CP Kelco
A HUBER COMPANY

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Steven Cliff and Sam Wade
Office of Climate Change
California Air Resources Board
1001 "I" Street
P.O. Box 2815
Sacramento, CA 95812

Subject: Comments of CP Kelco on the ARB Proposed Regulation for a California Cap-and-Trade Program

Dear Messrs Cliff and Wade,

These comments are offered on behalf of CP Kelco[1], a leading producer of specialty hydrocolloids. CP Kelco San Diego primarily produces Gellan Gum and Xantham Gum (generically referred to as biogums) which are polysaccharides used in the food, pharmaceutical, and industrial markets as versatile thickeners and stabilizers. CP Kelco San Diego operates a cogeneration facility in order to supply steam and electricity in support of biogum production. Greenhouse gas (GHG) emissions from the cogeneration operation are above the AB 32 covered entity threshold, requiring CP Kelco to comply with both the Mandatory Reporting Rule and the "Proposed Regulation to Implement the California Cap and Trade Program".

The impact of the "Proposed Regulation to Implement the California Cap and Trade Program" (proposed regulation) is an issue of significant importance to CP Kelco. The cost structure for CP Kelco San Diego is already at a competitive disadvantage to both internal and external competitors, due to high energy costs[2], high labor costs, and high

[1] CP Kelco is a division of the Huber Company with manufacturing plants in the United States, Europe, Brazil, the Philippines, and China.

[2] In spite of the fact that CP Kelco San Diego operates a highly-efficient cogeneration facility, energy costs for many competitors are actually lower due to the availability of coal-fired electricity.

real estate costs. Any additional costs imposed on this plant could easily lead to the loss of market share or a potential closure of the entire facility.

The comments in this letter are focused on the GHG emission leakage analysis specific to biogum production at CP Kelco San Diego. CP Kelco San Diego is classified by the North American Industry Classification System (NAICS) under code 311999 – All Other Miscellaneous Food Manufacturing. All facilities under the Food Manufacturing three digit code of 311 are classified by the Air Resources Board (ARB) as a "Medium" Leakage Risk facility.[3] Based on data specific to CP Kelco San Diego, this facility is requesting to be re-classified by the Air Resources Board (ARB) as a "High" Leakage Risk facility. Failure to do so could lead to a net increase in GHG emissions from overseas competitors in China, contrary to the stated goal of AB 32.

The arguments supporting the reclassification of the CP Kelco San Diego to the "High" Leakage Risk classification follow the outline presented below:

- CP Kelco's Unique Position in the Food Manufacturing Sector
- Emissions Intensity Analysis
- Trade Exposure Analysis
- Leakage Risk Analysis
- Historical Examples

CP Kelco's Unique Position in the Food Manufacturing Sector

CP Kelco San Diego is classified by the North American Industry Classification System (NAICS) under code 311999 – All Other Miscellaneous Food Manufacturing. CP Kelco is the only covered entity in the cap and trade program classified with NAICS code 311999. The other facilities with NAICS code 311 manufacture final food products or primary food ingredients. CP Kelco is unique in that this facility manufactures a product that is a property enhancer or trace ingredient in other food products. CP Kelco also produces products that are used in pharmaceutical and industrial applications. CP Kelco's products can be found in thousands of household products including salad dressings, toothpaste, desserts, lotions, cleaners, and cosmetics. In contrast to most other food manufacturers, CP Kelco has a significant international market, particularly in Asia and Japan. Also in contrast to other food manufacturers, CP Kelco's products require a very complicated and energy intensive manufacturing process. Additional details on the manufacturing process and the energy intensity are provided in the Emissions Intensity Analysis section.

The three digit NAICS code 311 – Food Manufacturing covers an extremely wide range of manufacturing facilities. There are nearly 700 subsectors beneath the 311 three digit classification. For most other sectors, the ARB has created classifications based on NAICS six digit codes, which results in a much smaller number of subsectors in the

[3] See Appendix A of the Initial Statement of Reasons, Table 8-1 at page A-76.

classification and much greater similarity for facilities within the classification. In a classification as broad as food manufacturing, it is difficult to state with any level of certainty that all manufacturing processes should have similar emissions intensity. In fact, it is very likely that some sub-sectors are as different in emissions intensity as facilities in distinct three-digit sectors. That is to say, that CP Kelco's emission intensity is just as likely to be similar to a facility in the glass manufacturing or paper manufacturing industry as it is to be similar to a facility in the breakfast cereal manufacturing fruit and vegetable canning industry. This is in fact the case and more details are provided in the following section. Based on CP Kelco San Diego's unique attributes and the fact that this facility is the only covered entity with NAICS code 311999, it may be appropriate for ARB to separate this code from the remainder of the Food Manufacturing Sector for the purpose of GHG emission leakage analysis.

