting that Aqualon, Noviant and Amtex have sold substantial volumes of purified CMC to the oilfield user \*\*\* during the period of investigation. Aqualon states that other purchasers – like \*\*\* – have bought purified CMC from multiple subject and domestic sources, indicating that there is an overlap of competition between these countries.<sup>52</sup> Further, Aqualon asserts that the domestic merchandise and the subject imports are all sold primarily to end users in the market and that imports have been present in substantial volumes during each year of the period of investigation.<sup>53</sup> Finally, Aqualon contends, the market is a nationwide one and the subject imports and the domestic product are sold throughout that national market.<sup>54</sup>

**2. Respondents' Arguments**

Noviant argues that the Commission should not cumulate the subject imports from Finland with imports from Mexico, the Netherlands, and Sweden because the subject imports from Finland do not

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<sup>45</sup> Prelim. Det. at 9-11.

<sup>46</sup> Prelim. Det. at 11.

<sup>47</sup> Prelim. Det. at 9-11.

<sup>48</sup> Aqualon's Prehearing Brief at 12-20; Aqualon's Posthearing Brief at 13-15.

<sup>49</sup> Aqualon's Prehearing Brief at 13.

<sup>50</sup> Aqualon's Prehearing Brief at 14.

<sup>51</sup> Aqualon's Prehearing Brief at 13-14.

<sup>52</sup> Aqualon's Prehearing Brief at 16-17.

<sup>53</sup> Aqualon's Prehearing Brief at 15.

<sup>54</sup> Aqualon's Prehearing Brief at 15.



share a reasonable overlap of competition with the other subject imports.<sup>55</sup> Noviant asserts that there is virtually no actual overlap of competition between imports from Finland and imports from the other three countries in the five end use sectors in the purified CMC market.<sup>56</sup> In particular, Noviant argues, imports from Finland were not sold into the food, personal care, and “other use” sectors of the market, which are sectors in which substantial volumes of merchandise from Mexico, the Netherlands, and Sweden were sold.<sup>57</sup> Furthermore, Noviant asserts, the large bulk of Finnish imports were sold into the paper and oilfield sectors of the market, which are sectors where only limited amounts of merchandise from the other three subject countries were sold.<sup>58</sup> Given this lack of any competitive overlap in these markets, Noviant contends, the Commission should not cumulate the subject imports from Finland with imports from the other three subject countries.<sup>59</sup>

The Mexican respondent Amtex argues that the subject imports from Mexico should not be cumulated with imports from the other subject countries because Mexican imports do not compete with the domestic merchandise.<sup>60</sup> Amtex argues that there was almost no competition between the Mexican imports and the domestic product because the majority of Mexican imports were sold to certain purchasers who would not otherwise buy domestic product.<sup>61</sup> As for its other U.S. sales, Amtex asserts that they did not have any injurious effect on the industry and therefore do not provide a basis for cumulating them with the other subject imports.<sup>62</sup> Finally, Amtex contends that it makes a larger percentage of its sales to distributors than Aqualon, further minimizing its competition with the domestic product.<sup>63</sup>

### **C. Analysis**

We find that there was a reasonable overlap of competition among the subject countries and the domestic like product during the period of investigation. Accordingly, we have cumulated the subject imports from Finland, Mexico, the Netherlands, and Sweden for purposes of our material injury analysis. We discuss the cumulation factors in detail below.

#### **1. Fungibility**

Focusing on the factors the Commission usually considers when assessing whether to cumulate, we find there is a reasonable degree of fungibility among the subject countries and the domestic merchandise during the period of investigation. The large majority of market participants report there is a relatively high degree of interchangeability among the imports from the four subject countries and the domestic like product. More specifically, the domestic producer’s response, 26 of 35 importer responses, and 43 of 59 purchaser responses indicate that the domestic product and the subject imports were always

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<sup>55</sup> Noviant’s Prehearing Brief at 4-13.

<sup>56</sup> Noviant’s Prehearing Brief at 7-9.

<sup>57</sup> Noviant’s Prehearing Brief at 7-8.

<sup>58</sup> Noviant’s Prehearing Brief at 8-9.

<sup>59</sup> Noviant’s Prehearing Brief at 13.

<sup>60</sup> Amtex Prehearing Brief at 5-14; Amtex Posthearing Brief at 2-10.

<sup>61</sup> Amtex Prehearing Brief at 5-8. In this regard, Amtex notes, \*\*\* of its sales were made to \*\*\*, a producer of \*\*\* that does not purchase CMC from Aqualon because of quality concerns. Amtex also argues that its second largest customer, the distributor \*\*\*, does not purchase purified CMC from Aqualon because it is an importer of purified CMC.

<sup>62</sup> Amtex Prehearing Brief at 11-13.

<sup>63</sup> Amtex Prehearing Brief at 3.

or frequently interchangeable.<sup>64</sup> Similarly, the domestic producer's response, 27 of 35 importer responses, and 30 of 41 purchaser responses indicated that the subject imports were always or frequently interchangeable with each other.<sup>65</sup> Finally, most purchasers rated the domestic and subject merchandise as being comparable to each other on nearly all of the factors that affected their purchasing decisions during the period.<sup>66</sup> In other words, the record indicates that there is a reasonably high degree of fungibility among the subject and domestic merchandise.<sup>67</sup>

We have considered Noviant's argument that there is only a limited level of fungibility between imports from Finland and imports from the other subject countries because the Finnish imports are generally sold into end use sectors of the market where the other subject imports have a limited presence.<sup>68</sup> We recognize that the record data on end use shipments indicates that the large majority of Finnish imports were sold into sectors of the market where the other subject countries had a more limited presence, that is, the paper and board and oilfield sectors of the market.<sup>69</sup> However, we conclude that the end use shipments data, when considered in light of other evidence in the record, do not establish that there was only a minimal level of fungibility between the Finnish imports and the subject imports from Mexico, Netherlands and Sweden during the period of investigation.<sup>70</sup>

In particular, the end use shipment data show that suppliers of purified CMC from the four subject countries were able to supply purified CMC product into certain end use sectors of the market as demand required.<sup>71</sup> For example, suppliers in all four subject countries shipped substantial percentages of their total shipments into the oilfield sector of the market at different points of the period of investigation in order to meet demand in that sector.<sup>72</sup> Similarly, the four subject countries were all able to supply

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<sup>64</sup> CR at II-40 & Table II-4, PR at II-27-28 & Table II-4.

<sup>65</sup> CR at II-40 & Table II-4, PR at II-27-28 & Table II-4..

<sup>66</sup> CR/PR at Table II-6a & 6b.

<sup>67</sup> Noviant argues that, when one focuses on end users of Finnish merchandise, at least half report that merchandise from Finland was "sometimes" or "never" interchangeable with the other subject countries, indicating limited fungibility between the Finnish and other subject imports. Noviant's Prehearing Brief at 9-13. In making this argument, Noviant simply excludes the statements of the domestic producer and importers and distributors on the issue. We do not believe that the views of the domestic producer and importers and distributors of the purified CMC, who either use or sell the subject merchandise and are presumed to be aware of the basic characteristics of the products sold in the market, are any less probative on the issue of the interchangeability of the Finnish and other subject imports than those of end users of the merchandise.

<sup>68</sup> Noviant's Prehearing Brief at 4-13; Noviant's Posthearing Brief at 5-7.

<sup>69</sup> CR/PR at Tables IV-3 & II-1.

<sup>70</sup> We note that, in its argument, Noviant emphasizes the Commission's statement in *Polyvinyl Alcohol from Germany and Japan*, Inv. Nos. 731-TA-1015-1016, Pub. No. 3604 (June 2003) at 10 that "[d]ata on end use are particularly pertinent" to the Commission's cumulation analysis in those investigations. Noviant's Prehearing Brief at 6. However, as the Commission stated in that determination, it emphasized that the end use data was "particularly pertinent to an analysis of competition in these investigations." *Polyvinyl Alcohol from Germany and Japan* at 10 (emphasis added). As can be seen from that opinion, the end use sector data was "particularly pertinent" in those particular investigations because market participants were more equivocal about the level of interchangeability between the German and other subject imports in that case and the pricing data did not indicate significant amounts of overlap between the German and Japanese and Korean imports. *Id.* at 10-11. Here, most market participants reported that the imports from the four subject countries were always or frequently interchangeable with each other and the domestic merchandise and the pricing data showed that there was a reasonable overlap of competition between the domestic, Finnish, and other subject imports.

<sup>71</sup> CR/PR at Table IV-3.

<sup>72</sup> CR/PR at Table IV-3. In addition to Finland, which shipped between \*\*\* percent and \*\*\* percent of its shipments into the oilfield sector of the market during the period of investigation, the Netherlands shipped between \*\*\* and \*\*\* percent of its total U.S. shipments into this sector during the period, Sweden shipped \*\*\* percent of its total U.S. shipments into this sector in 2002 and \*\*\* percent in 2004, while Mexico – which had not been present in

(continued...)

purified CMC to purchasers of CMC in the “other uses” part of the market at various points of the period of investigation, particularly the producers in Finland, Mexico and Netherlands, all of whom supplied significant volumes of merchandise into this end use sector.<sup>73</sup> Purchaser questionnaire responses provide further evidence of a reasonable overlap of competition between imports from Finland and the other imports in that several large purchasers reported purchases of subject imports from both Finland and one or more of the other three subject countries during the period of investigation.<sup>74</sup> Finally, the Commission’s price comparison data show that, for pricing products 1, 5 and 6, there were substantial volumes of merchandise from Finland, Mexico, the Netherlands and Sweden, and that, for pricing product 4, there were considerable volumes of purified CMC from Finland and Mexico.<sup>75</sup> Accordingly, we find that the record establishes that there was a reasonable degree of competitive overlap between the imports from Finland and the other subject imports.

Moreover, the record indicates that the physical differences between the purified CMC sold into the major end use sectors of the market are not generally substantial, especially for the grades sold into the non-regulated (i.e., paper and board, oilfield, and other use) sectors of the market. As witnesses for Aqualon testified, the differences between the various grades sold into the different end use sectors are not particularly significant from either a chemical or production standpoint.<sup>76</sup> Further, Aqualon provided data in its posthearing brief showing that it offers [eleven] product families of CMC for sale in the purified CMC market and that many of the products within individual families are sold into both regulated (i.e., food and personal care products) and non-regulated (oilfield, paper, and other) sectors of the market.<sup>77</sup> Moreover, although customers may prefer a particular specification or level of purity for a particular end use,<sup>78</sup> the record indicates that end users may be able to modify their production processes to use a grade with a different degree of purity or a different granular size for their intended end use.<sup>79</sup> In sum, although there were some differences with respect to the end use sectors where the subject imports were sold, the record data indicates there was a reasonable level of fungibility between the Finnish imports and the other subject imports during the period of investigation.<sup>80</sup>

Finally, we also find that there is a reasonable degree of fungibility between the domestic merchandise and imports of purified CMC from Mexico. The record shows that the domestic producer and importers of Mexican product sell very substantial percentages of their products within the same end use sectors of the market (particularly, the food and “other” uses sectors of the market),<sup>81</sup> that the majority of market participants report that the Mexican and domestic products are always or frequently interchangeable,<sup>82</sup> and that Aqualon and Amtex (or its importers) competed for sales to a number of the

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<sup>72</sup> (...continued)

this sector of the market in 2002 and 2003 – easily and quickly was able to ship \*\*\* percent of its total U.S. shipments into this sector in 2004, as oilfield demand rapidly expanded. Id.

<sup>73</sup> CR/PR at Table IV-3.

<sup>74</sup> Purchaser questionnaires showed that the Finnish imports were sold to the purchasers \*\*\* during the period of investigation, as were subject imports from one or more of the other subject countries. See Purchaser Questionnaires of \*\*\* at Section II-1.

<sup>75</sup> CR/PR at Tables V-1, V-4-6, V-8, V-11-13, F-1, & F-3-5.

<sup>76</sup> See, e.g., Hearing Transcript (“Tr.”) at 31-32 (Mr. Herak); see also Prelim. Tr. at 114 (Herak).

<sup>77</sup> Aqualon Posthearing Brief at App. A, quest 21; Tr. at 168-69 (Herak).

<sup>78</sup> CR at I-11, PR at I-9.

<sup>79</sup> Prelim. Tr. at 59-60 (Herak); CR at I-11 (“[w]hile there are some limitations of various grades depending on customer specifications, there is extensive overlap to the extent that a customer would modify its production processes to use a lesser grade.”), PR at I-9.

<sup>80</sup> In this regard, see, e.g., Prelim. Tr. at 73, 90, & 114 (Herak), 90 (Thestrup), 168 (Reid) & 169 (Piotti) (noting prevalence of standard grades amongst competitors in market).

<sup>81</sup> CR/PR at Table IV-3.

<sup>82</sup> CR/PR at Tables II-4 & II-5.

same end users during the period of investigation.<sup>83</sup> Furthermore, during the preliminary staff conference, an executive for Amtex conceded that, except for its sales to Azteca, it was primarily selling standard grades of CMC in the United States market.<sup>84</sup> Given the foregoing, we find that there is little basis for Amtex's argument that the Mexican imports did not compete to a reasonable degree with the domestic merchandise.<sup>85</sup>

## **2. Channels of Distribution**

The record indicates that the large majority of subject imports and the domestic merchandise were sold to end users during the POI.<sup>86</sup> During each year of the period, the domestic producer and the subject suppliers from each subject country sold at least \*\*\* percent of their shipments to end users on a yearly basis, with the remainder being sold to distributors.<sup>87</sup> Thus, we find that the subject and domestic merchandise shared similar channels of distribution during the POI.

## **3. Simultaneous Presence**

The subject imports from Finland, Mexico, the Netherlands and Sweden and the domestic merchandise were present in substantial volumes in the U.S. market during each year of the POI.<sup>88</sup> Thus, we find that all of the subject imports and the domestic merchandise were simultaneously present in the market during the POI.

## **4. Same Geographical Markets**

The market for purified CMC is a nationwide one and domestic and subject merchandise are sold and shipped throughout the market on a nationwide basis.<sup>89</sup> We note that, during the preliminary phase investigations, the respondents conceded that the purified CMC market is a nationwide market, and have not challenged this issue in these final phase investigations.<sup>90</sup> Thus, the domestic products and the subject imports were sold in the same geographic regions during the period of investigation.

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<sup>83</sup> For example, the record indicates that Aqualon was competing with Amtex or its importers for sales to the food end user Azteca during the period, that the two companies both made sales to the oilfield purchaser Halliburton in 2004, and that the two companies were competing, directly or through Amtex's importers, for sales to several smaller customers, such as \*\*\* See Aqualon's Posthearing Brief at App. A, ques. 15; Purchaser Questionnaires of \*\*\* at Section II-1.

<sup>84</sup> Prelim. Staff Conf. Tr. at 169 (Mr. Piotti).

<sup>85</sup> We note that Amtex premises significant parts of this argument on the notion that the Mexican imports cannot be considered to be competing with domestic merchandise because they were priced at non-injurious levels during the period. Amtex Prehearing Brief at 9-14. While pricing is obviously relevant to our causation analysis, the existence of allegedly non-injurious pricing does not indicate that the subject Mexican imports are not reasonably fungible with the domestic merchandise.

<sup>86</sup> CR at I-14 & Table I-4, PR at I-10 & Table I-4.

<sup>87</sup> CR at I-14 & Table I-4, PR at I-10 & Table I-4.

<sup>88</sup> CR/PR at Tables IV-5 & IV-6.

<sup>89</sup> CR at IV-8, PR at IV-4. The domestic producer shipped \*\*\* percent of its merchandise, subject importers from Europe shipped \*\*\* percent of their merchandise, and subject importers from Mexico shipped \*\*\* percent of their merchandise to locations within 100 miles of their shipping location; the domestic producer shipped \*\*\* percent of its merchandise, subject importers from Europe shipped \*\*\* percent of their merchandise, and subject importers from Mexico shipped \*\*\* percent of their to locations from 100 to 500 miles away from their shipping locations; and the domestic producer shipped \*\*\* percent of its merchandise and subject importers from Europe shipped \*\*\* percent of their merchandise to locations over 500 miles away from their U.S. shipping locations. CR/PR at V-2.

<sup>90</sup> Prelimin. Conf. Tr. at 158 (Mr. Horlick); see also Respondents Joint Postconference Brief at 46, n. 65.

## 5. Summary

On the whole, we find there is a reasonable overlap of competition among the domestic merchandise and the subject imports from Finland, Mexico, Netherlands, and Sweden. The record shows that most market participants consider the subject imports to be interchangeable with each other and the domestic merchandise, that the subject imports and the domestic merchandise are sold in similar channels of trade and in the same nationwide regions, and that the subject imports and the domestic merchandise were present in substantial volumes during each year of the POI. Although there may have been a somewhat limited level of competitive overlap between imports from Finland, Mexico and Sweden in various end use sectors of the market during the POI, the record also indicates that the physical differences between the products sold into these sectors, particularly within the non-regulated sectors, are generally not substantial and that the subject countries were able to compete to a reasonable degree with each other and the domestic merchandise as demand required and opportunities presented themselves.<sup>91</sup>

Accordingly, we have cumulated the subject imports from Finland, Mexico, Netherlands, and Sweden for purposes of our material injury analysis in these final phase investigations.

## V. **MATERIAL INJURY BY REASON OF LESS THAN FAIR VALUE IMPORTS FROM FINLAND, MEXICO, NETHERLANDS, AND SWEDEN**

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured by reason of the imports under investigation.<sup>92</sup> In making this determination, the Commission must consider the volume of imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.<sup>93</sup> The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”<sup>94</sup> In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.<sup>95</sup> No single factor is dispositive, and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>96</sup>

### A. Period of Investigation

In these final phase investigations, the parties have disagreed on the relevant period of investigation for our analysis. Aqualon argues that the Commission should use a four-year period of investigation, covering the period from 2001 to 2004. Aqualon contends that use of this four-year period would be appropriate because 2001 data were collected in the preliminary phase investigations and use of the data for that year would help the Commission “understand[] and evaluat[e] the competitive situation faced by the domestic industry.”<sup>97</sup> Respondent Noviant, on the other hand, asserts that there is no legal or factual basis for an expansion of the period of investigation, noting that the Commission’s established

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<sup>91</sup> We have not relied on the corporate affiliations of the Noviant companies in Finland, Netherlands, and Sweden as grounds for our cumulation decision in these final phase investigations.

<sup>92</sup> 19 U.S.C. §§ 1671d(b), 1673d(b).

<sup>93</sup> 19 U.S.C. § 1677(7)(B)(i). The Commission “may consider such other economic factors as are relevant to the determination” but shall “identify each [such] factor ... [a]nd explain in full its relevance to the determination.” 19 U.S.C. § 1677(7)(B); see also, e.g., Angus Chemical Co. v. United States, 140 F.3d 1478 (Fed. Cir. 1998).

<sup>94</sup> 19 U.S.C. § 1677(7)(A).

<sup>95</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>96</sup> Id.

<sup>97</sup> Aqualon Posthearing Brief at 11 & App. A at Quest. 1, Aqualon Prehearing Brief at 28-30.

practice is to examine a three-year period of investigation unless it is presented with a “well-defined, industry specific business cycle.”<sup>98</sup> Noviant also argues that the data collected for 2001 are not comparable to those collected in these final phase investigations.<sup>99</sup>

As both parties acknowledge, we normally examine data for a three-year period, plus any interim data, when performing our injury analysis in original injury investigations.<sup>100</sup> Nonetheless, we will expand the period of investigation if it is appropriate to do so in light of an industry’s cyclical nature or if there is a well-defined need to obtain a broader perspective of the market.<sup>101</sup> Here, however, the petitioner has not presented us with any evidence indicating there is a particular business cycle that would affect our analysis in these investigations or that expansion of the period would offer us with a more accurate view of the market. Accordingly, we use our typical three-year period of investigation for our analysis in these investigations.

## **B. Conditions of Competition**<sup>102</sup>

We have taken the following conditions of competition into account when assessing whether the domestic industry is materially injured by reason of the subject imports.

### **1. Demand Conditions**

Demand for purified CMC is driven by downstream demand for other products in which CMC is used, such as oilfield drilling mud, food, personal care and pharmaceutical products, and paper and board products.<sup>103</sup> Between 2002 and 2004, approximately \*\*\* percent of total U.S. shipments of purified CMC were sold into the food sector of the CMC market, \*\*\* percent were sold into the oilfield sector, \*\*\* percent were sold into the paper and board sector, \*\*\* percent were sold into the personal care and pharmaceuticals sector, and the remaining \*\*\* percent were sold into the “other uses” sector.<sup>104</sup>

Purified CMC is sold for use in both “regulated” and “non-regulated” industries.<sup>105</sup> In “regulated” uses (such as food, pharmaceutical, and personal care products) where the product is intended for human consumption, CMC must be purified to a level of 99.5 percent.<sup>106</sup> In “non-regulated” uses,

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<sup>98</sup> Noviant Posthearing Brief at 3-5.

<sup>99</sup> Noviant Posthearing Brief at 4-5.

<sup>100</sup> Certain Aluminum Plate from South Africa, Inv. No. 731-TA-1056 (Final), USITC Pub. 3734 (Nov. 2004) at 19, n.156; Silicon Metal from Russia, Inv. No. 731-TA-991 (Final), USITC Pub. 3584 (March 2003) at 11, n. 68, citing, *inter alia*, Kenda Rubber Industrial Co. v. United States, 630 F. Supp. 354, 359 (Ct. Int’l Trade 1986)

<sup>101</sup> See, e.g., Fresh Atlantic Salmon from Chile, Inv. No. 731-TA-768, USITC Pub. 3116 (July 1998) at 14; Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, from Germany and Japan, Inv. Nos. 731-TA-736 & 737, USITC Pub. 2988 (Aug. 1998) at 14; Magnesium from China and Russia, Inv. Nos. 731-TA-1071 & 1072 (Final), USITC Pub. 3763 (April 2005) at 15, n. 83.

<sup>102</sup> The sole domestic producer shipped a \*\*\* volume of merchandise for internal consumption during the period of investigation. CR/PR at Table III-3. However, these internal shipments did not account for more than \*\*\* percent of the domestic producer’s total production during any year of the period of investigation. Compare CR/PR at Table III-3. Accordingly, we find that the domestic producer did not internally transfer significant production of the domestic like product for the production of a downstream article and that the captive production provision, 19 U.S.C. §1677(7)(C)(iv), does not apply.

<sup>103</sup> CR at I-8-9 & II-1-2, PR at I-7 & II-1.

<sup>104</sup> CR at II-2, PR at II-1.

<sup>105</sup> CR at I-8, n. 14; PR at I-6, n.14.

<sup>106</sup> CR at I-8, n. 14, PR at I-6, n.14.

CMC may be purified to a level below the 99.5 percent level.<sup>107</sup> In order to sell its purified CMC for use in food, pharmaceutical and personal care products, a producer must qualify its production facility as complying with Good Manufacturing Practice standards.<sup>108</sup>

During the period from 2002 to 2004, apparent domestic consumption of purified CMC increased steadily and markedly, growing by a total of 44.3 percent.<sup>109</sup> Apparent domestic consumption of purified CMC increased from \*\*\* million pounds in 2002 to \*\*\* million pounds in 2003, and then to \*\*\* million pounds in 2004.<sup>110</sup> Although demand grew significantly in each of the market's four major end use sectors,<sup>111</sup> the growth in total apparent consumption was heavily affected by a substantial increase in demand in the oilfield sector, where apparent consumption increased from \*\*\* million pounds in 2002 to \*\*\* million pounds in 2004.<sup>112</sup>

## 2. Supply Conditions

Aqualon is the only domestic producer of purified CMC.<sup>113</sup> During the period of investigation, Aqualon's production capacity increased somewhat, growing from \*\*\* million pounds in 2002 and 2003 to \*\*\* million pounds in 2004.<sup>114</sup> Aqualon's capacity utilization rates increased during the period of investigation by \*\*\* percentage points, growing from \*\*\* percent in 2002 to \*\*\* percent in 2004.<sup>115</sup> Even with these increases in capacity and capacity utilization, Aqualon could not have supplied the entire U.S. CMC market during the period of investigation; its capacity in 2004, for example, was equivalent to only \*\*\* percent of apparent U.S. consumption in that year.<sup>116</sup> During a period of growing demand, Aqualon was able to increase its share of the market, with its market share growing from \*\*\* percent of the market in 2002 to \*\*\* percent in 2003 and then to \*\*\* percent in 2004.<sup>117</sup>

The subject imports from Finland, Mexico, the Netherlands, and Sweden occupied a very significant, although declining, share of the market throughout the period of investigation, with their cumulated market share being \*\*\* percent in 2002, \*\*\* percent in 2003, and \*\*\* percent in 2004.<sup>118</sup> The total aggregate production capacity of the four subject countries ranged between \*\*\* million and \*\*\* million pounds during the period of investigation; their aggregate capacity utilization rates grew from \*\*\* percent in 2002 to \*\*\* percent in 2004.<sup>119</sup> Noviant, which owns purified CMC production facilities in three of the four subject countries, is the world's largest producer of purified CMC, with its total production capacity in 2003 accounting for \*\*\* percent of total global capacity.<sup>120</sup>

Non-subject imports held a small but growing share of the market during the period of investigation, accounting for \*\*\* percent of the market in 2002, \*\*\* percent in 2003, and \*\*\* percent in

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<sup>107</sup> CR at I-8, n. 14, PR at I-6, n.14. Witnesses for Aqualon testified that, even within the "non-regulated" sectors of the market, its purified CMC generally is produced to a purity level of 98 percent. Tr. at 75 (Mr. Herak).

<sup>108</sup> Tr. at 38-39 (Herak); CR at I-11, PR at I-9.

<sup>109</sup> CR at II-17 & Table IV-6, PR at II-12 & Table IV-6.

<sup>110</sup> CR/PR at Table IV-6.

<sup>111</sup> CR/PR at Table IV-3. The only sector in which demand did not grow was the "all others" sector, which declined slightly during the period, falling from \*\*\* million pounds in 2002 to \*\*\* million pounds in 2003 and then to \*\*\* million pounds in 2004. CR/PR at Table IV-3.

<sup>112</sup> CR/PR at Table IV-3.

<sup>113</sup> CR at I-2, PR at I-1.

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

<sup>115</sup> CR/PR at Table III-1.

<sup>116</sup> CR/PR at Tables III-1 & IV-6. However, we note that Aqualon stated that, \*\*\* would increase Aqualon's capacity to \*\*\* CR at III-1-2, PR at III-1.

<sup>117</sup> CR/PR at Table IV-6.

<sup>118</sup> CR/PR at Table IV-6.

<sup>119</sup> CR/PR at Table VII-7.

<sup>120</sup> CR/PR at Table VII-1.

2004.<sup>121</sup> China grew to become the single largest non-subject supplier of purified CMC in 2004, with a market share of \*\*\* percent, while France was the second largest non-subject supplier of purified CMC in that same year, with a market share of \*\*\* percent.<sup>122</sup> The average unit values of the two countries' U.S. shipments were higher than those of the four subject countries in 2003 and 2004.<sup>123</sup>

### **3. Substitutability/Other Pricing Considerations**

As we discussed previously, the sole domestic producer and the large majority of responding importers and purchasers reported that the domestic product and the subject imports were always or frequently interchangeable with each other.<sup>124</sup> Similarly, most purchasers rated the domestic and subject merchandise as being comparable to each other on nearly all of the factors that affected their purchasing decisions during the period.<sup>125</sup> Accordingly, we find that there was a moderate to high degree of substitutability between and among the subject and domestic merchandise during the period of investigation.

We also find that price was a significant factor in the sourcing decisions of purchasers during the period of investigation. Purchasers' questionnaire responses indicated that price was considered the second most important factor in their purchasing decisions during the period,<sup>126</sup> with 40 of 48 responding purchasers reporting price as one of the three most important factors in their purchasing decisions during the period of investigation, and 27 of 48 purchasers reporting that price was the first or second most important factor in that decision.<sup>127</sup> While quality was ranked as the most important factor in the purchase decision by purchasers,<sup>128</sup> the large majority of purchasers rated the domestic merchandise as being comparable to the subject imports with respect to quality during the period.<sup>129</sup> Given the equivalence of domestic and subject merchandise with respect to quality, we find that price was an important factor in purchasing decisions during the period of investigation.<sup>130</sup>

Almost all purchasers in the market require suppliers to qualify their goods with respect to quality, chemistry, purity, or other performance characteristics.<sup>131</sup> However, \*\*\* of \*\*\* responding purchasers (i.e., nearly three-quarters of these purchasers) reported that their domestic or foreign suppliers had never failed to qualify their products during the period of investigation.<sup>132</sup> Six of the remaining twelve purchasers reported that Aqualon had failed to qualify its goods on occasion, while Noviant and Amtex were each cited twice for failing to certify their merchandise.<sup>133</sup> Furthermore, although individual producers do work with customers to design and qualify their products for each customer, the record indicates that domestic and subject suppliers also offer the same standard grades of purified CMC within the market.<sup>134</sup>

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<sup>121</sup> CR/PR at Table IV-6.

<sup>122</sup> CR/PR at Table IV-6.

<sup>123</sup> CR/PR at Table IV-5.

<sup>124</sup> CR at II-40 & Table II-4, PR at II-27 & Table II-4.

<sup>125</sup> CR/PR at Table II-6a & 6b.

<sup>126</sup> CR at II-29, PR at II-19.

<sup>127</sup> Purchaser Questionnaire Responses, Question III-8.

<sup>128</sup> CR at II-29, PR at II-19; Purchaser Questionnaire Responses, Question III-8.

<sup>129</sup> CR/PR at Table II-6a (ratings on "quality meets standards" and "quality exceeds standards").

<sup>130</sup> CR/PR at Table II-3.

<sup>131</sup> CR at II-32, PR at II-21.

<sup>132</sup> CR at II-32, PR at II-22.

<sup>133</sup> CR at II-32-33, PR at II-22.

<sup>134</sup> See, e.g., Preliminary Conf. Tr. at 168-69 (Mr. Reid) & 169-70 (Mr. Piotti). Although Noviant argues that purchasers view purified CMC as a "highly-engineered," specialty group of products, the record suggests otherwise.

(continued...)



Most domestic and subject purified CMC is sold pursuant to short-term sales agreements that are negotiated between the suppliers and purchasers on an annual basis,<sup>135</sup> usually in the last quarter of the year. During the period of investigation, \*\*\* percent of Aqualon's sales, \*\*\* percent of sales from Finland, the Netherlands, and Sweden, and \*\*\* percent of sales from Mexico were made pursuant to short-term sales agreements.<sup>136</sup> Long-term sales agreements<sup>137</sup> accounted for \*\*\* percent of Aqualon's sales, and \*\*\* percent of Finnish, Dutch, and Swedish sales of purified CMC.<sup>138</sup> Spot sales accounted for \*\*\* percent of Aqualon's sales, \*\*\* of the Finnish, Dutch, and Swedish sales, and \*\*\* percent of Mexican sales.<sup>139</sup>

Finally, the record indicates there is some degree of possible substitution between purified CMC and other non-subject hydrocolloids.<sup>140</sup> However, the record indicates that the level of this possible substitution is limited, with 35 of 43 responding purchasers reporting that there were no practical substitutes for purified CMC.<sup>141</sup> Moreover, even those market participants who reported that there were substitutes for purified CMC in its existing end uses indicated there were only a small number of potential substitutes in a limited number of end uses.<sup>142</sup>

## **B. Volume of Subject Imports**

Section 771(7)(C)(i) of the Act provides that the "Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant."<sup>143</sup>

When measured on an absolute level, the volumes of the cumulated subject imports increased significantly during the period of investigation. The volume of the subject imports grew from \*\*\* million pounds in 2002 to \*\*\* million pounds in 2003, and then to \*\*\* million pounds in 2003.<sup>144</sup> Thus, in absolute terms, the volume of cumulated subject imports increased by more than \*\*\* percent during the period of investigation.<sup>145</sup>

When examined on a relative basis, the volumes of the subject imports declined in market share terms and when compared to domestic production. Between 2002 and 2004, the subject imports's share of the growing U.S. market declined by \*\*\* percentage points, falling from \*\*\* percent in 2002 to \*\*\*

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<sup>134</sup> (...continued)

For example, the Dutch producer of subject merchandise, Akzo Nobel, stated that "the market has come to think of CMC as a commodity and customers often approve 2 to 4 suppliers so they can force the suppliers to outbid each other. . ." Akzo Nobel Prehearing Statement at 3. Similarly, in a letter placed on the record by \*\*\*, the company noted that, "[o]ver the last few years, the market price of CMC has reduced steadily, as the material has become more of a commodity." \*\*\* Letter at 1, attached to Aqualon's Postconference Brief at exh. 15.

<sup>135</sup> CR at V-6-7, PR at V-5. Short-term sales arrangements are for multiple deliveries during a twelve-month period after the purchase agreement. CR at V-6, n. 14, PR at V-5, n. 14.

<sup>136</sup> CR at V-6-7, PR at V-5.

<sup>137</sup> Long-term sales arrangements are for multiple deliveries over a period longer than 12 months. CR at V-6, n. 14, PR at V-5, n. 14.

<sup>138</sup> CR at V-6-7, PR at V-5.

<sup>139</sup> CR at V-6-7, PR at V-5.

<sup>140</sup> CR at II-20-26, PR at II-12-17.

<sup>141</sup> CR at II-20, PR at II-12.

<sup>142</sup> CR/PR at Table II-2.

<sup>143</sup> 19 U.S.C. § 1677(7)(C)(i).

<sup>144</sup> CR/PR at Table IV-2. Measured in terms of shipments, the volume of the subject imports grew from \*\*\* million pounds in 2002 to \*\*\* million pounds in 2003, and then to \*\*\* million pounds in 2003, for an increase of approximately \*\*\* percent during that period. CR/PR at Table IV-5.

<sup>145</sup> CR/PR at Table IV-2.

percent in 2003 and then to \*\*\* percent in 2004.<sup>146</sup> When compared to domestic production, the volumes of the subject imports also declined, falling from \*\*\* percent of domestic production in 2002 to \*\*\* percent in 2003, and then to \*\*\* percent in 2004.<sup>147</sup>

Although the volumes of the subject imports fell in market share terms and relative to domestic production during the period, we find that the subject import volumes, and the absolute increases in those volumes, were significant during the period. The subject imports increased their volumes on an absolute level by \*\*\* percent between 2002 and 2004. Moreover, even though the subject imports lost \*\*\* percentage points of market share between 2002 and 2004, they nonetheless retained a very substantial share of the U.S. market for purified CMC throughout the period, occupying nearly half of the U.S. market even in 2004, the last year of the period of investigation.<sup>148</sup> As we discuss further below, the significant and increasing volumes of the subject imports permitted them to have a significant adverse impact on domestic pricing in both 2003 and 2004, despite their loss of market share during the period of investigation.

We also find that the declines in the subject imports' market share were the direct result of a decision by the domestic industry to compete more closely on price with the subject imports during 2003 and 2004. In 2002, the first year of the period of investigation, the industry lost significant amounts of market share to the subject imports as a result of low subject import pricing.<sup>149</sup> In 2003 and 2004, the final two years of the period, the domestic industry sought to regain that lost market share from the subject imports by competing more aggressively with them on price.<sup>150</sup> As we discuss below, the industry succeeded in regaining substantial amounts of that lost market share in 2003 and 2004 but its decision to meet subject import competition resulted in significant declines in the industry's pricing and profitability levels in those two years.

Accordingly, we find that the volume of cumulated subject imports, and the increase in the absolute volumes of those imports, was significant during the period of investigation.

### **C. Price Effects of the Subject Imports**

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

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

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.<sup>151</sup>

As noted above, we find that there is a moderate to high degree of substitutability between and among the domestic like product and the subject imports of purified CMC. The only domestic producer and the large majority of responding importers and purchasers reported that the domestic product and the subject imports were always or frequently interchangeable with each other<sup>152</sup> and most purchasers rated the domestic and subject merchandise as being comparable to each other on nearly all of the factors that

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<sup>146</sup> CR/PR at Table IV-6.

<sup>147</sup> CR/PR at IV-7.

<sup>148</sup> CR/PR at Table IV-6. The cumulated subject imports' market share was \*\*\* in 2003 and \*\*\* in 2004. CR/PR at Table IV-6.

<sup>149</sup> E.g., Tr. at 40-42 (Herak) & Aqualon's Hearing Exhs. at 7; see also Prelim. Det. at 17.

<sup>150</sup> E.g., Tr. at 40-42 (Herak) & 82 (Telefantos).

<sup>151</sup> 19 U.S.C. § 1677(7)(C)(ii).

<sup>152</sup> CR at II-40 & Table II-4, PR at II-27-28 & Table II-4.

affected their purchasing decisions during the period.<sup>153</sup> Furthermore, the record shows that price was an important factor in the sourcing decisions of purchasers during the period of investigation.<sup>154</sup>

We find that there has been significant underselling by the subject imports during the period of investigation. In these final phase investigations, we obtained pricing data for six separate price comparison products.<sup>155</sup> These six price comparison products consisted of products from the major end use sectors of the market and represented a substantial percentage of domestic and subject sales of purified CMC during the period.<sup>156</sup>

Our price comparison data shows that the cumulated subject imports significantly undersold the domestic merchandise during the period of investigation.<sup>157</sup> The data show that the subject imports undersold the domestic merchandise in 77 of 130 selling price comparisons, that is, in nearly 60 percent of possible selling price comparisons.<sup>158</sup> The subject imports undersold the domestic merchandise in \*\*\* percent of possible selling price comparisons in 2002, \*\*\* percent in 2003, and \*\*\* percent in 2004.<sup>159</sup> Moreover, our selling price comparisons show that underselling occurred with respect to \*\*\* percent of the total sales volume reported by the subject importers in the selling price comparisons, thus indicating that the large percentage of subject shipments were associated with aggressive underselling during the period.<sup>160</sup> In addition, our purchase price comparisons showed similar underselling trends, with underselling occurring on \*\*\* of \*\*\* possible purchase price comparisons (that is, \*\*\* percent) and on \*\*\* percent of the total sales volume reported for these comparisons by purchasers.<sup>161</sup> Given the number of instances of underselling, the substantial volumes associated with the underselling, and the magnitude of the underselling margins,<sup>162</sup> we find that there has been significant price underselling of the domestic like product by subject imports.

We also find that the cumulated subject imports have depressed domestic prices to a significant degree. Over the period of investigation, domestic sales prices for the six price comparison products declined significantly.<sup>163</sup> For product 1, domestic prices fell from \$\*\*\* per pound in the first quarter of 2002 to \$\*\*\* in the last quarter of 2004.<sup>164</sup> For product 2, domestic prices fell from \$\*\*\* per pound in the first quarter of 2002 to \$\*\*\* per pound in the last quarter of 2004.<sup>165</sup> For product 3, domestic prices fell from \$\*\*\* per pound in the first quarter of 2002 to \$\*\*\* per pound in the last quarter of 2004.<sup>166</sup> For product 4, domestic prices fell from \$\*\*\* per pound in the first quarter of 2002 to \$\*\*\* per pound in the last quarter of 2004.<sup>167</sup> For product 5, domestic prices fell from \$\*\*\* per pound in the first quarter of 2002 to \$\*\*\* per pound in the last quarter of 2004.<sup>168</sup> Finally, for product 6, domestic prices fell from

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<sup>153</sup> CR at Table II-6a & 6b.

<sup>154</sup> CR at II-29; PR at II-19.

<sup>155</sup> CR at V-15-16, PR at V-9-10.

<sup>156</sup> CR at V-15-16, PR at V-9-10. The reported price comparison data accounted for \*\*\* percent of domestic commercial shipments of purified CMC during the period of investigation, \*\*\* of commercial shipments of Finnish imports during the period, \*\*\* percent of commercial Mexican imports, \*\*\* of Dutch commercial shipments, and \*\*\* percent of Swedish commercial shipments during the period. CR at V-17-18, PR at V-11.

<sup>157</sup> CR/PR at Tables V-1-V-16 & Figures V-1-V-10.

<sup>158</sup> CR/PR at Table V-15.

<sup>159</sup> CR/PR at Table V-15.

<sup>160</sup> CR/PR at Table V-15.

<sup>161</sup> CR/PR at Table V-16.

<sup>162</sup> CR/PR at Tables V-1-V-16.

<sup>163</sup> CR/PR at Tables V-1-V-6.

<sup>164</sup> CR/PR at Table V-1.

<sup>165</sup> CR/PR at Table V-2.

<sup>166</sup> CR/PR at Table V-3.

<sup>167</sup> CR/PR at Table V-4.

<sup>168</sup> CR/PR at Table V-5.

\$\*\*\* per pound in the first quarter of 2002 to \$\*\*\* per pound in the last quarter of 2004.<sup>169</sup> We note that these significant price declines coincided with a strong growth in demand in both 2003 and 2004; apparent consumption grew by 23.3 percent in 2003 and 17.1 percent in 2004, for a total increase over the POI of 44.3 percent.<sup>170</sup>

These consistent domestic price declines correlated with continuing and significant levels of underselling by the subject imports.<sup>171</sup> They are, moreover, consistent with petitioner's contention that it made a strategic decision to lower its prices substantially after 2002 in order to regain market share from the subject imports.<sup>172</sup> Accordingly, we find that the record of these investigations indicates the subject imports have depressed domestic prices to a significant degree.

Our finding that subject imports have depressed domestic prices to a significant degree is also supported by the data relating to Aqualon's lost revenue and lost sales allegations. Three of five responding purchasers confirmed Aqualon's allegations that it was forced to reduce its prices in order to avoid losing sales to the subject imports.<sup>173</sup> These lost revenue allegations covered sales accounting for a reported \*\*\* pounds of merchandise in 2002 and 2003 and resulted in approximately \$\*\*\* in lost revenues for Aqualon.<sup>174</sup> Further, three of eight responding purchasers confirmed Aqualon's allegations of sales lost to subject imports.<sup>175</sup> These lost sales allegations covered sales accounting for a reported \*\*\* pounds of merchandise, worth \$\*\*\* in 2002 and 2003.<sup>176</sup>

We have considered Noviant's argument that our price comparison data are "unusually" broad and cannot be used for price comparison purposes because they mask significant pricing differentials for certain products covered by the comparison products' definitions.<sup>177</sup> We disagree.<sup>178</sup> As the staff report explains, we chose these six price comparison products after extensive consultations with counsel for the domestic producer and the respondents, including Noviant.<sup>179</sup> When we prepare our questionnaires in final phase investigations, we consult with market participants and rely on the information they provide to us because we believe these consultations will help us select price comparison products that are representative of pricing in the market and are reasonably comparable products.<sup>180</sup> At no point during our staff's discussion of the pricing products did Noviant or any other party suggest that the products eventually chosen by the Commission were too broad or would yield improper price comparisons. On

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<sup>169</sup> CR/PR at Table V-6.

<sup>170</sup> CR/PR at Table IV-5.

<sup>171</sup> CR/PR at Tables V-1-V-6.

<sup>172</sup> Petitioner's Postconference Brief at 1.

<sup>173</sup> CR/PR at Table V-17.

<sup>174</sup> CR/PR at Table V-17.

<sup>175</sup> CR/PR at Table V-18.

<sup>176</sup> CR/PR at Table V-18.

<sup>177</sup> Noviant Prehearing Brief at 33-35.

<sup>178</sup> Noviant also argues that the Commission should analyze pricing data on a purchaser-by-purchaser basis and that such an analysis shows that the domestic industry was more frequently underselling the subject imports during the period of investigation. Noviant's Prehearing Brief at 35-36. The Commission has a long-standing practice of examining weighted-average sales pricing data on a quarterly basis and sees no reason to depart from that practice here. Moreover, a purchaser-by-purchaser analysis can lead to different results depending on the criteria used to construct the data set. For example, Noviant based its purchaser-by-purchaser analysis on data for \*\*\* customers during the period because these were the only purchasers out of the ten largest for which comparisons were available. Noviant Prehearing Brief at 36. However, Aqualon argues that, if all possible purchaser comparisons are included, subject imports undersold the domestic merchandise in \*\*\* percent of possible comparisons and on \*\*\* percent of the volume involved in these comparisons. Aqualon Posthearing Brief at 9.

<sup>179</sup> CR at V-16, PR at V-10-11.

<sup>180</sup> See Notice of Final Rulemaking, 61 Fed. Reg. 37818, 37825-26 (1996).

the contrary, Noviant sought to expand the definition of one of the price comparison products.<sup>181</sup> In light of the opportunities provided Noviant to comment on this issue, we believe that Noviant's current criticisms of the data are neither timely nor warranted, given that all of the data in the record indicate that the subject imports were generally lower priced than the domestic merchandise during the period of investigation and that domestic prices declined throughout the period.<sup>182</sup>

We find no explanation other than the effect of the subject imports for the substantial declines in domestic pricing during a period of strong and growing demand. We considered Noviant's argument that price declines in the market were driven by the entry into the market of low-priced imports from non-subject imports of purified CMC, particularly those from China.<sup>183</sup> The record does not support Noviant's contention. Although the market share of the non-subject imports (including China) did increase by \*\*\* percentage points between 2002 and 2004, the non-subject imports still occupied a much smaller share of the market than the subject imports, holding a \*\*\* percent share in 2004.<sup>184</sup> Moreover, the average unit values of commercial shipments of purified CMC imports from China and France, the two largest non-subject suppliers to the market in 2003 and 2004, were higher than those of all four subject countries during 2003 and 2004, when the industry experienced significant price declines.<sup>185</sup> Given that imports of purified CMC from China and France had higher average unit values than those from the subject countries during these two years<sup>186</sup> and occupied a much smaller share of the market than the subject imports, we do not find that these countries, or any of the other non-subject countries, caused the substantial declines in domestic prices in 2003 and 2004.

We also do not agree with Noviant's argument that domestic price declines were caused by declines in prices for substitute hydrocolloid products during the period of investigation.<sup>187</sup> As we noted previously, although the record indicates there is some degree of possible substitution between purified CMC and other non-subject hydrocolloids,<sup>188</sup> it also shows that the level of this possible substitution is limited, with 35 of 43 responding purchasers reporting that there were no practical substitutes for purified CMC.<sup>189</sup> Moreover, even those market participants who reported that there were substitutes for purified CMC in their existing end uses reported that there were only a small number of potential substitutes in a limited number of end uses.<sup>190</sup> Finally, the record pricing data for these products provided by Noviant in its prehearing brief do not show strong correlations in pricing trends between CMC and these substitutes during the period of investigation.<sup>191</sup> Given the limited level of substitutability between purified CMC and other possible substitutes and the lack of a clear correlation between pricing trends for these products, we do not find that the prices of these substitutes caused the declines in domestic prices during the period of investigation.

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<sup>181</sup> CR at V-16, PR at V-10-11.

<sup>182</sup> See, e.g., CR/PR at Table E-1 (average annual unit values for the five major end use sectors). Furthermore, Noviant only indicated that three of our six price comparison products were affected by this "product mix" issue. Noviant's Prehearing Brief at 33-34. Given that there were consistent domestic price declines and similar levels of underselling across all six of our price comparison products, we do not find compelling Noviant's contention that our price comparison products do not accurately reflect the incidence of underselling in the market.

<sup>183</sup> Noviant Prehearing Brief at 52-53.

<sup>184</sup> CR/PR at Table IV-6.

<sup>185</sup> CR/PR at Table IV-5.

<sup>186</sup> We are mindful of the fact that average annual unit values may reflect differences in product mix, but the differentials between Chinese and French average unit values and those of the subject imports are sufficiently large that product mix issues do not undermine our analysis here.

<sup>187</sup> Noviant Prehearing Brief at 51-52.

<sup>188</sup> CR at II-20-27, PR at II-12-17.

<sup>189</sup> CR at II-20, PR at II-12.

<sup>190</sup> CR/PR at Table II-2.

<sup>191</sup> Noviant Prehearing Brief at Ex. 6.

Finally, we do not agree with Noviant's argument that Aqualon should be considered to be the primary cause of price declines in the market because its decision to cut prices in 2003 undermined Noviant's attempts to increase its prices in 2003 and 2004.<sup>192</sup> Aqualon's decision to reduce its prices during 2003 and 2004 was a direct response to consistent and significant underselling by Noviant and the other subject products in 2002 and the beginning of 2003. A decision on the part of a domestic producer to reduce prices to meet lower-priced subject import competition is not a sign that the industry is solely responsible for domestic price declines in the market; on the contrary, it is an indication that the domestic producer is being forced by the subject imports to cut its prices and reduce its profitability and that subject imports are having a negative and significant impact on domestic pricing.

Accordingly, we find that there has been significant price underselling of the domestic like product by subject imports and that subject imports have depressed domestic prices to a significant degree.

#### **D. Impact of the Subject Imports**<sup>193</sup>

In examining the impact of the subject imports on the domestic industry, we consider all relevant economic factors that bear on the state of the industry in the United States.<sup>194</sup> These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, and research and development. No single factor is dispositive and all relevant factors are considered "within the context of the business cycle and conditions of competition that are distinctive to the affected industry."<sup>195</sup>

We find that the subject imports had an adverse impact on the domestic industry during the period of investigation. In making this finding, we note that the domestic industry saw considerable improvement in its volume-related indicia during the period of investigation. Between 2002 and 2004, when apparent domestic consumption of purified CMC grew by \*\*\* percent, the domestic industry's production volumes increased by \*\*\* percent, its capacity utilization rates increased by \*\*\* percentage points, the quantity and total value of its U.S. shipments increased by \*\*\* and \*\*\* percent, respectively, and the quantity and value of the industry's net sales increased by \*\*\* percent and \*\*\* percent, respectively.<sup>196</sup> Moreover, the domestic industry gained \*\*\* percentage points of market share between

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<sup>192</sup> Noviant Prehearing Brief at 31-32.

<sup>193</sup> The statute instructs the Commission to consider the "magnitude of the dumping margin" in antidumping duty proceedings as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). In its final determinations, Commerce announced weighted-average less than fair value margins of 6.65 percent for both Noviant OY and "all others" in its investigation for Finland; 12.61 percent for both Quimica Amtex and "all others" in its investigation for Mexico; 13.39 percent for Akzo Nobel, 14.88 percent for Noviant BV, and 14.57 percent for "all others" in its investigation for Netherlands; and 25.29 percent for both Noviant AB and "all others" in its investigation for Sweden. Final Determinations of Sales at Less Than Fair Value: Purified Carboxymethylcellulose from Finland, Mexico, the Netherlands, and Sweden, 70 FR 28275, 28278, 28279, 28280 (May 17, 2005).

<sup>194</sup> 19 U.S.C. § 1677(7)(C)(iii); see also, e.g., SAA at 851, 885 ("In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.")

<sup>195</sup> 19 U.S.C. § 1677(7)(C)(iii); see also, e.g., SAA at 851, 885; Live Cattle from Canada and Mexico, Invs. Nos. 701-TA-386, 731-TA-812-813 (Prelim.), USITC Pub. 3155 at 25 n. 148 (Feb. 1999).

<sup>196</sup> CR/PR at Table C-1. The industry's production levels increased from \*\*\* million pounds in 2002 to \*\*\* pounds in 2003 and \*\*\* million pounds in 2004, while its capacity utilization rates increased from \*\*\* percent in 2002 to \*\*\* percent in 2002 and then to \*\*\* percent in 2004. CR/PR at Table III-1. The quantity of the industry's U.S. shipments increased from \*\*\* pounds in 2002 to \*\*\* pounds in 2003 and \*\*\* pounds in 2004, while the value of those shipments increased from \$\*\*\* million in 2002 to \$\*\*\* million in 2003 and \$\*\*\* million in 2004. CR/PR

(continued...)

2002 and 2004, increasing its share of the market from \*\*\* percent in 2002 to \*\*\* percent in 2003 and then to \*\*\* percent in 2004.<sup>197</sup> These increases in the volume-related indicia of the industry's condition were caused primarily by two factors: the significant increase in apparent domestic consumption of purified CMC that occurred between 2002 and 2004, and the industry's strategic decision to lower its prices in 2003 and 2004 to regain the substantial amounts of the market share that were lost to subject imports in 2002.<sup>198</sup>

All of these improvements in the industry's volume-related indicia were, however, more than offset by the very substantial declines in the industry's pricing and profitability levels during the period of investigation. As we discussed above, significant and consistent underselling by the subject imports caused significant declines in the domestic industry's prices in 2003 and 2004, as evidenced by the significant declines in domestic pricing for each of our six price comparison products.<sup>199</sup> Due to the significant and adverse effects of aggressive subject price competition, the average unit value of the industry's U.S. shipments and net sales declined considerably during the period of investigation, falling by \*\*\* percent and \*\*\* percent, respectively, between 2002 and 2004.<sup>200</sup> With the industry's unit cost of goods sold increasing slightly during the same period,<sup>201</sup> the domestic industry saw its total operating income, operating income margins, gross profits, and gross profit margins all decline substantially between 2002 and 2004.<sup>202</sup>

In particular, the industry's operating income levels fell by \*\*\* percent between 2002 and 2004, declining from \$\*\*\* million in 2002 to \$\*\*\* in 2003, and then to a loss of \$\*\*\* million in 2004.<sup>203</sup> The industry's net operating income margins fell by \*\*\* percentage points, dropping from \*\*\* percent in 2002 to \*\*\* percent in 2003 and then to a loss of \*\*\* percent in 2004.<sup>204</sup> Further, the industry's total gross profits fell by \*\*\* percent between 2002 and 2004, falling from \$\*\*\* million in 2002 to \$\*\*\* million in 2003, and then remaining essentially stable at \$\*\*\* million in 2004.<sup>205</sup> The industry's gross profit margin fell by \*\*\* percentage points during the same period, declining from \*\*\* percent in 2002 to \*\*\* percent in 2003 and then to \*\*\* percent in 2004.<sup>206</sup> Moreover, the industry responded to these pricing and profitability declines by reducing its work force and the hours worked by its employees, both of which fell by \*\*\* percent during the period of investigation.<sup>207</sup> In sum, the substantial price competition in the market that occurred between the domestic and subject suppliers in 2003 and 2004 resulted in pricing and profitability declines that far outweighed the volume-related improvements in the industry's condition in those years.<sup>208</sup>

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<sup>196</sup> (...continued)

at Tables C-1 & III-3. The industry's net sales quantities increased from \*\*\* pounds in 2002 to \*\*\* pounds in 2003 and \*\*\* million pounds in 2004, while its net sales revenues increased from \$\*\*\* in 2002 to \$\*\*\* in 2003 and \$\*\*\* million in 2004. CR/PR at Tables C-1 & VI-1.

