



MINUTES
NORTH AMERICAN REGULATORY AFFAIRS COMMITTEE
INTERNATIONAL CADMIUM ASSOCIATION
Thursday, September 16, 2010 – 10:30 AM

Bergeson & Campbell
1203 Nineteenth Street, NW, Suite 300, Washington, DC 20036

1. CALL TO ORDER

The initial organizational meeting of the North American Regulatory Affairs Committee of the International Cadmium Association was called to order by Hugh Morrow, Senior Consultant. Those participating in the meeting, either in person or by conference call, were as follows:

REPRESENTATIVE

Maxime Cossette
Colin Thirlaway (by conference call)
Al Hardies
Phil Rowley (by conference call)
Jeff Mamarella (by conference call)
Mark Booth (by conference call)
David Crabbe (by conference call)
Chip Wildes
Paul Deveau (by conference call)

MEMBER COMPANY

5NPlus
Black & Decker
INMETCO
James M. Brown Ltd.
James M. Brown - USA
Rockwood Pigments (UK) Limited
Rockwood Pigments
SAFT America Inc.
Xstrata Zinc

STAFF AND GUESTS

Matthew Garamone
Hugh Morrow

ORGANIZATION

First Solar, Inc.
International Cadmium Association

2. WELCOME, BACKGROUND AND INTRODUCTION OF PARTICIPANTS

Hugh Morrow welcomed the participants on behalf of the International Cadmium Association. He noted that within the past year or two, adverse publicity and regulatory efforts against cadmium and cadmium-containing products were increasing. Whereas much effort had been undertaken in the last ten years to deal with cadmium-related issues in Europe, much less had been sustained in North America, mainly because the threats had not been as substantial. However, with the proposed revision of the Toxic Substances Control Act (TSCA) and the recent adverse publicity concerning cadmium in children's

jewelry from China, proposals have been initiated to much more severely regulate cadmium-containing products in the United States. Thus, it was felt by both staff and ICdA members that it was appropriate to organize a North American Regulatory Affairs Committee to ensure the continued safe use of cadmium-containing products in commerce in North America.

All meeting participants, whether attending in person or by conference call, then introduced themselves, their affiliation, and, in some cases, their particular concerns with present-day cadmium issues.

3. STATEMENT OF COMPLIANCE WITH ASSOCIATION LAW

Hugh Morrow noted that, since the International Cadmium Association is incorporated under Belgian Law and since this committee is operating under the auspices of the International Cadmium Association, it is necessary to read the Statement of Compliance to association law during all meetings. This statement is attached to these Minutes as Annex I. It essentially notes that no private commercial, market or pricing information may be discussed at the association's meeting except for that which is publicly available to all parties, such as the *Metal Bulletin* published cadmium prices or the World Bureau of Metal Statistics (WBMS) published figures for cadmium production and consumption.

4. GENERAL PURPOSE OF THE REGULATORY AFFAIRS COMMITTEE

It was noted that the International Cadmium Association should strive to work with the US Environmental Protection Agency (EPA) as well as State regulatory authorities to provide them with scientific studies and information on cadmium, cadmium compounds, and cadmium-containing products over their entire life cycle. The association has gathered considerable information together under the Cadmium REACH Consortium that should be applicable to many of the proposed provisions of the proposed revision of TSCA, which is currently labeled the Safe Chemicals Act of 2010.

Another member noted that only a very small part of total human exposure to cadmium arises from cadmium-containing products, and that the association should publicize this fact more to the public and to the regulatory authorities. He also noted that the cadmium industry's laudable efforts to recycle NiCd batteries, the single largest consumption use of cadmium, have largely been ignored and that we need more positive publicity in this area. Another point made was that whereas the European Union acts as one body, legislation and regulation in the United States may be imposed at both the Federal level and the State level and often with different requirements. It was felt that the metals industry in general and the cadmium industry specifically must be able to address proposed regulation effectively as, for example, Eurometaux is able to do with the European Union.

A discussion followed regarding State law vs. Federal law in the United States. Often States such as California have proposed and imposed laws much stricter than those in effect on the Federal level. It is difficult apparently to obtain Federal pre-emption as

some States are often able to argue the necessity of imposing stricter regulations due to their specific circumstances. The problem here is that there are an increasing number of State laws and regulations being proposed and enacted which specify that if a chemical is banned or listed in one State, then it is likewise banned or listed in another State as well. This type of legislation leads to a de facto default to the most severe regulation from any State being imposed on virtually all States. Thus, a California regulation, no matter how far-fetched or unjustified, could wind up being established for many other States as well. An example is that listings in California legislation have now become part of similar listings of “chemicals of high concern” in Maine and Minnesota.

The need to be able to deal with all this legislation and regulation in a coherent and effective manner is part of the reason that this committee is being organized. It was, however, further pointed out that at least the United States had adopted a harmonized system of classification and labeling which does help in some respects to ensure more uniformity in chemical substance legislation.