Emissions Intensity Analysis

Biogum production is a very energy-intensive manufacturing process and requires a considerable amount of steam and electricity. Large amounts of electrical energy are required for agitation and aeration of the fermenting product. CP Kelco San Diego has over 15,000 HP of electrical motors used for agitation and aeration. CP Kelco San Diego has distillation columns with a capacity of over 125,000 lbs/hour steam consumption. The drying operation requires both electrical energy to turn the drying equipment and thermal energy to raise the temperature and eliminate moisture. Milling and blending both require electrical energy to operate the milling and blending equipment. Because biogum manufacturing is a multiple-step process, and each step is energy intensive, the net result is an overall process that is much more energy intensive than the typical food manufacturing process.

CP Kelco analyzed trade-sensitive data specific to the San Diego facility for comparison to the ARB Emissions Intensity metric. The result is an Emissions Intensity value (CO2e/$M Value Added) that is several times higher than the Emissions Intensity value calculated for the Food Manufacturing classification in general. The value is high enough to place CP Kelco in the "Medium" Emission Intensity Classification and is high enough to qualify as one of the ten highest sectors for emissions intensity. CP Kelco may be able to share the data used in the calculation directly with ARB staff if an agreement can be reached to ensure that all trade-sensitive data will be kept confidential. Based on the site-specific data, it is clear that CP Kelco San Diego's Emission Intensity is higher than other facilities in the Food Manufacturing sector and that there is a greater risk for emissions leakage if the situation is not addressed.

It should be noted that although CP Kelco San Diego's energy intensity and emissions intensity are very high, the facility has already taken significant steps to minimize energy usage and emissions. The plant operates a highly-efficient cogeneration facility, and if not for the cogeneration facility, the facility emissions intensity would likely be 20%-30% higher. Also, for years the plant has regularly reviewed energy consumption and implemented process improvements or undertaken capital projects in order to reduce

steam or electricity consumption. Recent projects include compressor controls upgrade, addition of a flash steam generator, and reconfiguration of the stills water condensers as feedwater heaters. The net result of just the recent projects has been a net reduction of approximately 10% energy consumption per unit of product manufactured.

Trade Exposure Analysis

The ARB trade exposure analysis attempts to identify a metric that helps asses the ability of a facility or sector to pass through the cost of compliance with AB 32[4]. The Congressional Research Service White Paper on trade exposure identifies demand response and price responsiveness as the 'ideal' metrics for estimating cost pass-through ability. ARB has chosen the ACES trade share metric, among other reasons, "because the data required to populate the metric were most available."[5] ARB staff also recognized that the chosen metric resulted in a significant cluster of trade share values around 15%, which complicates the process for distinguishing between sectors with "High" Trade Exposure and "Medium" Trade Exposure. Staff proposed "to continue to analyze sectors that fall into the medium category to better evaluate their ability to pass-through compliance cost."[6]

In light of the shortcomings in the chosen metric, CP Kelco's unique position in the Food Manufacturing sector, and ARB's invitation to revisit the analysis for facilities with "Medium" Trade Exposure, CP Kelco would like to propose an alternative approach for the trade exposure analysis for the CP Kelco San Diego facility.

CP Kelco's market is different from other businesses in the Food Manufacturing sector, since a higher percentage of the sales occur outside of California. Additionally, demand for the products produced by CP Kelco San Diego has increased more in foreign markets, notably in Asia and Japan, than in domestic markets, increasing the potential for manufacturing to also shift to those geographic areas. This will become more likely if the plant's costs increase as they would under the proposed Cap and Trade program, particularly if CP Kelco San Diego remains in the "Medium" Leakage Risk category.

CP Kelco management reports that all generic Xantham Gum production has left San Diego to be produced in China in the past four years.

Leakage Risk Analysis

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[4] See Appendix K of the Initial Statement of Reasons at page K-16.