<sup>197</sup> CR/PR at Tables C-1 & IV-6.

<sup>198</sup> E.g. Tr. at 41-42 (Herak) & 82 (Televantos).

<sup>199</sup> CR/PR at Tables V-1-V-6.

<sup>200</sup> CR/PR at Tables C-1, III-3 & VI-1.

<sup>201</sup> CR/PR at Table C-1 & VI-1.

<sup>202</sup> CR/PR at Table C-1 & VI-1.

<sup>203</sup> CR/PR at Tables C-1 & VI-1.

<sup>204</sup> CR/PR at Tables C-1 & VI-1.

<sup>205</sup> CR/PR at Tables C-1 & VI-1.

<sup>206</sup> CR/PR at Tables C-1 & VI-1.

<sup>207</sup> CR/PR at Tables C-1 & III-5. We note that the wages paid workers increased by \*\*\* percent and that productivity increased by \*\*\* percent, however.

<sup>208</sup> See, e.g. CR/PR at Table VI-4 (showing deterioration in profitability of industry due to adverse pricing variances that offset positive volume variances). The industry was able to increase its capital and research and development expenses over the period of investigation. CR/PR at Table VI-5. However, these increases in the

(continued...)

We have taken into account in our analysis the fact that part of the decline in the industry's profitability levels in 2004 resulted from a one-time loss associated with Aqualon's decision to shut down its production facility for monochloroacetic acid ("MCA"), which is a raw material input for purified CMC.<sup>209</sup> It is not clear to us that the shut-down of its MCA plant was necessitated by or associated with the price competition from subject imports during the period of investigation, as Aqualon asserted during the preliminary phase of these investigations. However, even if we were to consider the industry's financial results in 2004 without the costs associated with the shut-down of this facility, the industry's total operating income levels and its operating margins would still be significantly lower in 2004 than they were in 2002, the first year of the period of investigation.<sup>210</sup> Accordingly, even if we were to ignore the costs associated with the shutdown, we would still find that the industry suffered material injury as a result of low-priced subject imports during the period of investigation.<sup>211</sup>

Finally, we do not agree with Noviant that the declines in Aqualon's condition during the period were the result of its inability to supply its customers with sufficient amounts of purified CMC in a timely manner or of the requisite quality.<sup>212</sup> Although the record does show that Aqualon was occasionally unable to supply adequate supplies of purified CMC to certain customers during a period of rapidly increasing consumption,<sup>213</sup> Aqualon's condition deteriorated during the period not because of declining sales volumes but because of declining prices. Thus, the fact that Aqualon may have occasionally lost sales during the period due to quality or timeliness issues<sup>214</sup> is not a determining factor in its injured condition; neither of these considerations explains why Aqualon's prices and profitability levels declined so precipitously across the board in 2003 and remained so low in 2004.

Accordingly, we find that the significant increases in the volume of the subject imports and their significant underselling have had a significant adverse impact on the industry's condition, particularly its pricing and profitability levels, during the period of investigation.

## CONCLUSION

For the reasons stated above, we determine that the industry in the United States producing purified CMC is materially injured by reason of subject imports of purified CMC from Finland, Mexico, the Netherlands, and Sweden that are being sold in the United States at less than fair value.

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<sup>208</sup> (...continued)

industry's expenditures were intended to keep the industry competitive in the market and do not detract from the sharp decline in the industry's pricing and profitability levels during the period.

<sup>209</sup> CR at VI-4-VI-7 & Table VI-1, PR at VI-1-VI\_3 & Table VI-1.

<sup>210</sup> CR/PR at Table VI-1, n. 3. If Aqualon's long-lived asset impairment cost for the shutdown were removed from the company's financials, Aqualon would have earned an operating income of \$\*\*\* million and had an operating income margin of \*\*\* percent in 2004, which were substantially lower than its operating income of \$\*\*\* million and its operating margin of \*\*\* percent in 2002. Id.

<sup>211</sup> We do not agree with Noviant that we should make an adjustment to Aqualon's selling, general and administrative ("SG&A") expenses during the period of investigation. Noviant's Prehearing Brief at 38-41. Commission staff verified the SG&A data contained in our staff report and we believe that these data are therefore a reliable indication of the company's SG&A expenses. Moreover, we note, these costs do not explain Aqualon's losses during the period, since the company's SG&A costs declined on an average unit basis during the period of investigation. CR/PR at Table VI-1.

<sup>212</sup> Noviant's Prehearing Brief at 55-58.

<sup>213</sup> CR at II-5, n. 16, & II-31-32, PR at II-4, n. 16 & II-19-20.

<sup>214</sup> We note that, despite evidence of occasional supply problems, Aqualon's U.S. shipments increased by \*\*\* percent over the period and its market share increased by \*\*\* percent, CR/PR at Table C-1, indicating that it was viewed as a viable supplier of quality merchandise in the market as a whole.



## DISSENTING VIEWS OF COMMISSIONER DANIEL R. PEARSON

Based on the record in these investigations, I find that an industry in the United States is neither materially injured by reason of subject imports of purified carboxymethylcellulose from Finland, Mexico, the Netherlands, and Sweden that are sold at less than fair value, nor threatened with material injury. I join in the views of my colleagues regarding domestic like product and domestic industry, and therefore join and adopt as my own sections II and III of their Views.

### I. CUMULATION<sup>215</sup>

#### A. In General

For purposes of evaluating the volume and price effects for a determination of material injury by reason of the subject imports, section 771(7)(G)(i) of the Act requires the Commission to assess cumulatively the volume and effect of imports of the subject merchandise from all countries as to which petitions were filed and/or investigations self-initiated by Commerce on the same day, if such imports compete with each other and with the domestic like product in the U.S. market.<sup>216</sup> In assessing whether subject imports compete with each other and with the domestic like product,<sup>217</sup> the Commission has generally considered four factors, including:

- (1) the degree of fungibility between the subject imports from different countries and between imports and the domestic like product, including consideration of specific customer requirements and other quality related questions;
- (2) the presence of sales or offers to sell in the same geographic markets of subject imports from different countries and the domestic like product;
- (3) the existence of common or similar channels of distribution for subject imports from different countries and the domestic like product; and
- (4) whether the subject imports are simultaneously present in the market.<sup>218</sup>

While no single factor is necessarily determinative, and the list of factors is not exclusive, these factors are intended to provide the Commission with a framework for determining whether the subject

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<sup>215</sup> None of the subject imports from any of the subject countries are negligible in these final phase investigations. The subject imports from Finland, Mexico, the Netherlands, and Sweden were all above the three percent negligibility threshold during the most recent twelve-month period for which data were available preceding the filing of the petition. CR/PR at Table IV-2; 19 U.S.C. § 1677(24).

<sup>216</sup> 19 U.S.C. § 1677(7)(G)(i). There are four exceptions to the cumulation provision, none of which applies to these investigations. See, e.g., 19 U.S.C. § 1677(7)(G)(ii).

<sup>217</sup> The SAA expressly states that “the new section will not affect current Commission practice under which the statutory requirement is satisfied if there is a reasonable overlap of competition.” SAA at 848, citing Fundicao Tupy, S.A. v. United States, 678 F. Supp. 898, 902 (Ct. Int’l Trade 1988), aff’d, 859 F.2d 915 (Fed. Cir. 1988).

<sup>218</sup> See, e.g., Certain Cast-Iron Pipe Fittings from Brazil, the Republic of Korea, and Taiwan, Invs. Nos. 731-TA-278 to 280 (Final), USITC Pub. 1845 (May 1986), aff’d, Fundicao Tupy, 678 F. Supp. 898, aff’d, 859 F.2d 915.

imports compete with each other and with the domestic like product.<sup>219</sup> Only a “reasonable overlap” of competition is required.<sup>220</sup>

## **A. Preliminary Determination**

In our preliminary determination, the Commission cumulated the subject imports from Finland, Mexico, Netherlands, and Sweden.<sup>221</sup> In doing so, however, the Commission noted that the subject producer in Finland had shipped a limited volume of merchandise into the food and personal care sectors of the CMC market, where a large portion of the other subject imports was shipped, and that there were small volumes of Swedish and Mexican imports sold into the paper and oilfield markets, where Finnish imports were concentrated during the period.

### **1. Fungibility**

The domestic producer reported that all subject imports were always or frequently interchangeable with the domestic like product and other subject imports. Purchasers and importers generally agreed, though both purchasers and importers reported limitations in interchangeability. Four of 12 responding importers reported that subject imports from the Netherlands were sometimes or never interchangeable with the domestic like product, as did six of the 23 responding purchasers. Two of the six responding importers reported that subject imports from Finland were sometimes or never interchangeable with the domestic like product, as did three of the 13 responding purchasers. Both importers and purchasers also reported some limitations on interchangeability between subject imports.<sup>222</sup> Purchasers also noted some differences between the domestic like product and subject imports in terms of various purchasing considerations, such as availability, reliability of supply, delivery, and technical support.<sup>223</sup>

Subject import shipments tend to be concentrated by end use sector. No shipments of subject imports from Finland to either the food or personal care sectors were reported during the period of investigation.<sup>224</sup> Those two sectors accounted for significant shares of other subject imports. The food sector alone accounted for up to \*\*\* of subject imports from Mexico, the Netherlands, and Sweden. Indeed, food and personal care alone accounted for \*\*\* subject imports from Sweden over the POI. Those two segments also accounted for \*\*\* percent of shipments of the domestic like product during the POI.<sup>225</sup>

Subject imports from Finland were divided between the paper and board and oilfield segments. No imports from Mexico were shipped to the paper and board segment throughout the POI. Shipments of subject imports from the Netherlands to the paper and board segment were \*\*\* pounds in 2004, \*\*\* in 2003; there were \*\*\* shipments of subject imports from Sweden to this sector in 2003 or 2004. Total

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<sup>219</sup> See, e.g., Wieland Werke, AG v. United States, 718 F. Supp. 50 (Ct. Int’l Trade 1989).

<sup>220</sup> See, e.g., Goss Graphic System, Inc. v. United States, 33 F. Supp. 2d 1082, 1087 (Ct. Int’l Trade 1998) (“cumulation does not require two products to be highly fungible”); Mukand Ltd. v. United States, 937 F. Supp. 910, 916 (Ct. Int’l Trade 1996); Wieland Werke, 718 F. Supp. at 52 (“Completely overlapping markets are not required.”)

<sup>221</sup> Prelim. Det. at 7-11.

<sup>222</sup> CR/PR at Table II-4.

<sup>223</sup> CR/PR at Table II-6a.

<sup>224</sup> \*\*\* purchasers did report pricing data for imports from Finland for product 1, used in food or personal care products. CR/PR at Table V-8. However, it is undisputed that the plant in Finland is not certified for GMP products, and no importer reported sales of product 1 from Finland. CR/PR at Table V-1.

<sup>225</sup> CR/PR at Table E-1.

shipments of imports from Mexico to the oilfield sector were \*\*\* in 2002 and 2003, as were total shipments of subject imports from Sweden in 2003.<sup>226</sup>

The differences in end-use shipments reflect differences in the capabilities of producers in each of the four countries. The plant in Finland lacks the necessary certification to compete for sales to the food and personal care sectors. The plant is also reportedly set up to produce only the lower-viscosity type of products used in oilfield or paper and board applications.<sup>227</sup> On the other hand, virtually no other subject imports were directed to the paper and board segment, a sector that accounted for over \*\*\* percent of subject imports from Finland in every year of the POI.<sup>228</sup> The end-use data suggest significant limitations in fungibility between subject imports from Finland and those from Mexico, the Netherlands, and Sweden.

## **2. Channels of Distribution**

Virtually all subject imports from each of the four countries were sold directly to end users, with the remainder being sold to distributors. Subject imports from Finland and Sweden were significantly less likely to be sold to distributors, than were other subject imports, though the overall ratios were similar. The domestic like product, like subject imports, was far more likely to be shipped to an end user than to a distributor.<sup>229</sup>

## **3. Simultaneous Presence**

Subject imports, like the domestic like product, were present in the U.S. market throughout the period of investigation.

## **4. Same Geographical Markets**

The record indicates that subject imports from Finland and Mexico tended to enter the U.S. market through ports in the South, while subject imports from the Netherlands and Sweden were significantly more likely to enter through ports in the East.<sup>230</sup> However, the record also suggests that both subject imports from all four countries and the domestic like product were sold nationwide.<sup>231</sup>

## **5. Conclusion**

I find that a reasonable overlap of competition exists between subject imports from Mexico, the Netherlands, and Sweden. The distribution of shipments by end use varies for each of the subject imports, but a significant share of subject imports from each of the three countries is sold into the food and personal care sectors, as is a significant share of the domestic like product. The other conventional factors—channels of distribution, simultaneous presence, and geographic markets—also suggest that a

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<sup>226</sup> CR/PR at Table E-1.

<sup>227</sup> Noviant posthearing brief at Exh. 1, 19-20.

<sup>228</sup> CR/PR at Table E-1. Paper and board applications do not require GMP certification, but testimony from a paper manufacturer suggests that this segment also has exacting qualification standards, as does the oilfield sector. Tr. at 293 (Mr. McKenzie).

<sup>229</sup> CR/PR at Table I-4.

<sup>230</sup> CR/PR at Table IV-4.

<sup>231</sup> CR at IV-8, PR at IV-4.

reasonable overlap of competition exists among these subject imports and between these subject imports and the domestic like product.<sup>232</sup>

I find that a reasonable overlap of competition does not exist between subject imports from Finland and other subject imports. The record indicates that subject imports from Finland are barred from competing with either other subject imports or the domestic like product in major portions of the U.S. market. As noted above, the producer in Finland lacks the necessary certification to participate in this market. Aqualon has argued that, in finding a reasonable overlap, it is not necessary to show actual sales, but that competition for sales is sufficient.<sup>233</sup> But the record does not suggest that subject imports from Finland competed for sales in either the food or personal care sectors during the POI. Nor does the record indicate that a purchaser would use CMC from an uncertified plant in an application requiring such certification.

Aqualon has also argued that there are few true physical distinctions between CMC produced for a food or personal care use, and CMC produced for the oilfield.<sup>234</sup> This might be true. Again, however, the record contains no evidence to suggest that products produced for a food or personal care use compete with uncertified products for sales to the paper and board or oilfield sector.

Aqualon has argued that the plant in Finland could easily gain the GMP certification.<sup>235</sup> Respondent Noviant indicates that the process would take 18 months and cost several million dollars.<sup>236</sup> However, I do not find it necessary to settle this issue for purposes of my cumulation for present injury decision. The plant is not so certified and was not so certified during the POI, and, as a result, subject imports from Finland were barred from segments of the market that accounted for the majority of other subject imports over the POI. Aqualon has also suggested that common ownership of plants in Finland, Sweden, and the Netherlands argue for cumulation.<sup>237</sup> However, my finding is based on the limitations on the capabilities of the individual production facilities, a limitation on competition that cannot be addressed simply by common ownership.

I am mindful that the other factors tend to favor a finding that a reasonable overlap of competition exists between subject imports from Finland and those from Mexico, the Netherlands, or Sweden, given similarities in channels of distribution, geographic markets, and simultaneous presence. But the difference in market segments is distinct and stems from actual differences in the products and differences in the production capabilities of individual producers. For that reason I find the evidence regarding fungibility to be compelling, and therefore find that a reasonable overlap of competition does not exist between subject imports from Finland and those from Mexico, the Netherlands, and Sweden.

For purposes of my present injury determination, therefore, I cumulate subject imports from Mexico, the Netherlands, and Sweden for the material injury analysis. I consider subject imports from Finland separately.

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<sup>232</sup> In reaching this determination, I have considered the arguments presented against cumulating these subject imports. In particular, respondent QAM presented evidence indicating that subject imports from Mexico tended to be concentrated among a limited number of users. See QAM posthearing brief at 5-14. Nonetheless, the record suggests that a reasonable overlap of competition still exists.

<sup>233</sup> Aqualon posthearing brief at 15.

<sup>234</sup> Aqualon posthearing brief at 13-14.

<sup>235</sup> Aqualon posthearing brief at Att. A, question 5.

<sup>236</sup> Noviant posthearing brief at Exh. 1, 19-20.

<sup>237</sup> Aqualon posthearing brief at Att. A, question 8.

### III. NO MATERIAL INJURY BY REASON OF LESS THAN FAIR VALUE IMPORTS FROM MEXICO, NETHERLANDS, AND SWEDEN

In the final phase of antidumping and countervailing duty investigations, the Commission determines whether an industry in the United States is materially injured by reason of the imports under investigation.<sup>238</sup> In making this determination, the Commission must consider the volume of imports, their effect on prices for the domestic like product, and their impact on domestic producers of the domestic like product, but only in the context of U.S. production operations.<sup>239</sup> The statute defines “material injury” as “harm which is not inconsequential, immaterial, or unimportant.”<sup>240</sup> In assessing whether the domestic industry is materially injured by reason of subject imports, we consider all relevant economic factors that bear on the state of the industry in the United States.<sup>241</sup> No single factor is dispositive, and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>242</sup>

#### A. Period of Investigation

In these final phase investigations, the parties have disagreed on the relevant period of investigation (POI). Petitioner Aqualon asserts that the Commission should use a four-year period of investigation, covering the period from 2001 to 2004. Aqualon asserts that use of this four-year period is appropriate because data for 2001 were collected during the preliminary phase investigations and use of the data for that year would help the Commission “understand[] and evaluat[e] the competitive situation faced by the domestic industry.”<sup>243</sup> According to Aqualon, the longer period of investigation is appropriate because respondent Noviant added substantial new production capacity in 1999.<sup>244</sup> Respondent Noviant, on the other hand, asserts that there is no legal or factual basis for an expansion of the period of investigation, noting that the Commission’s established practice is to examine a three-year period of investigation unless it is presented with a “well-defined, industry specific business cycle.”<sup>245</sup> Noviant also argues that the data collected for 2001 are not comparable to those collected in these final phase investigations.<sup>246</sup>

As both parties acknowledge, the Commission normally examines data for a three-year period, plus any interim data, when performing the injury analysis in a Title VII investigation.<sup>247</sup> The Commission does expand the period of the investigation when particular circumstances indicate that a longer period of investigation is necessary to understand the cyclical nature of the industry, or when a

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<sup>238</sup> 19 U.S.C. §§ 1671d(b), 1673d(b).

<sup>239</sup> 19 U.S.C. § 1677(7)(B)(i). The Commission “may consider such other economic factors as are relevant to the determination” but shall “identify each [such] factor ... [a]nd explain in full its relevance to the determination.” 19 U.S.C. § 1677(7)(B); see also, e.g., Angus Chemical Co. v. United States, 140 F.3d 1478 (Fed. Cir. 1998).

<sup>240</sup> 19 U.S.C. § 1677(7)(A).

<sup>241</sup> 19 U.S.C. § 1677(7)(C)(iii).

<sup>242</sup> Id.

<sup>243</sup> Aqualon Posthearing Brief at 11 and Att. A, question 1; Aqualon Prehearing Brief at 28-30.

<sup>244</sup> CR at VII-6 n.11, PR at VII-4 n.11.

<sup>245</sup> Noviant Posthearing Brief at 3-5.

<sup>246</sup> Noviant Posthearing Brief at 4-5.

<sup>247</sup> Certain Aluminum Plate from South Africa, Inv. No. 731-TA-1056 (Final), USITC Pub. 3734 (Nov. 2004) at 19, n.156; Silicon Metal from Russia, Inv. No. 731-TA-991 (Final), USITC Pub. 3584 (March 2003) at 11, n. 68, citing, *inter alia*, Kenda Rubber Industrial Co. v. United States, 630 F. Supp. 354, 359 (Ct. Int’l Trade 1986)

longer period of investigation is necessary because of an unusual event occurring during the POI.<sup>248</sup> Aqualon argues that Noviant's expansion of capacity in 1999 was just such an event.<sup>249</sup> However, the event occurred well outside even the POI for the preliminary investigation. I find that Aqualon has not indicated any particular cycle or event which would justify relying upon a different time period. Accordingly, I have made my determinations based on the 2002-2004 period of investigation.

## **B. Conditions of Competition**<sup>250</sup>

I have taken the following conditions of competition into account when assessing whether the domestic industry is materially injured by reason of the subject imports.

### **1. Demand Conditions**

Demand for CMC increased significantly over the POI. Total apparent U.S. consumption of CMC was \*\*\* million pounds in 2004, compared to \*\*\* million pounds in 2002, an increase of \*\*\* percent in just two years. The rate of increase was fairly constant over the POI.<sup>251</sup>

The bulk of CMC is consumed by end users in four segments: food, personal care products, paper and board, and oilfield.<sup>252</sup> While overall demand increased over the POI, the various segments experienced varying degrees of growth. Food was the leading end use for CMC in the U.S. market in 2002, accounting for \*\*\* percent of all shipments that year. By 2004, shipments to this segment had increased by \*\*\* percent, and it remained an importance source of sales, accounting for \*\*\* percent of shipments. However, shipments to the oilfield sector had skyrocketed, nearly \*\*\* between 2002 and 2004. By 2004, shipments to the oilfield sector accounted for \*\*\* percent of all shipments. Shipments to paper and board manufacturers increased by \*\*\* percent between 2002 and 2004, while market share slipped from \*\*\* percent to \*\*\* percent; shipments to the personal care market increased by \*\*\* percent, though those shipments accounted for \*\*\* percent of the market in 2004, down from \*\*\* percent in 2002.<sup>253</sup>

The oilfield sector has been marked by substantial growth in a very short period of time. However, this segment is dominated by a handful of buyers that tend to purchase large quantities and account for virtually all sales to this sector. These few buyers typically are able to negotiate discounts on price related to volumes purchased, even in a rising market.<sup>254</sup>

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<sup>248</sup> See, e.g., Fresh Atlantic Salmon from Chile, Inv. No. 731-TA-768, USITC Pub. 3116 (July 1998) at 14; Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, from Germany and Japan, Inv. Nos. 731-TA-736 and 737, USITC Pub. 2988 (Aug. 1998) at 14; Magnesium from China and Russia, Inv. Nos. 731-TA-1071 and 1072 (Final), USITC Pub. 3763 (April 2005) at 15, n. 83.

<sup>249</sup> Aqualon posthearing brief at 11 and Att. A, question 1.

<sup>250</sup> The sole domestic producer shipped a \*\*\* volume of merchandise for internal consumption during the period of investigation. CR/PR at Table III-3 and n. 1. However, these internal shipments did not account for more than \*\*\* percent of the domestic producer's total production during any year of the period of investigation. Compare CR/PR at Table III-1 with CR/PR at Table III-3. Accordingly, I find that the domestic producer did not internally transfer significant production of the domestic like product for the production of a downstream article and that the captive production provision, 19 U.S.C. §1677(7)(C)(iv), does not apply.

<sup>251</sup> CR/PR at Table C-3.

<sup>252</sup> CR at I-8-I-9, PR at I-7.

<sup>253</sup> CR/PR at Table E-1.

<sup>254</sup> CR at II-1-II-2, PR at II-1; Tr. at 258-59 (Mr. Huizinga).

## 2. Supply Conditions

Aqualon is the sole domestic producer of purified CMC, and has been throughout the POI. Purified CMC is Aqualon's only product.<sup>255</sup> Its plant is capable of producing \*\*\* pounds of CMC a year; however, one of its \*\*\*.<sup>256</sup> Thus, although demand for CMC increased by over \*\*\* percent between 2002 and 2004, the domestic industry's production capacity increased by only \*\*\* percent, from \*\*\* million pounds in 2002 and 2004, to \*\*\* million pounds in 2004.<sup>257</sup> Aqualon's \*\*\* million pounds of capacity were equivalent to \*\*\* percent of 2004's apparent domestic consumption of \*\*\* million pounds.<sup>258</sup>

Given this shortfall, imports play a significant role in the U.S. market. Cumulated subject imports from Mexico, the Netherlands, and Sweden were the largest source, accounting for \*\*\* percent of shipments in 2002, \*\*\* percent in 2004. Subject imports from Finland accounted for approximately \*\*\* of all shipments during the POI.<sup>259</sup>

Nonsubject imports increased significantly over the POI. In 2002, nonsubject imports accounted for \*\*\* percent of all shipments. By 2004, that share had reached \*\*\* percent.<sup>260</sup> France remained a fairly steady source for nonsubject imports; a producer in France is related to Aqualon and imports were apparently made to supplement Aqualon's product line.<sup>261</sup> Aqualon is also affiliated with a CMC producer in China, but the record suggests that subject imports from China were not made by Aqualon.<sup>262</sup> Subject imports from China rose from \*\*\* pounds in 2002 to \*\*\* million pounds in 2004.<sup>263</sup>

Among the various providers of CMC to the U.S. market, Aqualon is unique in that it makes significant sales to each of the major segments. In 2004, despite a significant shift to the oilfield sector, more than \*\*\* percent of its shipments went to each of the other sectors. Other sources tended to be concentrated. \*\*\* of subject imports from Mexico were sold to food producers, while \*\*\* went to paper and board or oilfield customers; subject imports from the Netherlands were sold to purchasers in the food sector and, less frequently, the oilfield sector, with \*\*\* sales to paper and board producers. For subject imports from Sweden, \*\*\* of its shipments over the POI were to food or personal care producers. No subject imports from Finland were shipped to food or personal care producers.<sup>264</sup> Even nonsubject imports were concentrated: throughout the POI no subject imports from China were reported sold to either personal care or paper and board users; subject imports from France were virtually shut out of the food and personal care sectors.<sup>265</sup>

## 3. Substitutability/Other Pricing Considerations

CMC produced for these various sectors may be quite similar in makeup. However, products used in food and personal care applications must meet exacting standards for purity and be produced in a plant that has been certified as using good manufacturing practices (GMP). There is no evidence in the

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<sup>255</sup> CR at III-1, PR at III-1.

<sup>256</sup> CR at III-1, PR at III-1.

<sup>257</sup> CR/PR at Tables C-3 and III-1.

<sup>258</sup> CR/PR at Tables C-3 and III-1.

<sup>259</sup> CR/PR at Table C-3.

<sup>260</sup> CR/PR at Table C-3.

<sup>261</sup> CR at III-2-III-3, PR at III-2.

<sup>262</sup> CR at IV-4 n.5, PR at IV-3 n..5.

<sup>263</sup> CR/PR at Table IV-2.

<sup>264</sup> CR/PR at Table E-1.

<sup>265</sup> CR/PR at Table E-2.

record to suggest that CMC produced for a food or personal care use is actually used in other applications, and likewise there is no evidence in the record to suggest that CMC produced for oilfield or paper and board uses actually is sold to food or personal care producers.

The record suggests that most producers have fairly exacting standards and require some form of qualification. However, the record also suggests that many producers would prefer to have more than one source.<sup>266</sup> Producers, importers, and purchasers all report a fair degree of substitutability among subject imports and between subject imports and the domestic like product.<sup>267</sup>

There are many other hydrocolloids which can replace CMC in most applications.<sup>268</sup> Respondents have provided some anecdotal evidence indicating that purchasers can and do shift among the various hydrocolloid alternatives, sometimes because of price.<sup>269</sup> The record suggests, however, that the relationship between CMC and other hydrocolloids is more complicated. CMC and other hydrocolloids can be considered complementary as well as substitute products. Purchasers may well seek lower-cost alternatives, but shifting will be limited by concerns regarding product consistency and the costs incurred through the shift.<sup>270</sup>

## **B. Volume of Subject Imports**

Section 771(7)(C)(i) of the Act provides that the “Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States, is significant.”<sup>271</sup>

Subject imports, measured by volume, increased by \*\*\* percent between 2002 and 2004, reaching \*\*\* million pounds in 2004.<sup>272</sup> Shipments of subject imports from Mexico, the Netherlands, and Sweden increased by \*\*\* percent between 2002 and 2004. Cumulated, these subject imports accounted for \*\*\* percent of apparent U.S. consumption in 2004. Nonetheless, I do not find subject imports to be significant.

While the volume of subject imports increased, total apparent consumption increased at a far more impressive rate, rising by \*\*\* percent between 2002 and 2004. Shipments of the domestic like product increased even more, rising by \*\*\* percent between 2002 and 2004. The domestic like product accounted for \*\*\* percent of apparent U.S. consumption in 2004, up from \*\*\* percent in 2002. The domestic industry’s gain of nearly \*\*\* percentage points in market share mirrors the loss of market share experienced by subject imports.

Subject import volume did increase over the POI, but at a rate far slower than that experienced by overall demand and by shipments of the domestic like product. Indeed, it is difficult to see how the domestic industry’s shipments might have increased any more; by 2004 the industry was operating at a capacity utilization rate of \*\*\* percent. Though cumulated subject imports continued to account for a fairly significant share of total apparent U.S. consumption, that share was significantly diminished by the end of the POI, and that share did not prevent the domestic industry from capturing significant market

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<sup>266</sup> Tr. at 294, 295 (Mr. Nessel).

<sup>267</sup> CR/PR at Tables II-4, II-6a and II-6b.

<sup>268</sup> CR/PR at Table II-2.

<sup>269</sup> Noviant posthearing brief at Exh. 1, pp. 1, 36-37, and 1X.

<sup>270</sup> CR at II-22-II-23, PR at II-15; Aqualon posthearing at 12.

<sup>271</sup> 19 U.S.C. § 1677(7)(C)(i).

<sup>272</sup> CR/PR at Table IV-2.



share and reaching \*\*\* capacity utilization rate. Therefore I do not find the volume of subject imports to be significant, either absolutely or relatively.

### **C. Price Effects of the Subject Imports**

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

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

(II) the effect of imports of such merchandise otherwise depresses prices to a significant degree or prevents price increases, which otherwise would have occurred, to a significant degree.<sup>273</sup>

The record suggests that CMC from different sources is fairly substitutable, though the record also suggests that CMC produced for a particular end use is not practicably substitutable in another end use. The record also indicates that subject imports tend to be concentrated in fewer sectors than is the domestic like product.

Prices for the domestic like product, as indicated by the quarterly product-specific data, declined steadily through the POI. Prices declined though demand increased and, by 2004, the domestic industry was operating at \*\*\* rates of utilization. Subject imports undersold the domestic like product in half of the quarterly observations; underselling accounted for \*\*\* percent of cumulated subject imports by volume.<sup>274</sup>

This would seem to indicate a fairly straightforward case of significant underselling and price depression by subject imports. However, the record contains additional information which suggests that the link between subject imports, underselling, and price declines is not so straightforward. Some evidence suggests that pricing categories are fairly broad, embracing a range of inexpensive and more expensive products within categories.<sup>275</sup>

Subject imports frequently undersold the domestic like product over the POI. However, subject imports lost market share over the POI as well. Prices for subject imports changed very little over the POI, even though subject imports missed most of the growth in the market. Underselling by subject imports was not particularly effective in keeping, much less gaining, market share. Nor were subject import prices particularly responsive to declines in the price of the domestic like product.

This suggests that other factors drove Aqualon's pricing practices over the POI. Several customers, including \*\*\*, admitted shifting business away from Aqualon, even though Aqualon prices \*\*\*.<sup>276</sup> Aqualon \*\*\*.<sup>277</sup> \*\*\*.<sup>278</sup> The record indicates that, over the POI, Aqualon was emerging from a period of rocky customer relations. Given the relative immobility of subject import prices, the record indicates that Aqualon turned to price reductions in 2003 and 2004 in order to repair customer relations and position itself in the growing sector of the market.

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<sup>273</sup> 19 U.S.C. § 1677(7)(C)(ii).

<sup>274</sup> Calculated from CR/PR at Table V-15. Net delivered purchase price data showed less underselling, with underselling accounting for \*\*\* percent of imports. Calculated from CR/PR at Table V-16.

<sup>275</sup> Noviant posthearing brief at Exh.1, 8-10.

<sup>276</sup> CR/PR at Table V-19.

<sup>277</sup> Noviant posthearing brief at 5-6, Exh. 1 at 24-25.

<sup>278</sup> Noviant posthearing brief at Exh. 1, 27-28.

Given the relative flatness of import prices, and the failure of subject imports to gain additional market share, I find that underselling by subjects, even if considered significant, did not lead to significant price suppression or depression.

**D. Impact of the Subject Imports**<sup>279</sup>

In examining the impact of the subject imports on the domestic industry, the Commission considers all relevant economic factors that bear on the state of the industry in the United States.<sup>280</sup> These factors include output, sales, inventories, capacity utilization, market share, employment, wages, productivity, profits, cash flow, return on investment, ability to raise capital, and research and development. No single factor is dispositive and all relevant factors are considered “within the context of the business cycle and conditions of competition that are distinctive to the affected industry.”<sup>281</sup>

Upon first consideration, the domestic industry appears to have suffered material injury. The industry’s operating income relative to sales declined from \*\*\* percent in 2002 to \*\*\* percent in 2003, to a loss of \*\*\* percent in 2004. The unit value of net sales declined by \*\*\* percent. The number of production and related workers declined by \*\*\* percent,<sup>282</sup> as did hours worked, and total wages paid declined by \*\*\* percent.<sup>283</sup>

However, the industry’s performance showed significant improvement in other areas. Production increased by \*\*\* percent between 2001 and 2003. Capacity utilization jumped from \*\*\* percent in 2002 to \*\*\* percent in 2004. Net sales increased by \*\*\* percent, and the value of those sales increased by \*\*\* percent. Productivity soared, rising by \*\*\* percent over just two years. Unit labor costs dropped by \*\*\* percent, though hourly wages actually increased.<sup>284</sup>

Despite these significant improvements, the industry registered an operating loss in 2004. This loss was not driven primarily by a decline in the unit value of sales, which actually declined by only \*\*\* percent between 2003 and 2004. The loss in 2004 was a reflection of \*\*\*. Without this \*\*\* percent of sales. Operating income would have been positive, at \$\*\*\*.<sup>285</sup>

\*\*\*. However, the inclusion of this item gives a rather misleading picture of the industry in 2004. Without this \*\*\*, the industry would have shown improvement in 2004. Nothing in the record suggests that the \*\*\* was prompted by the presence of subject imports in the market. Rather, the record

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<sup>279</sup> The statute instructs the Commission to consider the “magnitude of the dumping margin” in antidumping duty proceedings as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). Commerce found the following final dumping margins: Mexico, 12.61 percent, Netherlands, 13.39 percent to 14.88 percent; and Sweden, 25.29 percent. CR/PR at Table I-2.

<sup>280</sup> 19 U.S.C. § 1677(7)(C)(iii); see also, e.g., SAA at 851, 885 (“In material injury determinations, the Commission considers, in addition to imports, other factors that may be contributing to overall injury. While these factors, in some cases, may account for the injury to the domestic industry, they also may demonstrate that an industry is facing difficulties from a variety of sources and is vulnerable to dumped or subsidized imports.”)

<sup>281</sup> 19 U.S.C. § 1677(7)(C)(iii); see also, e.g., SAA at 851, 885; Live Cattle from Canada and Mexico, Invs. Nos. 701-TA-386, 731-TA-812-813 (Prelim.), USITC Pub. 3155 at 25 n. 148 (Feb. 1999).

<sup>282</sup> Some of this decline was due to the closure of the MCA plant. CR at III-5, n.11, citing Aqualon’s prehearing brief at 49.

<sup>283</sup> CR/PR at Table C-1.

<sup>284</sup> CR/PR at Table C-1.

<sup>285</sup> CR/PR at Table VI-1 n.3.

indicates that \*\*\*<sup>286</sup>\*\*\*. The record indicates that the losses registered by the domestic industry in 2004 were not significantly related to the presence of subject imports in the market.<sup>287</sup>

Shipments by the domestic industry to the food, personal care, and paper and board sectors increased over the POI, but both the increases and the volume were dwarfed by the increase in shipments to the oilfield sector. Shipments by the domestic industry to this sector accounted for \*\*\* percent of its shipments in 2002, but accounted for \*\*\* percent in 2004.<sup>288</sup> As noted above, however, prices in this sector tend to be low, given the concentration of buyers and the ability of those buyers to obtain volume discounts. Regardless of the underselling by subject imports, the domestic industry would have experienced a decline in unit values between 2002 and 2004, as lower-valued sales to the oilfield sector accounted for a rising share of total shipments.

In light of these findings, therefore, I find that subject imports did not have a significant adverse impact on the domestic industry producing CMC.

### **III. NO THREAT OF MATERIAL INJURY BY REASON OF LESS THAN FAIR VALUE IMPORTS FROM MEXICO, NETHERLANDS, AND SWEDEN**

#### **A. Cumulation**

As I noted above, some differences in distribution by end-use sector exist between subject imports from Mexico, the Netherlands, and Sweden. Additionally, subject imports from the three countries followed different trends over the POI. Subject imports from the Netherlands increased, subject import volume from Mexico was essentially unchanged, and subject import volume from Sweden was lower in 2004 than in 2002.<sup>289</sup> Subject imports from the Netherlands undersold less frequently when underselling is measured by volume.<sup>290</sup> These factors suggest that decumulating one or all of these countries might be appropriate. However, I have exercised my discretion and considered the cumulated volume and effect of subject imports from Mexico, the Netherlands, and Sweden.

#### **B. Statutory Factors**

The statutory factors weigh against a finding that the domestic industry is threatened with material injury by reason of subject imports. Capacity utilization was high or rising in each of the industries over the POI, and in both 2005 and 2006 the industries cumulatively are projected to be operating at utilization rates well in excess of \*\*\* percent. Subject producers do not have plans for significant capacity expansions. Inventories on hand at the end of 2004 were modest and well in line with recent history.<sup>291</sup> The volume of subject imports rose over the period of investigation, but at a rate well below the increase in demand, and the market penetration of subject imports actually declined over the POI. Subject imports frequently undersold the domestic like product, but, as noted above, the

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<sup>286</sup> CR at VI-6, PR at VI-2.

<sup>287</sup> Additionally, expenses for SGandA rose in 2004; on a per-unit basis, SGandA expenses were \*\*\*. CR/PR at Table C-1. The record suggests that, in light of Aqualon's significantly increased sales in 2004, its per-unit SGandA expenses ought to have declined more steeply. Again, I do not question the propriety of the allocation of these costs as reported. Nonetheless, the increase in SGandA expenses was another factor that contributed to make Aqualon's 2004 performance appear weak, yet was unrelated to the presence of subject imports.

<sup>288</sup> CR/PR at Table E-1.

<sup>289</sup> CR/PR at Table IV-2.

<sup>290</sup> CR/PR at Table V-15.

<sup>291</sup> CR/PR at Tables VII-4-VII-6.

underselling did not have significant effects on prices for the domestic like product. The record does not indicate any potential for product shifting. The record also suggests that prices in the U.S. market are not consistently higher than prices in other markets.<sup>292</sup>

Furthermore, the domestic industry is well-positioned for the future. The closure of its MCA facility, and the shift to purchasing the raw material, has improved the industry's cost structure. The industry was able to gain significant market share over the POI, and most of the gains came in the oilfield sector, where demand growth has been rapid and domestic industry participation was limited at the outset of the POI. Demand in this sector in particular is likely to remain healthy in the future. Therefore I find that the domestic industry is not threatened with material injury by reason of cumulated subject imports from Mexico, the Netherlands, and Sweden.

#### **IV. NO MATERIAL INJURY BY REASON OF LESS THAN FAIR VALUE IMPORTS FROM FINLAND**

##### **A. Volume of Subject Imports**

The volume of subject imports from Finland increased by \*\*\* percent between 2002 and 2004<sup>293</sup>; shipments of subject imports increased by \*\*\* percent.<sup>294</sup> However, these increases occurred at a time when demand was increasing at an even more rapid rate, and the market share of subject imports from Finland was essentially unchanged between 2002 and 2004, at approximately \*\*\* percent of apparent U.S. consumption. Shipments of subject imports from Finland actually increased most strongly between 2002 and 2003; between 2003 and 2004 shipments of subject imports from Finland were essentially unchanged, and market share declined from \*\*\* percent to \*\*\* percent.<sup>295</sup>

I do not find this volume to be significant. Subject imports from Finland accounted for a substantial share of the U.S. market throughout the POI. However, imports are an essential component of the U.S. market, given limited domestic production capacity. By 2004, the domestic industry's capacity utilization rate was \*\*\* percent. It is difficult to see how the industry might have served more U.S. demand. Furthermore, subject imports from Finland were directed to end-use segments that were underserved by other subject imports. For these reasons, I find that the volume of subject imports from Finland was not significant, either absolutely or relatively.

##### **B. Price Effects of Subject Imports**

Subject imports from Finland undersold the domestic like product in all quarterly comparisons.<sup>296</sup> Again, however, the interaction of prices and volume do not suggest a significant correlation between this

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<sup>292</sup> Noviant posthearing brief at Exh. 1, 31-32 and 1R.

<sup>293</sup> CR/PR at Table IV-2.

<sup>294</sup> CRPR at Table IV-5.

<sup>295</sup> CR/PR at Table IV-6.

<sup>296</sup> CR/PR at Table V-15. The Commission sought pricing data for one oilfield product. No importers reported any sales of subject imports from Finland for this product, so no direct quarterly comparisons were available. (Purchasers did report prices for this product, but the Commission does not usually calculate underselling margins for such price comparisons. CR/PR at Table F-5.) However, annual average unit value (AUV) data for shipments to the oilfield segment suggest that the domestic like product might have been priced well below subject imports from Finland throughout the POI in this sector. Oilfield applications accounted for \*\*\* percent of shipments of subject imports from Finland in 2004, up from \*\*\* percent in 2002; for the domestic like product, shipments to this sector rose from \*\*\* percent in 2002 to \*\*\* percent in 2004, while the actual volume of shipments more than \*\*\*. CR/PR at Table E-1.

underselling and prices for the domestic like product. Prices for the subject imports remained fairly constant over the POI, and the presence of underselling subject imports did not prevent the domestic industry from gaining substantial market share as well as increasing its absolute volume of shipments.

Furthermore, respondent Noviant, producer in Finland, has produced evidence which suggested that it attempted to raise prices in 2003. Noviant has also produced evidence which suggests that Aqualon undersold thereafter.<sup>297</sup> This evidence, combined with Noviant's evidence suggesting that the product pricing categories may have been overbroad,<sup>298</sup> suggest that the underselling indicated by the Commission data did not lead to significant suppression or depression of prices for the domestic like product.<sup>299</sup>

### **C. Impact of the Subject Imports**<sup>300</sup>

As noted above, the domestic industry's performance over the POI was more positive than its operating income in 2004 would have suggested. In the absence of significant volume or price effects, I do not find that subject imports from Finland had a significant adverse impact on the domestic industry.

## **V. NO THREAT OF MATERIAL INJURY BY REASON OF LESS THAN FAIR VALUE IMPORTS FROM FINLAND**

The statutory factors do not indicate a threat of material injury by reason of subject imports from Finland. Production capacity in Finland declined in both 2003 and 2004, and a further reduction is projected for 2005.<sup>301</sup> Subject import volume increased strongly between 2002 and 2003, but the volume of subject imports from Finland actually declined slightly in 2004.<sup>302</sup> Subject imports undersold the domestic like product throughout the POI, but the record suggests that subject import prices changed very little over the POI; the average unit value of shipments of subject imports increased in 2004. Inventories held by the producer in Finland were actually significantly lower in 2004 than in the preceding years of the POI. While the industry in Finland is export-oriented, it has significant other export markets, and shipments to non-U.S. markets increased in 2003 and 2004, both absolutely and relatively.<sup>303</sup> The record suggests that subject imports from Finland will continue to play a stable role in the U.S. market, while, as noted above, the domestic industry benefits from an improved cost structure and renewed sales in an expanding segment of the market. I therefore find that the domestic industry is not threatened with material injury by reason of subject imports from Finland.

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<sup>297</sup> Noviant posthearing brief at 10 and Exh. 1M, 1P.

<sup>298</sup> Noviant posthearing brief at Exh.1, 8-10.

<sup>299</sup> Noviant raised the issue of overbroad pricing categories in the preliminary phase of these investigations. However, during the questionnaire drafting phase, Noviant sought to broaden, not narrow, a pricing category. CR at V-16; PR at V-10-V-11. Noviant's actions did not help ensure that the Commission gathered the best set of pricing data possible. Nonetheless, I find the evidence provided by Noviant regarding the spread of pricing covered by one product to be significant.

<sup>300</sup> The statute instructs the Commission to consider the "magnitude of the dumping margin" in antidumping duty proceedings as part of its consideration of the impact of imports. 19 U.S.C. § 1677(7)(C)(iii)(V). Commerce found the following final dumping margin: Finland, 6.65 percent. CR/PR at Table I-2.

<sup>301</sup> CR/PR at Table VII-3.

<sup>302</sup> CR/PR at Table IV-2.

<sup>303</sup> CR/PR at Table VII-3.

## **CONCLUSION**

For the reasons stated above, I determine that the domestic industry producing CMC is neither materially injured nor threatened with material injury by reason of subject imports of CMC from Finland, Mexico, the Netherlands, and Sweden that are sold in the United States at less than fair value.

## PART I: INTRODUCTION

### BACKGROUND

These investigations result from a petition filed by the Aqualon Company (“Aqualon”), a division of Hercules, Inc., on June 9, 2004, alleging that an industry in the United States is materially injured and threatened with material injury by reason of less-than-fair-value (“LTFV”) imports of purified carboxymethylcellulose (“CMC”) from Finland, Mexico, the Netherlands, and Sweden.<sup>1</sup> Information relating to the background of the investigations is provided in table I-1.

**Table I-1**  
**Purified CMC: Chronology of events in the subject investigations<sup>1</sup>**

| Date   | Action  | Federal Register citation            |
|--|---|--------------------------------------|
| June 9, 2004   | Petition filed with the Commission and Commerce; institution of Commission investigations | 69 FR 33938, June 17, 2004           |
| June 29, 2004  | Commerce’s notice of initiation   | 69 FR 40617, July 6, 2004            |
| July 26, 2004  | Commission’s preliminary determinations   | 69 FR 45851; July 30, 2004           |
| November 3, 2004   | Commerce’s postponement of preliminary determinations                                     | 69 FR 64030                          |
| December 27, 2004  | Commerce’s preliminary LTFV determinations and postponement of final determinations       | 69 FR 77201, 77205, 77213, and 77216 |
| December 27, 2004  | Commission’s scheduling of final phase investigations                                     | 70 FR 1740, January 10, 2005         |
| February 3, 2005   | Commerce’s notice of amended preliminary LTFV determination for the Netherlands           | 70 FR 5609                           |
| May 17, 2005   | Commerce’s final LTFV determinations  | 70 FR 28275; 28278; 28279; and 28280 |
| May 12, 2005   | Date of the Commission’s hearing <sup>2</sup>   |                                      |
| June 16, 2005  | Commission’s vote   |                                      |
| June 30, 2005  | Commission’s determinations and views to Commerce   |                                      |
| <sup>1</sup> <i>Federal Register</i> notices cited in the tabulation are presented in app. A.<br><sup>2</sup> App. B presents a list of witnesses who appeared at the hearing. |   |                                      |

### U.S. MARKET SUMMARY

Trade in the U.S. market for purified CMC totaled more than \$116 million in 2004. The petitioner, Aqualon is the only producer of purified CMC in the United States. Eleven major U.S. importers of purified CMC accounted for more than 95 percent of U.S. imports from the subject countries during 2004. Noviant, Inc. (“Noviant”), a member of the Noviant Group of companies, imported purified CMC from Finland, the Netherlands, and Sweden, and accounted for \*\*\* percent of subject imports in 2004. \*\*\* imported the subject product principally from Finland and accounted for approximately \*\*\*

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<sup>1</sup> A complete description of the imported products subject to investigation is presented in *The Subject Product* section of this part of the report.

percent of subject imports in 2004. \*\*\* imported the subject product principally from the Netherlands and accounted for \*\*\* percent of subject imports. \*\*\* imported the subject product from Mexico and accounted for \*\*\* percent of subject imports in 2004. \*\*\* imported the subject product from the Netherlands and Sweden and accounted for \*\*\* percent of subject imports.

There are five major manufacturers/exporters of purified CMC in Finland, Mexico, the Netherlands, and Sweden. The Noviant Group of companies include Noviant OY (“Noviant Finland”), Noviant BV (“Noviant Netherlands”), and Noviant AB (“Noviant Sweden”). Quimica Amtex S.A. de C.V. (“Amtex”) manufactures/exports the subject product in Mexico, and Akzo Nobel Surface Chemistry bv (“Akzo Netherlands”) manufactures/exports the subject product in the Netherlands.

Major purchasers of purified CMC consist of firms in the food, personal care, cosmetics and pharmaceuticals, paper and board, and oilfield industries.

## **SUMMARY DATA**

Summaries of data collected in the investigations are presented in appendix C.<sup>2</sup> In addition to data concerning the U.S. market for purified CMC, appendix C also contains summary data concerning the U.S. markets for crude CMC, CMC Fluidized Polymer Suspensions (“FPS”), and combined data for all CMC. U.S. industry data are based on the questionnaire response of one U.S. producer, which accounted for all known U.S. production of purified CMC during the period of investigation (January 2002-December 2004). Data on U.S. imports from the subject countries are based on importer questionnaire responses submitted by 21 U.S. importers, accounting for virtually all subject imports during the period of investigation. Data for nonsubject imports are also based on questionnaire responses and account for the vast majority of nonsubject imports of purified CMC during the period of investigation.

## **PREVIOUS INVESTIGATIONS**

The Commission has not previously conducted import injury investigations concerning purified CMC.

## **ORGANIZATION OF REPORT**

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

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

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<sup>2</sup> Also presented in appendix C (table C-2) are data concerning the U.S. market for purified CMC including the year 2001.



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

*In evaluating the volume of imports of merchandise, the Commission shall consider whether the volume of imports of the merchandise, or any increase in that volume, either in absolute terms or relative to production or consumption in the United States is significant.*

...

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

...

*In examining the impact required to be considered under subparagraph (B)(i)(III), the Commission shall evaluate (within the context of the business cycle and conditions of competition that are distinctive to the affected industry) all relevant economic factors which have a bearing on the state of the industry in the United States, including, but not limited to . . . (I) actual and potential decline in output, sales, market share, profits, productivity, return on investments, and utilization of capacity, (II) factors affecting domestic prices, (III) actual and potential negative effects on cash flow, inventories, employment, wages, growth, ability to raise capital, and investment, (IV) actual and potential negative effects on the existing development and production efforts of the domestic industry, including efforts to develop a derivative or more advanced version of the domestic like product, and (V) in [an antidumping investigation], the magnitude of the margin of dumping.*

Information on the subject merchandise, margins of dumping, and domestic like product is presented in *Part I*. Information on conditions of competition and other relevant economic factors is presented in *Part II*. *Part III* presents information on the condition of the U.S. industry, including data on capacity, production, shipments, inventories, and employment. The volume and pricing of imports of the subject merchandise are presented in *Parts IV and V*, respectively. *Part VI* presents information on the financial experience of U.S. producers. The statutory requirements and information obtained for use in the Commission's consideration of the question of threat of material injury are presented in *Part VII*.

#### **NATURE AND EXTENT OF SALES AT LTFV**

Table I-2 presents Commerce's final dumping margins concerning imports of purified CMC from Finland, Mexico, the Netherlands, and Sweden. The period of investigation for Commerce's antidumping investigations is April 1, 2003, through March 31, 2004.

**Table I-2**  
**Purified CMC: Commerce's final dumping margins by source and firm**

| Manufacturer/exporter  | Weighted-average margin<br>(percent ad valorem) |
|--|---|
| <b>Finland</b>   |   |
| Noviant OY   | 6.65 <sup>1</sup>                               |
| All others   | 6.65  |
| <b>Mexico</b>  |   |
| Quimica Amtex, S.A. de C.V.  | 12.61   |
| All others   | 12.61   |
| <b>Netherlands</b>   |   |
| Akzo Nobel Surface Chemistry   | 13.39   |
| Noviant BV   | 14.88   |
| All others   | 14.57   |
| <b>Sweden</b>  |   |
| Noviant AB   | 25.29 <sup>1</sup>                              |
| All others   | 25.29   |
| <sup>1</sup> Based on Commerce's use of adverse facts available, as the respondent firm failed to provide information requested.<br><br>Source: Commerce's final determinations of sales at LTFV (70 FR 28275, 28278, 28279, and 28280, May 17, 2005). |   |

### THE SUBJECT PRODUCT

Commerce has defined the scope of the imported product subject to these investigations as:<sup>3</sup>

*All purified carboxymethylcellulose (CMC), sometimes also referred to as purified sodium CMC, polyanionic cellulose, or cellulose gum, which is a white to off-white, non-toxic, odorless, biodegradable powder, comprising sodium carboxymethylcellulose that has been refined and purified to a minimum assay of 90 percent. Purified CMC does not include unpurified or crude CMC, CMC Fluidized Polymer Suspensions,<sup>4</sup> and CMC that*

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<sup>3</sup> Commerce's final determinations of sales at LTFV (70 FR 28275, 28278, 28279, and 28280, May 17, 2005).