5. ORGANIZATION AND OPERATION OF THE COMMITTEE

Several organizational details were discussed by the meeting participants. It was noted that the Committee should properly be named the “Regulatory Affairs Committee” rather than the “Health & Safety Committee” since the subject matter being discussed was legislation and regulation affecting cadmium and cadmium-containing products rather than health and safety issues which is the issue for the Health & Safety Committee which was organized in Europe. **All meeting participants informally agreed that the name of the committee would henceforth be the Regulatory Affairs Committee.**

Other participants made suggestions regarding the focus and activities of the committee. One participant noted that the committee must be pro-active and not merely reactive. Another emphasized the need for more positive publicity regarding the industry’s steps to safely manage the risks of cadmium and cadmium-containing products throughout their life cycle.

The question was raised as to how the Regulatory Affairs Committee could successfully monitor all the legislation and regulation currently being proposed against cadmium, cadmium compounds and cadmium-containing products. Currently, we rely on information from the North American Metals Council (NAMC) and from other industry associations such as the Society of Glass and Ceramic Decorated Products (SGCD pro), but have no formally established system for receiving information on a regular and systematic basis. It was proposed that, as a first step, we should obtain a quote from Bergeson & Campbell to maintain a systematic information file on cadmium, as they are already performing this function to some degree for the North American Metals Council. Hugh Morrow agreed to approach Lynn Bergeson on this question.

The question also arose regarding the frequency and type of meetings the Regulatory Affairs Committee should hold. Meetings could be held as face-to-face meetings, by conference call or by a combination of web conference and conference call. The general

consensus appeared to be that the Committee should meet at least two to three times per year. Others however felt that the Committee should convene more frequently for shorter times, preferably by conference call. There is no doubt that a great deal of proposed legislation and regulation regarding cadmium will be moving in the next one to two years, and that it may in fact be necessary to convene meetings more frequently just to stay abreast of rapidly moving developments. Everyone agreed that a lot of work would be needed to address the challenges ahead.

The issue also was raised regarding funding of the Committee's activities. Some felt that it might be necessary to fund studies on the human health and environmental effects of cadmium as had already been carried out in the European Union. It was noted that a systematic monitoring effort for State and Federal legislation and regulation regarding cadmium would require some funding as well. Publicity and lobbying efforts might also be considered and both of these activities could require additional funding. Finally, the increased level of activity in North America might also require some additional staff time. It was noted, however, that if North American companies "buy into" the data gathered under the Cadmium REACH Consortium, then this source might provide the additional income needed to fund additional cadmium regulatory affairs activities in North America.

Another issue that was raised was the need to gather together reports, meeting minutes, proposed regulations and other information on a specific internet site that Members of the North American Regulatory Affairs Committee could regularly access. Since development of a comprehensive association website, www.cadmium.org, is underway, it was felt that a specific section of this website could be reserved for information and activities of the North American Regulatory Affairs Committee. However, several other participants suggested other websites or information searching systems that could be utilized to gather information on proposed cadmium legislation and regulation. These include Google Alert, Chemical Watch and Compliance & Risk. There is no doubt that there is a great deal of information available. However, this information must be organized and prioritized so that Committee Members are not overwhelmed with too much information. Hugh Morrow has now asked Noomi Lombaert to look into the possibility of creating a specific password-protected section of the ICdA website for the North American Regulatory Affairs Committee.

Hugh Morrow raised another legal point that the Committee may have to consider. Since the International Cadmium Association is registered in Belgium and the Regulatory Affairs Committee is operating under the auspices of the International Cadmium Association, committee staff and members may have to register as foreign agents if they intend to call on legislators and regulators to advocate the cadmium industry's position.

6. ELECTION OF CHAIRMAN OF REGULATORY AFFAIRS COMMITTEE

Hugh Morrow raised the next issue on the agenda, the election of a Chairman of the Regulatory Affairs Committee. Max Cossette of 5Nplus indicated an interest in the position and volunteered to serve in that capacity. Other meeting participants stated that

they were not in a position to serve as Chairman due to other commitments, and no further nominations were forthcoming. **Upon motion duly made, seconded and approved, Max Cossette of 5Nplus was elected Chairman of the Regulatory Affairs Committee.**

7. UPDATE ON SPECIFIC CADMIUM ISSUES

Hugh Morrow noted that there were really two types of legislation and regulation that were now facing the cadmium industry, one dealing with generic legislation that could affect cadmium, and one dealing specifically with cadmium and cadmium-containing products. While the primary purpose of the Regulatory Affairs Committee will be to deal with legislation and regulation specifically directed against cadmium and cadmium-containing products, the committee will also support efforts to oppose legislation and regulation which adversely affects all metals, especially if cadmium is one of the substances listed as a “chemical of high concern.” Thus, the generic issues discussed below include reform of the Toxic Substances Control Act (TSCA), the Minnesota List of Chemicals of High Concern, and the California Safer Consumer Product Alternatives, even though each of these proposals contain language directed specifically against cadmium. The issues that are specifically directed against cadmium include proposed legislation/action against cadmium in children’s jewelry and consumer products, revision of EPA’s Integrated Risk Information System (IRIS) file on cadmium, revision of the NIOSH Immediately Dangerous to Life and Health (IDLH) level for cadmium, and revision of the Tolerable Intake Levels for cadmium by the WHO FAO Joint Expert Committee on Food Additives (JECFA). Information was distributed at the meeting on each of these issues, although no clear action plans were established at this time.