[5] See Appendix K of the Initial Statement of Reasons at page K-20.

[6] See Appendix K of the Initial Statement of Reasons at page K-27.

The CP Kelco San Diego Emissions Intensity data demonstrates that the facility should be classified as at least "Medium" Emissions Intensity as opposed to the "Low" Emissions Intensity that applies to the remainder of the Food Manufacturing sector. The market share data for biogum production shows that CP Kelco San Diego has significant trade exposure. "Medium" Emissions Intensity and high trade exposure should classify CP Kelco San Diego as "High" Leakage Risk.....

Based on recent experience, it is fairly clear that an increase in production costs will result in reduced market share for CP Kelco San Diego. It is expected that this market share would be absorbed by competitors in China that consume electricity and/or steam from coal-fired facilities. The transfer of biogum production from San Diego to another facility will result in not just a transfer of GHG emissions from San Diego to another state or country, but will result in a net INCREASE in GHG emissions and a loss of California-based jobs. As discussed above, the San Diego plant operates a very efficient, natural gas-fired cogeneration facility. Chinese biogum plants typically consume energy from coal-fired utilities. The electricity and steam supplied to the CP Kelco plant in Shandong, China is provided by a coal-fired plant that is located next door. These competitors utilize both less efficient technology and fuels that have higher GHG intensity. Based on these two factors, it is conceivable that production "leakage" from CP Kelco San Diego could result in the doubling of the GHG emissions associated with the transfer of biogum production from San Diego to other facilities outside the state.[7] Re-classification of the CP Kelco San Diego plant from "Medium" Leakage Risk to "High" Leakage Risk would reduce the probability of this occurring. Since CP Kelco is the only covered entity in NAICS code 311999, it would be possible for ARB to simply add this code to the group of sectors in the "High" Leakage Risk classification.

Historical Examples

Many facilities may claim that they are trade exposed and that increased costs associated with compliance with AB 32 could lead to loss of market share and the attendant GHG emissions leakage. CP Kelco San Diego has a historical examples that demonstrates that not only can this happen, but that it has happened. CP Kelco began business in 1929 as "The Kelp Co", harvesting and processing kelp to produce alginates. Kelco originally enjoyed a competitive advantage in the alginate marketplace due to the facility's proximity to the kelp forests off the coast of San Diego. Over time, this advantage was eroded by increasingly higher operating costs, particularly energy and environmental compliance costs. By 2006, alginate production in San Diego was completely shut down as products from China and other overseas suppliers could be purchased at a price lower than San Diego's marginal cost of production. High energy costs were a significant contributor to the demise of this business.

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[7] Cogeneration is typically 20%-30% more efficient than the separate production of steam and electricity (the US EPA estimates the fuel savings for cogeneration as 37% at http://www.epa.gov/chp/basic/efficiency.html). The GHG emissions intensity for Oklahoma coal is approximately 206 lb CO2e/MMBtu compared to 117 lb CO2e/MMBtu for natural gas.

Certain biogum products previously made in San Diego are no longer made here due to low cost foreign competition. As noted previously, many of these products are now produced in China with coal-fired energy supplies and this shift in production has resulted in the loss of jobs in California.

CP Kelco San Diego is concerned that absent GHG compliance costs for its competitors, the introduction of unmitigated GHG compliance costs for CP Kelco San Diego only will lead to loss of market share or a fate similar to the alginate business. As mentioned previously, this needs to be addressed by ARB not necessarily to keep CP Kelco in business, but to avoid significant GHG emissions leakage, which would be in contradiction to the stated intention of AB 32.

The GHG leakage analysis presented for CP Kelco San Diego demonstrates that the facility should be classified as a "High" Leakage Risk and should be afforded the same protections provided to other facilities in this classification. Failure to do so would result in GHG emissions leakage and likely a significant net increase in global GHG emissions. The calculation of the Emissions Intensity metric requires the use of trade-sensitive data that CP Kelco is not able to disclose in this public document. CP Kelco is requesting to meet with ARB staff in person to discuss the analysis in more detail and potentially share the specific data used in the calculations if an agreement can be reached in order to ensure that the trade-sensitive data will be kept confidential. We look forward to hearing from you at your earliest convenience.

Sincerely,

Ron Halik

Ron Halik
Environmental Manager