<sup>4</sup> According to petitioner, FPS CMC are niche products developed and patented by Aqualon which other manufacturers are not permitted to make at the current time. FPS is a specialized CMC which allows some customers in non-regulated applications to use CMC in a liquid or fluid form at a high concentration instead of a powder.

is cross-linked<sup>5</sup> through heat treatment. Purified CMC is CMC that has undergone one or more purification operations which, at a minimum, reduce the remaining salt and other by-product portion of the product to less than ten percent.

During the period of investigation, CMC was imported under Harmonized Tariff Schedule of the United States (“HTS”) statistical reporting number 3912.31.00, a residual or “basket” category which included crude and cross-linked CMC products in addition to purified CMC. Effective January 1, 2005, imports of purified CMC are separately reported under statistical reporting number 3912.31.0010 with all other CMC products reported under statistical reporting number 3912.31.0090.<sup>6</sup> A column 1-general duty rate of 6.4 percent *ad valorem* is applicable to imports of purified CMC from Finland, the Netherlands, and Sweden, and a special duty rate of “free” is applicable to eligible goods of Mexico under NAFTA. Table I-3 presents current tariff rates for purified and other CMC.

**Table I-3**  
**CMC: Tariff rates, 2005**

|               |  | General <sup>1</sup>               | Special <sup>2</sup> | Column 2 <sup>3</sup> |
|---------------|--|------------------------------------|----------------------|-----------------------|
| HTS provision | Article description  | Rates (percent <i>ad valorem</i> ) |                      |                       |
| 3912          | Cellulose and its chemical derivatives, not elsewhere specified or included, in primary forms: |                                    |                      |                       |
| 3912.31       | Carboxymethylcellulose and its salts:  | 6.4                                | ( <sup>2</sup> )     | 66.0                  |
| 3912.31.0010  | Containing not less than 90 percent by weight of carboxymethylcellulose                        |                                    |                      |                       |
| 3912.31.0090  | Other  |                                    |                      |                       |

<sup>1</sup> Normal trade relations, formerly known as the most-favored-nation duty rate, applicable to imports from Finland, Netherlands, and Sweden. Products of Mexico for which NAFTA benefits are not claimed or available under program rules also receive the general duty rate.

<sup>2</sup> Special rates apply to imports of CMC from certain trading partners to the United States. The notes to the HTS indicate that duty-free entry is available to eligible products under the GSP, CBERA, ATPA, the Uruguay Round agreement on pharmaceutical products, and U.S. free-trade agreements with Australia, Canada, Chile, Israel, Jordan, and Mexico; and that, in 2005, a reduced rate of 3.2 percent applies to eligible goods of Singapore under the FTA with that country.

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

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

## THE DOMESTIC LIKE PRODUCT

The Commission’s determination regarding the appropriate domestic products that are “like” the subject imported product is based on a number of factors, including (1) physical characteristics and uses; (2) common manufacturing facilities and production employees; (3) interchangeability; (4) customer and

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<sup>5</sup> Cross-linked CMC, sometimes called crosscarmelose, is not manufactured by petitioner, Aqualon. The product is a partially soluble and highly absorbent polymer primarily used as a disintegrant in the pharmaceutical industry, which helps a tablet dissolve quickly once it reaches the stomach. Reportedly the cross-linked product is typically priced much higher than other grades of purified CMC. Petition, p. 3, fn 7, and conference transcript, p. 100 (Herak).

<sup>6</sup> Changes to the statistical reporting for purified CMC resulted from a request by Aqualon for a segregated HTS number for the subject CMC product. Aqualon statistical reporting request, July 26, 2004. Aqualon’s request for a further subdivision of purified CMC to segregate cross-linked CMC from other purified CMC was denied.

producer perceptions; (5) channels of distribution; and, where appropriate, (6) price. For purposes of its preliminary determinations, the Commission found a single domestic like product consisting of all domestically produced purified CMC.<sup>7</sup>

The Commission stated that it intended to collect additional information and to examine whether CMC in FPS form and crude CMC should be part of the domestic like product.<sup>8 9 10</sup> Information regarding the Commission's domestic like-product factors is set forth below.<sup>11</sup>

### Physical Characteristics and Uses

Carboxymethylcellulose is the principal member of a family of anionic water-soluble cellulose ethers. CMC is also commonly referred to as sodium carboxymethylcellulose, cellulose sodium glycolate, or cellulose gum. CMC is a water-soluble polymer, soluble in either hot or cold water. Solubility is achieved as the degree of substitution ("DS") reaches a value of 0.6, meaning 60 percent of the glucose units (that make up the cellulose backbone) are attached to carboxymethyl groups.<sup>12</sup> CMC is a white to off-white, odorless, granular solid to fine powder.<sup>13</sup>

Several different CMC materials are produced commercially, including a crude CMC product also known as "technical grade CMC" (generally associated with purity levels below 80 percent and produced by not submitting the initial reaction product to a purification process), a semi-purified grade CMC (produced by withdrawing the CMC from the purification process before it has reached a "purified" state (generally from 80 to 95 percent purity)), and a "purified CMC" that meets all requirements for incorporation into products for human consumption.<sup>14</sup> In addition, FPS CMC is a patented Aqualon

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<sup>7</sup> *Purified Carboxymethylcellulose From Finland, Mexico, Netherlands, and Sweden*, Invs. Nos. 731-TA-1084-1087 (Preliminary), USITC Publication 3713, July 2004, p. 7.

<sup>8</sup> The Commission noted that CMC in FPS form and crude CMC "could be said to share some physical and chemical characteristics with purified CMC and can broadly be described as having similar end uses." *Ibid*, fn. 37.

<sup>9</sup> In its prehearing brief, petitioner contended that the like product does not include other cellulose ethers, other hydrocolloids, crude CMC, or CMC FPS. Petitioner's prehearing brief, pp. 8-12 and pp. 50-51.

<sup>10</sup> In its prehearing brief, Noviant does not contest the Commission's preliminary finding that purified CMC is the lone domestic like product in these investigations. Noviant's prehearing brief, p. 3 and app. A, pp. 3-7.

<sup>11</sup> Comments from questionnaire respondents regarding the differences and similarities between crude/unrefined CMC, CMC in FPS form, and purified CMC in terms of the Commission's like product factors are presented in app. D.

<sup>12</sup> Petition, exh. 1B, pp. 5, 9, and 11; Kirk-Othmer Encyclopedia of Chemical Technology, Cellulose Ethers, p. 2.1.

<sup>13</sup> Hercules Material Safety Data Sheet dated 10/30/2002, product name Aqualon® Cellulose Gum (CMC Purified) and S & G Resources Material Safety Data Sheet dated January 2002, product name sodium carboxymethyl cellulose, sodium CMC: cellulose, or carboxymethyl ether, sodium salt.

<sup>14</sup> There are different levels of purity used to define the crude, semi-purified and purified grades of CMC among the different producers. However, the producers agree that any product that is acceptable for human consumption (above the 99.5 percent purity level) is a "purified CMC," and that any product not subject to any purification process (less than 80 percent purity) is crude CMC. However, the CMC product withdrawn from the purification process before it has reached the 99.5 percent purity level appears to be considered purified CMC if it can be used in applications that require a purified CMC based on performance standards, but are not bound by regulation to the 99.5 percent level of purity. The CMC product that does not meet this performance standard for use in these applications by itself would be classified as semi-purified, with its purity levels defined as 80-90 percent by some producers and 85-95 percent by others.

product that is essentially a purified CMC in a liquid or fluid form at a high concentration, primarily for those companies that prefer to use a liquid as opposed to a powder.<sup>15</sup>

Applications for CMC span a wide range of products and industries. CMC is a thickening agent and purified CMC is a stabilizer in foods, particularly in dairy products such as ice cream, yogurt, and milk drinks. Other food applications include beverages, syrups, baked goods, and pet foods. Foods account for approximately 23 percent of domestic consumption of CMC.<sup>16</sup> The second major use for CMC is in oilfield drilling fluids, accounting for about 22 percent of domestic consumption of all CMC.<sup>17</sup>

Personal care product uses for purified CMC include use in toothpaste as a thickener and in denture adhesives as an adhesion promoter. Pharmaceutical uses involve use as a granulation aid and binder in tablet preparation, and as a stabilizer and thickener in ointments and lotions. Together these industries account for about 11 percent of U.S. consumption of all CMC.<sup>18</sup>

Other major industrial consumers that use purified CMC for its properties as a binder and thickener include producers of paper, the ceramics industry, and the textiles industry. Although lessening in importance in recent years, crude/unrefined CMC is still used in laundry detergents as a soil antiredeposition aid. The primary use for the CMC FPS is in the paper coating industry, since the liquid product provides “higher coatings solids.”<sup>19</sup>

Data gathered during these final phase investigations regarding end uses of purified CMC are presented below:

| Item          | 2002  | 2003  | 2004  |
|---------------|---|-------|-------|
|               | <b>Share of total U.S. shipments quantity (percent)</b> |       |       |
| Food          | 37.9  | 32.1  | 29.9  |
| Personal care | 11.9  | 10.6  | 10.0  |
| Paper & board | 18.3  | 17.5  | 15.9  |
| Oilfield      | 16.6  | 27.7  | 34.0  |
| Other         | 15.3  | 12.1  | 10.2  |
| Total         | 100.0   | 100.0 | 100.0 |

The data indicate that food applications were the principal use of purified CMC during 2002 but this sectors’ share of shipments declined during 2002-04, as shipments for oilfield applications rose during the period of investigation, becoming the principal use during 2004.

Certain products in which purified CMC is used may each have precise requirements relating to both general characteristics, such as the average level of purity, and more specific characteristics (that may be interrelated) such as degree of solubility, degree of substitution, length of the CMC polymer, and concentrations of specific contaminants. Such requirements may be subject to regulation, in the case of

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<sup>15</sup> App. D, producer and importer questionnaire responses from \*\*\*.

<sup>16</sup> The Innovation Group, “Chemical Profiles: CMC,” updated June 3, 2002, found at <http://www.the-innovation-group.com/ChemicalProfiles/CMC.htmPage>. Chemical Profiles are published in *Chemical Market Reporter*.

<sup>17</sup> Ibid.

<sup>18</sup> Ibid.

<sup>19</sup> Ibid.

end-use products for human consumption, or related to maximizing the effectiveness of an end-use product while also maximizing production cost efficiencies.

### **Manufacturing Process**

CMC is derived from wood cellulose and from cotton. The production process involves a swelling of the wood or cotton fibers using caustic soda (sodium hydroxide) to allow better penetration of the reaction mix. The open cellulosic fibers are etherified by exposing them to monochloroacetic acid. The byproducts of the reaction, primarily sodium glycolate and sodium chloride, accounting for 30-40 percent of the resulting reaction mixture, are removed in a series of alcohol washes and separations. Petitioner argued that the purification process washes out the majority of those impurities, such that one round of purification will result in a product that is approximately 90 percent pure CMC.<sup>20</sup> After purification is complete, the particle size of the CMC is adjusted using physical means such as grinding, sieving and agglomeration. For production of the crude CMC, the product is not subject to the various washes and separations that produce the purified CMC, and as a result are less expensive.<sup>21</sup>

Petitioner and respondents both report that most, if not all, producers use a continuous flow process for the production of both crude and purified CMC. Both petitioner and respondents agree that any equipment used in the production of a crude CMC cannot also be used to produce a purified product, owing to the risk of contamination.<sup>22</sup> Further, production lines once used for crude CMC cannot economically be restored to a clean enough status so that a purified product could ever be produced on those lines.<sup>23</sup>

The production process is such that the desired CMC material (whether crude or purified) is not obtained in a usable form until the product is isolated at the end of the entire production scheme. Therefore, in the process of producing a purified CMC and to maintain its level of purity, crude CMC cannot be removed from the process at an earlier step.<sup>24</sup> With respect to CMC FPS, its manufacturing process reportedly is similar to that of purified CMC until the dry powder CMC is produced with an additional step (with separate processing equipment) to incorporate the dry CMC into a fluidized polymer suspension with the necessary stabilization behavior.<sup>25</sup>

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<sup>20</sup> Petitioner further argued that “purification is a complex part of CMC production and takes approximately half of the time and half of the cost of the overall CMC manufacturing process,” and that all purified CMC shares these costs, regardless of grade. (Petitioner’s prehearing brief, pp. 8 and 11). Product families are made with generally the same raw material recipes and reaction conditions, and a family may have different grades with differences in particle size, viscosity range (due to customer request), or a difference in food and industrial grade purity specification. (Petitioner’s posthearing brief, app. A question 21 (Reynolds)).

<sup>21</sup> Noviant argued that it has developed technical grade products for use in drilling, paper, and industrial applications that increased CMC’s penetration of those markets. Respondent Noviant’s posthearing brief, exh. 1, p. 27.

<sup>22</sup> Conference transcript, pp. 46-47, 52-53, and 111 (Herak), and questionnaire responses from Aqualon and Noviant.

<sup>23</sup> Noviant’s importer questionnaire response, section II-6 (c).

<sup>24</sup> Conference transcript, pp. 46-47 (Herak).

<sup>25</sup> App. D, producer and importer questionnaire responses from \*\*\*.

## Interchangeability and Customer and Producer Perceptions

Petitioner argued that domestic purified CMC is interchangeable with imports of purified CMC from Finland, Mexico, the Netherlands, and Sweden. While there are some limitations of various grades depending on customer specifications, there is extensive overlap to the extent a customer would modify its production processes to use a lesser grade. Respondents argued that domestically produced and imported purified CMC are not always interchangeable.<sup>26</sup> For example, they assert CMC produced for the oil or paper industry would not be interchangeable with purified CMC produced for food applications which require good manufacturing practice (“GMP”). Therefore, according to respondents, Finnish purified CMC (non-GMP production for oil or paper applications) cannot be used in the food industry and is not interchangeable with purified CMC produced in the Netherlands or a U.S. GMP facility.<sup>27</sup> Part II of this report contains detailed information on questionnaire responses to the question of product interchangeability.

Many uses of CMC require a product with a purity level of 99.5 percent. This level of purity is required by law for certain applications in the United States, including foods and materials that come into direct contact with foods, such as packaging,<sup>28</sup> pharmaceuticals, and personal care/cosmetics. Purified CMC that does not meet the standard for inclusion in products for human consumption is a high performance material that meets the demands of other end uses and commands a premium price.

The CMC product known within the industry as “semi-purified” is associated with purity levels ranging from 80 to 95 percent. This material may sometimes be, but is not always, used interchangeably with the purified material, based primarily on an individual product’s performance requirements. There is a limited amount of interchangeability between the crude and the purified CMC reported among certain end uses that require only a crude CMC product, such as drilling additives, though not in all formulations.<sup>29</sup>

One firm that incorporates CMC into a drilling additive reported that drilling contractors prefer the “purified, more efficient grade of CMC” to the less expensive CMC product, but also reports that the “crude/technical grade is used to reduce the cost of purified CMC” in some instances.<sup>30</sup> The incorporation of the crude CMC into a product on a limited basis to replace some of the much higher-cost purified CMC is a frequently used cost-saving measure by many companies, since the loss of performance through the substitution is offset by the significant cost savings associated with the crude CMC.<sup>31</sup> Another importer stated that the cost per unit of activity of the crude CMC is still significantly lower than that of the purified product.<sup>32</sup>

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<sup>26</sup> Akzo argued that Akzo-produced purified CMC is a specialty product marketed as a package which includes the product, the company, the brand image, sales interaction, technical service, the delivery process, and after sales service. Akzo’s prehearing brief, p. 2.

<sup>27</sup> Hearing transcript, pp. 179-180 (Huizinga), pp. 183-184 and 215 (McKenzie), p. 306 (Clark).

<sup>28</sup> U.S. Code of Federal Regulations (“CFR”) Title 21, Section 182.1745, substances that are generally recognized as safe (“GRAS”). The Food and Drug Administration (“FDA”) defines the direct food additive as the sodium salt of carboxymethyl cellulose, not less than 99.5% on a dry weight basis, with a minimum viscosity of 25mPa•c(=cP) in a 2% (by weight) aqueous solution at 25°C.

<sup>29</sup> App. D, importer and purchaser questionnaire responses from \*\*\*.

<sup>30</sup> App. D, \*\*\*’s purchaser questionnaire response.

<sup>31</sup> Ibid.

<sup>32</sup> App. D, \*\*\*’s purchaser questionnaire response.

\*\*\* reported they have “succeeded in producing high performance technical grades” for use in drilling applications that previously used only purified CMC.<sup>33</sup> \*\*\* notes that the crude CMC is perceived by its customers to be “often sufficient in performance” despite the lower quality.<sup>34</sup>

\*\*\*, the domestic producer of crude CMC, defines the niche within which the crude CMC can compete with purified CMC as applications requiring a moderate degree of substitution, a low viscosity, and low purity. The two specific end-use markets they cite are detergents, mining products (drilling additives), along with a limited demand for crude CMC in certain ceramic applications.<sup>35</sup>

### Channels of Distribution

Aqualon and all importers sell purified CMC primarily to end users, with smaller quantities sold to distributors (table I-4). Aqualon and importers of CMC were requested to provide data on U.S. shipments (commercial shipments and internal consumption) by end use. Information received on the issue is presented in the section entitled *Cumulation Considerations* in Part IV of this report and in appendix E. Penn Carbose sold crude/unrefined CMC \*\*\* percent of shipments during 2004, and Aqualon sold \*\*\* of its CMC FPS to \*\*\* during the period of investigation.

**Table I-4**  
**CMC: Shares of U.S. producer’s and U.S. importers’ U.S. shipments, by product and channels of distribution, 2002-04**

\* \* \* \* \*

### Price

Prices for purified CMC vary by specification and end use. Information with respect to pricing of six specific purified CMC products is presented in Part V of this report, *Pricing and Related Data*. Additional information regarding available average unit values of purified CMC from the United States, and subject and nonsubject countries, by end use, is presented in table I-5 and appendix E, table E-1.

**Table I-5**  
**Purified CMC: Unit values of the U.S. producer’s and U.S. importers’ U.S. shipments, by end use, 2004**

\* \* \* \* \*

Information regarding available average unit values of purified CMC, crude CMC, and CMC FPS is presented in table I-6. During 2004, the average unit value of U.S. producers’ U.S. shipments of purified CMC was \*\*\* higher than that of crude/unfinished CMC and \*\*\* less than CMC FPS.

**Table I-6**  
**CMC: U.S. shipments, 2004**

\* \* \* \* \*

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<sup>33</sup> App. D, \*\*\*’s importer questionnaire response.  
<sup>34</sup> App. D, \*\*\*’s importer questionnaire response.  
<sup>35</sup> App. D, \*\*\*’s producer questionnaire response.



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

### CHANNELS OF DISTRIBUTION AND MARKET CHARACTERISTICS

Based on questionnaire responses of the U.S. producer and importers,<sup>1</sup> the domestic and subject imported purified CMC was shipped primarily to U.S. end users and the remainder to U.S. distributors during January 2002-December 2004. Approximately \*\*\* percent (by quantity) of total U.S. shipments of the domestic purified CMC was shipped to end users during this period. Based on the quantity of total U.S. shipments of the subject imported purified CMC during 2002-04, 99.2 percent of the imported Finnish product was shipped to end users, while 89.3 percent of the imported Mexican product, 91.4 percent of the imported Dutch product, and \*\*\* percent of the imported Swedish product were shipped to end users. The remaining \*\*\* percent (by quantity) of the U.S.-produced purified CMC was shipped to distributors during this period, while the remaining 0.8 percent (by quantity) of the imported Finnish product, 10.7 percent of the imported Mexican product, 8.6 percent of the imported Dutch product, and \*\*\* percent of the imported Swedish product were shipped to distributors.

The purified CMC supply to the U.S. market is dominated by Aqualon and Noviant. Because of the multifunctional characteristics of purified CMC, it is used in a wide variety of products and a large number of different purified CMC products are produced to satisfy this varied demand.<sup>2</sup> Accordingly, demand for purified CMC is derived from demand for the downstream products that use this product as one of their inputs, such that demand and supply conditions in the downstream industries affect demand for purified CMC. Hearing testimony indicated that a few large oilfield purchasers have significant buying power and exert downward pressure on the price of purified CMC, while the oil companies, in turn, have significant buying power and exert downward price pressure on their service company suppliers for such products as drilling muds that contain purified CMC.<sup>3</sup>

Important U.S. demand sectors for purified CMC include food, oilfield, personal care/cosmetics, and paper/board.<sup>4</sup> Based on questionnaire responses, food uses accounted for 32.8 percent by quantity of total reported U.S. shipments of domestic and imported purified CMC during January 2002-December 2004; oilfield use accounted for 27.2 percent; paper/board use for 17.1 percent; personal care/cosmetics uses for 10.7 percent; and all other uses for the remaining 12.2 percent (figure II-1 and table II-1).<sup>5 6</sup>

A total of 49 firms returned purchaser questionnaires that provided useable responses; 33 described themselves as end users, 10 as distributors, and 6 as blenders of purified CMC.<sup>7</sup> Seventeen

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<sup>1</sup> Importers included distributors that import for resale and end users that import for their own use.

<sup>2</sup> There may exist over 100 standard purified CMC products in the United States and more than 400 engineered products for specific customers and applications (conference transcript, p. 57, (Herak), and respondents' joint postconference brief, exh. 35, p. 4). Aqualon indicated that it works quite closely with a number of its customers to produce purified CMC products that meet their requirements (hearing transcript, p. 97 (Televantos)).

<sup>3</sup> Hearing transcript, pp. 258-259 (Huizinga) and pp. 259-261, 263 (Somers).

<sup>4</sup> Petition, p. 23.

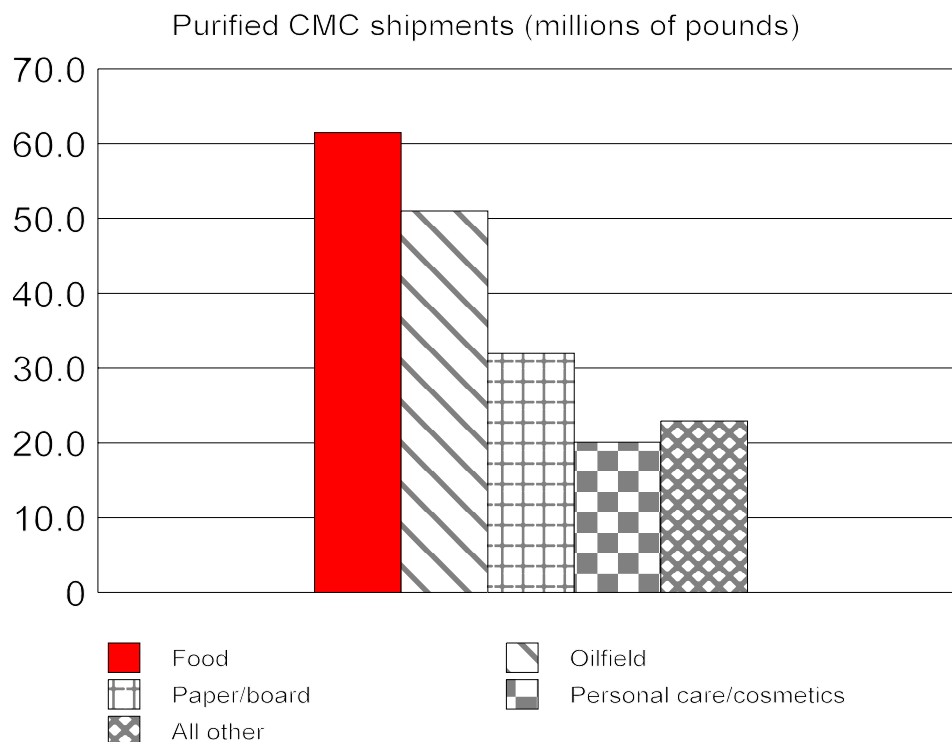
<sup>5</sup> These findings are generally consistent with an earlier study that estimated the relevant importance of various U.S. sectors for purified CMC. \*\*\* (Chemical Economics Handbook-SRI, *Cellulose Ethers*, Raymond Will and Tadahisa Sasano, November 2001, p. 23, and included in the petition as exh. 1G).

<sup>6</sup> Annual data on shipments by end use category are presented in app. E.

<sup>7</sup> Purchaser questionnaire responses, section III-1. Forty-eight of the 49 reporting purchasers were able to report their purchases of purified CMC from the U.S. producer and importers, and, for some end users, their direct imports during January 2002-December 2004, which accounted for 62.2 percent by quantity of total U.S. apparent consumption of purified CMC during this period (purchaser questionnaire responses, section II-1). The top nine

(continued...)

**Figure II-1**  
**Purified CMC: U.S. sectoral demand for purified CMC during January 2002-December 2004**



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

**Table II-1**  
**Purified CMC: Shares of total U.S. shipments to demand sectors for purified CMC, by country of origin, January 2002-December 2004**

| Country             | Food (percent) | Oilfield (percent) | Paper/board (percent) | Personal care/cosmetics (percent) | All other uses (percent) |
|---------------------|----------------|--------------------|-----------------------|-----------------------------------|--------------------------|
| United States       | ***            | ***                | ***                   | ***                               | ***                      |
| Finland             | -              | 34.4               | 64.7                  | ***                               | 4.0                      |
| Mexico              | 10.5           | 1.0                | -                     | ***                               | 13.3                     |
| Netherlands         | 37.5           | 10.1               | 0.3                   | ***                               | 24.7                     |
| Sweden              | ***            | ***                | ***                   | ***                               | ***                      |
| All other countries | 4.3            | 15.1               | 6.4                   | ***                               | 12.4                     |
| TOTAL               | 100.0          | 99.9               | 100.1                 | 99.9                              | 99.9                     |

Note: Totals may not add to 100.0 due to rounding.

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

<sup>7</sup> (...continued)

responding purchasers, each of which reported purchasing/importing \*\*\* pounds or more of purified CMC during this period, totaled 68.6 percent by quantity of the total reported purchases/imports of purified CMC.

purchasers reported purchasing purified CMC for use in food products, 7 firms reported for use in oilfield products, 9 firms reported for use in paper/board products, 10 reported for use in personal care/ pharmaceutical products, and 15 reported purchasing CMC for use in various other products.<sup>8</sup> Six of the responding firms reported purchasing purified CMC for use in two or more end-use sectors. Eighteen of 31 responding purchasers reported that they did not know if prices of purified CMC in one U.S. end-use sector affected prices in another U.S. end-use sector, while 8 firms indicated that no such affect existed.<sup>9</sup> Two other firms provided various comments that did not directly address the question, while the three remaining firms reported the following comments.<sup>10</sup> \*\*\*, an end user in the personal care/pharmaceutical sector, asserted that during January 2001-December 2004 the prices of purified CMC changed due to raw material changes, not demand, in the food and pharmaceutical sectors. \*\*\* also asserted that, in general, as demand (for purified CMC) in one of the above industries increases, the supply tightens, thus potentially driving up pricing. \*\*\*, an end user in the food and personal care/pharmaceutical sectors, reported that any change in the price equally affects the price for all \*\*\* end-use products using purified CMC. \*\*\*, an end user in the oilfield sector, asserted that the higher the price purified CMC producers can obtain for food-grade purified CMC, the less interested they are in supplying the oilfield.<sup>11</sup>

Similar chemical properties of purified CMC and other products, including other hydrocolloids, result in some substitution between purified CMC and alternative products in some uses. Aqualon asserted during the preliminary phase of these investigations that other cellulose ethers are not a close substitute for purified CMC, other hydrocolloids can be used in limited circumstances as partial substitutes for purified CMC, and crude CMC is not a substitute for purified CMC.<sup>12</sup> On the other hand, during the preliminary phase of these investigations, respondents listed 31 other products that substitute for purified CMC in various uses and showed recent price trends of these substitutes, which the respondents asserted have impacted prices of purified CMC.<sup>13</sup> In the final phase of these investigations, 35 U.S. purchasers reported in their questionnaire responses that there were no substitutes for purified CMC, while 8 purchasers reported substitutes existed and listed 13 such products.

Purchasers also commented in their questionnaire responses on whether they differentiate between standard and specialty purified CMC products. Thirty of the 47 responding U.S. purchasers reported that they did not differentiate between these types of products, whereas 17 purchasers indicated that they did differentiate between these types of products.<sup>14</sup> Although comments varied, several of the latter 17 purchasers commented that standard purified CMC is readily available under supplier brand names, while specialty purified CMC is produced to a company's specifications to meet performance criteria in the downstream products. The characteristics cited for specialty purified CMC included viscosity, pH, substitutability, and purity.

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<sup>8</sup> Purchaser questionnaire responses, section III-1. The other products included adhesives, ceramic tile, chemical catalysts, industrial drilling, mineral processing, molecular sieves, porcelain, textiles, welding products, and wound skin barriers.

<sup>9</sup> Purchaser questionnaire responses, section III-19.

<sup>10</sup> Ibid.

<sup>11</sup> According to \*\*\*, this is the reason Aqualon was not a key supplier to the firm from January 2001-June 2003.

<sup>12</sup> Petition, pp. 8-9.

<sup>13</sup> Respondents' joint postconference brief, p. 11 and exhibits 2, 16, 19 (p. 29), and 35 (p. 4).

<sup>14</sup> Purchaser questionnaire responses, section II-5.

## SUPPLY AND DEMAND CONSIDERATIONS<sup>15</sup>

### U.S. Supply

#### U.S. Production

Based on available information, Aqualon had some ability to respond to changes in demand with changes in the quantity of shipments of U.S.-produced purified CMC to the U.S. market during 2004, although its supply ability was greater during 2002. The main factor contributing to the reduced degree of supply responsiveness was the reported unused U.S. production capacity, which fell \*\*\* during January 2002-December 2003,<sup>16</sup> but also contributing were a decreased level of exports between 2002 and 2004.<sup>17</sup> In addition, the availability of Aqualon's production capacity may be limited because of the large number of products, some of which require longer processing times than others.<sup>18</sup> Aqualon reported during the preliminary phase of these investigations that it also imported purified CMC from its production facility in France to meet U.S. demand, because, due to the number of products, it was able to produce some products more efficiently in France than in the United States.<sup>19</sup> On the other hand, Aqualon's inventories of purified CMC increased during January 2002-December 2004, which would act to augment its supply responsiveness during the latter part of this period. The relevant domestic supply factors are discussed below.

#### *Industry capacity*

Aqualon reported that its U.S. capacity to produce purified CMC remained relatively stable during January 2002-December 2004,<sup>20</sup> while its production and capacity utilization increased steadily. Aqualon reported that fixed costs averaged about \*\*\* percent of its total costs to produce purified CMC

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<sup>15</sup> Supply, demand, and substitution responses in this section refer to changes that could occur within 12 months, unless otherwise indicated.

<sup>16</sup> \*\*\*. Aqualon asserted that a significantly increased level of inquiries for its purified CMC after the antidumping preliminary decision exceeded their capacity to supply, so the firm had to politely decline certain opportunities (Petitioner's posthearing brief, app. A, question 16-Aqualon CMC quality and availability).

<sup>17</sup> Although 43 of the 48 responding U.S. purchasers reported that their suppliers were always able to supply purified CMC since January 2002, the 5 remaining firms reported that at times they were unable to obtain adequate shipment quantities of purified CMC from their suppliers (purchaser questionnaire responses, section III-11). Aqualon was cited by four of the five firms as unable to supply all of the purified CMC that the firms required, beginning in 2002 and most recently during February 2005. Three of these latter four firms purchased purified CMC for the oilfield and the other firm used its purified CMC for coatings. Only one of the oilfield firms, \*\*\*, provided additional comments. According to \*\*\*, Aqualon was not a viable supplier during January 2002-June 2003, but since the preliminary determination of the U.S. ITC, Aqualon has become its primary vendor due to price. \*\*\* noted that Aqualon is not high on its best vendor list, asserting that Aqualon initiated two price increases since November 2004 and increased lead times from 2 weeks to 4-5 weeks.

<sup>18</sup> Conference transcript, p. 86 (Herak). In addition, U.S. capacity is also limited by changes between runs of different product grades and/or different feedstocks (Chemical Economics Handbook-SRI, *Cellulose Ethers*, Raymond Will and Tadahisa Sasano, November 2001, p. 18).

<sup>19</sup> Conference transcript, pp. 84-85 (Herak).

<sup>20</sup> According to Aqualon, \*\*\* (Aqualon's producer questionnaire response, section II-4).

during 2004, while variable costs were about \*\*\* percent.<sup>21</sup> The significant fixed costs suggest that low output levels could lead to increased unit costs, although the high proportion of variable costs would moderate such an increase in unit costs.<sup>22</sup> Aqualon indicated during the preliminary phase of these investigations that it would cost about \$100 million to construct a new purified CMC plant in the United States.<sup>23</sup> In addition, Aqualon reported during the final phase of these investigations that it would cost about \$\*\*\* and take approximately \*\*\* to expand its production capacity to \*\*\* million pounds, \*\*\*.<sup>24</sup> As a result, it appears that its \*\*\* existing excess capacity was the only way for Aqualon to increase production in the short run in response to an increase in demand.

### ***Inventory levels***

Aqualon's reported U.S. end-of-period inventories of purified CMC increased by approximately \*\*\* million pounds during 2002-04, and averaged almost \*\*\* percent by quantity of its total U.S. production of its U.S.-produced purified CMC during this period. Aqualon reported that about \*\*\* percent of its purified CMC inventories is \*\*\*.<sup>25</sup> In addition, Aqualon reported that \*\*\*.<sup>26</sup> These data indicate that Aqualon had some ability to use inventories to increase shipments of its purified CMC to the U.S. market during this period.

### ***Export markets***

Aqualon's reported annual exports of its U.S.-produced purified CMC fell by \*\*\* pounds during January 2002-December 2004, while its exports averaged \*\*\* percent (by quantity) of its total shipments of its U.S.-produced purified CMC. Aqualon reported that, although the range of product specifications that it produces for export would be suitable for U.S. market consumption, roughly \*\*\* percent of such exports are subject to annual commitments, which would make it difficult to redirect such exports to the U.S. market within a 12-month period.<sup>27</sup> These data indicate that Aqualon may have had a limited ability to increase shipments of its purified CMC to the U.S. market during this period by diverting its exports to the U.S. market.<sup>28</sup>

To compare prices in the United States and other countries, Aqualon reported that unit values expressed in U.S. dollars per pound, based on sales of its purified CMC in the United States and in Europe,<sup>29</sup> fluctuated but decreased in the U.S. market during 2001-04, while they increased steadily in Europe during this period. Aqualon noted that these trends were influenced to some degree by product-mix changes and the Commission staff notes that the U.S. dollar-denominated unit values for sales in

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<sup>21</sup> Aqualon reported during the preliminary phase of the investigations that fixed costs included \*\*\*, while variable costs included \*\*\* (petitioner's postconference brief, petitioner's answers to Commission staff questions, p. 1).

<sup>22</sup> Aqualon reported during the preliminary phase of these investigations that as long as a sale covers variable costs and makes a contribution, no matter how small, to fixed costs, it will be considered (petition, p. 23).

<sup>23</sup> Conference transcript, p. 20 (Herak).

<sup>24</sup> Aqualon further asserted that \*\*\* (e-mail from \*\*\*).

<sup>25</sup> E-mail from \*\*\*.

<sup>26</sup> Ibid.

<sup>27</sup> Petitioner's posthearing brief, app. A, question 25.—Aqualon Export Flexibility.

<sup>28</sup> If export supply agreements are one year or greater in duration or the export products were unacceptable in the U.S. market, the ability to shift will be reduced.

<sup>29</sup> Aqualon's reported unit values of purified CMC that it sold in the European market likely involve mostly \*\*\*.

Europe were likely also influenced, at least somewhat, by the appreciation of the euro vis-a-vis the U.S. dollar during this period.<sup>30</sup>

### ***Production alternatives***

Aqualon reported in its questionnaire response that its \*\*\*.<sup>31</sup> Based on this response, it is not likely that Aqualon would be able to shift its U.S. production of purified CMC to or from any other products; any ability to switch production among alternative products would enhance the domestic producer's supply response to a change in price.

### **Finland**

Based on available information, the lone producer of purified CMC in Finland, Noviant,<sup>32</sup> has the ability to respond to changes in the price of purified CMC with changes in the quantity of shipments of the Finnish purified CMC to the U.S. market. The main factors contributing to this degree of responsiveness were its reported excess production capacity, mainly that during January 2002-December 2004, but less for the projected excess capacity in 2005-06, and the possible diversion of \*\*\* home-market shipments and third-country exports to the U.S. market.

### ***Industry capacity***

Available data for Noviant Finland indicated that capacity utilization rates to produce purified CMC increased steadily during January 2002-December 2004, to \*\*\* percent by 2004. Capacity utilization rates were projected to increase to \*\*\* percent in 2005 and \*\*\* percent in 2006. These data indicate that there was unused capacity for Noviant Finland to expand production of purified CMC for sale in the U.S. market during January 2002-December 2004, but this ability to expand production may decline during 2005-06. Noviant asserted that its purified CMC plant in Finland would need to become GMP certified to produce food-grade purified CMC; it indicated that GMP certification would take 12 to 18 months and cost several million dollars.<sup>33</sup> Noviant Finland's reported inability to shift to food-grade purified CMC in the short run would limit production increases to non-regulated purified CMC products.

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<sup>30</sup> Petitioner's posthearing brief, app. A, question 4—European CMC prices. When expressed in euros per pound, unit values of Aqualon's purified CMC sales in both the United States and Europe declined continuously during 2001-04, likely reflecting, at least partially, the appreciation of the euro vis-a-vis the U.S. dollar during this period (exchange rates are discussed more fully in Part V). In addition, whether expressed in U.S. dollars or euros per pound, unit values of Aqualon's sales of purified CMC in Europe were less than those for sales in the United States during 2001-02 but higher than unit values for sales in the United States during 2003-04.

<sup>31</sup> Aqualon's producer questionnaire response, section III-5.

<sup>32</sup> Noviant also produces purified CMC in the Netherlands and Sweden.

<sup>33</sup> Hearing transcript, pp. 183-184 (McKenzie). On the other hand, Aqualon asserted that it would take only a few months for Noviant Finland to achieve GMP, which, according to Aqualon, is not technically difficult and only requires a self declaration that the plant is free of contamination (hearing transcript, pp. 104-105 (Herak)). \*\*\*, a U.S. distributor and importer of purified CMC, countered that food-grade status is not easy or inexpensive (e-mail from \*\*\*). According to \*\*\*, GMP is not a self declaration, but is a law covered in the CFR and the Federal Food, Drug, and Cosmetic Act and is described in the FDA website ([www.fda.gov](http://www.fda.gov)). \*\*\* noted that the FDA inspects U.S. manufacturing sites to confirm compliance. \*\*\* asserted that customer standards are often more strict than the letter of the law and they frequently require third-party food safety inspections (e.g. the American Institute of Baking is one such auditor) and Hazard Analysis and Critical Control Point ("HACCP") plans, even for many food ingredients that do not require HACCP plans.

### ***Inventory levels***

Available data indicated that end-of-period inventories of purified CMC in Finland, which declined over the period, averaged almost \*\*\* percent of the average annual production of purified CMC in Finland during January 2002-December 2004. Noviant asserted that it produces to order and its inventories of purified CMC represent \*\*\* weeks of material that are waiting to be shipped to its customers.<sup>34</sup> These data indicate that Noviant Finland had a limited ability to use its Finnish inventory of purified CMC to increase shipments of purified CMC to the U.S. market during January 2002-December 2004. Noviant Finland reported projected inventory levels of purified CMC in Finland for 2005 and 2006 that are similar to the level during 2004.

### ***Alternate markets***

Noviant Finland sold its purified CMC principally to third-country export markets, secondarily to its home market, and the remainder to the U.S. market during January 2002-December 2004; this shipment pattern was projected to continue during 2005-06. During the period of investigation, Noviant Finland's sales to third-country markets averaged \*\*\* percent of its total shipment quantities of purified CMC; shipments in its home market averaged \*\*\* percent of the total; and exports to the U.S. market averaged \*\*\* percent of the total. These data indicate that Noviant Finland may have had the flexibility to shift shipments of purified CMC among alternate markets to increase or decrease shipments to the U.S. market in response to price changes in the United States during January 2002-December 2004.<sup>35</sup>

### **Mexico**

Based on available information, the lone producer of purified CMC in Mexico, Amtex, has some ability to respond to changes in the price of purified CMC with changes in the quantity of shipments of the Mexican purified CMC to the U.S. market. The main factors contributing to this supply responsiveness were possible diversion of home market shipments and third-country exports to the U.S. market.

### ***Industry capacity***

Available data for Amtex indicated that capacity utilization rates to produce purified CMC fluctuated somewhat but remained at very high levels during January 2002-December 2004, averaging \*\*\* percent during this period. Capacity utilization rates were projected to increase in 2005 and 2006. These data indicate that there was \*\*\* unused capacity for Amtex to expand production of purified CMC for sale in the U.S. market during much of January 2002-December 2004, and this limited ability to expand production may be even more constrained during 2005-06.

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<sup>34</sup> Noviant's posthearing brief, exh. 1, p. 35. Noviant also asserted that its production process for purified CMC does not require continuous production and is shut down when there are no orders (Ibid).

<sup>35</sup> This flexibility may be restrained to the extent that Noviant Finland's sales of purified CMC in its home market and exported to third-country markets were not used/acceptable in the U.S. market. In addition, any sales agreements longer than 12 months with customers in its home market and third-country markets would also reduce Noviant Finland's ability to shift purified CMC sales among the home, third-country markets, and the U.S. market in the short term. Noviant Finland asserted that it has a long-term supply contracts with several large paper customers whose annual supply needs range from \*\*\* metric tons of purified CMC per year. In addition, Noviant Finland is an important supplier of purified CMC to the oilfield sector (respondent Noviant's posthearing brief, exh. 1, pp. 34-35). Without knowing the quantities associated with these supply arrangements, it is difficult to determine to what extent they would reduce the shifting of sales to the U.S. market.

### ***Inventory levels***

Available data indicated that end-of-period inventories of purified CMC in Mexico averaged about \*\*\* percent of the average annual production of purified CMC in Mexico during January 2002-December 2004. Amtex reported that approximately \*\*\* percent of its annual inventory is committed to major customers and that the remainder represent reasonable inventory on hand in case its customers in Mexico needed additional supplies quickly.<sup>36</sup> These data indicate that Amtex had \*\*\* ability to use its Mexican inventory of purified CMC to increase shipments of purified CMC to the U.S. market during January 2002-December 2004. Amtex reported projected inventory levels of purified CMC in Mexico for 2005 and 2006 that are somewhat higher than levels during the historic period, which may increase the Mexican producer's supply response in the future.

### ***Alternate markets***

Amtex sold its purified CMC principally in its home market and to the U.S. market, and made limited sales to third-country export markets during January 2002-December 2004; this shipment pattern was projected to continue during 2005-06. During the period of investigation, Amtex's sales in its home market averaged \*\*\* percent of its total shipment quantities of purified CMC; exports to the U.S. market averaged \*\*\* percent of the total; and exports to third-country markets averaged \*\*\* percent of the total. Amtex reported that it has long-term commitments to its customer base in its home and third-country markets that would prevent it from shifting sales to the U.S. market;<sup>37</sup> the firm noted that its relationships with customers in its home and third-country markets averages slightly over \*\*\* years per customer.<sup>38</sup> These data indicate that Amtex may have had limited flexibility to shift shipments of purified CMC among alternate markets to increase or decrease shipments to the U.S. market in response to price changes in the United States during January 2002-December 2004.

### ***Netherlands***

Based on available information, the two producers of purified CMC in the Netherlands, Akzo and Noviant Netherlands, have the ability to respond to changes in the price of purified CMC with changes in the quantity of shipments of the Dutch purified CMC to the U.S. market. The main factors contributing to this degree of responsiveness were the reported excess production capacity during January 2002-December 2004, but less so for projected excess capacity during 2005-06, and possible diversion of \*\*\* third-country exports to the U.S. market.

### ***Industry capacity***

Available data for the Dutch producers' combined indicated that capacity utilization rates for purified CMC in the Netherlands increased steadily during January 2002-December 2004, to \*\*\* percent during 2004. Capacity utilization rates were projected to increase in 2005 and reach \*\*\* percent in 2006. These data indicate that there was unused capacity for the Dutch producers to expand production of

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<sup>36</sup> Amtex's postconference brief, Responses to Questions of Mr. Benedick (hearing transcript, pp. 297-298).

<sup>37</sup> Amtex also asserted that in theory it could shift sales from the Mexican home market to the United States, this would be very shortsighted since it cannot abandon its long-time customers in its home market (hearing transcript, pp. 207-208 (Piotti)).

<sup>38</sup> Amtex's postconference brief, Responses to Questions of Mr. Benedick (hearing transcript, pp. 297-298) and exh. 2.



purified CMC for sale in the U.S. market during January 2002-December 2004, but this ability to expand production may decrease in 2005 and especially in 2006.

### *Inventory levels*

Available data indicated that the Dutch producers' combined end-of-period inventories of purified CMC in the Netherlands averaged \*\*\* percent of the average annual production of purified CMC in the Netherlands during January 2002-December 2004. Noviant asserted that it produces to order and its inventories of purified CMC represent \*\*\* weeks of material that are waiting to be shipped to its customers.<sup>39</sup> Thus, while Noviant's share (\*\*\* percent) of the Dutch producers' combined inventory was not available to be used to increase shipments of purified CMC to the U.S. market during January 2002-December 2004, the remaining \*\*\* percent may have been available to increase shipments to the United States. The Dutch producers reported projected inventory levels of purified CMC in the Netherlands during 2005-06 that are similar to the levels during the historic period.

### *Alternate markets*

The Dutch producers sold their purified CMC principally to third-country export markets, secondarily to the U.S. market, and the remainder mostly to their home market plus small quantities that were used internally during January 2002-December 2004; this shipment pattern was projected to continue during 2005-06. During the period of investigation, combined sales data of the Dutch producers showed that shipments to third-country markets averaged \*\*\* percent of their total shipment quantities of purified CMC; exports to the U.S. market averaged \*\*\* percent of the total; and shipments in its home market averaged \*\*\* percent of the total (the remaining \*\*\* percent of the total was accounted for by internal consumption). These data indicate that the Dutch producers may have the flexibility to shift shipments of purified CMC among alternate markets to increase or decrease shipments to the U.S. market in response to price changes in the United States.<sup>40</sup>

Noviant reported selling prices (in U.S. dollars per metric ton) of its specific purified CMC products sold in the United States, Asia, and in the European Union ("EU") during 2004.<sup>41</sup> Of the 13 price comparisons possible for sales in the United States versus sales in Asia and the EU, 7 showed that selling prices in Asia and the EU were lower than in the United States and 6 showed that selling prices in Asia and the EU were higher than those in the United States.<sup>42</sup>

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<sup>39</sup> Noviant's posthearing brief, exh. 1, p. 35. Noviant also asserted that its production process for purified CMC does not require continuous production and is shut down when there are no orders (Ibid).

<sup>40</sup> This flexibility may be restrained to the extent that Dutch producers' sales of purified CMC sold in their home market and exported to third-country markets were not used/acceptable in the U.S. market. In addition, any sales agreements longer than 12 months with customers in their home market and third-country markets would also reduce their ability to shift purified CMC sales among the home, third-country markets, and the U.S. market in the short term. Noviant Netherlands asserted that it has a long-term supply agreement with \*\*\* for its needs in Germany and it has important supply obligations to the European home market requiring small and specialized lots that the Dutch mill produces (Noviant's posthearing brief, exh. 1, pp. 33-34). Without knowing the quantities associated with these supply arrangements, it is difficult to determine to what extent they would restrict the shifting of sales to the U.S. market.

<sup>41</sup> Noviant's posthearing brief, pp. 31-32 and exh. 1V.

<sup>42</sup> Noviant's posthearing brief, exh. 1V.

## **Sweden**

Based on available information, the sole producer of purified CMC in Sweden, Noviant Sweden, has the ability to respond to changes in the price of purified CMC with changes in the quantity of shipments of the Swedish purified CMC to the U.S. market. The main factors contributing to this degree of responsiveness were the reported excess production capacity during January 2002-December 2004, projected excess capacity during 2005-06, and possible diversion of \*\*\* third-country exports to the U.S. market.

### ***Industry capacity***

Available data for Noviant Sweden indicate that capacity utilization rates to produce purified CMC fluctuated but increased during January 2002-December 2004, to \*\*\* percent during 2004. Capacity utilization rates projected for 2005-06 were expected to remain at about the 2004 level.<sup>43</sup> These data indicate that there was \*\*\* unused capacity for Noviant Sweden to expand production of purified CMC for sale in the U.S. market during January 2002-December 2004, and this ability to expand production is projected to continue during 2005-06.

### ***Inventory levels***

Available data indicated that the Swedish producer's end-of-period inventories of purified CMC in Sweden averaged \*\*\* percent of the average annual production of purified CMC in Sweden during January 2002-December 2004. Noviant asserted that it produces to order and its inventories of purified CMC represent \*\*\* weeks of material that are waiting to be shipped to its customers.<sup>44</sup> These data indicate that Noviant Sweden had little, if any, ability to use its Swedish inventory of purified CMC to increase shipments of purified CMC to the U.S. market during January 2002-December 2004. Noviant Sweden reported projected inventory levels of purified CMC in Sweden during 2005-06 that are somewhat less than the level in 2004.

### ***Alternate markets***

Noviant Sweden sold its purified CMC principally to third-country export markets, secondarily to the U.S. market, and to its home market during January 2002-December 2004; this shipment pattern was projected to continue in 2004 and 2005. During the period of investigation, Noviant Sweden's sales to third-country markets averaged \*\*\* percent of its total shipment quantities of purified CMC; exports to the U.S. market averaged \*\*\* percent of the total, and shipments in its home market averaged \*\*\* percent of the total. These data indicate that Noviant Sweden may have the flexibility to shift shipments of

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<sup>43</sup> Noviant indicated that it had increased production capacity for purified CMC and this created excess capacity that could be absorbed in about 5 years (hearing transcript, pp. 229-230 (Huizinga). Aqualon asserted that a huge increase in production capacity by Noviant in 1999 created a supply overhang in the market and, according to Aqualon, led respondents to drive down prices in 2001 (petitioner's posthearing brief, app. A, question 12—Market power in CMC Market).

<sup>44</sup> Noviant's posthearing brief, exh. 1, p. 35. Noviant also asserted that its production process for purified CMC does not require continuous production and is shut down when there are no orders (Ibid).

purified CMC among alternate markets to increase or decrease shipments to the U.S. market in response to price changes in the United States.<sup>45</sup>

### **Nonsubject Imports**

Based on available information from importer questionnaire responses, U.S. imports of purified CMC from nonsubject countries averaged 12.8 percent of the quantity of total U.S. imports of purified CMC during January 2002-December 2004. Based on official U.S. import statistics under HTS subheading 3912.31.00 during January 2002-December 2004, Japan, France, and China were the fifth, sixth, and seventh largest sources of imported products by quantity after the four subject countries for this import category. Most purchasers (34 of 47) reported no new suppliers to the U.S. purified CMC market; the 13 remaining purchasers identified new suppliers, with 5 purchasers identifying China as the country of origin for purified CMC provided by the new suppliers.<sup>46</sup>

Aqualon asserted that, based on U.S. Customs data and its marketplace information from customers, the purified CMC imported from China has increased some, but from a very low base, and is concentrated in the oil drilling sector.<sup>47</sup> Aqualon also asserted that, although it is possible that non-subject imports of purified CMC placed some downward pressure on purified CMC prices during the period of investigation, subject imports were \*\*\* times as large as the quantity of nonsubject imports during this period.<sup>48</sup> Importer/distributors, \*\*\*,<sup>49</sup> \*\*\* and \*\*\*<sup>50</sup> reported in their questionnaire responses that they lost business or had to lower selling prices of their subject imported purified CMC and/or their purchased U.S. produced purified CMC because of low-priced purified CMC imported from China.<sup>51</sup> \*\*\* asserted that the low-priced competition from Chinese purified CMC affected both their oilfield and food accounts,<sup>52</sup> while \*\*\* reported only for oilfield sales.<sup>53</sup>

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<sup>45</sup> This flexibility may be restrained to the extent that Noviant Sweden's purified CMC sold in its home market and exported to third-country markets were not used/acceptable in the U.S. market. In addition, any sales agreements longer than 12 months with customers in its home market and third-country markets would also reduce Noviant Sweden's ability to shift purified CMC sales among the home, third-country markets, and the U.S. market in the short term. Noviant Sweden asserted that it has long-term supply agreements with \*\*\* for their global purified CMC needs for the dental industry (Noviant's posthearing brief, exh. 1, p. 34). Without knowing the quantities associated with these supply arrangements, it is difficult to determine to what extent they would restrict the shifting of sales to the U.S. market.

<sup>46</sup> Purchaser questionnaire responses, section III-15.

<sup>47</sup> Hearing transcript, p. 127 (Herak).

<sup>48</sup> Petitioner's posthearing brief, app. A, question 18-Nonsubject Import Competition.

<sup>49</sup> Ibid. In addition, \*\*\* provided call reports in its questionnaire response that reportedly document the sales that it lost to the imported purified CMC from China.

<sup>50</sup> Importer questionnaire responses, section III-B-13.

<sup>51</sup> \*\*\* commented that it began importing its purified CMC brands from China, because Aqualon, according to \*\*\*, was more interested in selling higher value purified CMC for food uses than supplying \*\*\* with its oilfield purified CMC (staff telephone interview with \*\*\*).

<sup>52</sup> Purchaser questionnaire response, section III-15, and importer questionnaire response, section III-B-13, respectively.

<sup>53</sup> Importer questionnaire response, section III-B-13.

## U.S. Demand

The overall U.S. demand for purified CMC is primarily affected by sectoral economic activity and reportedly was impacted by the downturn in U.S. oilfield operations during early 2002.<sup>54</sup> In addition, demand for purified CMC is also affected by overall U.S. economic activity.<sup>55</sup> Demand for purified CMC, as measured by annual U.S. apparent consumption quantity, increased steadily and markedly during January 2002-December 2004, or by a total of 44.3 percent.

Respondents argued during the preliminary phase of these investigations that demand for purified CMC in the U.S. sectors using this product move in disparate directions,<sup>56</sup> while food demand is reportedly affected, among other factors, by dieting fads, and oil-drilling demand varies wildly with changes in the U.S. active rig count.<sup>57</sup> Oilfield use was reported during the preliminary phase of these investigations to be the most volatile demand sector during the period of investigation.<sup>58</sup> U.S. oilfield and natural gas activity, measured by the number of active drilling rigs and by the total footage drilled, first decreased on a quarterly basis during January-June 2002, then generally increased during July 2002-December 2004, ending at period highs of 1,249 active drilling rigs and 53.5 million feet drilled in October-December 2004 (figure II-2).<sup>59</sup> Halliburton reportedly experienced a big upturn in demand in the oilfield sector starting the last quarter of 2004. The firm is projecting that to continue, both domestically and especially internationally in places like West Africa.<sup>60</sup>

## Substitute Products

The majority of responding U.S. purchasers and U.S. importers cited that no substitutes exist for purified CMC. The U.S. producer, importers, and purchasers cited in their questionnaire responses a number of products that they asserted could substitute for purified CMC in some applications. The U.S. producer,<sup>61</sup> 8 U.S. importers,<sup>62</sup> and 8 purchasers<sup>63</sup> together identified a total of 21 potential substitute products; whereas 9 responding importers and 35 responding U.S. purchasers asserted that no substitutes

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<sup>54</sup> Petition, p. 23.

<sup>55</sup> Respondents' joint postconference brief, p. 19. U.S. real gross domestic product ("GDP") rose by 1.9 percent in 2002, 3.0 percent in 2003, and 4.4 percent in 2004. U.S. real GDP is forecast to increase by 3.4 percent in 2005 (*Blue Chip Economic Indicators*, Vol. 30, No. 5, May 10, 2005).

<sup>56</sup> Respondents' joint postconference brief, p. 12.

<sup>57</sup> *Ibid.*, pp. 12-13.

<sup>58</sup> Petitioner's postconference brief, p. 22 and the respondents' joint postconference brief, pp. 19 and 28.

<sup>59</sup> Quarterly shipment quantities of product 6, an oilfield purified CMC product for which pricing data were gathered and reported by Aqualon and the importers of the subject product from the Netherlands, reached their lowest level of the period during 2002, and although fluctuating thereafter, were significantly higher in 2003 and 2004 (see Part V for a full discussion of the pricing data).

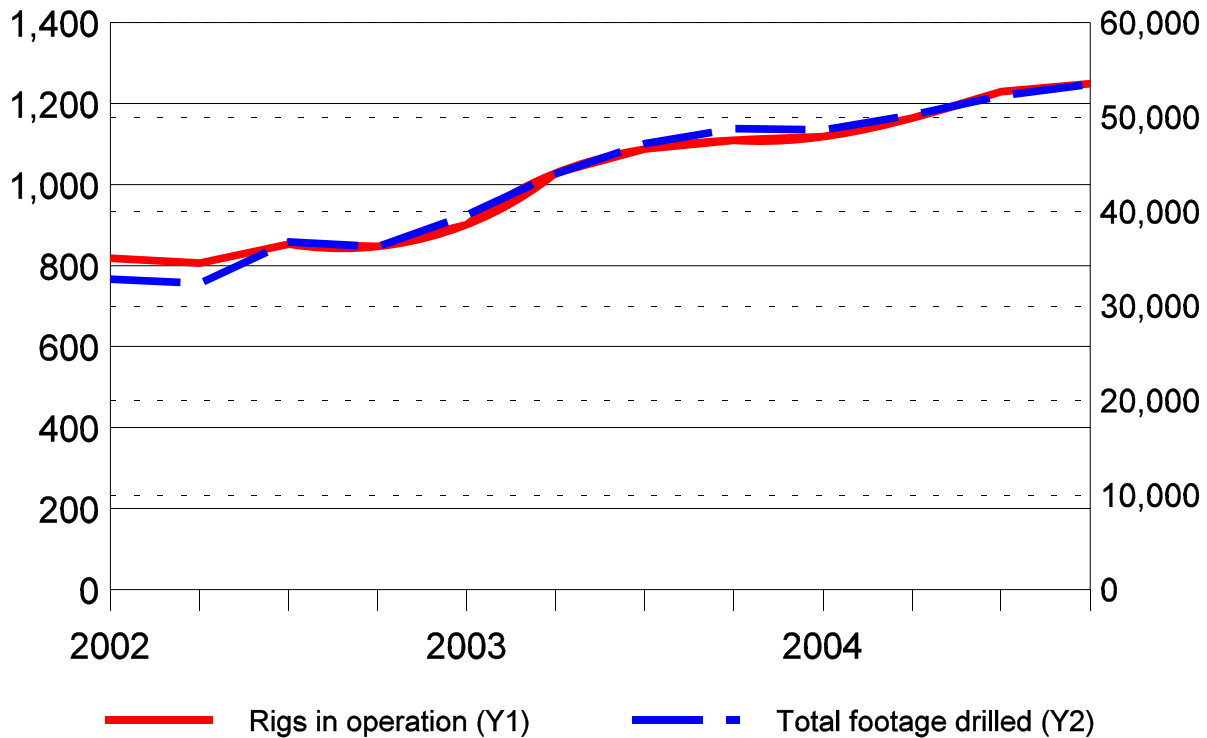
<sup>60</sup> Hearing transcript, p. 272 (Somers).

<sup>61</sup> Aqualon's producer questionnaire response, section IV-B-16.

<sup>62</sup> \*\*\* of the subject imported purified CMC (importer questionnaire responses, sections III-B-17, and III-B-20).

<sup>63</sup> Of the 8 responding U.S. purchasers identifying substitute products, 6 were distributors and 2 were end users of purified CMC (purchaser questionnaire responses, section III-25).

**Figure II-2**  
**U.S. crude oil and natural gas drilling activity measures: Total U.S. rotary rigs in operation and total footage drilled, by quarters, January 2002-December 2004**



**Note:** Number of rigs in operation is the average number for each period, and footage drilled is in thousands.

**Source:** DOE, Energy Information Administration, *Monthly Energy Review*, January 2005 issue.

exist for purified CMC.<sup>64</sup> The responses of firms identifying substitutes for purified CMC are summarized in table II-2.<sup>65</sup>

<sup>64</sup> Aqualon also asserted during the final phase of these investigations that \*\*\*. (Aqualon’s producer questionnaire response, section IV-B-19).

<sup>65</sup> Of these 21 reported substitutes for purified CMC, Noviant provided quarterly price data for 9 of these products. Prices declined for five of the nine products (carrageenan, crude CMC, hydroxypropylmethylcellulose (“HPMC”), pectin, and xanthan gum) during January 2003-December 2004, increased for three products (guar gum, locust bean gum, and starch), and held constant for karaya gum during this period. During the first quarter of 2005, prices declined from the preceding quarter for two products (guar gum and xanthan gum), remained unchanged for three products (HPMC, Karaya, and starch), and rose for four products (carrageenan, crude CMC, locust bean gum, and pectin). (*Hydrocolloid Review #1:2004*, IMR International, p. 28, as shown in respondent Noviant’s prehearing brief, exh. 6; and respondent Noviant’s posthearing brief, exh. 1W). To the extent that these products are substitutes for purified CMC, falling prices of the products may put downward pressure on prices of purified CMC and/or result in switching, at least partially, from purified CMC to the alternative products, while rising prices of the products may (continued...)

**Table II-2**

**Purified CMC: Substitute products for purified CMC and the associated end uses, reported by the U.S. producer, 8 U.S. importers, and 8 U.S. purchasers<sup>1</sup>**

| Substitute products          | Number of responses identifying substitute products-- |          |                |                             |                 |                   |
|------------------------------|---|----------|----------------|-----------------------------|-----------------|-------------------|
|                              | U.S. producer   |          | U.S. importers |                             | U.S. purchasers |                   |
|                              | No.   | End uses | No.            | End uses                    | No.             | End uses          |
| Carboxymethylstarch          | -   | -        | 1              | Drilling fluids             | 1               | Drilling fluids   |
| Carrageenan                  | -   | -        | 2              | Toothpaste, stabilizers     | -               | -                 |
| CMC FPS                      | 1   | Paper    | 1              | Coated paper/board          | -               | -                 |
| Cross-linked CMC             | -   | -        | 1              | Pharmaceutical              | -               | -                 |
| Crude CMC                    | -   | -        | 3              | Drilling fluids             | 2               | Drilling fluids   |
| Ethylhydroxyethylcellulose   | -   | -        | 1              | Paints, adhesives           | -               | -                 |
| Guar gum                     | -   | -        | 5              | Pet food, food <sup>2</sup> | 3               | Food <sup>3</sup> |
| Hydroxypropylmethylcellulose | -   | -        | 1              | Food                        | 2               | Food, textiles    |
| Hydroxyethylcellulose        | -   | -        | 1              | Paint                       | -               | -                 |
| Karaya gum                   | -   | -        | 1              | Denture adhesive            | -               | -                 |
| Locust bean gum              | -   | -        | 2              | Food <sup>4</sup>           | 1               | Food              |
| Methylcellulose              | -   | -        | 1              | Food                        | 1               | Food              |
| Modified starch              | -   | -        | 1              | Drilling fluids             | 2               | Drilling fluids   |
| Modified crude CMC           | -   | -        | 1              | Drilling fluids             | 1               | Drilling fluids   |
| Pectin                       | -   | -        | -              | -                           | 1               | Dairy             |
| Polyacrylamide               | -   | -        | 1              | Oilfield                    | 1               | Drilling fluids   |
| Polyvinylpyrrolidone         | -   | -        | -              | -                           | 1               | Textiles          |
| Sodium Polyacrylate          | -   | -        | 1              | Drilling fluids             | 1               | Drilling fluids   |
| Starch                       | -   | -        | 2              | Food                        | -               | -                 |
| Synthetic acrylic thickener  | -   | -        | 1              | Paper toweling and tissue   | -               | -                 |
| Xanthan gum                  | -   | -        | 3              | Food, toothpaste            | 3               | Food <sup>3</sup> |

<sup>1</sup> The remaining 35 responding U.S. purchasers reported that no substitutes exist for purified CMC.

<sup>2</sup> Including cake mix, breads, bagels, ready-to-drink and instant beverages.

<sup>3</sup> Including soup, baked goods, sauces, salad dressings, syrups, and ices.

<sup>4</sup> Stabilizer and thickener.

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

<sup>65</sup> (...continued)

allow prices of purified CMC to rise and/or result in switching, at least partially, to purified CMC from these alternative products.

In addition to identifying substitutes, \*\*\*, a U.S. distributor that imports the subject foreign purified CMC, provided some additional comments involving guar gum and the role of blenders.<sup>66</sup> According to \*\*\*, guar gum can fully or partially replace purified CMC in numerous high-volume applications (e.g., breads, tortilla, cake mix, instant beverages, instant oatmeal, and pet food) where viscosity development or the control of water is the primary characteristic. \*\*\* reported that Heinz used only purified CMC in the formula for its Gravy Train dog food, but it partially replaced purified CMC with guar gum in its gravy pet food produced for the Wal-Mart store brand as a low cost alternative.<sup>67</sup>

Respondents contended during the preliminary phase of these investigations that U.S. aggregate demand for purified CMC may also respond to changes in prices of purified CMC relative to prices of other products, such as fluidized polymer suspensions, cross-linked CMC products, crude CMC, and a number of other hydrocolloids.<sup>68</sup> Aqualon asserted during the final phase of these investigations that, if there are very significant changes in relative prices of the different hydrocolloids, there could be some limited substitution for purified CMC or impact on the price of purified CMC in the longer term, but there has been very little substitution in the short term, including during January 2002-December 2004, among different hydrocolloids.<sup>69</sup> In addition, Aqualon also asserted that it is a lengthy and expensive process for users to switch from purified CMC to another hydrocolloid or vice-versa.<sup>70</sup> Aqualon also asserted that the different attributes between purified CMC and other hydrocolloids often results in the optimal functionality of the product being achieved through a combination of purified CMC and other hydrocolloids, and in this sense they often are complements, not substitutes.<sup>71</sup> For example, it is very common to see on food labels the use of purified CMC and other hydrocolloids (i.e., xanthan gum and

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<sup>66</sup> \*\*\* importer questionnaire response, section III-B-17. \*\*\* and Aqualon were the only two firms providing additional responses to the questionnaire requests for information on substitutes for purified CMC. Aqualon's additional responses were shown earlier and the responses of \*\*\* are shown here.

<sup>67</sup> \*\*\* importer questionnaire responses in the final phase, section III-B-17 and in the preliminary phase, section III-E-2, and e-mail from \*\*\*. \*\*\* (e-mail from \*\*\*).

<sup>68</sup> Respondents asserted that the price elasticity of demand for purified CMC was high due to the existence of substitute products (conference transcript, pp. 142-143 (Malashevich)).

<sup>69</sup> Aqualon's producer questionnaire response, section IV-B-19.

<sup>70</sup> Hearing transcript, pp. 54-55 (Cash). \*\*\* asserted, however, that the cost and time associated with such switching is typically much less than the increase in raw material costs that triggered such switching (e-mail from \*\*\*). \*\*\* cited an example of \*\*\*; \*\*\* is also a \*\*\* (Ibid).

<sup>71</sup> Noviant asserted that, in the food area, purified CMC is very rarely used alone as a hydrocolloid. It is generally part of a total package involving several, and there can be as many as five hydrocolloids in the same product as shown on the labels. According to Noviant, the price of each particular hydrocolloid and the functionality that it delivers has a fairly significant impact on how end users and blenders choose the hydrocolloid balance (hearing transcript, pp. 184-185 (McKenzie)). On the other hand, Noviant's parent company, J.M. Huber, in applying for U.K. antitrust authorization of its acquisition of a hydrocolloid company, C.P. Kelco, argued in their filings to the U.K. authority that products such as xanthan gum, pectin, and carrageenan are more frequently complements than competing substitutes with purified CMC for most purposes (Aqualon's prehearing brief, exh. 6, and hearing transcript, p.14 (Lebow)).

guar).<sup>72</sup> In addition, Noviant provided copies of its internal call reports to demonstrate that some of its customers in North America, Europe, and Asia have switched between purified CMC and various other products based on relative price changes.<sup>73</sup> Noviant also cited its success \*\*\*.<sup>74</sup> In addition, Noviant reportedly \*\*\*.<sup>75</sup>

According to a recent study, cellulose ethers<sup>76</sup> perform a variety of functions such as thickening, binding, water retention, soil antiredeposition, and acting as a protective colloid.<sup>77</sup> They reportedly compete with each other in select applications and with synthetic water-soluble polymers (polyvinyl alcohol, polyurethane associative thickeners, and polyacrylates) and natural water-soluble polymers (xanthan, carrageenan, and locust bean gum).<sup>78</sup> According to the study, the specific product used is determined by price/performance tradeoffs and availability.<sup>79</sup> Another recent study identifies a number of replacements (guar and xanthan gums were mentioned most frequently) for purified CMC in food products such as cakes, bagels, bread, tortillas, dry-mix cocoa, juice drinks, syrups, ice cream, and petfood gravy.<sup>80</sup>

To determine the strength of substitution between the substitute products and purified CMC, the U.S. producer and importers were also requested in their questionnaire responses to comment on how changes in relative prices affect the price or quantity of purified CMC or vice-versa and on the time lag for any such adjustment.<sup>81</sup> Aqualon stated that there is very little substitution in the short term among the different hydrocolloids, but with significant price changes some limited substitution in the longer term would occur affecting purified CMC.<sup>82</sup> Four of the \*\*\* importers commented on the impacts of relative price changes between substitutes and purified CMC, 2 importers indicated that price changes of substitutes did affect the price or quantity of purified CMC, and the remaining \*\*\* importers did not comment.<sup>83</sup> The comments of the four U.S. importers involved 11 substitute products, but the comments of only three importers, \*\*\*, \*\*\*, and \*\*\* provided price changes and/or lag periods for any impact on purified CMC. \*\*\* asserted that oilfield use could switch to modified starch and polyacrylamide in 3 to 6 months if the prices of purified CMC got too high. \*\*\* asserted that with a price change of 20 percent, product mix can be significantly affected in 3 to 6 months in the oilfield sector for carboxymethylstarch,

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<sup>72</sup> Aqualon's producer questionnaire response, section IV-B-19.

<sup>73</sup> Noviant's posthearing brief, exh. 1A.

<sup>74</sup> Noviant's posthearing brief, exh. 1, p. 4.

<sup>75</sup> Noviant's posthearing brief, exh. 1, p. 14 and exh. 1H.

<sup>76</sup> These ethers include, but not exclusively, sodium carboxymethylcellulose, ethylhydroxyethylcellulose, hydroxypropylmethylcellulose, hydroxyethylcellulose, and methylcellulose (Chemical Economics Handbook–SRI, *Cellulose Ethers*, Raymond Will and Tadahisa Sasano, November 2001, p. 12, and included in the petition as exh. 1G).

<sup>77</sup> Chemical Economics Handbook–SRI, *Cellulose Ethers*, Raymond Will and Tadahisa Sasano, November 2001, p. 10, and included in the petition as exh. 1G.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid.

<sup>80</sup> *CMC in Foods*, Cybercolloids, May 18, 2005, and included in Noviant's posthearing brief, exh. 1C.

<sup>81</sup> Noviant contacted multiple customers to obtain information on the price difference required to switch among purified CMC and other hydrocolloids, but these customers reportedly refused to provide such information to Noviant because of competitive and confidential concerns. On the other hand, according to Noviant, these customers agreed that price movements influence them to develop, use, or qualify alternatives to purified CMC, and that substitution, in part or whole, is a reality (Noviant's posthearing brief, pp. 21-22).

<sup>82</sup> Aqualon's producer questionnaire response, section IV-B-19.

<sup>83</sup> Importer questionnaire responses, section III-B-20.



modified crude CMC, and/or sodium polyacrylate vis-a-vis purified CMC. \*\*\* noted that, if relative prices changed, producers of paper towels and tissue would switch between purified CMC and synthetic acrylic thickeners in three months or more; producers of pet food would switch between purified CMC and guar gum in two months or more; and producers of coated paper would switch between purified CMC and CMC FPS within one month.

In addition, 24 of 35 responding U.S. purchasers reported that non-price factors would not result in U.S. end users switching between purified CMC and other products, while the 11 remaining purchasers reported that non-price factors existed that would result in such switching.<sup>84</sup> The non-price factors cited by the 11 responding firms that lead to input-product shifting typically involved changes or improvements in the downstream product, but also included new production processes requiring a different input mix, environmental concerns, availability of alternative inputs, dietary concerns, or health issues. Five of the 11 firms also commented on the extent of any such shifting, with three indicating that little or no such shifting occurred in their end uses during January 2002-December 2004, while the two remaining firms indicated significant shifting, with one firm shifting towards purified CMC and one firm shifting away from purified CMC.<sup>85</sup>

Thirty U.S. end users and blenders of purified CMC also responded to a request in their questionnaires to indicate the extent to which they could readily (within 12 months) develop alternative formulations, using more or less purified CMC, for their downstream products.<sup>86</sup> Although the responses varied, 6 firms reported that they could not reformulate at all, 14 firms reported that any reformulation would be difficult and/or take more than 12 months, another 8 firms reported that they would be able to reformulate easily and/or within 12 months, and the remaining two firms indicated that they could reformulate, but did not indicate how easily or how long it would take to do so.

### Cost Share

The U.S. producer, importers, and purchasers were requested in their questionnaire responses to estimate, to the extent known, the cost share that purified CMC accounts for in the total cost to produce the downstream products for their purified CMC products. The U.S. producer,<sup>87</sup> 11 U.S. importers,<sup>88</sup> and 36 U.S. purchasers<sup>89</sup> responded and their responses are summarized in the discussion below. Aqualon reported for four downstream products/product groups involving drilling mud, toothpaste, coated paper, and a general food product category, and indicated that its purified CMC accounted for 20 percent or less

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<sup>84</sup> Purchaser questionnaire responses, section III-23.

<sup>85</sup> \*\*\* reported increasing purified CMC by \*\*\* pounds over alternatives in \*\*\* applications during \*\*\*, and \*\*\* reported decreasing purified CMC by \*\*\* pounds for \*\*\* during \*\*\*.

<sup>86</sup> Purchaser questionnaire responses, section III-23.

<sup>87</sup> Aqualon was requested to respond for the purified CMC that it produced domestically (Aqualon's producer questionnaire response, section IV-B-13).

<sup>88</sup> Of the 11 responding importers, 7 were distributors, 3 were end users, and one was a blender of the subject imported purified CMC. The U.S. importers were requested to respond for the purified CMC that they imported from the subject countries (importer questionnaire responses, section III-B-15).

<sup>89</sup> Of the 36 responding U.S. purchasers 29 were end users, 5 were blenders, and 2 were distributors of purified CMC. End users and blenders were requested to report for up to three of their top downstream products that used purified CMC as an input; the two reporting distributors reported for purified CMC products that they had formulated for their oilfield customers (purchaser questionnaire responses, section III-21).

of the total cost to produce these downstream products.<sup>90</sup> The 11 importers reported for 16 downstream products involving drilling mud, toothpaste, coatings, corn flour, paper towels, dog food, and general food, mining, personal care, and miscellaneous industrial product categories. In 11 of the downstream products/product categories, purified CMC accounted for 20 percent or less of the total cost to produce these products,<sup>91</sup> while in the remaining 5 downstream products/product categories, purified CMC accounted for more than 20 percent of the cost to produce these products. The 36 purchasers reported for 68 products involving those mentioned above, but including many more specific food, pharmaceutical, personal care, chemical, and industrial products. In 50 of the downstream products, purified CMC accounted for 20 percent or less of the total cost to produce these products,<sup>92</sup> while in the remaining 18 downstream products, purified CMC accounted for more than 20 percent of the cost to produce these products.

### **SUBSTITUTABILITY ISSUES**

The degree of substitution in demand between purified CMC produced in the United States and that imported from Finland, Mexico, Netherlands, and Sweden depends upon such factors as relative prices, types of customers, conditions of sales, technical support/service, and product differentiation. Product differentiation depends on factors such as the range of products, quality, availability, reliability of supply, and the market perception of these latter three factors. Performance characteristics of purified CMC products reportedly can play a significant role in demand and are related to one or more of the aforementioned factors. Based on the reported information in these investigations, there appears to be substitutability in demand between the purified CMC produced domestically and that imported from the subject countries, but some reported product differentiation and other differences may limit the degree of this demand substitution.

Aqualon indicated during the preliminary phase of these investigations that the subject imported purified CMC competes with the domestically produced products and asserted that the basic purified CMC chemical is fungible;<sup>93</sup> that U.S. customers often request bids from the domestic producer and several of the subject importers; and that the U.S.-produced and subject imported purified CMC products are sold in the same channels of distribution.<sup>94</sup> Aqualon also indicated at the hearing that the major producers, including Aqualon, the respondents, and a few other high-quality producers, have very similar products with very broad product ranges that can be used in most or all of the major applications.<sup>95</sup>

On the other hand, the respondents asserted during the preliminary phase of these investigations that there is virtually no competition between and among the purified CMC imported from Finland and Mexico and that produced domestically, and there is no reasonable overlap of competition between imports of purified CMC from Finland and Mexico on the one hand, and the purified CMC imported from

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<sup>90</sup> In three of these four products/product categories, the cost of purified CMC accounted for less than 5 percent of the total cost to produce the downstream products.

<sup>91</sup> In 7 of these 11 products/product categories, the cost of purified CMC accounted for 5 percent or less of the total cost to produce the downstream products.

<sup>92</sup> In 40 of these 50 products, the cost of purified CMC accounted for 5 percent or less of the total cost to produce the downstream products.

<sup>93</sup> Petitioner's postconference brief, p. 2.

<sup>94</sup> Petitioner's postconference brief, p. 10.

<sup>95</sup> Hearing transcript, p. 31 (Herak).

the Netherlands and Sweden on the other hand.<sup>96</sup> The respondents contended that purified CMC imported from Finland and Mexico does not compete with each other or with that produced domestically in the major end-use categories, including the oil sector, the paper and board sector, the personal care category, and the food category.<sup>97</sup>

### Factors Affecting Purchases

U.S. purchasers of purified CMC were requested in their questionnaires to rank 15 specified purchase factors as very important, somewhat important, or not important. Forty-eight purchasers responded and their responses are summarized in table II-3 for each purchase factor. Three factors--availability, product consistency, and reliable supply--were listed as very important by the largest number of responses. Following these factors were quality that meets industry standards, price, delivery time, delivery terms, discounts offered, quality that exceeds industry standards, technical support/service, product range, minimum quantity requirements extension of credit,<sup>98</sup> packaging, and U.S. transportation costs.

U.S. purchasers were also requested in their questionnaires to list the top three purchase factors that they consider when deciding from whom to purchase purified CMC. Forty-seven purchasers responded, but the variety of descriptions of purchase factors reported made it difficult to group the responses by factors. About two-thirds of the responses could be grouped into purchase factors identified as availability, price, quality, and reliable supply.<sup>99</sup> Based on such responses, quality, price, and availability were reported most frequently as the first, second, and third most important purchase factors, respectively.

Narrative purchaser questionnaire responses during the final phase of these investigations also provided some information regarding substitution between the domestic and subject imported purified CMC. Forty-three of 48 responding U.S. purchasers reported that since January 2002 their domestic and/or foreign suppliers were always able to supply them with purified CMC, whereas 5 firms cited instances where their suppliers failed to supply them with purified CMC.<sup>100</sup> Four of these latter five firms, three purchasing for oilfield uses (\*\*\*) and one for coatings use (\*\*\*), cited Aqualon and the remaining firm cited a distributor with purified CMC of unknown origin.<sup>101</sup> Of the four firms citing Aqualon, three identified time periods and quantities as requested, while the remaining firm identified only the time period. \*\*\* asserted that Aqualon was not able to supply them purified CMC during \*\*\* amounting to \*\*\* pounds and \*\*\* pounds per year, respectively, during this period.<sup>102</sup> \*\*\* asserted that

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<sup>96</sup> Respondents' joint post conference brief, p. 46.

<sup>97</sup> Ibid, pp. 46-50.

<sup>98</sup> Extension of credit was reported most frequently as not important, followed by product range and minimum quantity requirements.

<sup>99</sup> The remaining one-third of responses referred to various other factors such as, preferred supplier status, prearranged contract, etc, or were too vague to determine exactly what the response referred to such as, functionality, performance, supply, experience, location of product, etc.

<sup>100</sup> Purchaser questionnaire responses, section III-11.

<sup>101</sup> This latter firm is \*\*\*, which uses the purified CMC to produce \*\*\*, reported that it was unable to obtain \*\*\* pounds of purified CMC from its distributor during \*\*\*.

<sup>102</sup> Ibid. \*\*\* also commented that from 1990 to 2002 Aqualon was the sole supplier of purified CMC to the firm. According to \*\*\*, as the drilling industry began to see an upswing in late 2002, it became evident that Aqualon could not or would not meet all of the needs of the purchaser. \*\*\* asserted that lead times of Aqualon began to

(continued...)

**Table II-3**  
**Purified CMC: Importance of purchase factors, reported by 48 U.S. purchasers**

| Purchase factors              | Number of purchasers reporting-- |                    |               |
|-------------------------------|----------------------------------|--------------------|---------------|
|                               | Very important                   | Somewhat important | Not important |
| Availability                  | 46                               | 2                  | -             |
| Product consistency           | 46                               | 2                  | -             |
| Reliable supply               | 46                               | 2                  | -             |
| Quality meets standards       | 39                               | 8                  | 1             |
| Price                         | 36                               | 11                 | 1             |
| Delivery time                 | 35                               | 13                 | -             |
| Delivery terms                | 23                               | 24                 | 1             |
| Discounts offered             | 20                               | 21                 | 7             |
| Quality exceeds standards     | 20                               | 19                 | 9             |
| Technical support/service     | 20                               | 20                 | 8             |
| Product range                 | 15                               | 18                 | 14            |
| Minimum quantity requirements | 14                               | 20                 | 14            |
| Extension of credit           | 13                               | 16                 | 19            |
| Packaging                     | 13                               | 32                 | 3             |
| U.S. transportation costs     | 12                               | 27                 | 9             |

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

Aqualon was not able to supply the firm \*\*\* pounds of purified CMC during \*\*\*.<sup>103</sup> Halliburton asserted that Aqualon was not a viable supplier of purified CMC to the firm during January 2002-June 2003.<sup>104</sup>

<sup>102</sup> (...continued)

increase to a point of missed sales (purchaser questionnaire responses, section III-6). According to \*\*\*, by mid-2003 it was often left to substitute products due to Aqualon's inability to supply and by 2004 it had to depend on Akzo-Nobel to meet its needs for purified CMC (purchaser questionnaire response, section II-2). In addition, \*\*\* indicated that it purchases purified CMC from Aqualon and Akzo (Netherlands), where price and quality are \*\*\*, but asserted that often Aqualon cannot meet (quantity) requirements of \*\*\* (purchaser questionnaire response, section IV-5).

<sup>103</sup> Purchaser questionnaire response, section III-11. \*\*\* also commented that it purchases purified CMC based on quality, price, and vendor ability to supply. During 2002 and until July 2003, \*\*\* purchased purified CMC exclusively from Noviant (Finland) (purchaser questionnaire responses, section II-2).

<sup>104</sup> \*\*\* (petitioner's posthearing brief, app. A, question 24-Halliburton Business History). Noviant reported that it supplied a total of \*\*\* pounds of drilling grade purified CMC to Halliburton at a price of \$\*\*\* per pound, duty-  
 (continued...)

Since the preliminary ruling of the U.S. International Trade Commission,<sup>105</sup> Aqualon has been \*\*\* of purified CMC to Halliburton due to price.<sup>106</sup> However, Halliburton contended that Aqualon is not high on its list of best vendors and cited two price increases since November 2004 and lead times extending from 2 weeks to 4-5 weeks.<sup>107</sup> Halliburton also asserted that Aqualon was unable or unwilling to commit to the quantities and lead time needed for the firm to consider giving the domestic producer \*\*\* percent of their business.<sup>108</sup> In addition, the recently retired purchaser of purified CMC at Halliburton, Ray Somers, recounted at the hearing the purchase history between both Baroid and Halliburton with Aqualon,<sup>109</sup> going back to the 1980s.<sup>110</sup> Mr. Somers asserted that Aqualon was an on-and-off supplier to Baroid/Halliburton beginning in the 1980s, when Baroid developed its own brand of purified CMC for oilfield use, and through the 1990s.<sup>111</sup> During the early 1990s, according to Mr. Somers, Noviant agreed to supply Baroid with the purchaser's trade-name purified CMC and helped improve their specifications and developed testing and product control.<sup>112</sup> By 2001, Aqualon reportedly faded away as a supplier of purified CMC to Baroid/Halliburton and, according to Mr. Somers, only when the purchaser contacted Aqualon in 2003 did the U.S. producer resume sales to Baroid/Halliburton.<sup>113</sup> Aqualon reported that its service level in the oilfield sector is a little bit less than the other sectors because, according to Aqualon, of the very large volumes and sometimes unpredictable nature of demand in the oilfield sector.<sup>114</sup>

Forty-five of 47 responding U.S. purchasers reported that they or their customers certify or prequalify their suppliers of purified CMC with respect to quality, chemistry, purity, or other performance characteristics;<sup>115</sup> the remaining 2 firms did not certify their suppliers.<sup>116</sup> Thirty-three of 45 responding

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<sup>104</sup> (...continued)

paid at Houston, TX, from June 2002 until August 2003. In April 2003, Noviant informed Halliburton and other customers that Noviant would increase its price because of increases in raw material costs and exchange rate movements. But, according to Noviant, because of objections from Halliburton and significant volume losses suffered by Noviant elsewhere in the U.S. market due to the price increase, Noviant withdrew its intention to increase prices to Halliburton. Noviant further asserted that in August 2003, Halliburton requested a competition-based reduction from Noviant, but the firm reportedly refused to reduce its prices and Halliburton reportedly advised the firm that Noviant was terminated as a supplier and that the business would move to Aqualon at significant lower pricing (Noviant's posthearing brief, exh. 1, pp. 5-6 and hearing transcript, pp. 263-265 (Somers)).

<sup>105</sup> \*\*\* indicated that Noviant and Amtex are still qualified suppliers, but are no longer price competitive in the United States due to the preliminary ruling of the U.S. International Trade Commission (purchaser questionnaire response, section III-14).

<sup>106</sup> Halliburton purchaser questionnaire response, section III-1. Aqualon reported that \*\*\* (petitioner's posthearing brief, app. A, question 24—Halliburton Business History).

<sup>107</sup> Halliburton purchaser questionnaire response, section III-14.

<sup>108</sup> Halliburton purchaser questionnaire response, section IV-5.

<sup>109</sup> Halliburton reportedly purchased Baroid in the mid 1990s (hearing transcript, p. 194 (Somers)).

<sup>110</sup> Hearing transcript, pp. 193-197 (Somers).

<sup>111</sup> According to Mr. Somers, at each point Aqualon refused to supply the Baroid trade-name purified CMC, it was attempting to promote the Aqualon trade name purified CMC for the drilling industries (hearing transcript, p. 195 (Somers)).

<sup>112</sup> Hearing transcript, p. 195 (Somers).

<sup>113</sup> Hearing transcript, p. 196 (Somers).

<sup>114</sup> Hearing transcript, p. 152 (Herak).

<sup>115</sup> Sixteen purchasers provided comments as requested in their questionnaires when they compared purified CMC between countries of origin and found that the products were sometimes or never interchangeable (purchaser  
(continued...))

U.S. purchasers reported that since January 2002 their domestic and/or foreign suppliers never failed to certify their purified CMC with the firms, whereas 12 purchasers cited instances where their suppliers failed to certify their purified CMC.<sup>117</sup> Based on the responses of these latter 12 purchasers, Aqualon was cited six times, while Noviant, Amtex, and Chinese suppliers were each cited twice for failing to qualify their purified CMC.

Twenty-seven of 36 responding U.S. purchasers reported that they purchased purified CMC from one source although a comparable product was available from another source at a lower price, whereas the 9 remaining purchasers reported buying only the lowest priced product.<sup>118</sup> The reasons for buying from a higher priced source varied and included reliability of supply, maintain diverse supply base, availability of product, product quality/performance, shorter lead time, better customer service and technical assistance, contractual requirements, certified source, and traditional supplier. Higher priced country sources cited included the United States, Finland, Mexico, Netherlands, and Italy.

Twenty-eight of 47 responding U.S. purchasers reported they purchased purified CMC from more than one country, whereas the remaining 19 purchasers purchased their purified CMC from a single country.<sup>119</sup> Eleven of the purchasers buying purified CMC from more than one country reported doing so specifically to maintain competition or to have a back-up supplier.<sup>120</sup> Twenty-eight of 45 responding U.S. purchasers reported that they contact two or more suppliers before purchasing their purified CMC; the remaining 17 purchasers reported contacting only one supplier when purchasing purified CMC.<sup>121</sup> Thirty-nine of 46 responding U.S. purchasers indicated that they do not commingle purified CMC from two or more countries, 5 other purchasers reported that they frequently commingled purified CMC from two or more countries, and the remaining 2 purchasers reported a minimal amount of commingling of purified CMC from two or more countries.<sup>122</sup>

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<sup>115</sup> (...continued)

questionnaire responses, section IV-2). The firms remarked that the lack of interchangeability typically was due to the fact that these products from the countries being compared had not undergone certification or had failed a certification attempt from one of the countries. On the other hand, interchangeability reported as always or frequently was sometimes due to the fact that the products had been certified by the purchasers for the countries involved.

<sup>116</sup> Purchaser questionnaire responses, section III-12. In addition, 44 purchasers commented on the factors, time, and/or cost of certifying suppliers of their purified CMC (purchaser questionnaire responses, section III-12). Based on responses of the 21 of 29 responding end users that also reported the time and/or cost of certification, time periods ranged from 10 hours to 18 months and costs from \$200 to \$500,000; average supplier certification took 6.5 months and cost \$97,633. For the three of five responding blenders that also reported the time and/or cost of certification, time periods ranged from 4 hours to 6 months but costs (of \$\*\*\*) were reported by only one firm. For the 5 of 10 responding distributors that also reported the time and/or cost of certification, time periods ranged from 15 hours to 6 months and costs from \$1,000 to \$20,000; average supplier certification took 2.7 months and cost \$7,333.

<sup>117</sup> Purchaser questionnaire responses, section III-13.

<sup>118</sup> Purchaser questionnaire responses, section IV-5.

<sup>119</sup> Purchaser questionnaire responses, section II-2.

<sup>120</sup> Ibid.

<sup>121</sup> Purchaser questionnaire responses, section III-14.

<sup>122</sup> Purchaser questionnaire responses, section II-3.

In addition to information submitted in its questionnaire, Aqualon also provided information in its posthearing brief about any quality, shipping, or availability problems associated with its U.S. produced purified CMC.<sup>123</sup> Aqualon reported that, based on its total shipments of its U.S. produced purified CMC during 2002-04, quality issues accounted for \*\*\* percent of its shipments in 2001 and \*\*\* percent in 2002 and in 2003. Aqualon indicated that all the customers with quality problems were contacted by its staff at the time and that no significant business was lost due to quality problems with its purified CMC during this period.<sup>124</sup> Aqualon also reported that its on-time in full (OTIF) shipping performance for its U.S. produced purified CMC was \*\*\* percent in 2002, \*\*\* percent in 2003, and \*\*\* percent in 2004; \*\*\*.<sup>125</sup>

### **Comparisons of the U.S.-Produced and Imported Purified CMC**

The U.S. producer, importers, and purchasers of purified CMC were requested in their questionnaires to report on the extent of interchangeability (products from different countries physically capable of being used in the same applications) of purified CMC produced domestically, imported from the subject countries, and imported from third-countries. The U.S. producer and importers were also asked to report the extent of any differences other than price that would affect sales in the U.S. market among the various country sources of purified CMC.<sup>126</sup> Responses of the U.S. producer, importers, and purchasers regarding the degree of interchangeability between domestic and imported purified CMC are summarized in table II-4 for comparisons involving the U.S.-produced and subject imported purified CMC. The U.S. producer and importer responses regarding differences other than price affecting competition are summarized in table II-5 for comparisons involving the U.S.-produced and subject imported purified CMC.

Purchasers were also requested in their questionnaire to make country-of-origin comparisons among the U.S.-produced and imported purified CMC in terms of the 15 specified purchase factors discussed earlier and indicate for each factor whether product from one country was superior, comparable, or inferior to product from another country. The purchaser responses are shown in table II-6a for comparisons between the U.S.-produced and subject imported purified CMC, and table II-6b for comparisons among the subject imported products.

For responses regarding the degree of interchangeability among U.S.-produced and imported purified CMC, the sole U.S. producer, a total of 15 U.S. importers, and 34 U.S. purchasers of purified CMC replied, but not for every country comparison (table II-4). Aqualon asserted that purified CMC produced in the United States, imported from the subject countries, and imported from third countries was always or frequently interchangeable among each other (tables II-4).<sup>127</sup> Twenty-six responses from importers and 43 responses from purchasers asserted that the product produced domestically and imported

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<sup>123</sup> Petitioner's posthearing brief, app. A, question 16–Aqualon CMC quality and availability.

<sup>124</sup> Ibid.

<sup>125</sup> Ibid. Aqualon asserted that \*\*\*. Aqualon also noted that some customers indicated concern with the availability of its purified CMC during the second half of 2004, especially the fourth quarter of 2004, when contracts were negotiated for 2005 shipments.

<sup>126</sup> Nonprice factors referred to in the questionnaire request included quality, availability, transportation network, product range, and technical support, but nonprice factors were not necessarily restricted to only these factors.

<sup>127</sup> Aqualon did not identify specific third countries.

**Table II-4**  
**Purified CMC: Perceived degree of interchangeability of product produced in the United States and imported from the subject countries, and sold in the U.S. market**

| Country pair   | Number of U.S. producer's responses |     |     |     | Number of U.S. importers' responses <sup>1</sup> |   |   |   | Number of U.S. purchasers' responses <sup>2</sup> |   |   |   |
|--|-------------------------------------|-----|-----|-----|--|---|---|---|---|---|---|---|
|  | A                                   | F   | S   | N   | A  | F | S | N | A   | F | S | N |
| United States vs.--  |                                     |     |     |     |  |   |   |   |   |   |   |   |
| Finland  | ***                                 | *** | *** | *** | 3  | 1 | 2 | - | 7   | 3 | 2 | 1 |
| Mexico   | ***                                 | *** | *** | *** | 3  | 3 | 1 | 1 | 5   | 3 | - | 3 |
| Netherlands  | ***                                 | *** | *** | *** | 6  | 2 | 3 | 1 | 12  | 5 | 2 | 4 |
| Sweden   | ***                                 | *** | *** | *** | 5  | 3 | 1 | - | 6   | 2 | 3 | 1 |
| Finland vs.--  |                                     |     |     |     |  |   |   |   |   |   |   |   |
| Mexico   | ***                                 | *** | *** | *** | 3  | - | 1 | - | 3   | 2 | 1 | 1 |
| Netherlands  | ***                                 | *** | *** | *** | 3  | 1 | - | 2 | 5   | 1 | - | 2 |
| Sweden   | ***                                 | *** | *** | *** | 3  | - | 1 | - | 3   | 1 | - | - |
| Mexico vs.--   |                                     |     |     |     |  |   |   |   |   |   |   |   |
| Netherlands  | ***                                 | *** | *** | *** | 3  | 3 | 1 | 1 | 4   | 2 | 2 | 1 |
| Sweden   | ***                                 | *** | *** | *** | 2  | 3 | - | 1 | 2   | 1 | 2 | 1 |
| Netherlands vs.--  |                                     |     |     |     |  |   |   |   |   |   |   |   |
| Sweden   | ***                                 | *** | *** | *** | 4  | 2 | 1 | - | 5   | 1 | 1 | - |
| <sup>1</sup> Based on responses of 15 U.S. importers.<br><sup>2</sup> Based on responses of 34 U.S. purchasers.<br><br>Note: A = Always, F = Frequently, S = Sometimes, N = Never.<br><br>Source: Compiled from data submitted in response to Commission questionnaires. |                                     |     |     |     |  |   |   |   |   |   |   |   |



**Table II-5**  
**Purified CMC: Perceived importance of differences in factors other than price between product produced in the United States and that imported from the subject countries, and sold in the U.S. market**

| Country pair   | Number of U.S. producer's responses |     |     |     | Number of U.S. importers' responses <sup>1</sup> |   |   |   |
|--|-------------------------------------|-----|-----|-----|--|---|---|---|
|  | A                                   | F   | S   | N   | A  | F | S | N |
| United States vs.--  |                                     |     |     |     |  |   |   |   |
| Finland  | ***                                 | *** | *** | *** | 3  | 1 | 1 | 1 |
| Mexico   | ***                                 | *** | *** | *** | 3  | 1 | 2 | 2 |
| Netherlands  | ***                                 | *** | *** | *** | 3  | 2 | 2 | 2 |
| Sweden   | ***                                 | *** | *** | *** | 3  | 2 | - | 2 |
| Finland vs.--  |                                     |     |     |     |  |   |   |   |
| Mexico   | ***                                 | *** | *** | *** | 2  | 1 | 1 | 1 |
| Netherlands  | ***                                 | *** | *** | *** | 1  | 1 | - | 3 |
| Sweden   | ***                                 | *** | *** | *** | 1  | 1 | - | 2 |
| Mexico vs.--   |                                     |     |     |     |  |   |   |   |
| Netherlands  | ***                                 | *** | *** | *** | 2  | 2 | 1 | 1 |
| Sweden   | ***                                 | *** | *** | *** | 2  | 2 | 1 | - |
| Netherlands vs.--  |                                     |     |     |     |  |   |   |   |
| Sweden   | ***                                 | *** | *** | *** | 2  | 1 | - | 2 |
| <sup>1</sup> Based on responses of 13 U.S. importers.<br>Note: A = Always, F = Frequently, S = Sometimes, N = Never.<br>Source: Compiled from data submitted in response to Commission questionnaires. |                                     |     |     |     |  |   |   |   |

**Table II-6a**  
**Purified CMC: Comparisons of U.S.-produced purified CMC with that imported from the subject countries, reported by 28 U.S. purchasers**

| Purchase factors              | Number of purchasers' responses comparing the United States with-- |   |   |        |   |   |             |    |   |        |   |   |
|-------------------------------|--|---|---|--------|---|---|-------------|----|---|--------|---|---|
|                               | Finland  |   |   | Mexico |   |   | Netherlands |    |   | Sweden |   |   |
|                               | S  | C | I | S      | C | I | S           | C  | I | S      | C | I |
| Availability                  | 1  | 4 | 4 | 1      | 6 | 1 | 4           | 15 | 1 | 2      | 4 | 1 |
| Product consistency           | -  | 9 | 0 | -      | 6 | 2 | -           | 18 | 2 | -      | 6 | 1 |
| Reliable supply               | -  | 6 | 3 | -      | 5 | 3 | 2           | 16 | 2 | -      | 6 | 1 |
| Quality meets standards       | -  | 9 | - | -      | 6 | 2 | -           | 18 | 2 | -      | 6 | 1 |
| Price                         | 2  | 4 | 2 | 2      | 3 | 2 | 5           | 9  | 6 | 3      | 1 | 3 |
| Delivery time                 | 3  | 2 | 4 | 2      | 4 | 2 | 5           | 14 | 1 | 3      | 4 | - |
| Delivery terms                | -  | 6 | 3 | -      | 7 | 1 | 3           | 17 | - | 1      | 6 | - |
| Discounts offered             | -  | 8 | - | -      | 6 | 1 | 1           | 17 | 1 | -      | 7 | - |
| Quality exceeds standards     | -  | 9 | - | -      | 6 | 2 | -           | 18 | 2 | -      | 5 | 2 |
| Technical support/service     | 1  | 6 | 1 | 2      | 3 | 2 | 2           | 14 | 4 | 1      | 3 | 3 |
| Product range                 | 1  | 7 | 1 | 1      | 7 | - | 1           | 17 | 2 | 1      | 3 | 3 |
| Minimum quantity requirements | -  | 7 | 1 | 1      | 6 | - | 3           | 16 | - | 1      | 6 | - |
| Extension of credit           | -  | 8 | - | -      | 7 | - | -           | 19 | - | -      | 7 | - |
| Packaging                     | 1  | 8 | - | 1      | 7 | - | 2           | 17 | 1 | 2      | 4 | 1 |
| U.S. transportation costs     | 1  | 7 | - | 1      | 6 | - | 2           | 16 | 1 | 3      | 4 | - |

Note.--S=superior, C=comparable, and I=inferior.

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

**Table II-6b**  
**Purified CMC: Comparisons among the subject imported purified CMC, reported by nine U.S. purchasers**

| Purchase factors          | Number of purchasers' responses comparing-- |   |   |             |   |   |                      |   |   |        |   |   |                 |   |   |
|---------------------------|---|---|---|-------------|---|---|----------------------|---|---|--------|---|---|-----------------|---|---|
|                           | Finland versus--                            |   |   |             |   |   | Netherlands versus-- |   |   |        |   |   | Sweden versus-- |   |   |
|                           | Mexico                                      |   |   | Netherlands |   |   | Mexico               |   |   | Sweden |   |   | Mexico          |   |   |
|                           | S   | C | I | S           | C | I | S                    | C | I | S      | C | I | S               | C | I |
| Availability              | 1   | 3 | - | -           | 2 | - | -                    | 2 | - | 1      | 4 | - | -               | 1 | - |
| Product consistency       | 1   | 3 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Reliable supply           | 1   | 3 | - | -           | 2 | - | -                    | 2 | - | 1      | 4 | - | -               | 1 | - |
| Quality meets standards   | 1   | 3 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Price                     | -   | 3 | 1 | -           | 2 | - | -                    | 2 | - | 1      | 4 | - | -               | 1 | - |
| Delivery time             | -   | 3 | 1 | -           | 2 | - | -                    | 2 | - | 1      | 3 | 1 | -               | 1 | - |
| Delivery terms            | -   | 4 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Discounts offered         | 1   | 3 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Quality exceeds           | 1   | 3 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Technical                 | -   | 4 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Product range             | -   | 4 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Minimum quantity          | -   | 4 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Extension of credit       | -   | 4 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| Packaging                 | -   | 4 | - | -           | 2 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |
| U.S. transportation costs | -   | 3 | - | -           | 1 | - | -                    | 2 | - | -      | 5 | - | -               | 1 | - |

**Note.--S=superior, C=comparable, and I=inferior.**

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

from each of the subject countries was always or frequently interchangeable with each other (table II-4).<sup>128</sup> In addition, 27 responses from importers and 30 responses from purchasers asserted that the imported products from each of the subject countries were always or frequently interchangeable among each other (table II-4).<sup>129</sup> Based on relatively few responses for specific third countries (not shown in the table),<sup>130</sup> all six responses of importers and all five responses of purchasers involving comparisons of the

<sup>128</sup> On the other hand, 9 responses from importers and 16 responses from purchases asserted that purified CMC produced in the United States and that imported from each of the subject countries was sometimes or never interchangeable with each other.

<sup>129</sup> On the other hand, 8 responses from importers and 11 responses from purchases asserted that purified CMC imported from each of the subject countries was sometimes or never interchangeable among each other.

<sup>130</sup> Reported by 4 U.S. importers and 12 U.S. purchasers.

U.S.-produced CMC with that imported from third countries asserted that the domestic product was always interchangeable with that imported from China, Germany, Italy, and Japan.

With regard to the Mexican purified CMC, the respondents claimed that 80 percent of the purified CMC imported from Mexico is sold to two customers, where one customer is a distributor and the other customer is an end user that will not purchase from Aqualon.<sup>131</sup> During the final phase of these investigations, importer questionnaire responses indicated that the distributor, S&G Resources,<sup>132</sup> accounted for \*\*\* percent of total U.S. imports of purified CMC from Mexico during January 2002-December 2004, while the end user, \*\*\* accounted for \*\*\* percent of these imports.<sup>133</sup> Amtex commented on four U.S. customers of \*\*\* for Amtex's Mexican purified CMC,<sup>134</sup> which Aqualon had discussed in its prehearing brief in its customer-by-customer price analysis.<sup>135</sup> For each of the four customers, \*\*\* Amtex asserted that the price data cited by Aqualon show that the Mexican products were priced higher than, equal to, or somewhat lower than prices of the Aqualon products for these four customers, which, according to Amtex, purchased the Mexican product as an alternative/backup source of supply.<sup>136</sup> \*\*\* purchased the imported Mexican purified CMC for only two quarters and it was priced higher than the domestic product in both quarters. \*\*\* purchased the imported Mexican product in only the last three quarters of 2004,<sup>137</sup> and the purchaser had indicated to Amtex that \*\*\*.<sup>138</sup> According to Amtex, \*\*\* reportedly purchased the domestic purified CMC for one its U.S. locations, and the imported Mexican purified CMC for another of its U.S. locations, the latter during 1999-2004,<sup>139</sup> after which it stopped buying the imported Mexican product because it reportedly substituted \*\*\* for the higher priced

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<sup>131</sup> \*\*\*.

<sup>132</sup> Aqualon indicated that it would not sell to S&G Resources, but that sales of the Mexican purified CMC by S&G Resources compete directly with sales by Aqualon (hearing transcript, p. 162 (Herak)).

<sup>133</sup> \*\*\* indicated in its purchaser questionnaire response during the final phase that the U.S. producer has been disqualified from supplying the firm (purchaser questionnaire response, section III-17). During the preliminary phase, \*\*\* reported in its importer questionnaire responses that \*\*\* had past quality problems with Aqualon that led the firm to try purified CMC from Mexico and found that this latter source had better quality than that of Aqualon (importer questionnaire responses, sections III-D-1 and IV-E-5). Aqualon indicated that it has hundreds of customers and from time to time it has quality complaints, but it was not aware of any business that it lost in the last few years due to a quality problem (hearing transcript, pp. 152-153 (Herak)).

<sup>134</sup> Amtex's posthearing brief, pp. 6-9.

<sup>135</sup> Petitioner's prehearing brief, exh. 3c. Aqualon asserted that the mere availability of Amtex product in the U.S. market has a profound impact on Aqualon and its customers; Aqualon asserted that Amtex is trying to expand sales of its purified CMC in the U.S. market, and noted that Amtex has opened a sales office in Chicago and a website (petitioner's posthearing brief, app. A, question 15—Amtex Customer Overlap).

<sup>136</sup> Aqualon asserted that purchaser questionnaire responses indicated that purified CMC produced in the United States was by far generally comparable to that imported from the subject countries, such that Aqualon asserted that, where nonprice factors are comparable, as they are between the U.S. produced and imported Mexican purified CMC, price becomes the most important factor concerning sales (petitioner's posthearing brief, app. A, question 22—Nonprice Reasons for Amtex Sales).

<sup>137</sup> \*\*\* contract price for the Mexican purified CMC reportedly was \*\*\* at \$\*\*\* per pound for one year and \*\*\* the domestic product in \*\*\*, but \*\*\* the domestic product in \*\*\* as the domestic producer \*\*\* its price (Amtex's posthearing brief, pp. 7-8).

<sup>138</sup> Amtex's posthearing brief, exh.1.

<sup>139</sup> Based on the reported price data, Amtex noted that, during January 2001-August 2004 (the last quarter for which price comparisons were available), the price of the imported Mexican purified CMC was either slightly higher or equal to that of the domestic product (Amtex's posthearing brief, p. 8).

purified CMC.<sup>140</sup> Amtex reports that \*\*\* has purchased the Mexican purified CMC for \*\*\* and the price data indicate that during September 2002-December 2004 (periods of price comparisons) prices of the Mexican product have been \*\*\* than prices of the domestic product.<sup>141</sup> Amtex also asserted that U.S. imports of purified CMC from Mexico during 2004, excluding those of \*\*\*, were less than what it asserts were U.S. imports of purified CMC from China during this period, the latter of which Aqualon has indicated were a very, very small volume of the total domestic market.<sup>142</sup>

In addition, all 37 responses of importers and 14 of 19 responses of purchasers involving comparisons of the purified CMC imported from each of the subject countries with that from third countries asserted that the subject imported product was always or frequently interchangeable with that imported from China,<sup>143</sup> Germany, Italy, and Japan, and that imported from the Netherlands and Brazil.

For responses regarding differences in factors other than price affecting competition among U.S.-produced and imported CMC, the U.S. producer and a total of 13 U.S. importers replied, but not for every country comparison (table II-5). The U.S. producer asserted that differences in nonprice factors among purified CMC produced in the United States, imported from the subject countries, and imported from third countries was sometimes or never significant among sales of the domestic and imported products (table II-5).<sup>144</sup> Twenty-four responses from importers asserted that differences in nonprice factors were sometimes or never significant involving sales of the U.S.-produced purified CMC and that imported from each of the subject countries (table II-5). On the other hand, 36 responses from importers asserted that differences in nonprice factors were always or frequently significant involving sales of the U.S.-produced purified CMC and that imported from each of the subject countries (table II-5). Fifteen responses from the three U.S. importers reporting on third countries (not shown in the table) asserted that differences in nonprice factors were sometimes significant involving sales of the U.S.-produced and imported purified CMC from each of the subject countries compared with that imported from China, Germany, Italy, and Japan;<sup>145</sup> whereas 13 responses from the importers asserted that nonprice factors were always significant involving these sales.

For purchaser responses regarding comparisons of countries-of-origin for the U.S.-produced and imported purified CMC, a total of 33 U.S. purchasers replied, but not for every country comparison (tables II-6a and II-6b). The 30 purchasers comparing the U.S.-produced purified CMC with that imported from each of the subject countries and comparing purified CMC among the subject countries asserted overwhelmingly that, for almost all 15 purchase factors, purified CMC from these countries was by far generally comparable to each other (tables II-6a and II-6b). Although based on far fewer responses and not shown in the tables, the seven purchasers comparing the U.S.-produced and imported purified CMC from each of the subject countries with that imported from specific third countries also found that purified CMC from these countries was generally comparable to each other; price was the purchase factor cited most frequently where the domestic and subject imported purified CMC was considered generally inferior to that from the third countries.<sup>146</sup>

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<sup>140</sup> Amtex's prehearing brief, exh. 1 and its posthearing brief, pp. 7-8.

<sup>141</sup> Amtex's posthearing brief, pp. 6-7.

<sup>142</sup> Amtex's posthearing brief, pp. 9-10 and hearing transcript, pp. 77-78 (Herak).

<sup>143</sup> The five remaining responses from purchasers involving the subject imported purified CMC asserted that the subject imported product from each of the subject countries was sometimes interchangeable with that imported from China.

<sup>144</sup> Aqualon did not identify specific third countries.

<sup>145</sup> There was no comparison between purified CMC imported from Sweden and Japan.

<sup>146</sup> The specific third countries cited were Brazil, China, Italy, and Japan.

## ELASTICITY ESTIMATES<sup>147</sup>

### U.S. Supply Elasticity

The domestic supply elasticity for purified CMC measures the sensitivity of the quantity supplied by the U.S. producer to a change in the U.S. market price of purified CMC. The elasticity of domestic supply depends on several factors including the U.S. producer's level of excess capacity, the ease with which the U.S. producer can alter its productive capacity, the existence of inventories, and the availability of alternate markets for U.S.-produced purified CMC.<sup>148</sup> Analysis of these factors indicates that, overall, the U.S. producer has some flexibility in the short run to alter its supply of purified CMC to the U.S. market in response to relative changes in the demand for its product, especially decreases in demand; thus, the domestic elasticity of supply is estimated to be in the range of 1-2 for increased demand and 3-5 for decreased demand.<sup>149</sup> This is a change from the single-range, symmetrical response of 3-5 suggested by the Commission staff in the prehearing report, and reflects the U.S. producer's currently \*\*\*.

Aqualon agreed with the staff's supply elasticity suggested in the prehearing report.<sup>150</sup>

Noviant made the following comments regarding the U.S. supply elasticity.<sup>151</sup> Noviant asserted that the domestic supply elasticity is not symmetrical under, according to Noviant, current market conditions of rising prices, growing aggregate demand, a domestic capacity utilization rate of \*\*\* percent, \*\*\*.<sup>152</sup> As a result, Noviant estimated the range of domestic supply elasticity at 3-5 in the downward direction and at 1-2 in the upward direction. Staff has adjusted its supply elasticity range to reflect an asymmetrical supply response.

### U.S. Demand Elasticity

The U.S. price elasticity of demand for purified CMC measures the sensitivity of the overall quantity demanded for this product to changes in the U.S. market price of purified CMC. The price elasticity of demand depends on the cost share of purified CMC in downstream products, the price elasticity of demand for downstream products, and the substitutability of other inputs for purified CMC in the downstream products. Based on available information, the demand elasticity for purified CMC is estimated to be in the range of -0.5 to -1.5.

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<sup>147</sup> The elasticity responses in this section refer to changes that could occur within 12 months, unless otherwise indicated. The staff's elasticity estimates were discussed in the prehearing report and available for comment by parties in their prehearing briefs, at the hearing, and/or in their posthearing briefs. The staff received comments from Aqualon and Noviant regarding the elasticity estimates and these comments are discussed below.

<sup>148</sup> Domestic supply response is generally assumed to be symmetrical for both an increase and a decrease in demand for the domestic product. Exceptions to this assumption occur when the supply response is restricted when demand increases (e.g., the domestic firm(s) operate near or at full capacity and any likely expansion in capacity would take more than 12 months to complete), or, more rarely, when demand decreases (e.g., the domestic firm(s) must operate at or near full capacity due to very high fixed costs).

<sup>149</sup> These estimates would increase if Aqualon \*\*\* (e-mail from \*\*).

<sup>150</sup> Staff telephone interview with \*\*\*.

<sup>151</sup> Noviant's prehearing brief, app. C.

<sup>152</sup> Noviant also asserted that, although the petitioner claims to be able \*\*\*, the fact that it has not done so in the last three years when subject import market share was falling detracts from the credibility of this claim, especially considering the other market circumstances described above (Noviant's prehearing brief, app. C.).

Aqualon agreed with the staff's demand elasticity suggested in the prehearing report.<sup>153</sup> Aqualon made the following additional comments regarding the U.S. demand elasticity.<sup>154</sup> Aqualon indicated that the demand elasticity for purified CMC depends on the cost share of purified CMC in downstream products, the demand elasticities of the downstream products, and the prices of substitutes and complements relative to price of purified CMC. Aqualon asserted that, based on purchaser questionnaire responses, the cost share of purified CMC in the downstream products was generally low,<sup>155</sup> the demand elasticities for the downstream products appear to be rather inelastic,<sup>156</sup> and the price effects of inputs related to purified CMC tend to be small. Aqualon asserted that the complementary use of other hydrocolloids with purified CMC reduces the effect of these hydrocolloids' prices as substitutes on the aggregate demand elasticity of purified CMC.<sup>157</sup>

Noviant made the following comments regarding the U.S. demand elasticity.<sup>158</sup> Noviant noted that the 21 substitute products identified by responding firms in their questionnaire responses covered mostly food and oilfield applications. These two demand sectors represented \*\*\* percent of total U.S. apparent consumption of all purified CMC in 2004. In addition, Noviant asserted that other hydrocolloids act more as substitutes than as complements vis-a-vis purified CMC and suggested that, where several such hydrocolloids are blended together, changes in relative prices of the other hydrocolloids and purified CMC might cause a total substitution or simply a change in the proportions that are combined in a blend.<sup>159</sup> On these bases, Noviant asserts that the U.S. demand elasticity in the range of -1.0 to -1.5 is appropriate.<sup>160</sup>

### **Substitution Elasticity<sup>161</sup>**

The elasticity of substitution largely depends upon the degree to which there is an overlap of competition between U.S.-produced and imported purified CMC, and product differentiation. Product differentiation, in turn, depends on such factors as physical characteristics (e.g., grades and quality) and

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<sup>153</sup> Staff telephone interview with \*\*\*.

<sup>154</sup> Petitioner's posthearing brief, app. A, question 26–Demand Elasticity Estimates.

<sup>155</sup> Aqualon noted specifically that 25 of 38 purchasers indicated in their questionnaire responses that the cost share of purified CMC was \*\*\* percent or less. (Petitioner's posthearing brief, app. A, question 26–Demand Elasticity Estimates).

<sup>156</sup> Aqualon asserted that the prices of oil and natural gas, not the price of drilling mud, determine drilling activity and the amount of drilling mud (and purified CMC) needed for this application. In addition, Aqualon noted that food and personal care products using purified CMC maintain a relatively constant growth based on GDP and population (hearing testimony, p. 90 (Herak)). (Petitioner's posthearing brief, app. A, question 26–Demand Elasticity Estimates).

<sup>157</sup> As an example, Aqualon suggested that a price change (decrease) for guar would have two quantity effects on purified CMC, one decreasing the amount of purified CMC used, and the other increasing the amount of purified CMC used, depending on the amount of purified CMC used as a substitute or complement, respectively, for guar. Aqualon asserted that both of these effects are likely to be small in the short-term. (Petitioner's posthearing brief, app. A, question 26–Demand Elasticity Estimates).

<sup>158</sup> Noviant's prehearing brief, app. C.

<sup>159</sup> Noviant's posthearing brief, exh. 1, 36-37.

<sup>160</sup> Ibid; Noviant's prehearing brief, app. C.

<sup>161</sup> The substitution elasticity measures the responsiveness of the relative U.S. consumption levels of the subject imports and the U.S. domestic like product to changes in their relative prices. This reflects how easily purchasers switch from the U.S. product to the subject imported product (or vice versa) when prices change.

conditions of sale (e.g., delivery lead times, reliability of supply, technical support/service, etc.). Based on available information discussed earlier, the elasticity of substitution between domestic purified CMC and the purified CMC imported from the subject European countries is estimated to be in the range of 2-4, while the substitution of elasticity between the domestic and imported Mexican purified CMC is estimated to be in the range of 1-3.

Aqualon agreed with the staff's substitution elasticity suggested in the prehearing report.<sup>162</sup>

Noviant made the following comments regarding the substitution elasticity.<sup>163</sup> Noviant asserted that the mix of imported purified CMC products from the subject countries in relation to each other, as well as the domestic like product is at least as distinct as the differentiation estimated by the staff with respect to Mexico versus the domestic like product. On this basis, Noviant asserts that the substitution elasticity for each European country should be the same as the range of 1-3 estimated for Mexico. Staff already considered differences between the U.S.-produced and subject imported purified CMC in its substitution elasticity ranges.

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<sup>162</sup> Staff telephone interview with \*\*\*.

<sup>163</sup> Noviant's prehearing brief, app. C.



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

Information on capacity, production, shipments, inventories, and employment is presented in this section of the report and is based on the questionnaire response of the sole U.S. producer of purified CMC, Aqualon Co., a Division of Hercules Inc., Wilmington, DE. Aqualon's U.S. production facilities for purified CMC are located in Hopewell, VA.<sup>1</sup> Hercules, Inc. has two foreign \*\*\* subsidiaries that also produce purified CMC, in France and China.<sup>2</sup>

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

Aqualon's production, capacity, and capacity utilization data are presented in table III-1. Aqualon does not produce other products on the same equipment and machinery used in the production of purified CMC; purified CMC accounted for \*\*\* percent of the firm's total production in 2004.<sup>3</sup> Aqualon's CMC production is \*\*\* operation, with production shut down only for routine and annual maintenance. With maintenance downtime taken into consideration, full capacity is defined as \*\*\* hour production per year. Using this criterion, the Hopewell, VA, purified CMC plant has a production capacity of \*\*\* pounds per year, and has operated at this rate in the past. To compensate for reduced demand, one of the \*\*\*, reducing capacity to about \*\*\* pounds per year. Aqualon has deferred a capital investment to \*\*\*, which would return the capacity to the original \*\*\* pounds.<sup>4</sup>

**Table III-1**  
**Purified CMC: U.S. capacity, production, and capacity utilization, 2002-04**

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

Aqualon's production quantity increased by about \*\*\* percent from 2002 to 2004. According to Aqualon, in 2003 the company made a conscious decision to regain market share at the expense of price and profit.<sup>5</sup>

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<sup>1</sup> Hercules began the U.S. CMC industry in 1945, then invested in its Hopewell, VA, facility in 1947 and has continuously produced CMC at Hopewell ever since that time. In the early days of CMC a few other U.S. producers entered the market but none stayed in the business for a long term. Hercules has been the sole U.S. producer of purified CMC since the mid-1970s. Conference transcript, pp. 26-27 (Herak). Hercules operates through two reportable segments and four divisions. Aqualon is part of the Performance Products Segment. Its principal products are water-soluble and solvent-soluble polymers, primarily cellulose derivatives. Aqualon accounted for about one-third of Hercules' reported \$1.8 billion worldwide net sales in 2003. Aqualon has application and development laboratories located in Europe, Asia, and the Americas. Hercules Annual Report 2003, website: [http://www.herc.com/shareholderinfo/annualreports/2003/2003\\_annual\\_report.pdf](http://www.herc.com/shareholderinfo/annualreports/2003/2003_annual_report.pdf), 6/23/2004.

<sup>2</sup> The firms are: Hercules France BV, Alizay, France, and Hercules Chemicals Jiangmen Pte. Ltd., Guangdong, China. Hercules, Inc. acquired Quantum Hi-Tech Biochemical Engineering Pte. Ltd., a Chinese CMC producer, on December 1, 2003. The Chinese company was subsequently renamed Hercules Chemicals Jiangmen Pte. Ltd. Aqualon's producer questionnaire response, sections I-2 and II-2.

<sup>3</sup> Aqualon's producer questionnaire response, section II-3.

<sup>4</sup> Aqualon's importer questionnaire response, section II-4.

<sup>5</sup> Petitioner's posthearing brief, p. 9 and exh. 4 (#7).

According to respondents, although demand for purified CMC remains static in most industries, Aqualon supplied customers in certain depressed industries that exhibited decreased demand.<sup>6</sup> Nonetheless, respondents contended that Aqualon’s domestic production (and other volume indicators) has been expanding \*\*\* and attributed previous production decreases to the combination of a decline in oil drilling activity, a decrease in exports, and the recession.<sup>7</sup>

### U.S. PRODUCER’S IMPORTS

Data covering Aqualon’s imports of purified CMC are presented in table III-2. Aqualon imports purified CMC from Hercules France BV, Alizay, France. The U.S. and French plants are each used to supply the majority needs of its “home” market. Aqualon reported no imports of purified CMC from Finland, Mexico, the Netherlands, or Sweden. Aqualon supplies the U.S. purified CMC market primarily from Hopewell, VA, and the European market is primarily supplied from the facility in France. Aqualon does, however, import CMC from Hercules France from time to time for two primary purposes. The company states these imports are primarily for technical reasons: first, to source a few specialty grades, which are more efficiently made at only one plant; therefore, \*\*\* the global demand for these grades; and second, to \*\*\*.<sup>8</sup> Aqualon’s nonsubject imports of purified CMC ranged from \*\*\* percent of its U.S. production during the period of investigation.

**Table III-2**  
**Purified CMC: Aqualon’s imports from nonsubject sources, 2002-04**

\* \* \* \* \*

### U.S. PRODUCER’S SHIPMENTS

Table III-3 presents Aqualon’s shipments during the period examined. The unit value of Aqualon’s U.S. commercial shipments of purified CMC fell by \$\*\*\* per pound from 2002 to 2004; the correlating quantity of Aqualon’s U.S. commercial shipments rose by \*\*\* percent. Aqualon’s export shipments exhibited a pattern of decreasing unit values (by \*\*\* per pound) and export quantities (by \*\*\* percent) during the period of investigation, with principal export markets in \*\*\*.<sup>9</sup>

**Table III-3**  
**Purified CMC: U.S. producer’s shipments, by type, 2002-04**

\* \* \* \* \*

Changes in demand for the major end-use applications for purified CMC, which are food, personal care/pharmaceuticals, paper, and oil drilling, may affect the U.S. producer’s U.S. shipments and

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<sup>6</sup> Conference transcript, pp. 120-121 (Bodicoat).

<sup>7</sup> Respondent’s joint postconference brief, p. 18.

<sup>8</sup> Aqualon’s importer questionnaire response (section II-4) and Aqualon’s posthearing brief, app. A., question 18 (Koplan).

<sup>9</sup> Petitioner reported that \*\*\* percent of products exported by Aqualon are subject to annual commitments. Petitioner’s posthearing brief, app. A, question 25 (Benedick).

exports. Food demand may be affected by dieting fads, such as the Atkins diet; oil drilling demand varies with changes in U.S. rig count; and demand for paper products exhibits a cyclical pattern.<sup>10</sup>

### U.S. PRODUCER'S INVENTORIES

Table III-4 presents data on Aqualon's inventories during the period. Aqualon's inventory levels increased steadily, by \*\*\* percent, during 2002-04 in response to increases in production and declines in internal consumption quantity and export shipment quantity. The ratios of end-of-period inventories to production, U.S. shipments, and total shipments decreased regularly during 2002-04.

**Table III-4**  
**Purified CMC: U.S. producer's end-of-period inventories, 2001-03, January-March 2003, and January-March 2004**

\* \* \* \* \*

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

Table III-5 shows Aqualon's employment-related data during the period of investigation. Aqualon's average number of production and related workers ("PRWs") and hours worked by PRWs decreased steadily by a net \*\*\* percent during 2002-04.<sup>11</sup> Wages paid to Aqualon's PRWs decreased irregularly, by an overall \*\*\* percent during 2002-04, however, as PRWs decreased during 2002-04, the hourly wages of the remaining PRWs increased regularly by \*\*\* percent over the period of investigation. The productivity of Aqualon's PRWs rose steadily, by \*\*\* percent, during 2002-04. Corresponding unit labor costs decreased regularly, by a net \$\*\*\* per pound during 2002-04.

**Table III-5**  
**Purified CMC: Average number of production and related workers, hours worked, wages paid to such employees, hourly wages, productivity, and unit labor costs, 2002-04**

\* \* \* \* \*

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<sup>10</sup> Conference transcript, p. 107 (Klett), pp. 143-144 (Malashevich); joint respondents' postconference brief, pp. 12-13.

<sup>11</sup> Petitioner argued that some of the decline in 2004 in total number of PRWs was due to the closure of the MCA plant, which was a captive producer of a source chemical used only in the production of CMC. Petitioner's prehearing brief, p. 49.



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

### U.S. IMPORTERS

The Commission sent questionnaires to 78 firms believed to be importers from Finland, Mexico, Netherlands, Sweden, and nonsubject sources of purified CMC, based on proprietary information provided by U.S. Customs and Border Protection (“Customs”). Questionnaire responses were received from 32 companies, including from the vast majority of importers from Finland, Mexico, the Netherlands, and Sweden.<sup>1</sup> Table IV-1 lists all responding U.S. importers and their quantity of imports, by source, in 2004. While 21 firms reported imports from the subject countries during January 2002-December 2004, 7 firms accounted for almost 85 percent of imports of purified CMC from subject sources during 2004: 3 distributors related to the producers in the subject European countries (Akzo, JM Huber, and Noviant) accounted for approximately \*\*\* percent of imports from subject sources, and 3 distributors (\*\*\*) and 1 end user (\*\*\*) in the oilfield sector accounted for approximately \*\*\* percent of imports from subject sources. While 16 firms reported imports of purified CMC from nonsubject sources during January 2002-December 2004, 2 firms accounted for almost \*\*\* percent of nonsubject imports of purified CMC during 2004: \*\*\* accounted for \*\*\* percent of imports from nonsubject sources (principally China), and Aqualon’s imports from France accounted for approximately \*\*\* percent of nonsubject imports.

**Table IV-1**  
**Purified CMC: Reported U.S. imports, by firm and by source, 2004**

\* \* \* \* \*

U.S. importers responding to the questionnaires were located in Arizona, California (3), Delaware, Georgia (5), Illinois, Kansas, Massachusetts, Maryland, Minnesota, New Jersey, New York (3), Ohio (3), Oklahoma, Pennsylvania, Tennessee (2), and Texas (6).<sup>2</sup>

### U.S. IMPORTS

During the period of investigation, purified CMC was provided for under a residual or “basket” HTS category (subheading 3912.31.00) which contained all purity levels of CMC including crude (technical) CMC and salts other than the subject sodium salt of CMC. Official Commerce statistics for the period of investigation thus are overly broad.<sup>3</sup> Data on U.S. imports of purified CMC from both the

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<sup>1</sup> In addition to the 32 responses, the Commission received 2 responses from very small volume nonsubject importers, 2 negative responses from customs brokers, and responses from 32 firms indicating that they did not import purified CMC during the period of investigation.

<sup>2</sup> One U.S. importer, \*\*\*, entered the subject product into or withdrew it from bonded warehouses. \*\*\*’s importer questionnaire response, section I-8. No importer entered the subject product into or withdrew it from foreign trade zones or imported the subject product under the temporary importation under bond (“TIB”) program.

<sup>3</sup> Effective January 1, 2005, pursuant to a request from Aqualon, imports of purified CMC are separately provided for under HTS statistical reporting number 3912.31.0010 with all other CMC products provided for under HTS statistical reporting number 3912.31.0090. Aqualon tariff classification request, July 26, 2004. A review of official Commerce statistics and proprietary Customs data for January-March 2005 indicate that imports of purified CMC have not been properly recorded since the tariff classification change. For example, no imports from China or France were reported under HTS statistical reporting number 3912.31.0010 for purified CMC, and significant quantities of imports of purified CMC (i.e., Customs entries having average unit values ranging from \$1.00 to \$1.54

subject and nonsubject countries presented in this report are from responses to Commission questionnaires. During 2002-04, responding firms' U.S. imports of purified CMC from the subject countries accounted for approximately \*\*\* percent of the quantity of reported purified CMC exports to the United States from the subject countries, approximately \*\*\* percent of exports to the United States from Finland, approximately \*\*\* percent of exports to the United States from Mexico, more than \*\*\* percent of exports to the United States from the Netherlands, and approximately \*\*\* percent of exports to the United States from Sweden.<sup>4</sup>

Table IV-2 presents data and figure IV-1 presents a graphic depiction of U.S. imports of purified CMC during the period of investigation. The four subject countries were the largest sources of U.S. imports of purified CMC and accounted for the vast majority of total U.S. imports throughout the period. Both the volume and value of U.S. imports of purified CMC from Finland, Mexico, and Sweden increased irregularly throughout the period examined; both the volume and value of U.S. imports of purified CMC from the Netherlands increased steadily throughout the period examined.

**Table IV-2**  
**Purified CMC: U.S. imports, by sources, 2002-04**

\* \* \* \* \*

**Figure IV-1**  
**Purified CMC: U.S. imports, by sources, 2002-04**

\* \* \* \* \*

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per pound) from the subject European countries were reported under HTS statistical reporting number 3912.31.0090 (all other CMC products) during January-March 2005. Importing firms reported that such imports of purified CMC were mistakenly entered under HTS statistical reporting number 3912.31.0090 since January 1, 2005. E-mails from: \*\*\*, May 27, 2005; May 31, 2005 e-mails from: \*\*\*, \*\*\*, and \*\*\*; and e-mail from \*\*\*, June 2, 2005. Reportedly, when the former HTS number is entered into the Customs database, the system defaults to the new "all other" HTS number. E-mail from Daniel Klett, Capital Trade, May 31, 2005. Importers indicated that future entries will be reported properly. In addition, PIERS information submitted to the Commission (e-mails from \*\*\*, May 18, 2005) which indicated that imports of purified CMC from China during January-March 2005 were misclassified under HTS heading \*\*\*, and subheadings \*\*\*, was found to be inaccurate following a review of proprietary Customs data and information provided by importers. E-mails from: \*\*\*, May 26, 2005; and \*\*\*, May 27, 2005.

<sup>4</sup> Import and export data inconsistencies in questionnaire responses regarding purified CMC from Sweden as reported in the prehearing staff report have been resolved. E-mail from Matthew Clark, Arent Fox, May 11, 2005. Therefore, subject imports from Sweden in this final staff report are based on importer questionnaire responses, with the following adjustment: \*\*\*.

Nonsubject imports of purified CMC were sourced principally from China<sup>5</sup> and France.<sup>6</sup> Both the volume and value of U.S. imports from nonsubject sources increased steadily during the period of investigation, and accounted for \*\*\* percent of total U.S. imports during 2004. From 2003 to 2004 imports of the subject product from France and China increased by \*\*\* percent and \*\*\* percent, respectively, while imports from all other nonsubject sources (principally Japan) decreased by \*\*\* percent.

### CUMULATION CONSIDERATIONS

In assessing whether imports compete with each other and with the domestic like product, the Commission has generally considered four factors: (1) the degree of fungibility, including specific customer requirements and other quality related questions; (2) the presence of sales or offers to sell in the same geographical markets; (3) common channels of distribution; and (4) simultaneous presence in the market. Channels of distribution are discussed in *Part I* of this report; fungibility, geographical markets, and presence in the market are discussed below.

#### Fungibility and Presence in the Market

Table IV-3 present shares (based on quantity) of U.S. commercial shipments and U.S. importers' U.S. shipments by end-use applications.<sup>7</sup> The data indicate that, during the period of investigation, U.S.-produced purified CMC, as well as imports from the Netherlands and Sweden were present, to varying degrees, in all five end-use segments of the purified CMC market. U.S. imports from Finland were present in three of five end-use segments, and U.S. imports from Mexico were present, to varying degrees, in four of five end-use segments.<sup>8</sup> Imports from three subject countries were present in the food end-use application category, which accounted for \*\*\* percent of reported subject imports during 2004. In addition, 80 percent of shipments of imports from the subject countries were entered under three of the four delineated end-use application categories. Appendix E, table E-1 contains details of data concerning U.S. shipments of purified CMC by end use. Additional discussion of fungibility is presented in *Part II*.

**Table IV-3**  
**Purified CMC: Shares of U.S. shipments of domestically produced and imported products, by end use, 2002-04**

\* \* \* \* \*

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<sup>5</sup> On December 1, 2003, Hercules, Inc. acquired Quantum Hi-Tech Biochemical Engineering Pte. Ltd. ("Quantum Hi-Tech"), a Chinese CMC producer. The Chinese company was subsequently renamed Hercules Chemicals Jiangmen Pte. Ltd. ("Hercules Jiangmen"). During these final phase investigations, parties differed as to the significance of Aqualon's Chinese affiliate's presence in the U.S. market. Noviant's prehearing brief, p. 62; hearing transcript, p. 46 (Herak) and pp. 175-176 (Malashevich); petitioner's posthearing brief, p. 13, and Noviant's posthearing brief, pp. 14-15. With respect to U.S. imports for consumption during 2002-2004, the only imports of purified CMC from Quantum Hi-Tech were reported by \*\*\* and occurred in 2002 and 2003 (based on \*\*\*'s importer questionnaire response, section II-7, fn. 2, and a review of proprietary Customs data). There were no reported imports of purified CMC from Hercules Jiangmen during the period of investigation (based on a review of responses to the Commission's importers' questionnaire and proprietary Customs data).

<sup>6</sup> \*\*\* imports from France are attributed to Aqualon.

<sup>7</sup> App. E, table E-1 presents complete end-use data, by sources, for the period of investigation.

<sup>8</sup> There were no imports from Finland present in the food and personal care segments nor were there any imports from Mexico in the paper & board sector.

## Geographical Markets

Purified CMC products produced in the United States are reportedly shipped nationwide. While imports of purified CMC from the subject countries may enter select Customs districts, such products are then generally sold nationwide.<sup>9</sup> Table IV-4 presents information on shares of U.S. imports of purified CMC entered by regions and Customs districts during 2002-04. Imports of purified CMC from Finland and Mexico principally enter through Customs districts in the South while imports of the subject product from the Netherlands and Sweden principally enter through districts in the East.

**Table IV-4**

**Purified CMC: U.S. imports by sources and Customs districts, 2002-04**

| Region   | Finland                                   |       |       | Mexico           |                  |                  | Netherlands |       |       | Sweden |       |       |
|--|---|-------|-------|------------------|------------------|------------------|-------------|-------|-------|--------|-------|-------|
|  | 2002                                      | 2003  | 2004  | 2002             | 2003             | 2004             | 2002        | 2003  | 2004  | 2002   | 2003  | 2004  |
|  | <b>Shares of total quantity (percent)</b> |       |       |                  |                  |                  |             |       |       |        |       |       |
| East <sup>1</sup>  | 42.3                                      | 30.6  | 26.6  | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 67.0        | 64.0  | 66.1  | ***    | ***   | ***   |
| South <sup>3</sup>   | 42.8                                      | 63.7  | 50.8  | 100.0            | 100.0            | 100.0            | 10.4        | 12.8  | 22.9  | ***    | ***   | ***   |
| West <sup>4</sup>  | 12.6                                      | 2.3   | 7.6   | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 2.4         | 4.5   | 2.1   | ***    | ***   | ***   |
| Midwest <sup>5</sup>   | 2.2                                       | 3.4   | 15.0  | ( <sup>2</sup> ) | ( <sup>2</sup> ) | ( <sup>2</sup> ) | 20.2        | 18.7  | 8.9   | ***    | ***   | ***   |
| Total  | 100.0                                     | 100.0 | 100.0 | 100.0            | 100.0            | 100.0            | 100.0       | 100.0 | 100.0 | 100.0  | 100.0 | 100.0 |
| <sup>1</sup> Includes Ogdensburg, NY; New York, NY; Philadelphia, PA; Baltimore, MD; Norfolk, VA; Charlotte, NC; Charleston, SC; and Savannah, GA.<br><sup>2</sup> Not applicable; none reported.<br><sup>3</sup> Includes Mobile, AL; New Orleans, LA; Laredo, TX; Houston/Galveston, TX; and San Juan, PR.<br><sup>4</sup> Includes Los Angeles, CA; San Francisco, CA; Columbia-Snake, OR; Seattle, WA; Anchorage, AK, and Great Falls, MT.<br><sup>5</sup> Includes Pembina, ND; Detroit, MI; Chicago, IL; Cleveland, OH; and St. Louis, MO. |   |       |       |                  |                  |                  |             |       |       |        |       |       |
| Source: Compiled from proprietary Customs data (adjusted).   |   |       |       |                  |                  |                  |             |       |       |        |       |       |

## APPARENT U.S. CONSUMPTION

Data on apparent U.S. consumption of purified CMC are based on U.S. producers' and importers' shipments as reported in the Commission's questionnaires. Data on apparent U.S. consumption of purified CMC are presented in table IV-5 and graphically depicted by end-use applications in figure IV-2. Additional tables containing summary data on apparent U.S. consumption are presented in appendix C.

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<sup>9</sup> During the preliminary phase of the investigations, respondents indicated that "(n)o party disputes that subject imports from the subject countries compete in the same geographic market and are simultaneously present in the market." Joint respondents' postconference brief, p. 46, fn 65.



**Table IV-5**  
**Purified CMC: U.S. producer's U.S. shipments, U.S. shipments of imports, by sources, and**  
**apparent U.S. consumption, 2002-04**

| Item  | Calendar year                  |         |         | Period changes |         |         |
|---|--------------------------------|---------|---------|----------------|---------|---------|
|   | 2002                           | 2003    | 2004    | 2002-04        | 2002-03 | 2003-04 |
|   | <b>Quantity (1,000 pounds)</b> |         |         | <b>Percent</b> |         |         |
| U.S. producer's U.S. shipments              | ***                            | ***     | ***     | ***            | ***     | ***     |
| U.S. shipments of imports from--<br>Finland | ***                            | ***     | ***     | ***            | ***     | ***     |
| Mexico                                      | ***                            | ***     | ***     | ***            | ***     | ***     |
| Netherlands                                 | ***                            | ***     | ***     | ***            | ***     | ***     |
| Sweden                                      | ***                            | ***     | ***     | ***            | ***     | ***     |
| Subtotal, subject                           | ***                            | ***     | ***     | ***            | ***     | ***     |
| China                                       | ***                            | ***     | ***     | ***            | ***     | ***     |
| France                                      | ***                            | ***     | ***     | ***            | ***     | ***     |
| All other sources                           | ***                            | ***     | ***     | ***            | ***     | ***     |
| Subtotal, nonsubject                        | ***                            | ***     | ***     | ***            | ***     | ***     |
| Total all sources                           | ***                            | ***     | ***     | ***            | ***     | ***     |
| Apparent consumption                        | 51,035                         | 62,912  | 73,655  | 44.3           | 23.3    | 17.1    |
|   | <b>Value (1,000 dollars)</b>   |         |         |                |         |         |
| U.S. producer's U.S. shipments              | ***                            | ***     | ***     | ***            | ***     | ***     |
| U.S. shipments of imports from--<br>Finland | ***                            | ***     | ***     | ***            | ***     | ***     |
| Mexico                                      | ***                            | ***     | ***     | ***            | ***     | ***     |
| Netherlands                                 | ***                            | ***     | ***     | ***            | ***     | ***     |
| Sweden                                      | ***                            | ***     | ***     | ***            | ***     | ***     |
| Subtotal, subject                           | ***                            | ***     | ***     | ***            | ***     | ***     |
| China                                       | ***                            | ***     | ***     | ***            | ***     | ***     |
| France                                      | ***                            | ***     | ***     | ***            | ***     | ***     |
| All other sources                           | ***                            | ***     | ***     | ***            | ***     | ***     |
| Subtotal, nonsubject                        | ***                            | ***     | ***     | ***            | ***     | ***     |
| Total all sources                           | ***                            | ***     | ***     | ***            | ***     | ***     |
| Apparent consumption                        | 88,718                         | 103,171 | 118,946 | 34.1           | 16.3    | 15.3    |

Table continued on next page.

**Table IV-5--Continued**

**Purified CMC: U.S. producer's U.S. shipments, U.S. shipments of imports, by sources, and apparent U.S. consumption, 2002-04**

| Item   | Calendar year                 |       |       | Period changes |         |         |
|--|-------------------------------|-------|-------|----------------|---------|---------|
|  | 2002                          | 2003  | 2004  | 2002-04        | 2002-03 | 2003-04 |
|  | <i>Unit value (per pound)</i> |       |       | <i>Percent</i> |         |         |
| U.S. producer's U.S. shipments   | \$***                         | \$*** | \$*** | ***            | ***     | ***     |
| U.S. shipments of imports from--   |                               |       |       |                |         |         |
| Finland  | ***                           | ***   | ***   | ***            | ***     | ***     |
| Mexico   | ***                           | ***   | ***   | ***            | ***     | ***     |
| Netherlands  | ***                           | ***   | ***   | ***            | ***     | ***     |
| Sweden   | ***                           | ***   | ***   | ***            | ***     | ***     |
| Subtotal, subject  | ***                           | ***   | ***   | ***            | ***     | ***     |
| China  | ***                           | ***   | ***   | ***            | ***     | ***     |
| France   | ***                           | ***   | ***   | ***            | ***     | ***     |
| All other sources  | ***                           | ***   | ***   | ***            | ***     | ***     |
| Subtotal, nonsubject   | ***                           | ***   | ***   | ***            | ***     | ***     |
| Total all sources  | ***                           | ***   | ***   | ***            | ***     | ***     |
| Apparent consumption   | 1.74                          | 1.64  | 1.61  | -7.1           | -5.7    | -1.5    |
| Note.--Because of rounding, figures may not add to the totals shown.           |                               |       |       |                |         |         |
| Source: Compiled from data submitted in response to Commission questionnaires. |                               |       |       |                |         |         |

**Figure IV-2**

**Purified CMC: U.S. apparent consumption by end uses, 2002-04**

\* \* \* \* \*

Both the quantity and value of the U.S. producer's U.S. shipments increased during 2002-04 as did both the quantity and value of U.S. shipments of subject imports from Finland and the Netherlands and from nonsubject countries. The quantity of U.S. shipments of subject imports from Mexico increased irregularly during 2002-04 while the value of those shipments decreased irregularly. Both the quantity and value of U.S. shipments of subject imports from Sweden decreased irregularly during the period for which data were gathered. The resultant apparent U.S. consumption increased steadily in both quantity and value during 2002-04.

Trends in apparent consumption were influenced by increasing demand, particularly in the oilfield sector, and reported lower purified CMC unit values in the food, personal care, paper and board, and oilfield sectors.

## U.S. MARKET SHARES

Data on market shares in the U.S. market for purified CMC are presented in table IV-6. Additional tables containing summary data on apparent U.S. consumption are presented in appendix C. The U.S. producer's U.S. shipments market share quantity increased \*\*\* percentage points, from \*\*\* percent during 2002 to \*\*\* percent during 2004, with a corresponding irregular increase in market share value of \*\*\* percentage points from \*\*\* percent during 2002 to \*\*\* percent during 2004. Aggregate U.S. shipments of imports of purified CMC from the subject countries accounted for \*\*\* percent of apparent consumption quantity and \*\*\* percent of apparent consumption value during 2002. These levels decreased to \*\*\* percent of quantity and \*\*\* percent of value during 2003 and then decreased to \*\*\* percent of quantity and \*\*\* percent in value during 2004. During the period of investigation, the market share held by imports of purified CMC from nonsubject sources increased from \*\*\* percent to \*\*\* percent, based on quantity, and from \*\*\* percent to \*\*\* percent, based on value.

**Table IV-6**  
**Purified CMC: Apparent U.S. consumption and market shares, 2002-04**

\* \* \* \* \*

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

Information concerning the ratio of subject imports to U.S. production of purified CMC is presented in table IV-7. Aggregate subject imports were equivalent to \*\*\* percent of U.S. production during 2002. This level decreased to \*\*\* percent during 2003 and then decreased to \*\*\* percent during 2004. The ratios for each of the subject countries individually decreased from 2002 to 2004.

**Table IV-7**  
**Purified CMC: U.S. production and ratio of U.S. imports to U.S. production, by sources, 2002-04**

\* \* \* \* \*



## PART V: PRICING AND RELATED DATA

### FACTORS AFFECTING PRICING

Prices of purified CMC can fluctuate based on demand factors such as the general business cycle and sectoral demand fluctuations (e.g., food,<sup>1</sup> oilfield, paper & board, and the personal care/cosmetics/pharmaceuticals sectors). On the supply side, prices of purified CMC can also differ by the size of an order, technical support/service, and by a number of product features, including, but not restricted to, purity,<sup>2</sup> viscosity,<sup>3</sup> degree of chemical substitution,<sup>4</sup> particle size, and solution characteristics.<sup>5</sup>

Purified CMC acts as a thickener, binder, stabilizer protective colloid, suspension agent, and is particularly useful as a flow-control aid in water-based solutions for a wide variety of final products. A number of alternative input products may substitute to some extent for CMC as relative prices of these alternatives change vis-a-vis prices of purified CMC. Part II discusses in detail substitution between purified CMC and alternative input products.

#### Raw Material Costs, Tariff Rates, and Transportation Costs to the U.S. Market

The principal raw material inputs used to produce domestic purified CMC are cellulose (wood pulp and/or cotton linters), monochloroacetic acid (“MCA”), and caustic soda. Total raw material costs averaged about \*\*\* of Aqualon’s total costs of goods sold for purified CMC produced in the United States during January 2002-December 2004.

The U.S. normal trade relations *ad valorem* import duty rate was 6.4 percent for imports of purified CMC under HTS subheading 3912.31.00 during January 2002-December 2004. In addition, under the NAFTA Canada/Mexico Preference, purified CMC under the above HTS subheading qualifying for North American treatment was accorded a zero duty rate during January 2002-December 2004.

During January 2002-December 2004, transportation charges for imports of purified CMC from each of the subject countries to the U.S. ports of entry, as a share of U.S. official customs values, averaged 5.6 percent for Finland and for Sweden, 4.0 percent for the Netherlands, and 1.2 percent for Mexico.

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<sup>1</sup> Purified CMC contained in food products is frequently referred to as cellulose gum.

<sup>2</sup> Aqualon reported that all of its purified CMC is produced at least at the 98 percent purity level, so that increasing purity does not impact the firm’s cost very significantly (hearing transcript, p. 75 (Herak)).

<sup>3</sup> Aqualon reported that purified CMC at a specific purity level can be produced with a range of viscosities. Products with very high viscosities require cotton as the cellulose base, and cotton is typically more expensive than wood for the cellulose (hearing transcript, pp. 72 and 74 (Herak)).

<sup>4</sup> This refers to the degree of substitution of carboxymethyl for hydroxyl groups.

<sup>5</sup> Aqualon reported that its costs vary by 10-15 percent across the range of purified CMC products that it produces, with the primary difference in cost related to the materials in the recipes for the various products (hearing transcript, pp. 74-75 (Herak)).

## U.S. Inland Transportation Costs

Aqualon and the subject importers reported in their questionnaire responses that U.S.-inland freight costs averaged \*\*\* percent or less of delivered selling prices to their U.S. customers.<sup>6</sup> Aqualon reported that its U.S. freight costs averaged \*\*\* percent during January 2002-December 2004, when it shipped \*\*\* percent of its domestic sales of its U.S.-produced purified CMC to U.S. customers located within 100 miles of its U.S. plant/warehouse facilities, \*\*\* percent between 101 and 1,000 miles, and \*\*\* percent over 1,000 miles.<sup>7</sup> The U.S. importer-distributors of the subject European purified CMC reported similar U.S. freight costs that averaged 2.3 percent during January 2002-December 2004, when they shipped about 34.4 percent of their subject imported purified CMC to U.S. customers within 100 miles from their U.S. shipping locations, 71.0 percent between 101 and 1,000 miles, and 5.0 percent over 1,000 miles.<sup>8</sup> The U.S. importer-distributors of the Mexican purified CMC reported that their U.S. freight costs averaged \*\*\* percent during January 2002-December 2004, when they shipped about \*\*\* percent of their subject imported purified CMC to U.S. customers within 100 miles from their U.S. shipping locations, and the remaining \*\*\* percent between 101 and 1,000 miles.<sup>9</sup>

## Exchange Rates

Figures V-1 through V-4 show quarterly nominal and real exchange rate indices (the latter are nominal exchange rates adjusted for relative rates of inflation)<sup>10</sup> of the currencies of Finland, Mexico, the Netherlands, and Sweden relative to the U.S. dollar during January 2002-December 2004.<sup>11</sup> The quarterly nominal and real exchange rates of each of the subject countries vis-a-vis the U.S. dollar fluctuated but tended to move together for each country.<sup>12</sup> The exchange rates of the three subject European countries appreciated against the U.S. dollar during the period, while the Mexican peso depreciated against the U.S. dollar.

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<sup>6</sup> Aqualon and seven importers reported selling the U.S.-produced and subject imported purified CMC nationally, whereas five importers reported selling the subject imported purified CMC to various regions in the United States (producer and importer questionnaire responses, sections IV-B-8 and III-B-8, respectively).

<sup>7</sup> Producer questionnaire responses, section IV-B-7.

<sup>8</sup> Importer questionnaire responses, section III-B-7.

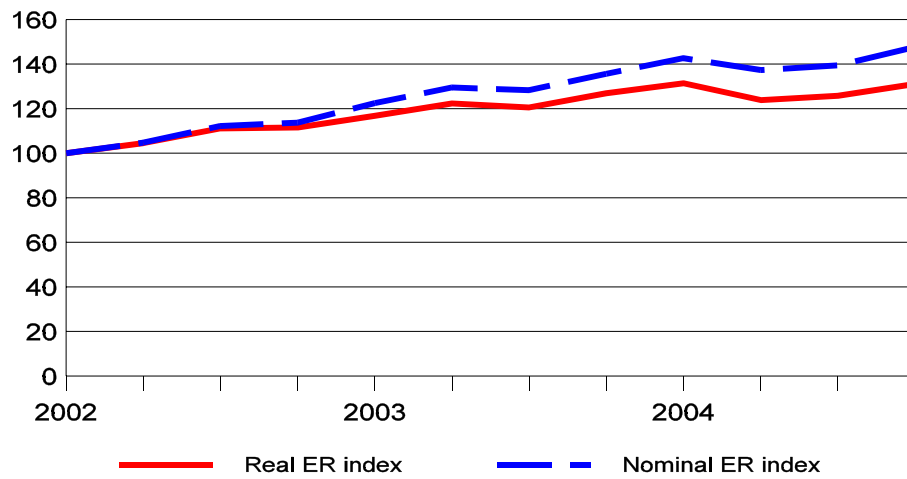
<sup>9</sup> Ibid.

<sup>10</sup> The quarterly nominal and real exchange rate indices were calculated from quarterly-average nominal exchange rates and producer price indices reported by the IMF for each country. The exchange rate indices were based on exchange rates expressed in U.S. dollars per unit of the foreign currency, such that index numbers below 100 represent depreciation and numbers above 100 represent appreciation of the foreign currency vis-a-vis the U.S. dollar. The quarterly real exchange rate indices were calculated from nominal exchange rates, producer/wholesale price indices in the subject countries, and the producer price index in the United States.

<sup>11</sup> The exchange rates for Finland and the Netherlands are shown in U.S. dollars per euro as these countries are members of the European Economic and Monetary Union and no longer have individual national currencies. On the other hand, Sweden is a member of the European Economic Union but retains its national currency, therefore, its exchange rate is shown in U.S. dollars per Swedish kronor.

<sup>12</sup> Modest increases in the quarterly producer price indices in the four subject countries, particularly in the three subject European countries, during January 2002-December 2004 resulted in fairly similar fluctuations in the nominal and real exchange rates of each of these countries vis-a-vis the U.S. dollar. Relatively lower inflation in the three subject European countries than in the United States led to somewhat less real appreciation of the foreign currencies vis-a-vis the U.S. dollar compared to the nominal appreciation rates. On the other hand, relatively higher inflation in Mexico than in the United States led to somewhat less real depreciation of the Mexican peso vis-a-vis the U.S. dollar compared to the nominal depreciation rate.

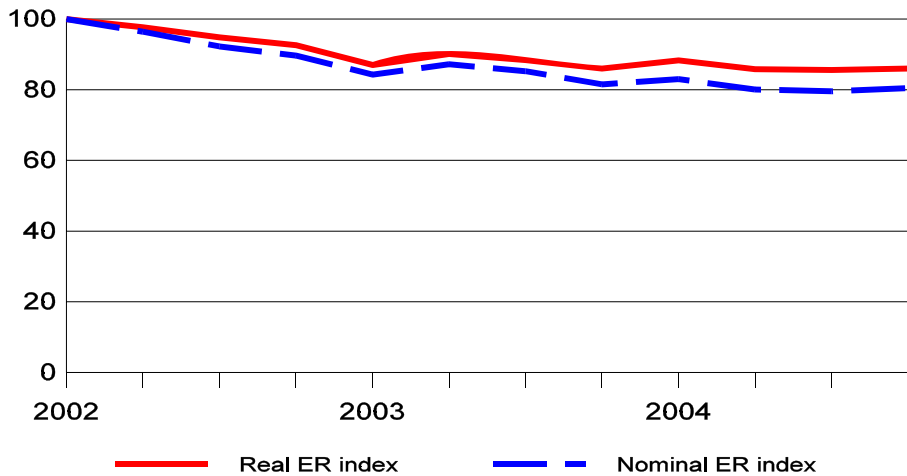
**Figure V-1**  
**Real and nominal exchange rate indices of the euro for Finland relative to the U.S. dollar, by quarters, January 2002-December 2004**



Note: Index (Jan.-Mar. 2001=100). Exchange rates are in U.S. dollars per euro.

Source: International Monetary Fund, *International Financial Statistics*, March 2005.

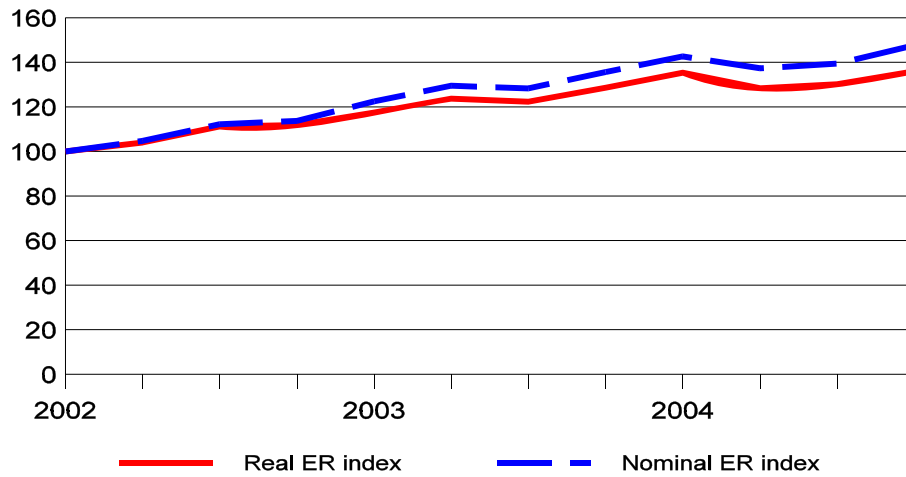
**Figure V-2**  
**Real and nominal exchange rate indices of the Mexican peso relative to the U.S. dollar, by quarters, January 2002-December 2004**



Note: Index (Jan.-Mar. 2001=100). Exchange rates are in U.S. dollars per Mexican peso.

Source: International Monetary Fund, *International Financial Statistics*, March 2005.

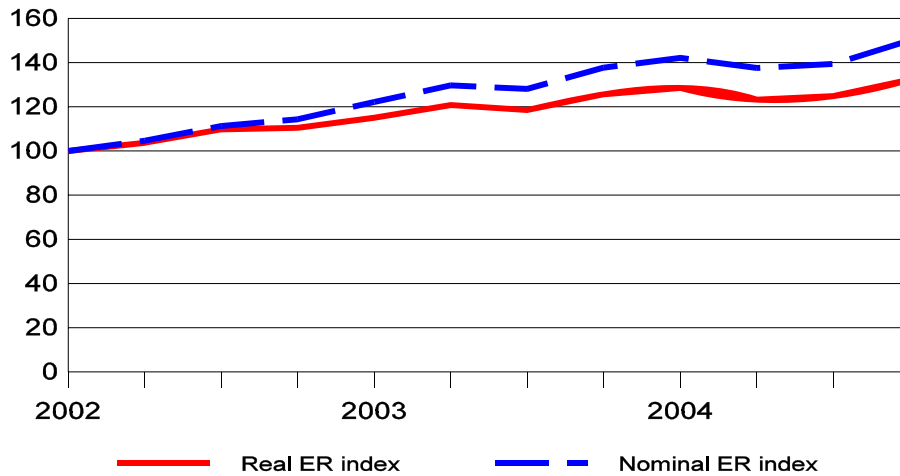
**Figure V-3**  
**Real and nominal exchange rate indices of the euro for the Netherlands relative to the U.S. dollar, by quarters, January 2002-December 2004**



**Note:** Index (Jan.-Mar. 2001=100). Exchange rates are in U.S. dollars per euro.

**Source:** International Monetary Fund, *International Financial Statistics*, March 2005.

**Figure V-4**  
**Real and nominal exchange rate indices of the Swedish kronor relative to the U.S. dollar, January 2002-December 2004**



**Note:** Index (Jan.-Mar. 2001=100). Exchange rates are in U.S. dollars per Swedish kronor.

**Source:** International Monetary Fund, *International Financial Statistics*, March 2005.



The quarterly nominal value of the euro vis-a-vis the U.S. dollar, applicable for Finland and the Netherlands, generally appreciated against the U.S. dollar, by 47.7 percent during January 2002-December 2004 (figures V-1 and V-3). Similarly, the real value of the euro for Finland generally appreciated against the U.S. dollar, by 31.1 percent during January 2002-December 2004, while the real value of the euro for the Netherlands appreciated against the U.S. dollar by 36.0 percent during this period.

The quarterly nominal value of the Mexican peso generally depreciated against the U.S. dollar, by 19.5 percent during January 2002-December 2004 (figure V-2). Similarly, the real value of the Mexican peso generally depreciated against the U.S. dollar by 14.0 percent during this period.

The quarterly nominal value of the Swedish kronor generally appreciated against the U.S. dollar, by 50.1 percent during January 2002-December 2004 (figure V-4). Similarly, the real value of the kronor generally appreciated against the U.S. dollar by 31.1 percent during this period.

### PRICING PRACTICES<sup>13</sup>

Aqualon reported that \*\*\* percent of its total U.S. sales quantity of its U.S.-produced purified CMC during January 2002-December 2004 was on a spot basis, \*\*\* percent was on a short-term basis, and \*\*\* percent was on a long-term basis during January 2002-December 2004.<sup>14</sup> The U.S. importers of the purified CMC from Finland, the Netherlands, and Sweden that sold their products reported U.S. sales by length of sales agreements that were similar to each other during this period, whereas importers of the Mexican purified CMC reported a different mix of sales agreements. Based on combined shipment quantities of the subject imported European purified CMC during this period, 1.0 percent of the total was on a spot basis, 76.2 percent was on a short-term basis, and 22.8 percent was on a long-term basis.<sup>15</sup> Based on shipment quantities of the subject imported Mexican purified CMC, \*\*\* percent of the total was on a spot basis and the remaining \*\*\* percent was on a short-term basis.<sup>16</sup> For spot sales, Aqualon and the U.S. importers reported that prices were typically based on list prices. Aqualon and the U.S. importers reported that long-term agreements generally do not extend beyond 36 months, while short-term sales are typically for 12 months, but can range from 40 days to six months.<sup>17</sup> Both types of latter sales agreements typically fixed price and quantity, although sometimes long-term sales agreements may fix only price. For both long-term and short-term sales, Aqualon and the U.S. importers reported that prices were typically negotiated and were based on a number of factors, including volume, product types, the specific industry, competitive situation, type and amount of technical service needed, and value-in-use.<sup>18</sup> Thirty-three of 47 responding purchasers reported that their purchase prices of purified CMC were established through negotiations with their suppliers, while the remaining 14 firms indicated that

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<sup>13</sup> Information on pricing practices discussed here was based on questionnaire responses of the U.S. producer and importers of purified CMC, unless otherwise noted.

<sup>14</sup> Producer questionnaire responses, section IV-B-1. Spot sales are usually one-time delivery, within 30 days of the purchase agreement; short-term sales are for multiple deliveries for up to 12 months after the purchase agreement; and long-term sales are for multiple deliveries for more than 12 months after the purchase agreement.

<sup>15</sup> Importer questionnaire responses, section III-B-1.

<sup>16</sup> Ibid.

<sup>17</sup> Aqualon indicated during the preliminary phase of these investigations that the one year sales agreements were typically negotiated in the fall of each year (petitioner's postconference brief, p. 1).

<sup>18</sup> \*\*\* (Noviant's importer questionnaire response, section III-B-4).

suppliers set the price.<sup>19</sup> Thirty-seven of 46 responding purchasers reported that they did not mention competing prices to their suppliers when obtaining a price for purified CMC, while the remaining 9 firms indicated that they did mention competing prices.<sup>20</sup> All 48 responding purchasers reported that they did not purchase purified CMC on the internet; \*\*\* was one of these 48 firms.<sup>21</sup>

More than 90 percent of the purified CMC produced domestically and imported from the subject countries was shipped to end users and the remaining amount to distributors during January 2002-December 2004.<sup>22</sup> Aqualon reported that it quoted prices of the domestically produced purified CMC on a delivered basis during January 2002-December 2004, whereas three importers reported quoting prices only on a U.S. f.o.b. warehouse basis,<sup>23</sup> four importers reported quoting prices mostly on a delivered basis with their remainder price quotes on a f.o.b. warehouse basis,<sup>24</sup> and three importers reported quoting prices only on a delivered basis.<sup>25</sup> Payment terms of net 30 days were offered by Aqualon and 5 of the 10 responding importers; 3 of the 10 importers offered longer payment terms ranging from 45 to 60 days, while the remaining 2 importers offered 1 to 2 percent discounts for payments within 10 days.<sup>26</sup> Aqualon and the responding importers reported during the preliminary phase of these investigations that they typically do not absorb any U.S. freight to their customers.

Aqualon reported that it does not have a standard discount policy, however, \*\*\*.<sup>27</sup> The U.S. importers reported that they also have no standard discount policy, but that the size of the order plays a role in the price offered.<sup>28</sup> Twenty-one of 28 responding purchasers reported that larger purchase volumes of purified CMC led to reduced prices, while the remaining 7 purchasers were not able to determine whether purchase volumes affected pricing.<sup>29</sup>

Both Aqualon and the responding importers reported offering technical services,<sup>30</sup> where the costs of these services were included in the prices of their purified CMC produced domestically and imported from the subject countries.

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<sup>19</sup> Purchaser questionnaire responses, section III-17.

<sup>20</sup> Purchaser questionnaire responses, section III-17.

<sup>21</sup> Purchaser questionnaire responses, section III-6.

<sup>22</sup> Producer and importer questionnaire responses, sections II-11 and II-7, respectively. Based on combined imports from all subject countries, including imports of both end users and distributors.

<sup>23</sup> Two of these three importers reported that the U.S. purchasers arrange the freight, while the remaining importer reported that it arranged U.S. freight to its customers.

<sup>24</sup> All four of these importers reported that they arranged U.S. freight to their customers for their f.o.b. sales.

<sup>25</sup> Producer and importer questionnaire responses, sections IV-B-5 and III-B-5, respectively.

<sup>26</sup> Ibid.

<sup>27</sup> Producer questionnaire responses, section IV-B-6.

<sup>28</sup> Importer questionnaire responses, section III-B-6.

<sup>29</sup> Purchaser questionnaire responses, section III-17.

<sup>30</sup> Aqualon and the responding U.S. importers reported offering what appear to be similar technical services. \*\*\* (Aqualon's producer questionnaire response, section IV-B-12). \*\*\* (Noviant's importer questionnaire response, section III-B-12).

Aqualon reported that its domestic sales of the U.S.-produced purified CMC are \*\*\* and typically require \*\*\* days from the time the order is placed to when the product is delivered.<sup>31</sup> U.S. importers of purified CMC from the subject European countries reported shipping 91.0 percent of the quantity of their U.S. sales from U.S. inventories and the remaining 9.0 percent directly from the foreign producers during January 2002-December 2004,<sup>32</sup> while importers of the purified CMC from Mexico reported shipping \*\*\* percent of the quantity of their U.S. sales from U.S. inventories and the remaining \*\*\* percent directly from the foreign producers.<sup>33</sup> Based on shipments from U.S. inventories, order lead times for the subject European purified CMC averaged approximately 4 days and order lead times for the Mexican products averaged approximately \*\*\* days.<sup>34</sup> Based on shipments direct from the foreign producer, order lead times for the subject European products averaged approximately 8 weeks,<sup>35</sup> while order lead times for the Mexican products were almost \*\*\* weeks.<sup>36</sup>

Twenty-two of 42 responding U.S. purchasers identified price leaders of purified CMC in the U.S. market during January 2002-December 2004, 11 other firms indicated that there were no price leaders, and the remaining 9 firms were not able to determine which, if any, firms were price leaders.<sup>37</sup> Aqualon was cited by 16 purchasers as a price leader, Noviant was cited by 10 firms as a price leader, Akzo was cited by 2 firms, and \*\*\*, \*\*\*,<sup>38</sup> and \*\*\* were each cited by single firms as price leaders. In addition, \*\*\* asserted that Chinese and Mexican suppliers influenced the U.S. market price by offering lower prices for purified CMC than U.S. or European suppliers.

Twenty-five of 45 responding U.S. purchasers reported that they sometimes or never purchased purified CMC at the lowest price, while the 19 remaining firms reported that they always or usually purchase purified CMC at the lowest price.<sup>39</sup> Factors cited by the 25 firms that never or sometimes purchased purified CMC at the lowest price included quality, availability, product consistency, and desire to maintain multiple sources of supply. Noviant reported that in March 2003 it announced price increases for its purified CMC across its entire range of products in the United States and in several non-

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<sup>31</sup> Producer questionnaire responses, section IV-B-9.

<sup>32</sup> The shipments that were direct from the foreign producers involved primarily the Netherlands, accounting for almost 90.0 percent of such shipments, and some shipments from Finland, accounting for the remaining 10.0 percent.

<sup>33</sup> Only U.S. importers that were distributors were instructed to respond to this question in the questionnaire (importer questionnaire responses, section III-B-9).

<sup>34</sup> Ibid. There were no systematic country differences among the subject European purified CMC, although there were some differences among reporting importers.

<sup>35</sup> This order lead time was similar for Netherlands and Finland, the two European countries with direct shipments to U.S. customers from the foreign producers.

<sup>36</sup> Importer questionnaire responses, section III-B-9.

<sup>37</sup> Purchaser questionnaire responses, section III-16.

<sup>38</sup> \*\*\*, a distributor that purchases \*\*\*, was one of the 16 firms that asserted Aqualon was a price leader for purified CMC in the U.S. market. \*\*\* was the only firm that documented its assertions with call reports (attached to its purchaser questionnaire response), which discussed three of its customers where it claimed that Aqualon was offering lower prices than \*\*\*. Two call reports indicated that \*\*\* reduced its prices, but not all the way to Aqualon's alleged price quotes, to keep its sales volumes with \*\*\* and \*\*\*. According to a third call report, \*\*\* invited \*\*\* to provide price quotes for purified CMC during \*\*\*, but assumed that the supplier would not be able to compete with the Aqualon price; \*\*\* affirmed that it was not able to compete with what it surmised was an Aqualon price quote in the range of \$\*\*\* per pound.

<sup>39</sup> Purchaser questionnaire responses, section III-18.

U.S. markets; a discussion of this price increase, as reported by Noviant, follows.<sup>40</sup> Noviant's 2003 price increase was communicated directly to its customers and reported in the Chemical Marketing Report and in Chemical Week.<sup>41</sup> Based on its submitted Lost Business Review prepared by Noviant in the ordinary course of its business, Noviant asserted that it lost annual sales of \*\*\* pounds of purified CMC during April 2003 (the effective date of the price increase) through March 2004, much of it due to its attempted 2003 price increase.<sup>42</sup> Of these total lost sales, Noviant asserted that it lost \*\*\* pounds annually to Aqualon to eight specified customers and various small U.S. customers specifically due to pricing,<sup>43</sup> \*\*\* pounds annually to four specified customers and unspecified customers specifically due to pricing,<sup>44</sup> \*\*\* pounds annually to five specified customers due to reformulations/substitutes,<sup>45</sup> and \*\*\* pounds to two specified customers for technical or other reasons.<sup>46</sup> Noviant reportedly also announced another price increase in September 2004 for its purified CMC throughout the world, including the United States.<sup>47</sup>

Both Aqualon and Noviant were requested to comment in their posthearing briefs on the reverse internet auction conducted by Proctor & Gamble in February 2001 for its purified CMC requirements; comments of these parties are summarized below based on their discussions in their posthearing briefs.<sup>48</sup> Aqualon asserted that this auction was the start of pricing aggressiveness by its competitors in the U.S. market for purified CMC, particularly Noviant.<sup>49</sup> According to Aqualon and Noviant, the auction was held all on one day and covered paper towels, denture adhesives,<sup>50</sup> and food (Sunny Delight beverages) for different P&G plant locations in the United States, Canada, and Europe.<sup>51</sup> Noviant included a copy of P&G's letter to the bidders detailing the auction rules and how the auction would work,<sup>52</sup> and noted two rules in particular. First, the terms state that the lowest bid does not guarantee success and, second, the only bids that are visible to each bidder are the bidder's own bids and the lowest current bid for each item, the identity of the company that made the lowest current bid would be known only to P&G. Noviant indicated that it bid only once at the start of each auction bid and did not bid thereafter.

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<sup>40</sup> Noviant's posthearing brief, exh. 1, pp. 16-17 and apps. 1P and 1Q.

<sup>41</sup> A copy of this price announcement was included in the respondent Noviant's posthearing brief, exh. 1N.

<sup>42</sup> Noviant's posthearing brief, exh. 1, p.17 and app. 1P.

<sup>43</sup> The eight customers cited by Noviant were \*\*\*. Noviant included correspondence with \*\*\* discussing its loss of business with these firms (Noviant's posthearing brief, exh. 1Q).

<sup>44</sup> The four customers cited by Noviant were \*\*\*. Noviant included correspondence with \*\*\* discussing its loss of business with this firm (Noviant's posthearing brief, exh. 1Q).

<sup>45</sup> The five customers cited by Noviant were \*\*\*.

<sup>46</sup> The two customers cited by Noviant were \*\*\*.

<sup>47</sup> Hearing transcript, p. 180 (Huizinga).

<sup>48</sup> Petitioner's posthearing brief, app. A, question 6—Proctor & Gamble Internet Auction; and Noviant's posthearing brief, exh. 1, pp. 12-16. According to Aqualon and Noviant, this was the only internet auction held by P&G and the purchaser has since used more traditional bidding processes.

<sup>49</sup> Hearing transcript, pp. 35-36 (Herak).

<sup>50</sup> \*\*\*.

<sup>51</sup> Each applicable P&G plant site/application was a separate bid.

<sup>52</sup> Noviant's posthearing brief, exh. 1F.

For paper towel grade purified CMC, Aqualon reported that \*\*\*. According to Aqualon, \*\*\*. According to Noviant, it was successful in its bidding for \*\*\* of the 10 paper towel and tissue locations covered by the auction; \*\*\*. Noviant asserted, based on its market intelligence, that the remaining \*\*\* P&G paper plants (in the United States, Canada, and Europe) were awarded to the lowest cost bidder from Germany.

For the food grade purified CMC, Aqualon reported that \*\*\*.<sup>53</sup> Noviant reported that it had already been the incumbent supplier of purified CMC to P&G for its Sunny Delight beverages in the United Kingdom at the time of the reverse internet auction. According to Noviant, underlying its awards for the U.S. and European business in the reverse auction was \*\*\*.

For the denture adhesive purified CMC, Aqualon reported that \*\*\*. Noviant reported that it retained its position as the incumbent supplier to P&G for denture adhesive purified CMC,<sup>54</sup> although, according to Noviant, P&G reported that Noviant was not the low bidder for that business in the internet auction. According to Noviant, it subsequently lost purified CMC volume in the U.S. segment of P&G's dental adhesive business in 2002 as a result of competitive bids that year conducted in a more traditional process, but retained the business in Europe.

## PRICE DATA

### Questionnaire Price Data

U.S. selling value and quantity data were requested for sales to U.S. customers for the following six products for purified CMC produced in the United States and imported from Finland, Mexico, the Netherlands, and Sweden:<sup>55</sup>

*Product 1.*—High viscosity (approximately 1,000 to 3,000 Mpas in 1 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydro- glucose units), used for regulated (food or personal care) applications, excluding pharmaceutical. The trade names of the suppliers for this product are: Aqualon-7HF; Noviant-Cekol 30,000; Akzo-Akucel AF278; Amtex-PE 31FG.

*Product 2.*—Very high viscosity (approximately 2,500 to 9,000 Mpas in 1 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydroglucose units), used for regulated (food or personal care) applications, excluding pharmaceutical. The trade names of the suppliers for this product are: Aqualon-7H4F and 9H4F; Noviant-Cekol 50,000; Akzo-Akucell 280X and 298X; Amtex-F1-4000 and F1-6000 (both formerly included in PE 32 FG).

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<sup>53</sup> \*\*\*.

<sup>54</sup> Noviant claimed that it had been the incumbent supplier of denture adhesive purified CMC to P&G in the United States since 1999.

<sup>55</sup> The product descriptions were based on comments regarding the draft questionnaires submitted by the three responding firms--Amtex, Aqualon, and Noviant. In addition, the Commission staff followed up with these reporting firms to reconcile any differences in product descriptions reported by these firms. These six products include the four products for which pricing data were requested during the preliminary phase of these investigations plus one product suggested by Aqualon (product 2) and one product suggested by Noviant (product 5). Please note that, except for product 1, the product numbers shown here do not correspond to the product numbers used during the preliminary phase.

*Product 3.*—Medium viscosity (approximately 400 to 800 Mpas in 2 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydro- glucose units), used for regulated (food or personal care) applications, excluding pharmaceutical. The trade names of the suppliers for this product are: Aqualon–7MF; Noviant–Cekol 700; Akzo–Akucel AF150 and AF 170; Amtex–F2 750.

*Product 4.*—Medium viscosity (approximately 400 to 800 Mpas in 2 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydro- glucose units), non-regulated (e.g., paper) applications (i.e., standard grade). The trade names of the suppliers for this product are: Aqualon–7MT; Noviant–Finnfix 700; Akzo–None; Amtex–P 2 750.

*Product 5.*—Low viscosity (approximately 20 to 1,000 Mpas in 4 percent solution, 5 to 100 Mpas in 2 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydroglucose units), non-regulated (e.g., paper) applications (i.e., standard grade). The trade names of the suppliers for this product are: Aqualon (98 percent CMC minimum)–7L1, 7L2, and 7L; Noviant (98 percent CMC minimum)–Finnfix 5, Finnfix 10, and Finnfix 30; Akzo–None; Amtex (92 percent CMC minimum)–P2-10, P2-30, and P2-75.

*Product 6.*—High viscosity (minimum 1,500 Mpas in 1 percent solution), degree of substitution 0.8 to 1.5 (i.e., 8 to 15 carboxymethyl groups per 10 anhydroglucose units), to oilfield customers. This product is often sold to customers bearing the particular customer’s trade name for its oil drilling product, such as Drispac, Milpac, and Polypac. Less frequently, the product bears a proprietary name of the manufacturer, such as Aqualon’s Aquapac or Akzo’s Staflo. In all cases, the specifications and not the label on the bag should be the controlling factor in reporting.

Despite apparent agreement of the product descriptions during the comment period for draft questionnaires,<sup>56</sup> Noviant later re-asserted in its prehearing brief its contention during the preliminary phase of these investigations that the product descriptions were unusually broad, containing important product mix differences.<sup>57</sup> Noviant cited examples of wide price disparity among Noviant’s reported pricing of specific products under the product 1, 2, and 5 descriptions. Aqualon indicated that Noviant had initially suggested in its comments on the draft questionnaires a broad product category that would

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<sup>56</sup> At no time during this comment period did any of the responding firms indicate that the product descriptions were too broad. In fact, Noviant suggested an additional product for pricing purposes as did Aqualon (Noviant’s comment letter, January 21, 2005, pp. 1-2, and Aqualon’s comment letter, January 21, 2005, p. 6). Noviant’s additional product is product 5 above and Aqualon’s additional product is product 2 above. In addition, both Noviant and Aqualon were asked to comment on each other’s additional products and they agreed to changes that each suggested (multiple e-mails between Commission staff and \*\*\*; and staff telephone interviews with \*\*\*).

<sup>57</sup> Respondent Noviant’s prehearing brief, pp. 32-34. In addition, Noviant indicated that, in commenting on the draft questionnaires, it tried to strike a balance, working with staff, between achieving the closest possible comparison it could while still trying to get a reasonably representative share of the total market covered without really knowing what the results would be (hearing transcript, pp. 226-227 and 284-285 (Malashevich)).

have combined products 4 and 5, which does not appear to be consistent with the balancing effort referred to by Noviant.<sup>58</sup>

The price data were requested from the U.S. producer and importers for their quarterly shipments of the specified purified CMC products during January 2002-December 2004 that were produced in the United States and imported from the subject countries. The requested price data were based on net U.S. f.o.b. selling price data for shipments to U.S. customers unrelated to the suppliers. In addition, purchasers were also requested to provide quarterly price data during this period for the specified domestic and subject imported products that they purchased directly from the U.S. producer and/or from importers; the purchaser price data were based on net delivered purchase price data to U.S. receiving locations of the purchasers. U.S. end users that imported the specified subject foreign products for captive use were requested to provide the delivered purchase price data separately from purchasers that bought from U.S. importers.

Aqualon, the lone U.S. producer of purified CMC, and 10 U.S. importers of the purified CMC from Finland, Mexico, the Netherlands, and/or Sweden provided selling price information, but not necessarily for all products, periods, or subject countries requested.<sup>59</sup> Aqualon reported total sales quantities of the U.S.-produced purified CMC for pricing purposes during January 2002-December 2004 that amounted to approximately \*\*\* million pounds, or \*\*\* percent of its total reported U.S. commercial shipments of the U.S.-produced purified CMC during this period. The 10 responding U.S. importers reported total sales quantities for pricing purposes during January 2002-December 2004 that amounted to approximately \*\*\* million pounds of purified CMC from Finland, \*\*\* million pounds from Mexico, \*\*\* pounds from the Netherlands, and \*\*\* million pounds from Sweden. These sales quantities for pricing purposes accounted for \*\*\* percent of total U.S. imports of purified CMC from Finland during January 2002-December 2004, \*\*\* percent from Mexico, \*\*\* percent from the Netherlands, and \*\*\* percent from Sweden.

A total of 39 U.S. purchasers<sup>60</sup> reported purchase price data for the specified CMC products that they purchased from the U.S. producer and from U.S. importers, but not necessarily for all products, periods, or subject countries requested.<sup>61</sup> The responding 38 U.S. purchasers reported total purchase quantities for pricing purposes during January 2002-December 2004 that amounted to approximately \*\*\* million pounds of purified CMC from the United States, \*\*\* million pounds of purified CMC from Finland, \*\*\* million pounds from Mexico, \*\*\* million pounds from the Netherlands, and \*\*\* million pounds from Sweden. These purchase quantities for pricing purposes accounted for \*\*\* percent of total U.S. commercial shipments of purified CMC produced domestically during January 2002-December 2004, \*\*\* percent of total U.S. imports of purified CMC from Finland during this period, \*\*\* percent from Mexico, \*\*\* percent from the Netherlands, and \*\*\* percent from Sweden.

A total of eight U.S. end user-importers of the purified CMC from Finland, Mexico, the Netherlands, and/or Sweden that imported for their captive use provided the requested purchase price information for their imported purified CMC, but not necessarily for all products, periods, or subject

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<sup>58</sup> Petitioner's posthearing brief, p. 7.

<sup>59</sup> Two U.S. importers reported selling pricing data of purified CMC from Finland, three importers reported selling price data for Mexico, seven importers reported selling price data for the Netherlands, and three reported selling price data for Sweden.

<sup>60</sup> The responding purchasers comprised 29 end users, 7 distributors, and 3 blenders of purified CMC.

<sup>61</sup> Twenty-six U.S. purchasers reported net delivered purchase price data for purified CMC from the United States, 8 purchasers reported purchase price data for Finland, 6 purchasers reported purchase price data for Mexico, 21 purchasers reported purchase price data for the Netherlands, and 3 purchasers reported purchase price data for Sweden.

countries requested.<sup>62</sup> These eight responding U.S. importers reported total purchase quantities for pricing purposes during January 2002-December 2004 that amounted to approximately \*\*\* million pounds imported from Finland, \*\*\* million pounds from Mexico, \*\*\* pounds from the Netherlands, and \*\*\* pounds from Sweden. These import quantities for pricing purposes accounted for \*\*\* percent of total U.S. imports of purified CMC from Finland during January 2002-December 2004, \*\*\* percent from Mexico, \*\*\* percent from the Netherlands, and \*\*\* percent from Sweden.

In addition, two U.S. distributors that imported product 6 from Finland, the Netherlands, and Sweden also reported their import-purchase price data as requested by Commission staff.<sup>63</sup> These firms \*\*\*, reflecting head-to-head competition at the purchase level.<sup>64</sup> As a result, Aqualon \*\*\*.<sup>65</sup> As a result, the selling price data reported by these two importers for their subject imported purified CMC were not included in the selling price category above. These two responding U.S. importers reported total purchase quantities for pricing purposes during January 2002-December 2004 for their imports that amounted to approximately \*\*\* million pounds of purified CMC from Finland, \*\*\* pounds from the Netherlands, and \*\*\* pounds from Sweden. These import quantities for pricing purposes accounted for \*\*\* percent of total U.S. imports of purified CMC from Finland during January 2002-December 2004, \*\*\* percent from the Netherlands, and \*\*\* percent from Sweden.

Total U.S. delivered price data reported in purchaser questionnaire responses for the U.S.-produced and subject imported purified CMC, including delivered price data for direct imports of end users and the two selected distributors, during January 2002-December 2004 involved quantities for pricing purposes that accounted for 43.9 percent of total U.S. commercial shipments of the U.S.-produced purified CMC during this period, 88.3 percent of total U.S. imports of purified CMC from Finland, 85.0 percent from Mexico, 57.2 percent from the Netherlands, and 37.7 percent from Sweden.

Quarterly price trends and price comparisons of the domestic and subject imported purified CMC products are based on the reported U.S. net f.o.b. selling price data reported by the U.S. producer and importers and are shown by product and country in tables V-1 through V-6 and figures V-5 through V-10. U.S. selling price data for the specified products were aggregated across all subject countries and shown by product in table V-7. In addition, quarterly purchase price comparisons between the domestic and subject imported purified CMC products, based on the U.S. net delivered purchase price data reported by firms purchasing from the U.S. producer and/or U.S. importers, are shown by product and country in tables V-8 through V-13. U.S. purchase price data for the specified products were aggregated across all subject countries and shown by product in table V-14. Price trends involving the reported U.S. f.o.b. selling prices and price comparisons involving both the U.S. f.o.b. selling prices and the delivered purchase prices should be viewed with some caution, because within the product categories product mix may shift from quarter to quarter and vary among firms, and sales volumes may vary from quarter to quarter and among firms.<sup>66 67</sup> Aqualon asserted that the various Cekol 50000 products cited by Noviant

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<sup>62</sup> Two U.S. end user-importers reported pricing data of purified CMC from Finland, three end user-importers reported pricing data for Mexico, four end user-importers reported pricing data for the Netherlands, and one end user-importer reported pricing data for Sweden.

<sup>63</sup> These two firms are \*\*\*.

<sup>64</sup> In addition, \*\*\* (staff telephone interview with \*\*\*).

<sup>65</sup> Staff telephone interview with \*\*\*. \*\*\*.

<sup>66</sup> Noviant asserted that the Commission did not fully consider the unusually broad pricing product descriptions and, therefore, according to Noviant, the price comparisons presented by the staff should be given very little, if any, weight to the Commission's evaluation of price underselling (Noviant's prehearing brief, p. 32). As examples, Noviant reported that under the product 2 description, its reported prices ranged from \$\*\*\* per pound for its Cekol

(continued...)



differ by grind size and that, although Noviant now identifies significant reported price differences among these products, Noviant had indicated at the parallel Department of Commerce investigation in January 2005 that grind size had no effect on cost or price.<sup>68</sup>

U.S. net delivered purchase prices reported by end users and two selected distributors importing directly from the subject countries are shown in appendix F. It should be noted that the U.S. delivered purchase prices reported by importing firms for the subject foreign purified CMC may not always reflect the full costs to the firms in obtaining these products.

**Table V-1**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 1 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Table V-2**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 2 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Table V-3**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of the U.S.-produced and subject imported product 3 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

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<sup>66</sup> (...continued)

50000P to \$\*\*\* per pound for its Cekol 50000G during the first quarter of 2004, with somewhat reduced, but still large, price differences in its product 2 Cekol products during the rest of 2004 (Noviant’s prehearing brief, p. 33 and exh. 9). Noviant reported that under the product 1 description, its reported prices ranged from \$\*\*\* per pound for its Cekol 30000G3 to \$\*\*\* per pound for its Cekol 30000 during the fourth quarter of 2004, with somewhat reduced, but still large, price differences in its product 1 Cekol products during the rest of 2004 (Noviant’s prehearing brief, p. 34 and exh. 9). Noviant also reported that under the product 5 description (suggested by Noviant), its reported prices ranged from \$\*\*\* per pound for its Finnfix10G to \$\*\*\* per pound for its Finnfix5G during the second quarter of 2004, with somewhat reduced, but still large, price differences in its product 5 Finnfix products during the rest of 2004 (Noviant’s prehearing brief, p. 34 and exh. 9).

<sup>67</sup> Although Noviant gives little or no weight to the price comparisons presented by staff, it uses the selling price data shown in tables V-1 through V-6 to assert that increases in domestic prices are directly correlated with instances of increased subject underselling (Noviant’s prehearing brief, pp. 47-48 and exh. 7). It is not clear, however, why such a finding would not be subject to the same shortcomings as those alleged for the price data.

<sup>68</sup> Petitioner’s posthearing brief, p. 8.

**Table V-4**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of the U.S.-produced and subject imported product 4 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Table V-5**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of the U.S.-produced and subject imported product 5 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Table V-6**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced product 6 and that imported from the Netherlands and sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Table V-7**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of the specified products imported from all subject countries combined and sold to U.S. customers, by products and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Figure V-5**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 1 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Figure V-6**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 2 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Figure V-7**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 3 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Figure V-8**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 4 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

Table V-8

Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of U.S.-produced and subject imported product 1<sup>1</sup>, by countries and by quarters, January 2002-December 2004

| Period of shipment  | United States     |                   |              | Finland           |                   |              |                  | Mexico            |                   |              |                  | Netherlands       |                   |              |                  | Sweden            |                   |              |                  |
|---|-------------------|-------------------|--------------|-------------------|-------------------|--------------|------------------|-------------------|-------------------|--------------|------------------|-------------------|-------------------|--------------|------------------|-------------------|-------------------|--------------|------------------|
|   | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) |
| 2002:   |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.   | \$1.66            | 381,570           | 8            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | \$1.73            | 662,301           | 12           | (4.2)            | ***               | ***               | ***          | ***              |
| Apr.-June   | 1.68              | 365,770           | 9            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.72              | 474,090           | 9            | (2.4)            | ***               | ***               | ***          | ***              |
| July-Sept.  | 1.77              | 398,214           | 10           | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.72              | 564,893           | 11           | 2.8              | ***               | ***               | ***          | ***              |
| Oct.-Dec.   | 1.48              | 418,531           | 7            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.84              | 527,943           | 12           | (24.3)           | ***               | ***               | ***          | ***              |
| 2003:   |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.   | 1.49              | 530,354           | 9            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.80              | 583,136           | 13           | (20.8)           | ***               | ***               | ***          | ***              |
| Apr.-June   | 1.55              | 639,401           | 11           | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.97              | 385,843           | 9            | (27.1)           | ***               | ***               | ***          | ***              |
| July-Sept.  | 1.54              | 805,900           | 10           | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.83              | 545,420           | 10           | (18.8)           | ***               | ***               | ***          | ***              |
| Oct.-Dec.   | 1.49              | 518,962           | 6            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.82              | 388,899           | 11           | (22.1)           | ***               | ***               | ***          | ***              |
| 2004:   |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.   | 1.41              | 872,059           | 12           | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.90              | 314,134           | 8            | (34.8)           | ***               | ***               | ***          | ***              |
| Apr.-June   | 1.34              | 1,011,40          | 9            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.69              | 486,104           | 9            | (26.1)           | ***               | ***               | ***          | ***              |
| July-Sept.  | 1.50              | 923,136           | 12           | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.74              | 418,380           | 9            | (16.0)           | ***               | ***               | ***          | ***              |
| Oct.-Dec.   | 1.29              | 998,295           | 9            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | 1.94              | 568,906           | 9            | (50.4)           | ***               | ***               | ***          | ***              |
| TOTALS  | ( <sup>2</sup> )  | 7,863,60          | 14           | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) | ( <sup>2</sup> )  | 5,920,04          | 15           | ( <sup>2</sup> ) | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) |
| <p><sup>1</sup> High viscosity (approximately 1,000 to 3,000 Mpas in 1 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydro- glucose units), used for regulated (food or personal care) applications, excluding pharmaceutical. The trade names of the suppliers for this product are: Aqualon-7HF; Noviant-Cekol 30,000; Akzo-Akucel AF278; Amtex-PE 31FG.</p> <p><sup>2</sup> Not applicable.</p> |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |
| Source: Compiled from data submitted in response to Commission questionnaires.  |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |

**Table V-9**

**Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of the U.S.-produced and subject imported product 2,<sup>1</sup> by countries and by quarters, January 2002-December 2004**

| Period of shipment  | United States     |                   |              | Mexico            |                   |              |                  | Netherlands       |                   |              |                  |
|---|-------------------|-------------------|--------------|-------------------|-------------------|--------------|------------------|-------------------|-------------------|--------------|------------------|
|   | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) |
| 2002:   |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.   | ***               | ***               | ***          | ***               | ***               | ***          | ***              | \$1.48            | 638,719           | 5            | ***              |
| Apr.-June   | ***               | ***               | ***          | ***               | ***               | ***          | ***              | 1.51              | 486,679           | 5            | ***              |
| July-Sept.  | ***               | ***               | ***          | ***               | ***               | ***          | ***              | 1.51              | 506,229           | 5            | ***              |
| Oct.-Dec.   | \$1.79            | 62,950            | 6            | ***               | ***               | ***          | ***              | 1.46              | 335,114           | 5            | 18.4             |
| 2003:   |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.   | ***               | ***               | ***          | ***               | ***               | ***          | ***              | 1.51              | 663,049           | 5            | ***              |
| Apr.-June   | 1.41              | 94,800            | 4            | ***               | ***               | ***          | ***              | 1.52              | 635,338           | 7            | (7.8)            |
| July-Sept.  | 1.53              | 36,000            | 4            | ***               | ***               | ***          | ***              | 1.52              | 448,025           | 7            | 0.7              |
| Oct.-Dec.   | ***               | ***               | ***          | ***               | ***               | ***          | ***              | 1.37              | 529,186           | 6            | ***              |
| 2004:   |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.   | 1.59              | 103,312           | 6            | ***               | ***               | ***          | ***              | 1.30              | 665,493           | 5            | 18.2             |
| Apr.-June   | 1.45              | 123,312           | 5            | ***               | ***               | ***          | ***              | 1.27              | 678,961           | 4            | 12.4             |
| July-Sept.  | 1.46              | 136,612           | 5            | ***               | ***               | ***          | ***              | 1.31              | 564,600           | 4            | 10.3             |
| Oct.-Dec.   | 1.32              | 171,775           | 4            | ***               | ***               | ***          | ***              | 1.33              | 394,400           | 5            | (0.8)            |
| TOTALS  | ( <sup>2</sup> )  | 728,761           | 7            | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) | ( <sup>2</sup> )  | 6,545,79          | 8            | ( <sup>2</sup> ) |
| <sup>1</sup> Very high viscosity (approximately 2,500 to 9,000 Mpas in 1 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydroglucose units), used for regulated (food or personal care) applications, excluding pharmaceutical. The trade names of the suppliers for this product are: Aqualon-7H4F and 9H4F; Noviant-Cekol 50,000; Akzo-Akucell 280X and 298X; Amtex-F1-4000 and F1-6000 (both formerly included in PE 32 FG).<br><sup>2</sup> Not applicable. |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |
| Source: Compiled from data submitted in response to Commission questionnaires.  |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |

**Figure V-9**

**Purified CMC: U.S. weighted-average net f.o.b. selling prices and quantities of U.S.-produced and subject imported product 5 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

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**Figure V-10**

**Purified CMC: U.S. weighted-average net delivered selling prices and quantities of U.S.-produced and subject imported product 6 sold to U.S. customers, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

**Table V-10**

**Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of U.S.-produced product 3<sup>1</sup> and that imported from the Netherlands, by quarters, January 2002-December 2004**

| Period of shipment | United States     |                   |              | Netherlands       |                   |              |                  | Sweden            |                   |              |                  |
|--------------------|-------------------|-------------------|--------------|-------------------|-------------------|--------------|------------------|-------------------|-------------------|--------------|------------------|
|                    | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) |
| 2002:              |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.          | ***               | ***               | ***          | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Apr.-June          | ***               | ***               | ***          | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| July-Sept.         | ***               | ***               | ***          | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Oct.-Dec.          | \$1.76            | 133,900           | 5            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| 2003:              |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.          | ***               | ***               | ***          | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Apr.-June          | 1.61              | 126,000           | 4            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| July-Sept.         | 1.62              | 132,050           | 5            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Oct.-Dec.          | ***               | ***               | ***          | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| 2004:              |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.          | 1.50              | 185,750           | 4            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Apr.-June          | 1.76              | 100,950           | 5            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| July1Sept.         | 1.54              | 335,850           | 5            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Oct.-Dec.          | 1.53              | 201,100           | 4            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| TOTALS             | ( <sup>2</sup> )  | 1,215,60          | 5            | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) |

<sup>1</sup> Medium viscosity (approximately 400 to 800 Mpas in 2 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydro- glucose units), used for regulated (food or personal care) applications, excluding pharmaceutical. The trade names of the suppliers for this product are: Aqualon-7MF; Noviant-Cekol 700; Akzo-Akucel AF150 and AF 170; Amtex-F2 750.

<sup>2</sup> Not applicable.

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

**Table V-11**

**Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of the U.S.-produced and subject imported product 4, by countries and by quarters, January 2002-December 2004**

\* \* \* \* \*

Table V-12

Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of U.S.-produced and subject imported product 5,<sup>1</sup> by countries and by quarters, January 2002-December 2004

| Period of shipment | United States     |                   |              | Finland           |                   |              |                  | Mexico            |                   |              |                  | Netherlands       |                   |              |                  | Sweden            |                   |              |                  |
|--------------------|-------------------|-------------------|--------------|-------------------|-------------------|--------------|------------------|-------------------|-------------------|--------------|------------------|-------------------|-------------------|--------------|------------------|-------------------|-------------------|--------------|------------------|
|                    | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) | Price (per pound) | Quantity (pounds) | No. of firms | Margin (percent) |
| 2002:              |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.          | \$1.67            | 275,306           | 4            | \$1.61            | 301,658           | 4            | 3.6              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Apr.-June          | 1.61              | 299,650           | 5            | 1.64              | 321,658           | 4            | (1.9)            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| July-Sept.         | 1.61              | 381,100           | 5            | 1.60              | 323,658           | 4            | 0.6              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Oct.-Dec.          | 1.60              | 473,200           | 5            | 1.61              | 341,658           | 4            | (0.6)            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| 2003:              |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.          | 1.49              | 454,250           | 4            | 1.46              | 575,448           | 4            | 2.0              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Apr.-June          | 1.50              | 466,703           | 6            | 1.47              | 591,448           | 4            | 2.0              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| July-Sept.         | 1.50              | 235,750           | 5            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Oct.-Dec.          | 1.52              | 319,200           | 6            | 1.45              | 601,448           | 4            | 4.6              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| 2004:              |                   |                   |              |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |                   |                   |              |                  |
| Jan.-Mar.          | 1.49              | 303,300           | 5            | 1.47              | 615,811           | 4            | 1.3              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Apr.-June          | 1.47              | 281,600           | 4            | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| July-Sept.         | 1.54              | 173,300           | 5            | 1.43              | 821,635           | 4            | 7.1              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| Oct.-Dec.          | 1.53              | 176,800           | 5            | 1.48              | 729,334           | 4            | 3.3              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              | ***               | ***               | ***          | ***              |
| TOTALS             | ( <sup>2</sup> )  | 3,840,15          | 7            | ( <sup>2</sup> )  | 5,223,75          | 5            | ( <sup>2</sup> ) | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> ) |

<sup>1</sup> Low viscosity (approximately 20 to 1,000 Mpas in 4 percent solution, 5 to 100 Mpas in 2 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydroglucose units), non-regulated (e.g., paper) applications (i.e., standard grade). The trade names of the suppliers for this product are: Aqualon (98 percent CMC minimum)-7L1, 7L2, and 7L; Noviant (98 percent CMC minimum)-Finnfix 5, Finnfix 10, and Finnfix 30; Akzo-None; Amtex (92 percent CMC minimum)-P2-10, P2-30, and P2-75.

<sup>2</sup> Not applicable.

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

**Table V-13**

**Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of U.S.-produced product 6 and that imported from the Netherlands, by quarters, January 2002-December 2004**

\* \* \* \* \*

**Table V-14**

**Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of the specified products imported from all subject countries combined, by products and by quarters, January 2002-December 2004**

| Period of shipment   | Product 1         |                   | Product 2         |                   | Product 3         |                   | Product 4         |                   | Product 5         |                   | Product 6         |                   |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|  | Price (per pound) | Quantity (pounds) | Price (per pound) | Quantity (pounds) | Price (per pound) | Quantity (pounds) | Price (per pound) | Quantity (pounds) | Price (per pound) | Quantity (pounds) | Price (per pound) | Quantity (pounds) |
| 2002:  |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Jan.-Mar.  | \$1.73            | 686,301           | \$1.48            | 651,719           | ***               | ***               | ***               | ***               | \$1.71            | 709,558           | ***               | ***               |
| Apr.-June  | 1.71              | 545,090           | 1.51              | 497,679           | ***               | ***               | ***               | ***               | 1.70              | 727,408           | ***               | ***               |
| July-Sept.   | 1.73              | 588,893           | 1.51              | 528,229           | ***               | ***               | ***               | ***               | 1.61              | 495,658           | ***               | ***               |
| Oct.-Dec.  | 1.86              | 574,943           | 1.47              | 365,114           | ***               | ***               | ***               | ***               | 1.61              | 443,658           | ***               | ***               |
| 2003:  |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Jan.-Mar.  | 1.80              | 614,136           | 1.51              | 672,049           | ***               | ***               | ***               | ***               | 1.47              | 814,048           | ***               | ***               |
| Apr.-June  | 1.66              | 683,843           | 1.52              | 657,338           | ***               | ***               | ***               | ***               | 1.48              | 743,448           | ***               | ***               |
| July-Sept.   | 1.73              | 703,420           | 1.52              | 448,025           | ***               | ***               | ***               | ***               | 1.44              | 836,071           | ***               | ***               |
| Oct.-Dec.  | 1.72              | 574,899           | 1.37              | 551,186           | ***               | ***               | ***               | ***               | 1.49              | 887,589           | ***               | ***               |
| 2004:  |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Jan.-Mar.  | 1.73              | 462,134           | 1.31              | 707,493           | ***               | ***               | ***               | ***               | 1.47              | 863,251           | ***               | ***               |
| Apr.-June  | 1.57              | 678,130           | 1.28              | 694,861           | ***               | ***               | ***               | ***               | 1.45              | 733,181           | ***               | ***               |
| July-Sept.   | 1.64              | 657,410           | 1.31              | 568,700           | ***               | ***               | ***               | ***               | 1.44              | 914,050           | ***               | ***               |
| Oct.-Dec.  | 1.78              | 914,967           | 1.34              | 416,400           | ***               | ***               | ***               | ***               | 1.48              | 787,289           | ***               | ***               |
| TOTALS   | ( <sup>1</sup> )  | 7,684,166         | ( <sup>1</sup> )  | 6,758,793         | ( <sup>1</sup> )  | ***               | ( <sup>1</sup> )  | ***               | ( <sup>1</sup> )  | 8,955,209         | ( <sup>1</sup> )  | ***               |
| <sup>1</sup> Not applicable.   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Source: Compiled from data submitted in response to Commission questionnaires. |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |

## Price Trends

The reported quarterly selling prices of the specified purified CMC products produced domestically and imported from Finland and Sweden fluctuated during January 2002-December 2004, but generally decreased or remained relatively stable during this period. Selling prices of the Mexican products 1, 4, and 5 and the Dutch products 5 and 6 also followed these trends. However, selling prices of the Mexican product 2 and the Dutch products 1-3 fluctuated but generally increased during this period. Quarterly shipment quantities also fluctuated during January 2002-December 2004, but generally increased or remained stable during this period. The lone exception to these latter trends was the generally decreasing shipment quantities of the Dutch product 1 during this period.

Aqualon reported quarterly net U.S. f.o.b. selling prices of its U.S.-produced purified CMC products 1-6 shipped to U.S. customers during January 2002-December 2004 (tables V-1 through V-6 and figures V-5 through V-10). Although fluctuating, selling prices of the domestic products 1-6 tended to decrease during the period, with prices typically lower at the end of the period compared to their initial-period values.<sup>69</sup> Selling prices of the domestic product 1 began at \$\*\*\* per pound during January-March 2002, reached a period high of \$\*\*\* per pound during July-September 2002, then fluctuated but decreased to a period low of \$\*\*\* per pound during April-June 2004, and ended at \$\*\*\* per pound during October-December 2004. Selling prices of the domestic product 2 began the period at \$\*\*\* per pound during January-March 2002, increased to a period high of \$\*\*\* per pound the following quarter, then decreased to a period low of \$\*\*\* per pound during October-December 2002, and fluctuated thereafter ending at \$\*\*\* per pound during October-December 2004. Selling prices of the domestic product 3 began at \$\*\*\* per pound during January-March 2002, increased to a period high of \$\*\*\* per pound the following quarter, and generally decreased thereafter ending at a period low of \$\*\*\* per pound during October-December 2004. Selling prices of the domestic product 4 began at \$\*\*\* per pound during January-March 2002, and fluctuated but generally decreased thereafter ending at a period low of \$\*\*\* per pound during October-December 2004. Selling prices of the domestic product 5 began the period at \$\*\*\* per pound during January-March 2002, reached a period high of \$\*\*\* per pound during July-September 2002, then fluctuated but reached a period low of \$\*\*\* per pound during April-June 2004, and ended at \$\*\*\* per pound during October-December 2004. Selling prices of the domestic product 6 began the period at \$\*\*\* per pound during January-March 2002, increased to a period high of \$\*\*\* per pound the following quarter, then fluctuated but generally decreased to a period low of \$\*\*\* per pound during January-March 2004, and ended at \$\*\*\* per pound during October-December 2004.

Aqualon's selling price of product 6, used for drilling muds in oil and natural gas wells, was \*\*\* than its selling prices of the other five products, \*\*\* the strong increase in demand for oilfield purified CMC products during January 2002-December 2004. Aqualon testified at the hearing that purified CMC for oilfield use is as costly or more costly to produce than purified CMC for other uses because of higher

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<sup>69</sup> Aqualon reported during the preliminary phase of these investigations that, in response to aggressive pricing and market share gains by the subject imports during 2001 and 2002, it offered price concessions on its purified CMC beginning in mid-2002 and gained back some, but not all of the volume/market share that it reportedly lost in 2001 and 2002. Aqualon reported average price concessions of \$\*\*\* per pound for products 1 and 2 and \$\*\*\* per pound for products 3 and 4 for sales in 2003, with further price reductions in the first quarter of 2004. On the other hand, Aqualon reported announcing a price increase of \$\*\*\* per pound for its purified CMC in April 2003 to offset increasing raw material costs, but the price increase reportedly did not stick (petitioner's postconference brief, pp. 23-24).



viscosity and more expensive ingredients in the oilfield products,<sup>70</sup> but the selling price of purified CMC for oilfield use is lower than for other uses due to the tremendous buying power of the drilling fluids companies in the United States.<sup>71</sup> Noviant agreed with the buying power of purchasers of purified CMC for oilfield purposes,<sup>72</sup> but indicated that its costs to produce this purified CMC tend to be less than that for other products due to less expensive, lower grades of pulp used in purified CMC for drilling customers and its plant in Finland is set up for large production runs of this type of purified CMC without having to schedule around demand in other sectors.<sup>73</sup>

Aqualon reported in its questionnaire response that \*\*\*.<sup>74</sup> Based on Aqualon's reported selling price data for 2004, the overall unit value for the six specified U.S.-produced products averaged \$\*\*\* per pound.

Aqualon also indicated that with few sellers, numerous buyers,<sup>75</sup> and increasing demand one would expect U.S. purified CMC prices to be rising over the period of investigation.<sup>76</sup> But Aqualon asserted that Noviant drove down prices in the U.S. market in 2001 due to its excess capacity, and forced Aqualon to reduce its prices beginning in 2002 to try to regain some market share.<sup>77</sup>

U.S. importers reported quarterly net U.S. f.o.b. selling prices of the purified CMC products 4 and 5 imported from Finland and shipped to U.S. customers during January 2002-December 2004 (tables V-4 and V-5 and figures V-8 and V-9). Although fluctuating somewhat, selling prices of the imported Finnish products 4 and 5 remained relatively stable. Selling prices of the Finnish product 4 began at \$\*\*\* per pound during January-March 2002, increased to a period high of \$\*\*\* per pound during July-September 2002, then decreased to \$\*\*\* per pound during the following quarter, and thereafter remained within \$\*\*\* per pound of the initial-period value, ending at \$\*\*\* per pound during October-December 2004. Selling prices of the Finnish product 5 began at \$\*\*\* per pound during January-March 2002, increased to a period high of \$\*\*\* per pound during July-September 2002, and thereafter remained within \$\*\*\* per pound of its initial-period value, ending at \$\*\*\* per pound during October-December 2004.

U.S. importers reported quarterly net U.S. f.o.b. selling prices of the purified CMC products 1, 2, 4, and 5 imported from Mexico and shipped to U.S. customers during January 2002-December 2004 (table V-1, V-2, V-4, and V-5 and figures V-5, V-6, V-8 and V-9). Although fluctuating, selling prices of the Mexican product 1 ended lower at the end of the period compared to the initial-period value, prices of the Mexican products 2 and 5 ended higher at the end of the period compared to the initial-period values, and prices of the Mexican product 4 remained unchanged at \$\*\*\* per pound for the five quarters reported for this latter product. Selling prices of the Mexican product 1 began at \$\*\*\* per pound during January-March 2002, increased to a period high of \$\*\*\* per pound during July-September 2002, then decreased to

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<sup>70</sup> Aqualon also indicated that purified CMC made for the oil-drilling area is specially made to have the best functionality in that application (hearing transcript, pp. 168-169 (Herak)).

<sup>71</sup> Hearing transcript, pp. 76-78 (Herak and Telefantos).

<sup>72</sup> Hearing transcript, pp. 258-259 (Huizinga and Somers).

<sup>73</sup> Noviant's posthearing brief, p. 23.

<sup>74</sup> \*\*\*.

<sup>75</sup> Aqualon reported that it has approximately \*\*\* U.S. customers for its domestically produced purified CMC, and \*\*\* accounted for \*\*\* percent of its sales in 2004 (petitioner's posthearing brief, app. A, question 11—Aqualon Top Customer Distribution).

<sup>76</sup> Petitioner's posthearing brief, app. A, question 12—Market Power in CMC Market.

<sup>77</sup> Ibid.

a period low of \$\*\*\* per pound during October-December 2003, and ended at \$\*\*\* per pound during October-December 2004. Selling prices of the Mexican product 2 began at a period low of \$\*\*\* per pound during January-March 2002, and ended at \$\*\*\* per pound during October-December 2004. Selling prices of the Mexican product 5 began at \$\*\*\* per pound during January-March 2002, increased to a period high of \$\*\*\* per pound during April-June 2002, then decreased to a period low of \$\*\*\* per pound during April-June 2003, and then generally increased, ending the period at \$\*\*\* per pound during October-December 2004.

U.S. importers reported quarterly net U.S. f.o.b. selling prices of the purified CMC products 1-3 and 5-6 imported from the Netherlands and shipped to U.S. customers during January 2002-December 2004 (tables V-1-V-3, V-4, and V-6 and figures V-5-V-7, V-9, and V-10). Although fluctuating during the period, selling prices of the imported Dutch products 1-3 were higher at the end of the period compared to their initial-period values, selling prices of the Dutch product 5 remained at \$\*\*\* per pound during the three quarters reported, and selling prices of the Dutch product 6 ended lower at the end of the period compared to the initial-period value. Selling prices of the Dutch products 1 and 2 began at respective period lows of \$\*\*\* per pound and \$\*\*\* per pound during January-March 2002, and ended at \$\*\*\* per pound and \$\*\*\* per pound, respectively, during October-December 2004. Selling prices of the Dutch product 3 began at \$\*\*\* per pound during January-March 2002, fluctuated but increased to a period high of \$\*\*\* per pound during July-September 2003, then decreased to a period low of \$\*\*\* per pound during October-December 2003, and ended at \$\*\*\* per pound during October-December 2004. Selling prices of the Dutch product 6 began at \$\*\*\* per pound during January-March 2002, increased to a period high of \$\*\*\* per pound during the following quarter, then fluctuated but decreased to a period low of \$\*\*\* per pound during July-September 2004, and ended at \$\*\*\* per pound during October-December 2004.

U.S. importers reported quarterly net U.S. f.o.b. selling prices of the purified CMC products 1-3 imported from Sweden and shipped to U.S. customers during January 2002-December 2004 (table V-2-V-3 and figures V-5-V-7). Selling prices of the Swedish products 1 and 2 were reported for too few quarters to observe price trends, while selling prices of the Swedish product 3 were lower at the end of the period compared to the initial-period value. Selling prices of the Swedish product 3 began at \$\*\*\* per pound during January-March 2002, fluctuated but increased to a period high of \$\*\*\* per pound during October-December 2003, then decreased to a period low of \$\*\*\* per pound during April-June 2004, and ended at \$\*\*\* per pound during October-December 2004.

### **Price Comparisons**

A total of 130 quarterly selling price comparisons were possible between the domestic and subject imported purified CMC products 1-6 shipped by the U.S. producer and importers to U.S. customers on a U.S. f.o.b. selling price basis during January 2002-December 2004 (tables V-1 through V-6). In 77 of the 130 selling price comparisons, the subject imported products were priced less than the U.S.-produced products, and in 53 other price comparisons the subject imported products were priced higher than the U.S.-produced products. The price comparisons based on reported selling price data are summarized in table V-15.

In addition, a total of 149 quarterly purchase price comparisons were possible between the domestic and subject imported purified CMC products 1-6 received by U.S. purchasers that bought the products from the U.S. producer and importers on a delivered price basis during January 2002-December 2004 (tables V-8 through V-13). In 81 of the 149 purchase price comparisons, the subject imported products were priced less than the U.S.-produced products, in 67 other price comparisons the subject imported products were priced higher than the U.S.-produced products, and in the one remaining price comparison, the domestic and subject imported products were purchased at the same price. The price comparisons based on reported purchase price data are summarized in table V-16.

**Table V-15**  
**Purified CMC: Number of quarterly U.S. weighted-average net f.o.b. selling price comparisons**  
**between U.S.-produced and subject imported purified CMC during January 2002-December 2004<sup>1</sup>**

| Country  | Total price comparisons |                   | Underselling by imports |                   | Overselling by imports |                   | No price difference |                   |
|--|-------------------------|-------------------|-------------------------|-------------------|------------------------|-------------------|---------------------|-------------------|
|  | No.                     | Quantity (Pounds) | No.                     | Quantity (Pounds) | No.                    | Quantity (Pounds) | No.                 | Quantity (Pounds) |
| Finland:   |                         |                   |                         |                   |                        |                   |                     |                   |
| 2002   | 8                       | ***               | 8                       | ***               | -                      | -                 | -                   | -                 |
| 2003   | 8                       | ***               | 8                       | ***               | -                      | -                 | -                   | -                 |
| 2004   | 8                       | ***               | 8                       | ***               | -                      | -                 | -                   | -                 |
| Subtotal-units   | 24                      | ***               | 24                      | ***               | -                      | -                 | -                   | -                 |
| Subtotal-shares  | 100.0%                  | 100.0%            | 100.0%                  | 100.0%            | -                      | -                 | -                   | -                 |
| Mexico:  |                         |                   |                         |                   |                        |                   |                     |                   |
| 2002   | 13                      | ***               | 8                       | ***               | 5                      | ***               | -                   | -                 |
| 2003   | 15                      | ***               | 8                       | ***               | 7                      | ***               | -                   | -                 |
| 2004   | 13                      | ***               | 7                       | ***               | 6                      | ***               | -                   | -                 |
| Subtotal-units   | 41                      | ***               | 23                      | ***               | 18                     | ***               | -                   | -                 |
| Subtotal-shares  | 100.0%                  | 100.0%            | 56.1%                   | 91.3%             | 43.9%                  | 8.7%              | -                   | -                 |
| Netherlands:   |                         |                   |                         |                   |                        |                   |                     |                   |
| 2002   | 19                      | ***               | 8                       | ***               | 11                     | ***               | -                   | -                 |
| 2003   | 16                      | ***               | 8                       | ***               | 8                      | ***               | -                   | -                 |
| 2004   | 15                      | ***               | 5                       | ***               | 10                     | ***               | -                   | -                 |
| Subtotal-units   | 50                      | 23,617,844        | 21                      | 17,807,534        | 29                     | 5,810,310         | -                   | -                 |
| Subtotal-shares  | 100.0%                  | 100.0%            | 42.0%                   | 75.4%             | 58.0%                  | 24.6%             | -                   | -                 |
| Sweden:  |                         |                   |                         |                   |                        |                   |                     |                   |
| 2002   | 6                       | ***               | 4                       | ***               | 2                      | ***               | -                   | -                 |
| 2003   | 4                       | ***               | 1                       | ***               | 3                      | ***               | -                   | -                 |
| 2004   | 5                       | ***               | 4                       | ***               | 1                      | ***               | -                   | -                 |
| Subtotal-units   | 15                      | ***               | 9                       | ***               | 6                      | ***               | -                   | -                 |
| Subtotal-shares  | 100.0%                  | 100.0%            | 60.0%                   | 96.5%             | 40.0%                  | 3.5%              | -                   | -                 |
| TOTAL-units  | 130                     | 51,831,798        | 77                      | 45,648,391        | 53                     | 6,183,407         | -                   | -                 |
| TOTAL-shares   | 100.0%                  | 100.0%            | 59.2%                   | 88.1%             | 40.8%                  | 11.9%             | -                   | -                 |
| <sup>1</sup> The number of price comparisons shown for each country involve all the specified products reported.<br>Source: Compiled from data submitted in response to Commission questionnaires. |                         |                   |                         |                   |                        |                   |                     |                   |

**Table V-16**  
**Purified CMC: Number of quarterly U.S. weighted-average net delivered purchase price comparisons between U.S.-produced and subject imported purified CMC during January 2002-December 2004<sup>1</sup>**

| Country  | Total price comparisons |                   | Underselling by imports |                   | Overselling by imports |                   | No price difference |                   |
|--|-------------------------|-------------------|-------------------------|-------------------|------------------------|-------------------|---------------------|-------------------|
|  | No.                     | Quantity (Pounds) | No.                     | Quantity (Pounds) | No.                    | Quantity (Pounds) | No.                 | Quantity (Pounds) |
| Finland:   |                         |                   |                         |                   |                        |                   |                     |                   |
| 2002   | 8                       | 3,492,632         | 6                       | 2,829,316         | 2                      | 663,316           | -                   | -                 |
| 2003   | 9                       | 5,120,765         | 9                       | 5,120,765         | -                      | -                 | -                   | -                 |
| 2004   | 12                      | 5,755,258         | 10                      | 5,598,671         | 1                      | 94,561            | 1                   | 62,026            |
| Subtotal-units   | 29                      | 14,368,655        | 25                      | 13,548,752        | 3                      | 757,877           | 1                   | 62,026            |
| Subtotal-shares  | 100.0%                  | 100.0%            | 86.2%                   | 94.3%             | 10.3%                  | 5.3%              | 3.4%                | 0.4%              |
| Mexico:  |                         |                   |                         |                   |                        |                   |                     |                   |
| 2002   | 16                      | ***               | 6                       | ***               | 10                     | ***               | -                   | -                 |
| 2003   | 15                      | ***               | 5                       | ***               | 10                     | ***               | -                   | -                 |
| 2004   | 16                      | ***               | 7                       | ***               | 9                      | ***               | -                   | -                 |
| Subtotal-units   | 47                      | 2,505,150         | 18                      | 1,250,000         | 29                     | 1,255,150         | -                   | -                 |
| Subtotal-shares  | 100.0                   | 100.0%            | 38.3%                   | 49.9%             | 61.7%                  | 50.1%             | -                   | -                 |
| Netherlands:   |                         |                   |                         |                   |                        |                   |                     |                   |
| 2002   | 15                      | 4,418,468         | 11                      | 2,751,634         | 4                      | 1,666,834         | -                   | -                 |
| 2003   | 17                      | 4,953,687         | 4                       | 1,257,211         | 13                     | 3,696,476         | -                   | -                 |
| 2004   | 17                      | 5,482,508         | 5                       | 2,513,009         | 12                     | 2,969,499         | -                   | -                 |
| Subtotal-units   | 49                      | 14,854,663        | 20                      | 6,521,854         | 29                     | 8,332,809         | -                   | -                 |
| Subtotal-shares  | 100.0                   | 100.0%            | 40.8%                   | 43.9%             | 59.2%                  | 56.1%             | -                   | -                 |
| Sweden:  |                         |                   |                         |                   |                        |                   |                     |                   |
| 2002   | 6                       | ***               | 4                       | ***               | 2                      | ***               | -                   | -                 |
| 2003   | 10                      | ***               | 7                       | ***               | 3                      | ***               | -                   | -                 |
| 2004   | 8                       | ***               | 7                       | ***               | 1                      | ***               | -                   | -                 |
| Subtotal-units   | 24                      | ***               | 18                      | ***               | 6                      | ***               | -                   | -                 |
| Subtotal-shares  | 100.0                   | 100.0%            | 75.0%                   | 63.8%             | 25.0%                  | 36.2%             | -                   | -                 |
| TOTAL-units  | 149                     | ***               | 81                      | ***               | 67                     | ***               | 1                   | 62,026            |
| TOTAL-shares   | 100.0                   | 100.0%            | 54.4%                   | 66.9%             | 45.0%                  | 32.9%             | 0.7%                | 0.2%              |
| <sup>1</sup> The number of price comparisons shown for each country involve all the specified products reported.<br>Source: Compiled from data submitted in response to Commission questionnaires. |                         |                   |                         |                   |                        |                   |                     |                   |

**LOST REVENUES AND LOST SALES**

In the petition, Aqualon reported 9 allegations of lost revenues and 24 allegations of lost sales due to competition from imports of purified CMC from Finland, Mexico, the Netherlands, and/or Sweden during 2002 and 2003.<sup>78</sup> During the final phase of the investigations, Aqualon reported no additional lost revenue or lost sales allegations but withdrew two of its lost sales allegations, involving a single purchaser,<sup>79</sup> that had been reported in its petition. The 9 lost revenue allegations totaled \*\*\* and the 22 lost sales allegations totaled approximately \*\*\*. During the final phase of the investigations, information was requested from the six purchasers that did not respond during the preliminary phase of the investigations. Overall, the Commission received usable information from 11 of the 15 purchasers named in the allegations; a summary of the information obtained is shown in table V-17 for lost revenue allegations and table V-18 for lost sales allegations. Additional comments from purchasers are presented in the text that follows.

\*\*\* agreed with both lost revenues allegations.

\*\*\* disagreed with both lost sales allegations. It stated that \*\*\* accepted price was \$\*\*\*, which was higher than the alleged rejected quote for the U.S.-produced product. It further stated that Aqualon “did not lose the bid due to price but rather due to past quality problems. The purified CMC from \*\*\* was jointly developed and provides a better yield in our product.”

\*\*\* disagreed with the 2003 lost sale allegation.

\*\*\* disagreed with the 2002 allegation, stating that it purchased from \*\*\* mostly because of service. It agreed with the 2003 allegation.

\*\*\* did not respond to the 2002 allegation. It disagreed with the 2003 allegation, stating that \*\*\* pounds was awarded to Aqualon and that \$\*\*\* was never offered. It further stated that “the domestic supplier is scheduled to get more orders in the second half of 2004.”

**Table V-17**  
**Purified CMC: Aqualon’s lost revenue allegations**

\* \* \* \* \*

**Table V-18**  
**Purified CMC: Aqualon’s lost sales allegations**

\* \* \* \* \*

\*\*\* disagreed with all of the lost sales and lost revenues allegations. Regarding the 2002 allegations, it stated “policy to split business and service/ability drove decision.” Regarding the 2003 allegations, it stated “we actually paid more for the competing product.” It further stated, “our job is to buy as economically as possible. As part of the negotiation process we want vendors to believe they are priced higher; much as the vendors try to have us believe we are buying lower than our competition. We may be just playing the game better than Hercules. Part of our policy was not to sole source these items, but the vendors will lower their price more if they believe all of their business is at risk.” In addition, \*\*\*

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<sup>78</sup> No additional lost revenue or lost sales allegations were reported by the petitioner in its U.S. producer questionnaire response.

<sup>79</sup> The withdrawn lost sales allegations involved \*\*\* and totaled \*\*\*. During the preliminary phase of the investigations, \*\*\*.

stated “it would be absurd to think that several countries were conspiring to price Hercules out of the market. It would be unfortunate to limit our ability to negotiate in the world market because one U.S. company did not operate astutely. We sell finished product in \*\*\*, and causing us artificial price increases would force some of our jobs overseas.”

\*\*\* agreed with all of the allegations. In addition it stated, “in order to balance our supply base, we have historically purchased from both domestic and import sources” and “in our past four year purchase history of purified CMC, three producers have shared supplying of our business- Hercules (domestic), \*\*\* (importer) and \*\*\* (importer). In 2004, the domestic supplier (Hercules) holds \*\*\* percent of our business.”

\*\*\* commented on the lost revenue allegation by stating that “the reduction in price was due to the elimination of a third-party vendor and going direct to the manufacturer (Hercules), not necessarily from the presence of lower priced imports.

\*\*\* responded to the lost sales allegation (neither confirming or denying it), but not the lost revenue allegation.

\*\*\* disagreed with both lost sales allegations regarding \*\*\*. Regarding the 2002 allegation, it stated “this allocation was in place since 1999, i.e. no lost business for U.S. producer in 2002.” For 2003, it stated that both \*\*\* and Aqualon offered the same prices but that it allocated more business to Aqualon and “therefore, no volume was ‘lost’ by the U.S. producer. In addition, the prices offered by the import source and Aqualon were the same, therefore, Aqualon did not lose business to ‘lower priced imports.’”

\*\*\* agreed with the 2003 lost sales allegation regarding \*\*\* plants but disagreed with the 2002 allegation. It stated, “the import price was higher than rejected quotation for U.S. product. Therefore, the U.S. producer did not lose a sale to lower priced imports.”

Purchasers responding to lost revenues and lost sales allegations were also asked during the preliminary phase of the investigations whether they had shifted their purchases of purified CMC from the U.S. producer to suppliers of products from Finland, Mexico, Netherlands, and/or Sweden since January 2002. In addition, they were asked whether the U.S. producer reduced its prices of purified CMC to compete with suppliers of imports from Finland, Mexico, Netherlands, and/or Sweden during this period. Purchasers responses to these questions are shown in table V-19. Four of the 10 purchasers responding to the question about shifts in their purchases reported that, since January 2002, they had shifted purchases of purified CMC from the U.S. producer to imports from Mexico and Sweden, but that price was not the reason for the shift. The remaining six firms reported that they had not shifted their purchases. Four of the seven purchasers responding to the question of reduced prices stated that, since January 2002, the U.S. producer had reduced its prices of purified CMC to compete with prices of imports from the subject countries; in particular, three of the four firms cited Mexico and one cited Finland. Two other firms reported that Aqualon did not reduce its prices of the U.S.-produced purified CMC. The one remaining firm indicated that it saw a reduction of price, but did not know the status of competition in the market.

**Table V-19**  
**Purified CMC: Purchaser responses to lost revenues/lost sales enquiries**

\* \* \* \* \*

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

### BACKGROUND

Aqualon, the only U.S. producer of purified CMC during the period for which data were collected, supplied financial data on its purified CMC operations. Aqualon's fiscal year ends on \*\*\*. The questionnaire data of Aqualon were verified by the Commission staff. Based upon verification findings, the operating income increased by \$\*\*\* in 2002, \$\*\*\* in 2003, and the operating loss was increased by \$\*\*\* in 2004. All changes due to the verification are incorporated in this report.<sup>1</sup>

### PURIFIED CMC OPERATIONS

Income-and-loss data of Aqualon on its operations producing purified CMC are presented in table VI-1. Aqualon's components of cost of goods sold ("COGS") are shown in table VI-2 and major raw materials data by type are presented in table VI-3.

The operating income margin dropped from \*\*\* percent of net sales in 2002 to \*\*\* percent in 2003, and then turned to \*\*\* percent in 2004. In 2004, \*\*\*, the operating income margin would be \*\*\*.

From 2002 to 2003, the volume of total net sales increased by about \*\*\* percent. On a per-pound basis, the average COGS remained steady at \$\*\*\*, whereas the average unit value of sales declined by \$\*\*\*. The resulting lower unit gross profit \*\*\* the selling, general, and administrative ("SG&A") expenses, resulting in \*\*\* operating income. The increase in the volume of total net sales occurred in all four major end-use segments but the major increase was in oilfield end use.<sup>2</sup>

**Table VI-1**

**Purified CMC: Results of production operations of Aqualon, 2002-04**

\* \* \* \* \*

**Table VI-2**

**Purified CMC: Aqualon's components of cost of goods sold in production, 2002-04**

\* \* \* \* \*

**Table VI-3**

**Purified CMC: Aqualon's major raw materials used in production, 2002-04**

\* \* \* \* \*

From 2003 to 2004, the volume of total net sales rose by \*\*\* percent. On a per-pound basis, net sales and COGS both declined by about \$\*\*\*. However, a large non-cash charge of \$\*\*\* resulted in a decline of \$\*\*\* in gross profits. As a result, even though unit SG&A expenses declined, Aqualon incurred \*\*\*. Without the \*\*\*, which is a non-cash operating expense, Aqualon earned a gross profit of

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<sup>1</sup> See Aqualon verification report, memorandum INV-CC-066.

<sup>2</sup> Conference transcript, p. 107 (Klett). Aqualon's comments on its efforts to make its CMC operations more competitive can be found in the conference transcript at p. 107 (Herak) and the hearing transcript at pp. 40-41 (Herak).

\$\*\*\* per pound and an operating income of \$\*\*\* per pound in 2004. In March 2004, Aqualon \*\*\*.<sup>3</sup> Aqualon stated that “the decision to close a part of the Hopewell plant that makes an input chemical for CMC \*\*\* also has been necessitated in significant part by the impact of the subject dumped imports on Aqualon’s production volume.”<sup>4</sup> \*\*\*.

With respect to the details associated with the closure of MCA production facilities including any market studies, saving analysis, project analysis, or other internal studies, Aqualon stated that:

\*\*\*.  
\*\*\*.<sup>5</sup>

MCA was not used to produce any other products besides purified CMC. The Hopewell MCA plant was built in 1976, upgraded in 1997, and shut down in June 2004. With regard to a question “at what purchase price of MCA, would Aqualon start producing MCA,” Aqualon stated that “the decision would \*\*\*.”<sup>6</sup>

Aqualon has \*\*\* at its Hopewell, VA facility. The following tabulation shows the quantity, value, and average cost to \*\*\* during the period of investigation:

\* \* \* \* \*

\*\*\*. The following tabulation shows the percentage of quantity of \*\*\* during the period of investigation:

\* \* \* \* \*

Aqualon stated that “\*\*\*.”<sup>7</sup>

With regard to the individual components of COGS, raw materials accounted for \*\*\* of total cost of goods sold whereas other factory costs accounted for \*\*\* during the period of investigation.

The average cost of \*\*\* declined during the period of investigation (table VI-3). The average cost of \*\*\* increased slightly from 2002 to 2003-04. The average cost of \*\*\* increased from 2002 to 2003, and then declined in 2004.

With respect to the average COGS per pound of around \$\*\*\* during 2002-03, Aqualon confirmed that the COGS was reported at actual cost.<sup>8</sup>

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<sup>3</sup> Aqualon stated that “the \$3.6 million MCA asset impairment is included in the \$7 million of impairment charges associated with two production facilities reported (in footnote 7 of consolidated financial statements in Hercules, Inc. Form 10-Q, March 31, 2004). Also, in item 2, Management’s Discussion and Analysis of Financial Condition and Results of Operation (Page 31), we state the following with respect to Aqualon’s profit from operations: In addition, an asset impairment charge of \$4 million was incurred for closure of a raw material production line. The raw material requirements will be sourced pursuant to a long-term third-party supply agreement that should yield an estimated annual savings of \$1 million.” E-mail from \*\*\*, Aqualon, July 8, 2004; and Joint respondents’ postconference brief, p. 17.

<sup>4</sup> Petitioner’s postconference brief, p. 1. Aqualon’s pro-forma financial results on its purified CMC operations assuming the MCA production facility was not shut down are found at its posthearing brief, app. 1. Aqualon’s answers to Commissioners’ questions regarding the closure of the MCA production facility and Aqualon’s other management decisions in general are found at Aqualon’s posthearing brief, exhibit A, questions no. 7 and 23. Respondent’s answer to Commissioners’ question regarding Aqualon’s specific management decisions and recalculation of Aqualon’s financial results on its purified CMC operations under certain assumptions are found in Noviant’s posthearing brief, pp. 23-24, and exhibits 1U, 1Z, and 1AA.

<sup>5</sup> Aqualon’s producer questionnaire response, section III-9, e.

<sup>6</sup> Aqualon’s producer questionnaire response, section III-9, b, c, and d.

<sup>7</sup> E-mail from \*\*\*, Aqualon, July 8, 2004.

<sup>8</sup> E-mail from \*\*\*, Aqualon, June 28, 2004.



With respect to by-products, Aqualon stated that:  
\*\*\*.<sup>9</sup>

With respect to \*\*\*, Aqualon indicated that:  
\*\*\*.<sup>10</sup>

With respect to SG&A expenses being a \*\*\* Hercules (around 21 to 23 percent during 2002-04) as per Hercules' 10-K, Aqualon stated that:  
\*\*\*.<sup>11</sup>

A variance analysis for Aqualon's purified CMC operations is presented in table VI-4. The information for this variance analysis is derived from table VI-1. Internal consumption accounted for less than \*\*\* percent of total shipments by volume during the period of investigation and export sales averaged less than \*\*\* percent of total shipments by volume during 2002-04. There were no transfers to related firms. The variance analysis provides an assessment of changes in profitability as related to changes in pricing, cost, and volume. This analysis is more effective when the product involved is a homogeneous product with no variation in product mix. The analysis shows that the decrease in operating income from 2002 to 2004 is primarily attributable to the much higher unfavorable price variance (lower selling prices), and is offset to some extent by the favorable net cost/expense variance (lower unit costs) and the favorable net volume variance (higher sales volume).

**Table VI-4**  
**Purified CMC: Aqualon's variance analysis on its production operation, 2002-04**

\* \* \* \* \*

#### **CAPITAL EXPENDITURES AND RESEARCH AND DEVELOPMENT EXPENSES**

Aqualon's capital expenditures and research and development ("R&D") expenses on its purified CMC operations are shown in table VI-5.<sup>12</sup>

**Table VI-5**  
**Purified CMC: Capital expenditures and R&D expenses of Aqualon's operations, 2002-04**

\* \* \* \* \*

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<sup>9</sup> Ibid.

<sup>10</sup> E-mail from \*\*\*, Aqualon, April 7, 2005.

<sup>11</sup> E-mail from \*\*\*, Aqualon, April 13, 2005.

<sup>12</sup> Aqualon's comments on its capital expenditures and research and development expenditures can be found in the hearing transcript at pp. 42-44 (Herak) and Aqualon's postconference brief at p. 1 and p. 32.

## ASSETS AND RETURN ON INVESTMENT

The Commission's questionnaire requested data on assets used in the production, warehousing, and sale of purified CMC to compute return on investment ("ROI"). Although ROI can be computed in many different ways, a commonly used method is income divided by total assets. Therefore, ROI is calculated as operating income divided by total assets used in the production, warehousing, and sale of purified CMC.<sup>13</sup>

Aqualon's total assets on purified CMC and its ROI are presented in table VI-6. The total assets utilized in the production, warehousing, and sales of purified CMC declined from 2002 to 2004. The ROI steadily decreased from \*\*\* percent in 2002 to \*\*\* percent in 2003, and then turned \*\*\* percent in 2004. The trend of ROI was the same as the trend of the operating income margin to net sales in table VI-1.<sup>14</sup>

**Table VI-6**  
**Purified CMC: Aqualon's value of assets used in the production, warehousing, and sale, and return on investment, 2002-04**

\* \* \* \* \*

## CAPITAL AND INVESTMENT

The Commission's questionnaire requested comments regarding the significance of imports of purified CMC from Finland, Mexico, the Netherlands, and Sweden in terms of the actual or potential negative effects on return on investment or on growth, ability to raise capital, existing development and production efforts (including efforts to develop a derivative or more advanced version of the product), or the scale of capital investments. Aqualon's response is shown below:

Actual negative effects.—“\*\*\*.”

Anticipated negative effects.—“\*\*\*.”

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<sup>13</sup> At the staff conference petitioner and respondents were informed that the Commission asked for asset data to compute the domestic industry's return on investment based upon asset data and were asked to provide any suggestions or recommendations to compute return on investment on any other basis. Petitioner stated that “ROI is a measure of the ability to generate profits from existing assets (current and fixed). This measure is important to the extent ROI on existing assets (as one predictor of future returns) is an important factor for management decisions for allocating capital to the CMC business.” Petitioner did not suggest any other basis to compute ROI. Petitioner's postconference brief, answers to Commission staff questions, p. 2. Respondents stated that “Standard financial theory does not rely on operating income in calculating ROI. Rather, the formula is:  $ROI = \frac{\text{Net Income} + \text{Interest}}{(1 - \text{Tax Rate}) \times \text{Book Value of Assets}}$ . Therefore, to perform a true ROI calculation, the Commission must consider interest expense (which is a biased measure depending upon how companies are financed by debt versus equity) and income tax. To respondents' knowledge, the Commission has always been extremely reluctant to consider tax effects in assessing an industry's condition in Title VII proceedings. The Commission is properly concerned with examining the operations of those establishments and facilities engaged in production of subject merchandise.” Respondents mentioned several reasons in their brief and “believe that any measure of ROI that the domestic industry might put forth in this case is inherently unreliable and likely to be meaningless.” Joint respondents' postconference brief, response to questions posed by Commission staff, p. 1-3.

<sup>14</sup> Aqualon's comments on its rates of return can be found in the hearing transcript at p. 44 (Herak).

## PART VII: THREAT CONSIDERATIONS

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

In determining whether an industry in the United States is threatened with material injury by reason of imports (or sales for importation) of the subject merchandise, the Commission shall consider, among other relevant economic factors<sup>1</sup>--

(I) if a countervailable subsidy is involved, such information as may be presented to it by the administering authority as to the nature of the subsidy (particularly as to whether the countervailable subsidy is a subsidy described in Article 3 or 6.1 of the Subsidies Agreement), and whether imports of the subject merchandise are likely to increase,

(II) any existing unused production capacity or imminent, substantial increase in production capacity in the exporting country indicating the likelihood of substantially increased imports of the subject merchandise into the United States, taking into account the availability of other export markets to absorb any additional exports,

(III) a significant rate of increase of the volume or market penetration of imports of the subject merchandise indicating the likelihood of substantially increased imports,

(IV) whether imports of the subject merchandise are entering at prices that are likely to have a significant depressing or suppressing effect on domestic prices, and are likely to increase demand for further imports,

(V) inventories of the subject merchandise,

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

(VII) in any investigation under this title which involves imports of both a raw agricultural product (within the meaning of paragraph (4)(E)(iv)) and any product processed from such raw agricultural product, the likelihood that there will be increased imports, by reason of product shifting, if there is an affirmative determination by the Commission

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

under section 705(b)(1) or 735(b)(1) with respect to either the raw agricultural product or the processed agricultural product (but not both),

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

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

Subsidies are not relevant to these investigations; information on the volume and pricing of imports of the subject merchandise is presented in Parts IV and V; and information on the effects of imports of the subject merchandise on U.S. producers' existing development and production efforts is presented in Part VI. Information on inventories of the subject merchandise; foreign producers' operations, including the potential for "product-shifting;" any other threat indicators, if applicable; and any dumping in third-country markets, follows.

## THE GLOBAL INDUSTRY AND DEMAND

### The Global Industry

There are four major producers of CMC in the world that dominate pure grade production capacity, accounting for approximately \*\*\* percent of world capacity: Noviant, Aqualon, Amtex, and Akzo.<sup>3</sup> Table VII-1 presents data on global production capacity for purified CMC during 2003.<sup>4</sup>

**Table VII-1**  
**Purified CMC: World production capacity, 2003**

\* \* \* \* \*

As indicated in table VII-1, the Noviant Group of companies is the largest producer of purified CMC in the world and is described on its website as follows:<sup>5</sup>

*The Noviant group is wholly owned by J.M. Huber Corporation, operating through a management and supervisory board established in Noviant Holdings B.V.*

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

<sup>3</sup> Petition, exh. H, \*\*\*.

<sup>4</sup> Purified CMC capacity data are updated every 4 to 5 years. Staff telephone interview with \*\*\*, May 4, 2005.

<sup>5</sup> Retrieved on July 14, 2004 from *No*[http://www.noviant.fi/en/b\\_locations.html](http://www.noviant.fi/en/b_locations.html).

Noviant locations are described as follows:

***Noviant headquarters, Arnhem, the Netherlands***

*Arnhem is the headquarters of the Noviant Group. It accommodates the senior leadership team and other group functions.*

***Noviant Oy, Äänekoski, Finland<sup>6</sup>***

*The complex forms the single largest CMC production entity in the world. The group's technology centre is located in Äänekoski primarily focussing on paper and industrial applications and also includes an extensive state-of-the-art pilot plant facility.*

***Noviant AB, Skoghall, Sweden***

*The plant mainly produces products for food and personal care applications. Skoghall also runs a line for the production of technical CMC.*

***Noviant B.V., Nijmegen, the Netherlands***

*The capacity is exclusively used for the production of products for food and pharmaceutical applications. The Nijmegen unit accommodates also the R&D centre for food, pharmaceutical and personal care applications.*

Production of CMC for Noviant started in the 1940s in Aanekoski, Skoghall, and Nijmegen in that order. With the installation and start-up of the largest single CMC line in the world in the early 1990s in Finland, the group's total CMC capacity reached 75,000 metric tons (165.3 million pounds) per year, and the group grew to become the global leader in CMC. As the CMC business continued to grow, new capacity for CMC was built in 1999. In 2000 the company name was changed to Noviant and in June 2001, Noviant was acquired by J. M. Huber Corp., U.S.A.<sup>7</sup>

With common ownership of production facilities in multiple countries, Noviant corporate management allocates end-use products among the three production mills, dedicating products and grades to certain mills.<sup>8</sup>

## **Global Demand**

Parties to these investigations agree that the production and sale of purified CMC are global in scope. All major producers of purified CMC produce and sell purified CMC throughout the world either individually, through related companies, or both.<sup>9</sup> Table VII-2 presents data on estimated global demand for purified CMC during 2003.<sup>10</sup> Total world consumption is estimated at \*\*\* million pounds. U.S. apparent consumption of purified CMC represented approximately \*\*\* percent of world demand, and approximately \*\*\* percent of purified CMC for regulated industries (i.e.,  $\geq 99.5$  percent purity).

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<sup>6</sup> \*\*\*. *IMR International Quarterly Review of Food Hydrocolloids—Third Quarter 2003*, (IMR International, San Diego, CA), pp. 30-31.

<sup>7</sup> Retrieved on July 14, 2004 from [http://www.noviant.fi/en/b\\_locations.html](http://www.noviant.fi/en/b_locations.html).

<sup>8</sup> Hearing transcript, p. 213 (Huizinga).

<sup>9</sup> Noviant's prehearing brief, p. 16.

<sup>10</sup> Purified CMC global demand and consumption data are updated every 4 to 5 years. Staff telephone interview with \*\*\*, May 4, 2005.

**Table VII-2  
Purified CMC: Global demand, U.S. consumption, and shares, 2003**

\* \* \* \* \*

### THE INDUSTRY IN FINLAND

The Commission received a questionnaire response from the only known manufacturer/exporter of purified CMC in Finland: Noviant Finland. The firm reported \*\*\* to add, expand, curtail, or shut down production capacity and/or production of purified CMC in Finland <sup>11</sup> and reported that \*\*\* percent of the firm's total sales in its most recent fiscal year was represented by sales of purified CMC. Noviant Finland \*\*\* products other than purified CMC on the same equipment and machinery used in the production of purified CMC. The firm also reported purified CMC exports to third country markets \*\*\*. Noviant Finland \*\*\* inventories of purified CMC in the United States \*\*\* since 2002 and \*\*\* sell purified CMC over the internet.<sup>12</sup>

Table VII-3 presents data for reported Finnish production and shipments of purified CMC. Finnish production capacity remained constant during 2002-03, before decreasing by \*\*\* percent in 2004. In contrast to this capacity decrease, production increased and end-of period inventories decreased during 2002-04. Finnish home market sales fluctuated downward and exports to the United States increased steadily during 2002-04. Values of Finnish exports to the United States decreased by \*\*\* per pound from 2002 to 2003, then held steady at \$\*\*\* per pound during 2003-04. Finnish exports to all other export markets also increased steadily during 2002-04. As a result, total Finnish exports increased steadily during 2002-04. Exports of purified CMC accounted for approximately \*\*\* percent of total shipments of the subject product from Finland during the period of investigation.

**Table VII-3  
Purified CMC: Finnish production capacity, production, shipments, and inventories, 2002-04, and projected 2005-06**

\* \* \* \* \*

### THE INDUSTRY IN MEXICO

The Commission received a questionnaire response from the only known manufacturer/exporter of purified CMC in Mexico: Amtex.<sup>13</sup> The firm reported that \*\*\* of the firm's total sales in its most recent fiscal year was represented by sales of purified CMC. Amtex \*\*\* produce products other than purified CMC on the same equipment and machinery used in the production of purified CMC, with capacity data \*\*\*. Amtex reported exports of purified CMC to third-country markets including \*\*\*. Amtex \*\*\* inventories of purified CMC in the United States, \*\*\*, since 2002 and \*\*\* sell purified CMC over the internet.<sup>14</sup>

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<sup>11</sup> Noviant Finland has \*\*\*. Noviant Finland foreign producer questionnaire response, section I-4. The firm reportedly expanded purified CMC capacity in Finland through \*\*\*. Petition, exh. G, "Cellulose Ethers," Raymond Will and Tadahisa Sasano, *Chemical Economics Handbook—SRI International*, (November 2001), p. 51.

<sup>12</sup> Noviant Finland's foreign producer questionnaire response, sections I-2 through II-8.

<sup>13</sup> \*\*\*. Amtex's foreign producer questionnaire response, section I-2.

<sup>14</sup> Amtex's foreign producer questionnaire response, sections I-2 through II-8.

Table VII-4 presents data for reported Mexican production and shipments of purified CMC. Mexican production capacity and production increased from 2003 to 2004 \*\*\*. \*\*\* end-of period inventories increased irregularly during 2002-04. Mexican home market sales increased during 2002-04, while exports to the United States fluctuated downward. Unit values of Mexican exports to the United States fell by \$\*\*\* per pound during 2002-04. Mexican exports to all other export markets decreased during 2002-04. As a result, total Mexican exports decreased irregularly during 2002-04.

**Table VII-4**  
**Purified CMC: Mexican production capacity, production, shipments, and inventories, 2002-04, and projected 2005-06**

\* \* \* \* \*

**THE INDUSTRY IN THE NETHERLANDS**

The Commission received questionnaire responses from the two known manufacturers/exporters of purified CMC in the Netherlands: Noviant Netherlands and Akzo Netherlands. Data on the firms' production and exports of purified CMC to the United States during 2004 are presented below:

\* \* \* \* \*

Noviant Netherlands reported \*\*\* plans to add, expand, curtail, or shut down production capacity and/or production of purified CMC in Netherlands and reported that \*\*\* percent of the firm's total sales in its most recent fiscal year was represented by sales of purified CMC. Noviant Netherlands reported that it also produces \*\*\* on the same equipment and machinery used in the production of purified CMC, with capacity allocated on the basis of \*\*\*, such that purified CMC accounted for \*\*\* percent and \*\*\* accounted for \*\*\* percent of total production in 2004. Noviant Netherlands reported that it \*\*\* purified CMC over the internet. Noviant Netherlands also reported purified CMC exports to markets \*\*\*.<sup>15</sup>

Akzo Netherlands reported \*\*\* plans to add, expand, curtail, or shut down production capacity and/or production of purified CMC in Netherlands; \*\*\*.<sup>16</sup> Akzo Netherlands reported that \*\*\* percent of the firm's total sales in its most recent fiscal year was represented by sales of purified CMC, and that it also produces \*\*\* on the same equipment and machinery used in the production of purified CMC, with purified CMC accounting for \*\*\* percent, \*\*\* accounting for \*\*\* percent, and \*\*\* accounting for \*\*\* percent of total production in 2004.<sup>17</sup> Akzo \*\*\* inventories of CMC in the United States \*\*\* since 2002. Akzo Netherlands \*\*\* purified CMC over the internet and reported purified CMC exports to \*\*\*.<sup>18</sup>

Table VII-5 presents data for reported Dutch production and shipments of purified CMC. Dutch production capacity increased irregularly during 2002-04, as production increased steadily, and end-of-period inventories fluctuated downward during 2002-04. Dutch home market sales increased irregularly during 2002-04, while exports to the United States increased steadily. Unit values of Dutch exports to the United States fell by \$\*\*\* per pound during 2002-04. Dutch exports to all other export markets rose steadily during 2002-04. Exports of purified CMC accounted for more than \*\*\* percent of total shipments of the subject product from the Netherlands during the period of investigation.

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<sup>15</sup> Noviant Netherlands' foreign producer questionnaire response, sections I-2 through II-8.

<sup>16</sup> Akzo reported that \*\*\*. Akzo's preliminary phase foreign producer questionnaire response, addendum to sections II-1 and II-7.

<sup>17</sup> \*\*\*. Akzo's preliminary phase foreign producer questionnaire response, addendum section II-1.

<sup>18</sup> Akzo's foreign producer questionnaire response, addendum to sections II-7 and II-8.

**Table VII-5  
Purified CMC: Dutch production capacity, production, shipments, and inventories, 2002-04, and projected 2005-06**

\* \* \* \* \*

**THE INDUSTRY IN SWEDEN**

The Commission received a questionnaire response from the only known manufacturer/exporter of purified CMC in Sweden: Noviant Sweden. The firm reported \*\*\* plans to add, expand, curtail, or shut down production capacity and/or production of purified CMC in Sweden and reported that \*\*\* percent of its total sales in its most recent fiscal year was represented by sales of purified CMC. Noviant Sweden \*\*\* maintained inventories of purified CMC in the United States since 2001 and reported that it \*\*\* products other than purified CMC on the same equipment and machinery used in the production of purified CMC. The firm also reported purified CMC exports to third country markets including \*\*\*.<sup>19</sup>

Table VII-6 presents data for reported Swedish production and shipments of purified CMC. Swedish production capacity increased from 2002 to 2003, then held steady during 2003-04, while Swedish production and end-of-period inventories increased irregularly during 2002-04. Swedish home market sales decreased steadily during 2002-04, while Swedish exports to the United States increased irregularly. Unit values of Swedish exports to the United States fell by \$\*\*\* per pound from 2002 to 2003, then recovered to 2002 levels during 2004. Swedish exports to all other export markets decreased steadily during 2002-04. Exports of purified CMC accounted for more than \*\*\* percent of total shipments of the subject product from Sweden during the period of investigation.

**Table VII-6  
Purified CMC: Swedish production capacity, production, shipments, and inventories, 2002-04, and projected 2005-06**

\* \* \* \* \*

**SUBJECT COUNTRIES COMBINED**

Data for the combined purified CMC operations in the four subject countries are presented in table VII-7.

**Table VII-7  
Purified CMC: Subject countries' production capacity, production, shipments, and inventories, 2002-04, and projected 2005-06**

\* \* \* \* \*

Excess capacity for the four subject countries, individually and combined, are presented in table VII-8. Respondent Amtex argued that it has no excess capacity.<sup>20</sup> Respondent Noviant argued that the foreign producers are operating at or near capacity, with capacity utilization among the subject countries

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<sup>19</sup> Noviant Sweden's foreign producer questionnaire response, sections I-2 through II-8.

<sup>20</sup> Amtex argued that it has been operating at full capacity for the past several years and is highly unlikely to increase its shipments to the United States in the foreseeable future. The full capacity utilization of Amtex positions the company differently than certain other companies, as it does not have to sell CMC at any price to cover costs, since it does not have unused capacity. Amtex's posthearing brief, pp. 1 and 3.



high and excess capacity decreasing by nearly \*\*\* percent between 2002 and the level projected for 2006.<sup>21</sup>

**Table VII-8  
Purified CMC: Excess capacity<sup>1</sup> for the subject countries, 2002-04, and projected 2005-06**

\* \* \* \* \*

**U.S. INVENTORIES OF PURIFIED CMC FROM  
FINLAND, MEXICO, THE NETHERLANDS, AND SWEDEN**

Reported inventories held by U.S. importers of purified CMC from Finland, Mexico, the Netherlands, and Sweden are shown in table VII-9. U.S. importers' inventories of imports from Finland decreased steadily during 2002-04. Such decreases in Finnish inventories correlate to decreases in the ratios of such imports to both imports and U.S. shipments of imports during 2002-04. With regard to Mexico, U.S. importers' end-of-period inventories of imports, their ratio to imports, and their ratio to U.S. shipments of imports decreased steadily during 2002-04. U.S. importers' end-of-period inventories of imports from the Netherlands increased irregularly during 2002-04. The ratios of these inventories from the Netherlands to imports decreased during 2002-04, while the ratio to U.S. shipments of imports fluctuated downward. U.S. importers' end-of-period inventories of imports from Sweden decreased irregularly during 2002-04. The ratio of these Swedish inventories to imports increased irregularly during 2002-04, while the ratio of Swedish inventories to U.S. shipments of imports fell steadily during 2002-04. The resultant aggregate of U.S. importers' end-of-period inventories of subject imports, and the ratios of such aggregated subject inventories to both imports and U.S. shipments of imports all decreased steadily during 2002-04.

**Table VII-9  
Purified CMC: U.S. importers' end-of-period inventories of imports, by source, 2002-04**

\* \* \* \* \*

**U.S. IMPORTERS' IMPORTS SUBSEQUENT TO DECEMBER 31, 2004**

The Commission requested importers to indicate whether they imported or arranged for the importation of purified CMC from Finland, Mexico, the Netherlands, or Sweden after December 31, 2004. Of the 30 responding importers, 12 reported imports of purified CMC from the subject countries during that period. Importers and the quantity of purified CMC imported subsequent to December 31, 2004, are shown in the tabulation below.

\* \* \* \* \*

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<sup>21</sup> Noviant argued that not only did the Finnish excess capacity not result in increased U.S. market share, the capacity of the Noviant Finland plant decreased over the period of investigation and its capacity utilization has risen and is projected to be \*\*\* percent in 2005 and \*\*\* percent in 2006. Noviant Finland eliminated a production line with a capacity of \*\*\* at the end of 2004 and Amtex is shutting down one of its production lines in order to modernize its production, such that a current technical line will be scrapped, and a current purified CMC line will be converted to technical CMC. Noviant's prehearing brief, pp. 69-70 and posthearing brief, p. 13.

## **DUMPING IN THIRD-COUNTRY MARKETS**

There are no known purified CMC third-country import relief investigations or extant antidumping duty orders on the subject product from Finland, Mexico, the Netherlands, or Sweden.<sup>22</sup>

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<sup>22</sup> Respondents' foreign producer questionnaire responses (section II-6).

**APPENDIX A**  
***FEDERAL REGISTER* NOTICES**



## INTERNATIONAL TRADE COMMISSION

[Investigations Nos. 731-TA-1084-1087 (Final)]

### Purified Carboxymethylcellulose From Finland, Mexico, Netherlands, and Sweden

**AGENCY:** United States International Trade Commission.

**ACTION:** Scheduling of the final phase of antidumping investigations.

**SUMMARY:** The Commission hereby gives notice of the scheduling of the final phase of antidumping investigations Nos. 731-TA-1084-1087 (Final) under section 735(b) of the Tariff Act of 1930 (19 U.S.C. 1673d(b)) (the Act) to determine whether an industry in the United States is materially injured or threatened with material injury, or the establishment of an industry in the United States is materially retarded, by reason of less-than-fair-value imports from Finland, Mexico, the Netherlands, and Sweden of purified carboxymethylcellulose (CMC), provided for in subheading 3912.31.00 of the Harmonized Tariff Schedule of the United States.<sup>1</sup>

For further information concerning the conduct of this phase of the investigations, hearing procedures, and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A and C (19 CFR part 207).

**EFFECTIVE DATE:** December 27, 2004.

**FOR FURTHER INFORMATION CONTACT:** Cynthia Trainor (202-205-3354), Office

<sup>1</sup> For purposes of these investigations, the Department of Commerce has defined the subject merchandise as "all purified carboxymethylcellulose (CMC), sometimes also referred to as purified sodium CMC, polyanionic cellulose, or cellulose gum, which is a white to off-white, non-toxic, odorless, biodegradable powder, comprising sodium carboxymethylcellulose that has been refined and purified to a minimum assay of 90 percent. Purified CMC does not include unpurified or crude CMC, CMC Fluidized Polymer Suspensions, and CMC that is cross-linked through heat treatment. Purified CMC is CMC that has undergone one or more purification operations which, at a minimum, reduce the remaining salt and other by-product portion of the product to less than ten percent."

of Investigations, U.S. International Trade Commission, 500 E Street SW., Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202-205-1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202-205-2000. General information concerning the Commission may also be obtained by accessing its Internet server (<http://www.usitc.gov>). The public record for these investigations may be viewed on the Commission's electronic docket (EDIS) at <http://edis.usitc.gov>.

#### SUPPLEMENTARY INFORMATION:

**Background.** The final phase of these investigations is being scheduled as a result of affirmative preliminary determinations by the Department of Commerce that imports of purified carboxymethylcellulose from Finland, Mexico, the Netherlands, and Sweden are being sold in the United States at less than fair value within the meaning of section 733 of the Act (19 U.S.C. 1673b). The investigations were requested in a petition filed on June 9, 2004, on behalf of Aqualon Company, a division of Hercules, Incorporated, Wilmington, DE.

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

**Limited disclosure of business proprietary information (BPI) under an administrative protective order (APO) and BPI service list.** Pursuant to § 207.7(a) of the Commission's rules, the Secretary will make BPI gathered in the final phase of these investigations available to authorized applicants under the APO issued in the investigations, provided that the application is made no later than 21 days prior to the hearing date specified in this notice.

Authorized applicants must represent interested parties, as defined by 19 U.S.C. 1677(9), who are parties to the investigations. A party granted access to BPI in the preliminary phase of the investigations need not reapply for such access. A separate service list will be maintained by the Secretary for those parties authorized to receive BPI under the APO.

**Staff report.** The prehearing staff report in the final phase of these investigations will be placed in the nonpublic record on April 28, 2005, and a public version will be issued thereafter, pursuant to section 207.22 of the Commission's rules.

**Hearing.** The Commission will hold a hearing in connection with the final phase of these investigations beginning at 9:30 a.m. on May 12, 2005, at the U.S. International Trade Commission Building. Requests to appear at the hearing should be filed in writing with the Secretary to the Commission on or before May 3, 2005. A nonparty who has testimony that may aid the Commission's deliberations may request permission to present a short statement at the hearing. All parties and nonparties desiring to appear at the hearing and make oral presentations should attend a prehearing conference to be held at 9:30 a.m. on May 6, 2005, at the U.S. International Trade Commission Building. Oral testimony and written materials to be submitted at the public hearing are governed by §§ 201.6(b)(2), 201.13(f), and 207.24 of the Commission's rules. Parties must submit any request to present a portion of their hearing testimony *in camera* no later than 7 days prior to the date of the hearing.

**Written submissions.** Each party who is an interested party shall submit a prehearing brief to the Commission. Prehearing briefs must conform with the provisions of § 207.23 of the Commission's rules; the deadline for filing is May 5, 2005. Parties may also file written testimony in connection with their presentation at the hearing, as provided in § 207.24 of the Commission's rules, and posthearing briefs, which must conform with the provisions of § 207.25 of the Commission's rules. The deadline for filing posthearing briefs is May 19, 2005; witness testimony must be filed no later than three days before the hearing. In addition, any person who has not entered an appearance as a party to the investigations may submit a written statement of information pertinent to the subject of the investigations, including statements of support or opposition to the petition, on or before May 19, 2005. On June 8, 2005,

the Commission will make available to parties all information on which they have not had an opportunity to comment. Parties may submit final comments on this information on or before June 10, 2005, but such final comments must not contain new factual information and must otherwise comply with § 207.30 of the Commission's rules. All written submissions must conform with the provisions of § 201.8 of the Commission's rules; any submissions that contain BPI must also conform with the requirements of §§ 201.6, 207.3, and 207.7 of the Commission's rules. The Commission's rules do not authorize filing of submissions with the Secretary by facsimile or electronic means, except to the extent permitted by § 201.8 of the Commission's rules, as amended, 67 FR 68036 (November 8, 2002).

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

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

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

Issued: January 4, 2005.

By order of the Commission.

**Marilyn R. Abbott,**

*Secretary to the Commission.*

[FR Doc. 05-431 Filed 1-7-05; 8:45 am]

**BILLING CODE 7020-02-P**

**DEPARTMENT OF COMMERCE****International Trade Administration**

(A-421-811)

**Notice of Final Determination of Sales at Less Than Fair Value: Purified Carboxymethylcellulose from the Netherlands**

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

**SUMMARY:** On December 16, 2004, the U.S. Department of Commerce (the Department) made its preliminary determination in the antidumping duty investigation of purified carboxymethylcellulose (CMC) from the Netherlands, which was amended on February 3, 2005, pursuant to comments received by Noviant B.V. We gave interested parties an opportunity to comment on the preliminary and amended determinations. Based upon the results of verification and our analysis of the comments received, we have made certain changes. We continue to find that purified CMC from the Netherlands was sold in the United States below normal value during the period of investigation. The final weighted-average dumping margins are listed below in the section entitled "Continuation of Suspension of Liquidation."

**EFFECTIVE DATE:** May 17, 2005.

**FOR FURTHER INFORMATION CONTACT:** Angelica Mendoza, John Drury, David Kurt Kraus or Judy Lao, AD/CVD

Operations, Office 7, Import Administration, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482-3019, (202) 482-0195, (202) 482-7871, or (202) 482-7924, respectively.

#### SUPPLEMENTARY INFORMATION:

##### Background

On December 16, 2004, the Department determined that purified CMC from the Netherlands is being, or is likely to be, sold in the United States at less than fair value (LTFV), as provided in section 735(a) of the Tariff Act of 1930, as amended (the Act). See *Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Purified Carboxymethylcellulose from the Netherlands*, 69 FR 77205 (December 27, 2004) (*Preliminary Determination*). The two companies that the Department is investigating are Noviant B.V. (Noviant) and Akzo Nobel Surface Chemistry (ANSC). The Department released disclosure materials to interested parties on December 21, 2004.

On December 27, 2004, respondent Noviant submitted a letter to the Department alleging significant ministerial errors as defined by section 351.224(g) of the Department's regulations. On December 30, 2004, Aqualon Company (petitioner) also submitted a letter to the Department alleging an additional ministerial error. ANSC did not allege ministerial errors with respect to the Department's calculation of its preliminary dumping margin.

On January 21, 2005, petitioner and Noviant requested that a public hearing be held for this case. From January 31, 2005, through February 4, 2005, Department officials verified constructed value information submitted by Noviant. See Memorandum to Neal M. Halper, Director, Office of Accounting, through Theresa L. Caherty, Program Manager, "Verification Report on the Constructed Value Data Submitted by Noviant BV," dated March 17, 2005.

On February 3, 2005, the Department published its amended preliminary determination of the antidumping duty investigation of purified CMC from the Netherlands. See *Amended Preliminary Determination of Sales at Less Than Fair Value: Purified Carboxymethylcellulose from the Netherlands*, 70 FR 5609 (February 3, 2005) (*Amended Preliminary Determination*). See also Memorandum to Richard O. Weible, Director, Office 7,

"Allegation of Significant Ministerial Errors; Preliminary Determination in the Antidumping Duty Investigation of Purified Carboxymethylcellulose from the Netherlands" dated January 27, 2005, a public version of which is on file in room B-099 of the main Commerce building. Since the *Amended Preliminary Determination*, the following events have occurred:

From February 14, 2005, through February 16, 2005, the Department verified U.S. sales information submitted by Noviant Inc. See the Memorandum to the File, through Abdelali Elouaradia, Program Manager, Office 7, "Verification of U.S. Sales Information Submitted by Noviant Inc.," dated March 17, 2005. From February 21, 2005, through February 23, 2005, the Department verified U.S. sales information submitted by Akzo Nobel Cellulosic Specialties, Inc. (AN-US), ANSC's U.S. affiliate. See the Memorandum to the File, through Abdelali Elouaradia, Program Manager, Office 7, "Verification of U.S. Sales Information Submitted by AN-US," dated March 24, 2005. From February 21, 2005, through February 25, 2005, Department officials verified third country and U.S. sales information submitted by Noviant. See the Memorandum to the File, through Abdelali Elouaradia, Program Manager, Office 7, "Verification of Third Country and U.S. Sales Information Submitted by Noviant B.V. (Noviant BV)," dated March 17, 2005. From February 28, 2005, to March 4, 2005, Department officials verified home and U.S. market sales data submitted by ANSC. See the Memorandum to the File, through Abdelali Elouaradia, Program Manager, Office 7, "Verification of Home Market and U.S. sales in the Netherlands," dated March 31, 2005.

On March 24, 2005, petitioner submitted comments for consideration in the Department's final margin calculation for Noviant and withdrew its request for a public hearing; and Noviant submitted its case brief. On March 25, 2005, Noviant withdrew its January 21, 2005, request for a public hearing. Since both parties withdrew their hearing requests, we did not hold a public hearing for this case. On March 29, 2005, petitioner filed its rebuttal brief in response to arguments made by Noviant in its case brief. Noviant did not file a rebuttal brief. On April 6, 2005, ANSC filed its case brief regarding the Department's March 31, 2005, verification report. Petitioner did not file any briefs or rebuttal briefs to coincide with ANSC's submission.

##### Scope of Investigation

For purposes of this investigation, the products covered are all purified carboxymethylcellulose (CMC), sometimes also referred to as purified sodium CMC, polyanionic cellulose, or cellulose gum, which is a white to off-white, non-toxic, odorless, biodegradable powder, comprising sodium CMC that has been refined and purified to a minimum assay of 90 percent. Purified CMC does not include unpurified or crude CMC, CMC Fluidized Polymer Suspensions, and CMC that is cross-linked through heat treatment. Purified CMC is CMC that has undergone one or more purification operations which, at a minimum, reduce the remaining salt and other by-product portion of the product to less than ten percent.

The merchandise subject to this investigation is classified in the *Harmonized Tariff Schedule of the United States* (HTSUS) at subheading 3912.31.00. This tariff classification is provided for convenience and customs purposes; however, the written description of the scope of this investigation is dispositive.

##### Period of Investigation

The period of investigation (POI) is April 1, 2003, through March 31, 2004. This period corresponds to the four most recent fiscal quarters prior to the filing of the petition on June 9, 2004.

##### Fair Value Comparisons

We calculated constructed export price, export price, and normal value based on the same methodologies used in the *Preliminary Determination and Amended Preliminary Determination* for Noviant. However, we made the following changes:

##### Noviant

We used the third country and U.S. sales databases submitted by Noviant after verification, which included revisions for minor corrections and findings from verification. We revised our treatment of the indirect selling expense calculation of Noviant Pte., an affiliate of Noviant that handles all of its sales to Asia. See the Memorandum from Barbara E. Tillman to Joseph A. Spetrini, "Issues and Decision Memorandum for the Final Determination of the Antidumping Duty Investigation of Purified Carboxymethylcellulose from the Netherlands," dated May 10, 2005 (Decision Memo) at Comment 2. We corrected an inadvertent error in the Department's preliminary calculation of certain movement expenses incurred on sales by Noviant, which was not



corrected in our *Amended Preliminary Determination*. See Decision Memo at Comment 3. We applied facts available to account for certain unreported U.S. sales of subject merchandise. We made an adjustment to account for the bad debt expenses incurred by Noviant. We revised Noviant's reported inventory carrying costs to reflect corrections presented at verification and to correct for errors discovered in our preliminary inventory carrying cost calculations. We used the shipment dates as the date of sale for sales where the date of shipment occurred prior to the issuance of an invoice. For a detailed discussion of the changes made to Noviant's final margin calculation, see the Memorandum to File, through Abdelali Elouaradia, Program Manager, Office 7, "Noviant's Final Determination Calculation Memorandum," dated May 10, 2005.

**ANSC**

We used the U.S. database submitted by ANSC after verification in our margin calculations, which includes the minor corrections presented at verification. We made no changes to ANSC's final margin calculation, see the Memorandum to File, through Abdelali Elouaradia, Program Manager, Office 7, "ANSC's Final Determination Calculation Memorandum," dated May 10, 2005.

**Constructed Value**

We calculated constructed value (CV) for Noviant based on the same

methodologies used in the *Preliminary Determination*. However, we revised Noviant's general and administrative (G&A), research and development (R&D) and financial expense ratios consistent with the summary of findings section of the cost verification report. See Memorandum to Neal Halper, Director, Office of Accounting, through Theresa L. Caherty, Program Manager, "Constructed Value Calculation Adjustments for the Final Determination - Noviant BV," dated May 10, 2005.

**Verifications**

As provided in section 782(i)(1) of the Act, we verified the information submitted by the respondents during January and February 2005. We used standard verification procedures, including examination of relevant accounting and production records, as well as original source documents provided by the respondents.

**Analysis of Comments Received**

All issues raised in the petitioner's and the respondents' case and rebuttal briefs are addressed in the May 10, 2005, Decision Memo, which is hereby adopted by this notice. Attached to this notice as an appendix is a list of the issues that the petitioner and the respondents have raised and to which we have responded in the Decision Memo. Parties can find a complete discussion of all issues raised in this investigation and the corresponding

recommendations in this public memorandum, which is on file in the Department's Central Record Unit (CRU), room B-099 of the main Commerce building. In addition, a complete version of the Decision Memo can be accessed directly on the Web at <http://ia.ita.doc.gov/frn/summary/list.htm>. The paper copy and electronic version of the Decision Memo are identical in content.

**Continuation of Suspension of Liquidation**

In accordance with section 735(c)(1)(B)(ii) of the Act, we are directing the U.S. Customs and Border Protection (CBP) to continue to suspend liquidation of all imports of subject merchandise from the Netherlands that are entered, or withdrawn from warehouse, for consumption on or after December 27, 2004, the date of publication of the *Preliminary Determination* in the **Federal Register**. The CBP shall continue to require a cash deposit or the posting of a bond equal to the weighted-average amount by which the NV exceeds the EP or CEP, as indicated in the chart below. These suspension-of-liquidation instructions will remain in effect until further notice.

The weighted-average dumping margins are as follows:

| Manufacturer/Exporter              | POI                 | Weighted-Average Margin (percent) |
|------------------------------------|---------------------|-----------------------------------|
| Akzo Nobel Surface Chemistry ..... | 04/01/03 - 03/31/04 | 13.39                             |
| Noviant BV .....                   | 04/01/03 - 03/31/04 | 14.88                             |
| All Others .....                   | 04/01/03 - 03/31/04 | 14.57                             |

See Memoranda to the File, Final Determination Analysis for ANSC and Noviant, respectively, dated May 10, 2005. Public versions of our analysis memoranda are on file in the CRU.

**ITC Notification**

In accordance with section 735(d) of the Act, we have notified the U.S. International Trade Commission (ITC) of our determination. As our final determination is affirmative, the ITC will, within 45 days, determine whether these imports are materially injuring, or threatening material injury to, the U.S. industry. If the ITC determines that material injury, or threat of material injury, does not exist, the proceeding will be terminated and all securities posted will be refunded or canceled. If the ITC determines that such injury

does exist, the Department will issue an antidumping duty order.

**Notification to Interested Parties**

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

This determination is issued and published in accordance with sections 735(d) and 777(i)(1) of the Act.

Dated: May 10, 2005.

**Joseph A. Spetrini,**  
*Acting Assistant Secretary for Import Administration.*

**APPENDIX**

**List of Issues**

*Noviant*

1. Request for Scope Modification to Exclude Certain CMC Products
2. Treatment of Noviant Pte. Ltd.'s Indirect Selling Expenses
3. Ministerial Error Allegation Relating to Noviant's Net U.S. Price Calculations

*ANSC*

4. ANSC's Reporting Methodology for Certain U.S. Sales

[FR Doc. E5-2466 Filed 5-16-05; 8:45 am]

[Billing Code: 3510-DS-S]

**DEPARTMENT OF COMMERCE**

**International Trade Administration**

(A-401-808)

**Notice of Final Determination of Sales at Less Than Fair Value: Purified Carboxymethylcellulose From Sweden**

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

**SUMMARY:** On December 27, 2004, the Department of Commerce published the preliminary determination in the antidumping duty investigation of purified carboxymethylcellulose (CMC) from Sweden. See *Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Purified Carboxymethylcellulose From Sweden*, 69 FR 77213 (“*Preliminary Determination*”). The period of investigation (POI) is April 1, 2003, through March 31, 2004. The mandatory respondent, Noviant AB, did not respond to Sections B and C of the Department’s questionnaire.

Accordingly, we based the preliminary determination on adverse facts available, and applied the highest estimated dumping margin set forth in the notice of initiation. We gave interested parties an opportunity to comment on the preliminary determination, but no comments were received and no hearing was requested. Therefore, we have made no changes from the preliminary determination that CMC was sold in the United States at less than fair value (LTFV) during the period of investigation. The final weighted-average dumping margins are listed below in the section entitled “Continuation of Suspension of Liquidation.”

**EFFECTIVE DATE:** May 17, 2005.

**FOR FURTHER INFORMATION CONTACT:** Helen M. Kramer at 202-482-0405 or Abdelali Elouaradia at 202-482-1374, AD/CVD Operations, Office 7, Import Administration, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue, NW, Washington, DC 20230.

**SUPPLEMENTARY INFORMATION:**

**Period of Investigation**

The POI corresponds to the four most recent fiscal quarters prior to the filing of the petition, April 1, 2003, through March 31, 2004. See 19 CFR 351.204(b)(1).

**Scope of Investigation**

For purposes of this investigation, the products covered are all purified

carboxymethylcellulose (CMC), sometimes also referred to as purified sodium CMC, polyanionic cellulose, or cellulose gum, which is a white to off-white, non-toxic, odorless, biodegradable powder, comprising sodium carboxymethylcellulose that has been refined and purified to a minimum assay of 90 percent. Purified CMC does not include unpurified or crude CMC, CMC Fluidized Polymer Suspensions, and CMC that is cross-linked through heat treatment. Purified CMC is CMC that has undergone one or more purification operations which, at a minimum, reduce the remaining salt and other by-product portion of the product to less than ten percent.

The merchandise subject to this investigation is classified in the Harmonized Tariff Schedule of the United States (HTSUS) at subheading 3912.31.00. This tariff classification is provided for convenience and customs purposes; however, the written description of the scope of this investigation is dispositive.

**Final Determination**

The Department of Commerce (the Department) has determined that purified carboxymethylcellulose (CMC) from Sweden is being sold, or is likely to be sold, in the United States at less than fair value (LTFV), as provided in section 735 of the Tariff Act of 1930, as amended (“the Act”). The final weighted-average dumping margins are listed below in the section entitled “Continuation of Suspension of Liquidation.”

**Use of Facts Otherwise Available**

As explained in the *Preliminary Determination*, because Noviant AB failed to respond to our request for information that is necessary to calculate the dumping margin, we have found that the company failed to cooperate to the best of its ability. Therefore, pursuant to section 776(b) of the Act, we have used an adverse inference in selecting from the facts available for the margin for this company.

As adverse facts available, we have applied the highest estimated dumping margin set forth in the notice of initiation, which is the margin alleged in the petition, adjusted by the Department for currency conversion. Section 776(c) of the Act provides that the Department shall, to the extent practicable, corroborate secondary information used for facts available by reviewing independent sources reasonably at its disposal. Information from the petitioner constitutes secondary information. The Statement

of Administrative Action accompanying the Uruguay Round Agreements Act, H.R. Doc. 103-316, Vol. 1, at 870 (1994), provides that the word “corroborate” means that the Department will satisfy itself that the secondary information to be used has probative value. We examined the key elements of the export price and normal value calculations on which the margin in the petition was based. We found that the estimated margin has probative value, adjusted by the Department for currency conversion. See Memorandum to the File from Helen M. Kramer, International Trade Compliance Analyst, Re: Preliminary Determination in the Antidumping Investigation of Purified Carboxymethylcellulose (CMC) from Sweden: Total Facts Available Corroboration Memorandum, dated December 16, 2004. Furthermore, there is no information on the record that demonstrates that the rate we have selected is an inappropriate total adverse facts available rate for the company in question. Accordingly, we find that the highest margin based on that information, 25.29 percent, is corroborated within the meaning of section 776(c) of the Act. Therefore, we consider the selected rate to have probative value with respect to Noviant AB and to reflect the appropriate adverse inference.

**Continuation of Suspension of Liquidation**

In accordance with section 735(c)(1)(B)(ii) of the Act, we are directing U.S. Customs and Border Protection (“CBP”) to continue to suspend liquidation of all entries of purified CMC from Sweden that are entered, or withdrawn from warehouse, for consumption on or after December 27, 2004, the date of publication of the Preliminary Determination in the **Federal Register**. CBP shall continue to require a cash deposit or the posting of a bond equal to the weighted-average amount by which the normal value exceeds the export price, as indicated in the chart below. These suspension-of-liquidation instructions will remain in effect until further notice.

The weighted-average dumping margins are as follows:

| Manufacturer/exporter | Weighted-Average Margin (percent) |
|-----------------------|-----------------------------------|
| Noviant AB .....      | 25.29                             |
| All Others .....      | 25.29                             |

**International Trade Commission Notification**

In accordance with section 735(d) of the Act, we have notified the

International Trade Commission (“ITC”) of our determination. As our final determination is affirmative, the ITC will, within 45 days, determine whether these imports are materially injuring, or threatening material injury to, the U.S. industry. If the ITC determines that material injury, or threat of material injury, does not exist, the proceeding will be terminated and all securities posted will be refunded or canceled. If the ITC determines that such injury does exist, the Department will issue an antidumping duty order.

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

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

Dated: May 10, 2005.

**Joseph A. Spetrini,**

*Acting Assistant Secretary for Import Administration.*

[FR Doc. E5-2467 Filed 5-16-05; 8:45 am]

**BILLING CODE 3510-DS-S**

## DEPARTMENT OF COMMERCE

### International Trade Administration

(A-405-803)

#### Notice of Final Determination of Sales at Less Than Fair Value: Purified Carboxymethylcellulose From Finland

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

**SUMMARY:** The Department of Commerce (the Department) determines that purified carboxymethylcellulose (CMC) from Finland is being, or is likely to be, sold in the United States at less than fair value, as provided in section 735 of the Tariff Act of 1930, as amended (the Tariff Act). The final weighted-average dumping margins are listed below in the section entitled “Continuation of Suspension of Liquidation.”

**EFFECTIVE DATE:** May 17, 2005.

**FOR FURTHER INFORMATION CONTACT:** Brian J. Sheba, or Robert M. James, AD/CVD Operations, Office 7, Import Administration, International Trade Administration, U.S. Department of

Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230, telephone (202) 482-0145 or (202) 482-0469 respectively.

#### SUPPLEMENTARY INFORMATION:

##### Background

Since the publication of the preliminary determination of this investigation (*see Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Purified Carboxymethylcellulose From Finland*, 69 FR 77216 (December 27, 2004) (*Preliminary Determination*)), the following events have occurred.

On January 28, 2005, we received a case brief from Aqualon Company (the petitioner) and on February 2, 2005, we received a rebuttal brief from Noviant OY (Noviant). Noviant did not file a case brief. Petitioner withdrew its request for a public hearing on March 4, 2005.

##### Scope of the Investigation

For purposes of this investigation, the products covered are all purified carboxymethylcellulose (CMC), sometimes also referred to as purified sodium CMC, polyanionic cellulose, or cellulose gum, which is a white to off-white, non-toxic, odorless, biodegradable powder, comprising sodium carboxymethylcellulose that has been refined and purified to a minimum assay of 90 percent. Purified CMC does not include unpurified or crude CMC, CMC Fluidized Polymer Suspensions, and CMC that is cross-linked through heat treatment. Purified CMC is CMC that has undergone one or more purification operations which, at a minimum, reduce the remaining salt and other by-product portion of the product to less than ten percent.

The merchandise subject to this investigation is classified in the Harmonized Tariff Schedule of the United States (HTSUS) at subheading 3912.31.00. This tariff classification is provided for convenience and customs purposes; however, the written description of the scope of this investigation is dispositive.

##### Period of Investigation

The period of investigation (POI) is April 1, 2003, through March 31, 2004. See 19 CFR 351.204(b)(1).

##### Analysis of Comments Received

All issues raised in the case and rebuttal briefs by parties to this investigation are addressed in the “Issues and Decision Memorandum for the Final Determination in the Antidumping Duty Investigation of

Purified Carboxymethylcellulose from Finland” from Barbara E. Tillman, Acting Deputy Assistant Secretary for Import Administration, to Joseph A. Spetrini, Acting Assistant Secretary for Import Administration, dated May 10, 2005 (Decision Memorandum), which is hereby adopted by this notice. Attached to this notice as an appendix is a list of the issues which parties have raised and to which we have responded in the Decision Memorandum. Parties can find a complete discussion of all issues raised in this investigation and the corresponding recommendations in this public memorandum which is on file in the Department’s Central Records Unit (CRU). In addition, a complete version of the Decision Memorandum can be accessed directly on the Web at <http://ia.ita.doc.gov/frn/index.html>. The paper copy and electronic version of the Decision Memorandum are identical in content.

##### Adverse Facts Available

For the final determination, the Department continues to find that Noviant, a producer and exporter of purified CMC from Finland, and mandatory respondent in these proceedings, did not act to the best of its ability by failing to provide information requested by the Department. Thus, the Department continues to find the use of adverse facts available (AFA) is warranted under section 776(a)(2) of the Tariff Act. See Preliminary Determination at 77217 - 77219.

##### Continuation of Suspension of Liquidation

In accordance with section 735(c)(1)(B) of the Tariff Act, we are directing U.S. Customs and Border Protection (CBP) to continue to suspend liquidation of all imports of subject merchandise from Finland that are entered, or withdrawn from warehouse, for consumption on or after *December 27, 2004, the date of publication of the Preliminary Determination in the Federal Register*. CBP shall continue to require a cash deposit or the posting of a bond equal to the weighted-average amount by which the normal value (NV) exceeds the export price (EP) or constructed export price (CEP), as indicated in the chart below. These suspension-of-liquidation instructions will remain in effect until further notice. The weighted-average dumping margins are as follows:

| Manufacturer/exporter | Weighted-Average Margin (percent) |
|-----------------------|-----------------------------------|
| Noviant OY .....      | 6.65                              |

| Manufacturer/exporter | Weighted-Average Margin (percent) |
|-----------------------|-----------------------------------|
| All Others .....      | 6.65                              |

### ITC Notification

In accordance with section 735(d) of the Tariff Act, we have notified the International Trade Commission (ITC) of our determination. As our final determination is affirmative, the ITC will, within 45 days, determine whether these imports are materially injuring, or threatening material injury to, the U.S. industry. If the ITC determines that material injury, or threat of material injury, does not exist, the proceeding will be terminated and all securities posted will be refunded or canceled. If the ITC determines that such injury does exist, the Department will issue an antidumping duty order pursuant to section 736(a) of the Act.

### Notification Regarding APOs

This notice also serves as the only reminder to parties subject to the administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3), which continues to govern business proprietary information in this segment of the proceeding. Timely written notification of return/destruction of APO material or conversion to judicial protective order is hereby requested. Failure to comply with the regulation and the terms of an APO is a sanctionable violation.

This determination is issued and published in accordance with sections 735(d) and 777(i)(1) of the Act.

Dated: May 10, 2005.

**Joseph A. Spetrini,**

*Acting Assistant Secretary for Import Administration.*

### Appendix I: List of Comments in the Issues and Decision Memorandum

1. Selection of Adverse Facts Available Margin

[FR Doc. E5-2469 Filed 5-16-05; 8:45 am]

BILLING CODE 3510-DS-S

## DEPARTMENT OF COMMERCE

### International Trade Administration

(A-201-834)

### Notice of Final Determination of Sales at Less Than Fair Value: Purified Carboxymethylcellulose from Mexico

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

**SUMMARY:** On December 27, 2004, the U.S. Department of Commerce (the Department) published a preliminary determination in the antidumping duty investigation of purified carboxymethylcellulose (CMC) from Mexico (69 FR 77201). The petitioner is Aqualon Company (Aqualon or petitioner), a division of Hercules Incorporated. The respondent is Quimica Amtex S.A. de C.V. of Mexico (Amtex). We gave interested parties an opportunity to comment on the preliminary determination. No interested party submitted case briefs, and no hearing was held. Based upon the results of verification, we have made certain minor changes to the dumping calculations. We continue to find that purified CMC from Mexico is being, or is likely to be, sold in the United States at less than fair value (LTFV) as provided in section 735 of the Tariff Act. The final weighted-average dumping margins are listed below in the section entitled "Continuation of Suspension of Liquidation."

**EFFECTIVE DATE:** May 17, 2005.

#### FOR FURTHER INFORMATION CONTACT:

Mark Flessner or Robert James, AD/CVD Operations, Office 7, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482-6312 or (202) 482-0649, respectively.

#### SUPPLEMENTARY INFORMATION:

#### Background

On December 16, 2004, the Department determined that purified CMC from Mexico is being, or is likely to be, sold in the United States at less than fair value, as provided in section 733(b) of the Tariff Act of 1930, as amended (the Act). See *Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Purified Carboxymethylcellulose from Mexico*, 69 FR 77201 (December 27, 2004) (*Preliminary Determination*). The Department released disclosure materials to interested parties on December 22, 2004.

From February 21, 2005, through February 25, 2005, the Department verified the questionnaire responses of Amtex. See Memorandum to the File, from Robert James and Mark Flessner, Office VII, "Purified Carboxymethylcellulose from Mexico: Verification of Quimica Amtex, S.A. de C.V.," dated April 8, 2005 (*Verification Report*).

On December 21, 2004, Amtex submitted a proposal for a suspension

agreement in this investigation. On January 18, 2005, petitioner filed a letter expressing support for the Amtex proposal. The Department did not find that the circumstances surrounding this investigation warranted departing from the Department's normal course in concluding an investigation. (See Letter from Grant D. Aldonas, Under Secretary for International Trade, to Lic. Juan Antonio Garcia Villa, Subsecretario de Normatividad, dated March 4, 2005, and Letter from Joseph A. Spetrini, Acting Assistant Secretary for Import Administration, to the Honorable Ken Smith Ramos, Director General for International Trade Negotiations, dated May 6, 2005, which is on the public file in the Department's Central Record Unit (CRU), room B-099 of the main Commerce building.)

Neither party submitted case briefs, and no hearing was held.

### Scope of Investigation

For purposes of this investigation, the products covered are all purified carboxymethylcellulose (CMC), sometimes also referred to as purified sodium CMC, polyanionic cellulose, or cellulose gum, which is a white to off-white, non-toxic, odorless, biodegradable powder, comprising sodium CMC that has been refined and purified to a minimum assay of 90 percent. Purified CMC does not include unpurified or crude CMC, CMC Fluidized Polymer Suspensions, and CMC that is cross-linked through heat treatment. Purified CMC is CMC that has undergone one or more purification operations which, at a minimum, reduce the remaining salt and other by-product portion of the product to less than ten percent.

The merchandise subject to this investigation is classified in the Harmonized Tariff Schedule of the United States at subheading 3912.31.00. This tariff classification is provided for convenience and customs purposes; however, the written description of the scope of this investigation is dispositive.

### Period of Investigation

The period of investigation (POI) is April 1, 2003, through March 31, 2004. This period corresponds to the four most recent fiscal quarters prior to the filing of the petition on June 9, 2004.

### Fair Value Comparisons

We calculated export price and normal value based on the same methodologies used in the *Preliminary Determination*. We used the home market and U.S. sales databases submitted by Amtex after verification, which included minor corrections

presented at the beginning of verification and findings from verification. (See Memorandum to the File from Mark Flessner, Case Analyst, through Robert James, Program Manager, dated May 10, 2005 (*Analysis Memo*), at section II; see also *Verification Report*.)

**Cost of Production and Constructed Value**

We calculated the cost of production and constructed value for Amtex based on the same methodologies used in the *Preliminary Determination*.

**Verifications**

As provided in section 782(i)(1) of the Act, we verified the information submitted by respondents during the

period February 21 through 25, 2005. See *Verification Report*. We used standard verification procedures, including examination of relevant accounting and production records, as well as original source documents provided by the respondents.

**Analysis of Comments Received**

We did not receive any interested party comments on our preliminary decision or on our *Verification Report*. Therefore, there is no Issues and Decisions Memorandum for this final determination.

**Continuation of Suspension of Liquidation**

In accordance with section 735(c)(1)(B)(ii) of the Act, we are

directing the U.S. Customs and Border Protection (CBP) to continue to suspend liquidation of all imports of subject merchandise from Mexico that are entered, or withdrawn from warehouse, for consumption on or after December 27, 2004, the date of publication of the *Preliminary Determination* in the **Federal Register**. The CBP shall continue to require a cash deposit or the posting of a bond equal to the weighted-average amount by which the NV exceeds the EP, as indicated in the chart below. These suspension-of-liquidation instructions will remain in effect until further notice. The weighted-average dumping margins are as follows:

| Producer                         | POI                 | Weighted-Average Margin (percent) |
|----------------------------------|---------------------|-----------------------------------|
| Quimica Amtex, S.A. de C.V. .... | 04/01/03 - 03/31/04 | 12.61                             |
| All Others .....                 | 04/01/03 - 03/31/04 | 12.61                             |

See Memorandum to the File, Final Determination Analysis for Quimica Amtex, S.A. de C.V., dated May 10, 2005. Public versions of the analysis memorandum are on file in the CRU.

Dated: May 10, 2005.  
**Joseph A. Spetrini**,  
*Acting Assistant Secretary for Import Administration.*  
 [FR Doc. E5-2470 Filed 5-16-05; 8:45 am]  
**BILLING CODE 3510-DS-S**

**ITC Notification**

In accordance with section 735(d) of the Act, we have notified the International Trade Commission (ITC) of our determination. As our final determination is affirmative, the ITC will, within 45 days, determine whether these imports are materially injuring, or threatening material injury to, the United States industry. If the ITC determines that material injury, or threat of material injury, does not exist, the proceeding will be terminated and all securities posted will be refunded or canceled. If the ITC determines that such injury does exist, the Department will issue an antidumping duty order.

**Notification to Interested Parties**

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

This determination is issued and published in accordance with sections 735(d) and 777(i)(1) of the Act.



**APPENDIX B**  
**CALENDAR OF THE PUBLIC HEARING**





## CALENDAR OF THE PUBLIC HEARING

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

**Subject:** Purified Carboxymethylcellulose from Finland, Mexico, Netherlands, and Sweden

**Inv. Nos.:** 731-TA-1084-1087 (Final)

**Date and Time:** May 12, 2005 - 9:30 a.m.

Sessions were held in connection with these investigations in the Main Hearing Room (room 101), 500 E Street, SW, Washington, D.C.

### **FOREIGN GOVERNMENT APPEARANCE:**

Government of Mexico  
Mexico City, Mexico

**Jose Manuel Vargas**, Deputy Director General,  
International Affairs

### **OPENING REMARKS:**

Petitioners (**Edward M. Lebow**, Haynes and Boone, LLP)  
Respondents (**Matthew J. Clark**, Arent Fox PLLC; *and*  
**Jeffrey S. Neeley**, Greenberg Traurig LLP)

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

Haynes and Boone, LLP  
Washington, D.C.  
on behalf of

Aqualon Company

**John Televantos**, President, Aqualon Company;  
*and* Vice President, Hercules Incorporated

**D. Charles Herak**, Carboxymethylcellulose Global  
Business Director, Aqualon Company

**Mary Jean Cash**, Senior Staff Scientist, Aqualon  
Company

**Daniel W. Klett**, Economic Consultant, Capital  
Trade, Inc.

**Edward M. Lebow** )  
 ) – OF COUNSEL  
**Andrew Ridenour** )

**In Opposition to the Imposition of  
Antidumping Duties:**

Arent Fox PLLC  
Washington, D.C.  
on behalf of

Noviant Group Companies

**Dick Huizinga**, Vice President, Sales, Noviant

**Kenneth McKenzie**, Director, New Products  
Development, Noviant

**Illka Taminen**, Technical Sales Manager,  
Noviant

**David Goss**, Research & Development Manger,  
West Linn Paper Company

**Ray Somers**, Halliburton Energy Services Inc. (Ret.)

**Bruce P. Malashevich**, President, Economic Consulting  
Services, Inc.

**Matthew J. Clark** )  
 ) – OF COUNSEL  
**Keith R. Marino** )

Greenberg Traurig, LLP  
Washington, D.C.  
on behalf of

Quimica Amtex, S.A. de C.V. (“QAM”)

**Corrado Piotti**, Commercial Director, QAM

**Volker Nessel**, General Manager, QAM

**Jeffrey S. Neeley** ) – OF COUNSEL

**REBUTTAL/CLOSING REMARKS:**

Petitioners (**Edward M. Lebow**, Haynes and Boone, LLP)  
Respondents (**Matthew J. Clark**, Arent Fox PLLC; *and*  
**Jeffrey S. Neeley**, Greenberg Traurig LLP)

**APPENDIX C**  
**SUMMARY DATA**



| <b>Purified CMC: Summary tables</b> |   |   |
|-------------------------------------|---|---|
| <b>Table No.</b>                    | <b>Imports</b>  | <b>Countries cumulated</b>                            |
| C-1                                 | Market shares for subject country imports are based on <b>shipments</b> of U.S. imports.  | <b>Four</b> subject countries.                        |
| C-2                                 | Market shares for subject country imports, including 2001 data, based on <b>shipments</b> of U.S. imports.  | <b>Four</b> subject countries                         |
| C-3                                 | Market shares for subject country imports are based on <b>shipments</b> of U.S. imports.  | <b>Mexico, Netherlands, and Sweden.</b>               |
| C-4                                 | Market shares for subject country imports are based on <b>shipments</b> of U.S. imports.  | <b>Finland, Netherlands, and Mexico.</b>              |
| C-5                                 | Market shares for subject country imports are based on <b>shipments</b> of U.S. imports.  | <b>Finland AND Netherlands and Mexico AND Sweden.</b> |
| C-6                                 | Crude CMC imports and U.S. producer's data.   |   |
| C-7                                 | CMC FPS U.S. producer's data.   |   |
| C-8                                 | Purified and crude CMC, and CMC FPS with market shares for subject country imports based on <b>shipments</b> of U.S. imports of purified CMC as reported in <b>importer questionnaire responses</b> (except as noted) for the countries subject to investigation and on imports of crude derived from proprietary Customs data. |   |

**Table C-1**  
**Purified CMC: Summary data concerning the U.S. market, 2002-04**

\* \* \* \* \*

**Table C-2**  
**Purified CMC: Summary data concerning the U.S. market, 2001-04**

\* \* \* \* \*

**Table C-3**  
**Purified CMC: Summary data concerning the U.S. market cumulating imports from Mexico, Netherlands, and Sweden, 2002-04**

\* \* \* \* \*

**Table C-4**  
**Purified CMC: Summary data concerning the U.S. market cumulating imports from Finland, Mexico, and Netherlands, 2002-04**

\* \* \* \* \*

**Table C-5**  
**Purified CMC: Summary data concerning the U.S. market cumulating imports from Finland AND Netherlands, and Mexico AND Sweden, 2002-04**

\* \* \* \* \*

**Table C-6**  
**Crude CMC: Summary data concerning imports and U.S. producer, 2002-04**

\* \* \* \* \*

**Table C-7**  
**CMC FPS: Summary data concerning the U.S. producer, 2002-04**

\* \* \* \* \*

**Table C-8**  
**Purified, crude, and FPS CMC: Summary data concerning the U.S. market, 2002-04**

\* \* \* \* \*



**APPENDIX D**

**U.S. PRODUCERS', U.S. IMPORTERS', AND U.S. PURCHASERS'  
COMMENTS REGARDING COMPARABILITY OF  
CMC PRODUCTS**



**U.S. PRODUCERS', IMPORTERS', AND PURCHASERS' COMMENTS  
REGARDING COMPARABILITY OF  
PURIFIED CMC AND CRUDE/UNREFINED CMC**

**(U.S. producers' questionnaire: Question V-8)  
(U.S. importers' questionnaire: Question II-6)  
(U.S. purchasers' questionnaire: Question II-8)**

**COMPARABILITY OF PURIFIED CMC AND CRUDE/UNREFINED CMC**—(I) Firms were asked if they had produced, imported, used, or sold **crude/unrefined CMC** since January 1, 2002.

The following firms answered “Yes” and responded to (ii) below.

\*\*\*.

The following firms answered “No” or “No response” to this question and did not respond to (ii) below.

\*\*\*.

(ii) To the extent that information is available, please describe the differences and similarities between **purified CMC** and **crude/unrefined CMC** with respect to the following factors: (a) **characteristics and uses**--describe the differences and similarities in the chemical characteristics and end uses; (b) **interchangeability**--discuss the interchangeability in end use of the two products; (c) **manufacturing processes**--describe the two processes and include a discussion of the interchangeability of production inputs, machinery and equipment, and skilled labor; (d) **channels of distribution**--describe the specific end use/customer requirements and channels of distribution/market situation in which the products are sold; (e) **customer and producer perceptions**--describe any perceived differences in the two products (e.g., sales/marketing practices); and (f) **price**--provide a discussion and specific examples of prices for the two products. Use additional pages as necessary.

Responses to the questions are as follows:

**(a) Characteristics and uses:**

***Producer:***

\*\*\*: “\*\*\*.”

***Importers:***

\*\*\*: “Crude Uses: reagent for flotation process in mining operations, viscosifier and fluid loss additive for oil drilling, pelletizing of iron ore. Main Characteristic difference is purity level.”

\*\*\*: “Crude (also referred to as unrefined or technical) CMC differs from purified in that crude CMC has a purity assay of less than 90%. For \*\*\*, Technical grade products have an assay less than 85%. Technical grade product is made from the same basic chemical inputs and uses the same base processes as purified CMC, but has a higher salt presence (impurity). Technical grade product is well suited to applications in the industrial sector, especially for detergents, and to a lesser extent also in drilling applications. Technical

grade products are not able to be used in food or pharmaceutical applications, personal care (dental and cosmetic), or even most paper applications. In these uses purified CMC competes with other purified CMCs or with non-CMC hydrocolloids and thickeners (e.g., guar, xanthan, carrageenan, starch, etc.). \*\*\* sales of technical grade product are concentrated on industrial applications, in particular for detergents.”

\*\*\*: “The products provide similar chemical and end use characteristics. Purified CMC has a higher CMC content.”

\*\*\*: “Use less, better quality results.”

\*\*\*: “Main difference is the active content and the main similarity is the CMC molecule.”

\*\*\*: “Obviously, only for technical applications such as in paper, oil, detergents, mining, pelletizing, suspensions, etc. lower purity requires that more product be used.”

***Purchasers:***

\*\*\*: “Can be the same.”

\*\*\*: “The products provide similar chemical and end use characteristics. Purified CMC has a higher CMC content.”

\*\*\*: “Purified CMC does not contain excess salt and is therefore more efficient on a pound-for-pound basis. Purified CMC gives a higher viscosity and lower fluid loss in drilling fluids than crude CMC. Purified CMC normally is more efficient also as it is more highly modified. The uses for CMC in drilling fluids are to add viscosity, control shale swelling, and fluid loss control to water base muds. Crude/technical CMCs are used in reducing the cost of purified CMC an in consumer products like dishwashing soaps and food.”

\*\*\*: “Differences: viscosity of finished goods, amount required in finished good.  
Similarities: used in many similar applications including textile care and surface treatments.”

\*\*\*: “Use less, better quality results.”

\*\*\*: “Paper production.”

**(b) Interchangeability:**

***Producer:***

\*\*\*: “\*\*\*”

***Importers:***

- \*\*\*: “Can be completely interchangeable if you use more crude CMC by weight to equal the active content of purified CMC. Cannot be used in food or pharmaceuticals however.”
- \*\*\*: “The presence of salts and lack of the purity levels mandated for regulated applications (food, pharma, personal care, and cosmetics) lead to no real interchangeability. \*\*\* has succeeded in producing high performance technical grades that are now used in drilling applications that previously used only purified grades.”
- \*\*\*: “The products are interchangeable for the most part.”
- \*\*\*: “NA.”
- \*\*\*: “In some applications (those where byproducts do not interfere) yes, by adjusting the dosage.”
- \*\*\*: “Crude CMC will most often be less expensive per unit of activity and preferable except where the low purity and higher salt content is a detriment to performance.”

***Purchasers:***

- \*\*\*: “Can be the same”<sup>1</sup>
- \*\*\*: “The products are interchangeable for the most part.”
- \*\*\*: “Normally crude and purified are not interchangeable as drilling contractors prefer a purified, more efficient grade of CMC. Crude/ technical CMC is used to reduce the cost of purified CMC.”
- \*\*\*: “Crude grade and purified grade are used in similar applications and in some instances could be interchanged by modifying the formula. This is not true in all of our formulations.”
- \*\*\*: “NA.”
- \*\*\*: No response.

**c) Manufacturing process:**

***Producer:***

- \*\*\*: No response.

---

<sup>1</sup> “\*\*\*.” \*\*\*.

***Importers:***

- \*\*\*: “No process changes needed; only a recalibration of the active content.”
- \*\*\*: “Technical grade product is made on separate production lines dedicated to the production of technical grade material. Because of the high purity requirements attached to purified CMC, it is infeasible and uneconomic to produce both technical and purified grades on the same lines (the change and cleaning times are too long and the risk of contamination too great). The basic manufacturing process and chemistry is the same for purified CMC and technical CMC. Longer production runs are needed to achieve the higher purity levels needed for purified CMC.”
- \*\*\*: “We do not manufacture purified CMC or crude/unrefined CMC so no knowledge.”
- \*\*\*: “NA.”
- \*\*\*: “Manufacturing of purified CMC requires an additional step to the production of the crude; It means additional machinery, equipment, and skilled labor.”
- \*\*\*: “We don’t produce - but understand the high purity product is made via a solvent wash.”

**(d) Channels of distribution:**

***Producer:***

- \*\*\*: “\*\*\*.”

***Importers:***

- \*\*\*: “Crude CMC sales to mining applications and oil drilling require extensive logistical arrangements: more complicated than purified CMC sales.”
- \*\*\*: “Both technical and purified CMC are sold direct to end users and to distributors, although the two groups are mutually exclusive. The end users of purified CMC do not purchase technical grades, or if they do they purchase them for completely different applications (e.g., \*\*\* buying technical grades for it detergents and purified grades for personal care and food applications).”
- \*\*\*: “We distribute both materials through the same channels.”
- \*\*\*: “NA.”
- \*\*\*: “Same channel.”
- \*\*\*: “We sell mostly direct through public warehouses.”

**(e) Customer and producer perceptions:**

***Producer:***

\*\*\*: “\*\*\*.”

***Importers:***

\*\*\*: “Pure CMC is higher quality because it takes fewer pounds to get the job done, but technical CMC can often be cheaper even when using more.”

\*\*\*: “The perceptions of customers (and of producers) follow the parameters mentioned above. Purified and technical grade CMCs do not compete for the same customers and applications.”

\*\*\*: “Customers perceive the purified CMC to have added value.”

\*\*\*: “NA.”

\*\*\*: “Usually purified CMC is perceived as a higher quality product.”

\*\*\*: “Customers are fully aware of the crude CMC option and knowledgeable enough to make the decision when it is appropriate to use.”

***Purchasers:***

\*\*\*: “Can be the same.”

\*\*\*: “Customers perceive the purified CMC to have added value.”

\*\*\*: “Customers in the drilling fluid business prefer the purified CMCs. Producers are aware of these preferences and supply mostly purified grades.”

\*\*\*: “None noted or tracked.”

\*\*\*: “NA.”

\*\*\*: No response.

**(f) Price:**

***Producer:***

\*\*\*: “\*\*\*.”

***Importers:***

\*\*\*: “Crude CMC sells for less than pure CMC, even when calculating on a active content basis. Crude cannot be used in food or pharmaceutical applications.”

- \*\*\*: “Technical CMC is priced lower than purified CMC on average, although there are highly specialized technical grades that command prices equivalent to or slightly above lower grade purified CMC.”
- \*\*\*: “Crude CMC = \$1.38/lb average in 2004. Purified CMC = \$1.86/lb average in 2004.”
- \*\*\*: “NA.”
- \*\*\*: “Range purified: U.S. \$1.15-4.00 per pound; crude: U.S. \$0.50-0.90 per pound.”
- \*\*\*: “As stated, cost per unit of activity is less.”

***Purchasers:***

- \*\*\*: “Only if both perform the same is pricing a consideration.. Purified \$1.47/lb. Technical \$0.92/lb.”
- \*\*\*: “Crude CMC = \$1.38/lb average in 2004. Purified CMC = \$1.86/lb average in 2004.”
- \*\*\*: “The purified grades are priced about 50% higher than crude/technical grades.”
- \*\*\*: “Crude grade is significantly less expensive. From our experience, purified grade is roughly 3-5 times more expensive.”
- \*\*\*: “Higher.”
- \*\*\*: No response.



**U.S. PRODUCERS', IMPORTERS', AND PURCHASERS' COMMENTS  
REGARDING COMPARABILITY OF  
PURIFIED CMC AND CMC FPS**

**(U.S. producers' questionnaire: Question V-7)**

**(U.S. importers' questionnaire: Question II-5)**

**(U.S. purchasers' questionnaire: Question II-7)**

**COMPARABILITY OF PURIFIED CMC AND CMC FPS.**-(I) Firms were asked if they had produced, imported, used, or sold **CMC FPS** since January 1, 2002.

The following firms answered "Yes" and responded to (ii) below.

\*\*\*

The following firms answered "No" or "No response" to this question, and did not respond to (ii) below.

\*\*\*

(ii) To the extent that information is available, please describe the differences and similarities between **purified CMC** and **CMC FPS** with respect to the following factors: (a) **characteristics and uses**--describe the differences and similarities in the chemical characteristics and end uses; (b) **interchangeability**--discuss the interchangeability in end use of the two products; (c) **manufacturing processes**--describe the two processes and include a discussion of the interchangeability of production inputs, machinery and equipment, and skilled labor; (d) **channels of distribution**--describe the specific end use/customer requirements and channels of distribution/market situation in which the products are sold; (e) **customer and producer perceptions**--describe any perceived differences in the two products (e.g., sales/marketing practices); and (f) **price**--provide a discussion and specific examples of prices for the two products. Use additional pages as necessary.

Responses to the questions are as follows:

**(a) Characteristics and uses:**

***Producer:***

\*\*\*: "\*\*\*\*."

***Importers:***

\*\*\*: "Purified CMC is conventionally sold as a dry powder that requires manpower to handle it at the end-user, primarily being made down into a water solution of 8-15 % concentration utilizing mainly low molecular weight versions of CMC since the paper industry is the principal industry outlet for FPS. Low molecular weight CMC versions are more applicable to this sector.

FPS is a liquid containing 35-45 % CMC that offers handling advantages at the end-user. Since this is a suspension, a wider choice of molecular weights can be used. In addition, cost savings by the end-user can be realized due to minimization of possible capital expenditure in dissolution equipment as well as the associated manpower in handling dry powders. A further consideration is the elimination of dust in handling."

\*\*\*: “The products provide similar chemical and end use characteristics. FPS can be pumped and more easily metered.”

***Purchasers:***

\*\*\*: “CMC & FPS used as rheology modifier in paper coating applications. FPS CMS used where handling of dry, powder CMC not desired.”

\*\*\*: “The products provide similar chemical and end use characteristics. FPS can be pumped and more easily metered.”

\*\*\*: “Both the purified CMC and FPC are used in the drilling markets.”

**(b) Interchangeability:**

***Producer:***

\*\*\*: “\*\*\*.”

***Importers:***

\*\*\*: “CMC is added for the specific functionality that the chemical backbone provides, irrespective of the means of incorporation either as a dry powder (with suitable equipment), as a water solution or as FPS.

Due to intellectual property, there are significant limitations on the type of FPS that can be created that possesses the flowability & stability characteristics necessary for the ease of handling that the FPS was designed for.

Water solutions impose operational ceilings on the needed incorporation level for functionality due to the amount of water associated with it.”

\*\*\*: “The products are interchangeable for the most part.”

***Purchasers:***

\*\*\*: “Functionally interchangeable as rheology modifier. Some locations do not desire adding the additional components needed to fluidize the FPC CMC coating being made.”

\*\*\*: “The products are interchangeable for the most part.”

\*\*\*: “Both used for same applications.”

**c) Manufacturing process:**

***Producer:***

\*\*\*: “\*\*\*.”

***Importers:***

\*\*\*: “\*\*\* produce CMC in essentially identical processes, with a dry powder or granule as the result. FPS is an additional step incorporating the dry CMC into a fluidized polymer suspension with the necessary stabilization behavior.”

\*\*\*: “We do not manufacture CMC so no knowledge. Our FSP is manufactured by viscosifying a carrier fluid and mixing in dry CMC to 40% active.”

**(d) Channels of distribution:**

***Producer:***

\*\*\*: “\*\*\*.”

***Importers:***

\*\*\*: “\*\*\* manufacture and sell directly to end users either in a dry form or \*\*\*, as FPS.”

\*\*\*: “Our purified CMC and FPS are distributed through the same channels.”

**(e) Customer and producer perceptions:**

***Producer:***

\*\*\*: “\*\*\*.”

***Importers:***

\*\*\*: “Purified CMC is in a dry form and as indicated above, requires additional handling for incorporation as well as implications to manpower with the associated dual levels inherent with dry powders. Since CMC for its functional properties, will be added to an aqueous based pigmented slurry, the perception is essentially ease of incorporation.”

\*\*\*: “Customers perceive FPS to have added value.”

***Purchasers:***

\*\*\*: “FPC CMC considered easier to handle if powder CMC is not practical. FPC CMC deemed more expensive for equivalent end use performance.”

\*\*\*: “Customers perceive FPS to have added value.”

\*\*\*: “The FPS CMC is easier to mix.”

**(f) Price:**

***Producer:***

\*\*\*: “\*\*\*.”

***Importers:***

\*\*\*: “FPS will generally contain 35-45 % active CMC and the customer price for the active component will be in the range of twice or three times higher than the equivalent CMC sold as a dry powder. The non-active components are the liquid carrier and the stabilization system, which have no functionality.”

\*\*\*: “FPS = \$1.66/lb. @ 40% active = \$4.15/lb of CMC. Purified CMC = \$1.86/lb. Average prices from 2004.”

***Purchasers:***

\*\*\*: “FPS CMC more expensive, approximately \$2.00-\$2.25/wet lb. FPS CMC to \$1.15-1.75/dry lb. CMC. FPS CMC considered 70-100% higher in cost on an as used basis.”

\*\*\*: “FPS = \$1.66/lb. @ 40% active = \$4.15/lb of CMC. Purified CMC = \$1.86/lb. Average prices from 2004.”

**APPENDIX E**  
**U.S. SHIPMENTS BY END USE**



**Table E-1**

**Purified CMC: U.S. producers' and importers' U.S. shipments, by end use, 2002-04**

\* \* \* \* \*

**Table E-2**

**Purified CMC: U.S. importers' U.S. shipments of imports from nonsubject sources, by end use, 2002-04**

\* \* \* \* \*





## **APPENDIX F**

**QUESTIONNAIRE DELIVERED PURCHASE PRICE DATA REPORTED  
BY U.S. END-USER IMPORTERS AND TWO SELECTED U.S.  
DISTRIBUTOR IMPORTERS OF THE SUBJECT IMPORTED PURIFIED  
CMC AND BY U.S. PURCHASERS OF THE DOMESTIC PURIFIED CMC**



**Table F-1**

**Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of U.S.-produced and subject imported product 1,<sup>1</sup> reported and by purchasers of the domestic product and by end-user importers, by countries and by quarters, January 2002-December 2004**

| Period of shipment   | United States     |                   |              | Mexico            |                   |              | Netherlands       |                   |              | Sweden            |                   |              |
|--|-------------------|-------------------|--------------|-------------------|-------------------|--------------|-------------------|-------------------|--------------|-------------------|-------------------|--------------|
|  | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms |
| 2002:  |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.  | \$1.66            | 381,570           | 8            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June  | 1.68              | 365,770           | 9            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.   | 1.77              | 398,214           | 10           | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.  | 1.48              | 418,531           | 7            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| 2003:  |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.  | 1.49              | 530,354           | 9            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June  | 1.55              | 639,401           | 11           | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.   | 1.54              | 805,900           | 10           | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.  | 1.49              | 518,962           | 6            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| 2004:  |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.  | 1.41              | 872,059           | 12           | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June  | 1.34              | 1,011,40          | 9            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.   | 1.50              | 923,136           | 12           | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.  | 1.29              | 998,295           | 9            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| TOTALS   | ( <sup>2</sup> )  | 7,863,60          | 14           | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> )  | ***               | ***          |
| <sup>1</sup> High viscosity (approximately 1,000 to 3,000 Mpas in 1 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydro- glucose units), used for regulated (food or personal care) applications, excluding pharmaceutical. The trade names of the suppliers for this product are: Aqualon-7HF; Noviant-Cekol 30,000; Akzo-Akucel AF278; Amtex-PE 31FG.<br><sup>2</sup> Not applicable. |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |
| Source: Compiled from data submitted in response to Commission questionnaires.   |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |

**Table F-2**

**Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of U.S.-produced product 2<sup>1</sup> and that imported from Mexico, reported by purchasers of the domestic product and by end-user importers, by quarters, January 2002-December 2004**

| Period of shipment   | United States        |                      |              | Mexico               |                      |              |
|--|----------------------|----------------------|--------------|----------------------|----------------------|--------------|
|  | Price<br>(per pound) | Quantity<br>(pounds) | No. of firms | Price<br>(per pound) | Quantity<br>(pounds) | No. of firms |
| 2002:  |                      |                      |              |                      |                      |              |
| Jan.-Mar.  | ***                  | ***                  | ***          | ***                  | ***                  | ***          |
| Apr.-June  | ***                  | ***                  | ***          | ***                  | ***                  | ***          |
| July-Sept.   | ***                  | ***                  | ***          | ***                  | ***                  | ***          |
| Oct.-Dec.  | \$1.79               | 62,950               | 6            | ***                  | ***                  | ***          |
| 2003:  |                      |                      |              |                      |                      |              |
| Jan.-Mar.  | ***                  | ***                  | ***          | ***                  | ***                  | ***          |
| Apr.-June  | 1.41                 | 94,800               | 4            | ***                  | ***                  | ***          |
| July-Sept.   | 1.53                 | 36,000               | 4            | ***                  | ***                  | ***          |
| Oct.-Dec.  | ***                  | ***                  | ***          | ***                  | ***                  | ***          |
| 2004:  |                      |                      |              |                      |                      |              |
| Jan.-Mar.  | 1.59                 | 103,312              | 6            | ***                  | ***                  | ***          |
| Apr.-June  | 1.45                 | 123,312              | 5            | ***                  | ***                  | ***          |
| July-Sept.   | 1.46                 | 136,612              | 5            | ***                  | ***                  | ***          |
| Oct.-Dec.  | 1.32                 | 171,775              | 4            | ***                  | ***                  | ***          |
| TOTALS   | ( <sup>2</sup> )     | 728,761              | 7            | ( <sup>2</sup> )     | ***                  | ***          |
| <p><sup>1</sup> Very high viscosity (approximately 2,500 to 9,000 Mpas in 1 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydroglucose units), used for regulated (food or personal care) applications, excluding pharmaceutical. The trade names of the suppliers for this product are: Aqualon-7H4F and 9H4F; Noviant-Cekol 50,000; Akzo-Akucell 280X and 298X; Amtex-F1-4000 and F1-6000 (both formerly included in PE 32 FG).</p> <p><sup>2</sup> Not applicable.</p> |                      |                      |              |                      |                      |              |
| Source: Compiled from data submitted in response to Commission questionnaires.   |                      |                      |              |                      |                      |              |

Table F-3

Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of the U.S.-produced and subject imported product 5,<sup>1</sup> reported by purchasers of the domestic product and by end-user importers, by countries and by quarters, January 2002-December 2004

| Period of shipment  | United States     |                   |              | Finland           |                   |              | Netherlands       |                   |              |
|---|-------------------|-------------------|--------------|-------------------|-------------------|--------------|-------------------|-------------------|--------------|
|   | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms |
| 2002:   |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.   | \$1.67            | 275,306           | 4            | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June   | 1.61              | 299,650           | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.  | 1.61              | 381,100           | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.   | 1.60              | 473,200           | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| 2003:   |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.   | 1.49              | 454,250           | 4            | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June   | 1.50              | 466,703           | 6            | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.  | 1.50              | 235,750           | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.   | 1.52              | 319,200           | 6            | ***               | ***               | ***          | ***               | ***               | ***          |
| 2004:   |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.   | 1.49              | 303,300           | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June   | 1.47              | 281,600           | 4            | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.  | 1.54              | 173,300           | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.   | 1.53              | 176,800           | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| TOTALS  | ( <sup>2</sup> )  | 3,840,15          | 7            | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> )  | ***               | ***          |
| <p><sup>1</sup> Low viscosity (approximately 20 to 1,000 Mpas in 4 percent solution, 5 to 100 Mpas in 2 percent solution), degree of substitution approximately 0.65 to 0.90 (i.e., 6.5 to 9.0 carboxymethyl groups per 10 anhydroglucose units), non-regulated (e.g., paper) applications (i.e., standard grade). The trade names of the suppliers for this product are: Aqualon (98 percent CMC minimum)–7L1, 7L2, and 7L; Noviant (98 percent CMC minimum)–Finnfix 5, Finnfix 10, and Finnfix 30; Akzo–None; Amtex (92 percent CMC minimum)–P2-10, P2-30, and P2-75.</p> <p><sup>2</sup> Not applicable.</p> |                   |                   |              |                   |                   |              |                   |                   |              |
| Source: Compiled from data submitted in response to Commission questionnaires.  |                   |                   |              |                   |                   |              |                   |                   |              |

**Table F-4**

**Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of the U.S.-produced and subject imported product 6,<sup>1</sup> reported by purchasers of the domestic product and by end-user importers, by countries and by quarters, January 2002-December 2004**

| Period of shipment  | United States     |                   |              | Finland           |                   |              | Mexico            |                   |              |
|---|-------------------|-------------------|--------------|-------------------|-------------------|--------------|-------------------|-------------------|--------------|
|   | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms |
| 2002:   |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.   | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June   | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.   | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| 2003:   |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.   | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June   | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.  | \$1.28            | 1,808,150         | 4            | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.   | 1.31              | 1,408,550         | 4            | ***               | ***               | ***          | ***               | ***               | ***          |
| 2004:   |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-Mar.   | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-June   | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-Sept.  | 1.35              | 1,756,350         | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-Dec.   | 1.31              | 1,807,500         | 5            | ***               | ***               | ***          | ***               | ***               | ***          |
| TOTALS  | ( <sup>2</sup> )  | 6,780,550         | 5            | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> )  | ***               | ***          |
| <p><sup>1</sup> High viscosity (minimum 1,500 Mpas in 1 percent solution), degree of substitution 0.8 to 1.5 (i.e., 8 to 15 carboxymethyl groups per 10 anhydroglucose units), to <u>oilfield</u> customers. This product is often sold to customers bearing the particular customer's trade name for its oil drilling product, such as Drispac, Milpac, and Polypac. Less frequently, the product bears a proprietary name of the manufacturer, such as Aqualon's Aquapac or Akzo's Staflo. In all cases, the specifications and not the label on the bag should be the controlling factor in reporting.</p> <p><sup>2</sup> Not applicable.</p> |                   |                   |              |                   |                   |              |                   |                   |              |
| Source: Compiled from data submitted in response to Commission questionnaires.  |                   |                   |              |                   |                   |              |                   |                   |              |

Table F-5

Purified CMC: U.S. weighted-average net delivered purchase prices and quantities of U.S.-produced and subject imported product 6, reported by purchasers of the domestic product and by distributor importers, by countries and by quarters, January 2002-December 2004

| Period of shipment   | United States     |                   |              | Finland           |                   |              | Netherlands       |                   |              | Sweden            |                   |              |
|--|-------------------|-------------------|--------------|-------------------|-------------------|--------------|-------------------|-------------------|--------------|-------------------|-------------------|--------------|
|  | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms | Price (per pound) | Quantity (pounds) | No. of firms |
| 2002:  |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| 2003:  |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-  | \$1.28            | 1,808,150         | 4            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-  | 1.31              | 1,408,550         | 4            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| 2004:  |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |
| Jan.-  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Apr.-  | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| July-  | 1.35              | 1,756,350         | 5            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| Oct.-  | 1.31              | 1,807,500         | 5            | ***               | ***               | ***          | ***               | ***               | ***          | ***               | ***               | ***          |
| TOTALS   | ( <sup>2</sup> )  | 6,780,550         | 5            | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> )  | ***               | ***          | ( <sup>2</sup> )  | ***               | ***          |
| <p><sup>1</sup> High viscosity (minimum 1,500 Mpas in 1 percent solution), degree of substitution 0.8 to 1.5 (i.e., 8 to 15 carboxymethyl groups per 10 anhydroglucose units), to oilfield customers. This product is often sold to customers bearing the particular customer's trade name for its oil drilling product, such as Drispac, Milpac, and Polypac. Less frequently, the product bears a proprietary name of the manufacturer, such as Aqualon's Aquapac or Akzo's Staflo. In all cases, the specifications and not the label on the bag should be the controlling factor in reporting.</p> <p><sup>2</sup> Not applicable.</p> |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |
| Source: Compiled from data submitted in response to Commission questionnaires.   |                   |                   |              |                   |                   |              |                   |                   |              |                   |                   |              |