Generic Legislation and Regulation:

TSCA Reform Legislation – Hugh Morrow noted that bills had been introduced earlier this year in both the U.S. Senate and the U.S. House of Representatives to reform the Toxic Substances Control Act. Essentially these bills require the extensive gathering of information on all chemical substances and are much like the provisions of the EU REACH legislation. However, they are much more far-reaching in some respects and have certain definitions and criteria which could prove problematic for cadmium, metals and industry in general. A summary of each of these two bills along with notations of some of the items of concern to the metals industry is attached to these Minutes as Annex II. The press release issued by Senator Lautenberg’s office regarding his proposed *Safe Chemicals Act of 2010 (S. 3209)* and outlining the major provisions of his bill is also attached to these Minutes as Annex III. Hugh Morrow, however, noted that these bills had been referred back to committee, and that political opinion around Washington, DC is that no further action will be taken on these bills in 2010 due to the impending mid-term elections in November 2010 and more pressing action required on many other legislative proposals during the year. If the Democrats retain control of Congress, however, then action would be expected early in 2011. If they do not, then protracted negotiations over these bills are expected.

Minnesota List of Chemicals of High Concern – Hugh Morrow reported that the State of Minnesota had passed legislation in 2009 titled the Toxic Free Kids Act which required the Minnesota Department of Health (MDH) to develop two lists of chemicals: *Chemicals of High Concern* and *Priority Chemicals*. The first list has been developed and includes thousands of substances including cadmium. A press release from the Minnesota Department of Health describing the program and the criteria used to develop this list is attached to these Minutes as Annex IV. The specific listing for cadmium on the *Chemicals of High Concern* List is also attached as Annex V. Note that cadmium is listed as causing adverse reproductive and developmental effects. While cancer and kidney effects are well established, any evidence regarding reproductive and developmental effects is much less well-established or not established at all. Note also that the Minnesota listing relies on cadmium being listed in Maine, Washington and Oregon legislation, as well as its presence on IARC, IRIS and NTP files.

California Safer Consumer Product Alternatives – Hugh Morrow reviewed the recently proposed regulation from the California Department of Toxic Substances Control (DTSC) under Governor Arnold Schwarzenegger’s 2008 Green Chemistry Initiative. This proposal would prioritize chemicals in products and require manufacturers to seek safer alternatives to priority toxic chemicals. The latest press release from California’s DTSC on this proposal is attached to these Minutes as Annex VI, while a discussion of the proposal and industry’s concerns with the proposal, as prepared by Bergeson & Campbell, is also attached to these Minutes as Annex VII. It is reasonably certain that cadmium and cadmium compounds will be identified as chemicals in consumer products of priority concern, and that efforts may be initiated to legislate substitution of alternatives.

Cadmium-Specific Legislation and Regulation:

Cadmium in Children’s Jewelry - Hugh Morrow reviewed the recent negative publicity concerning the presence of cadmium in children’s jewelry imported from China into the United States and from India into Europe. In some cases, the cadmium contents of the alloys used have been very high, as high as 90%, and news service articles, statements by politicians and environmental groups, and letters to and from the U.S. Consumer Product Safety Commission (CPSC) have all helped to create a firestorm of negative publicity surrounding this issue. The International Cadmium Association prepared but did not issue a statement regarding cadmium in children’s jewelry early in 2010. After discussion at the current Regulatory Affairs Committee meeting, it was decided to revise this statement. A copy of the original Associated Press article on this issue is attached to these Minutes as Annex VIII. In late May 2010, four environmental groups filed a petition (see Annex IX attached) with the U.S. Consumer Products Safety Commission and the U.S. Environmental Protection Agency requesting that cadmium-containing toy jewelry be classified as a banned hazardous substance. CPSC issued a notice in the *Federal Register* on August 19, 2010 requesting public comments on the petition by October 18, 2010, to which ICdA plans to respond (attached as Annex X). On August 30, 2010, Assistant Administrator Stephen A. Owens of EPA’s Office of Pollution Prevention and Toxic Substances (OPPTS) indicating that, if CPSC did not act on their petition requesting

cadmium limits in certain children's products, EPA will initiate a rulemaking under TSCA Section 6 as requested in the environmental groups' petition. The EPA response is attached to these Minutes as Annex XI. ICdA will also respond to any *Federal Register* notices that EPA may issue regarding this issue. However, the association does not believe that the use of cadmium-containing alloys is intended or required in children's jewelry, and the statement of the association's position regarding this issue, as revised during the September 16th meeting, is attached to these Minutes as Annex XII and is open to further discussion and comment by the Membership.

Cadmium in Enamels on McDonald's Glasses – A related, but distinctly different, situation arose later in 2010 when an environmental group and a Democratic Congresswoman from California raised an issue that cadmium was present on decorated glassware being sold by McDonald's Corporation. In this case, however, the cadmium was in the form of an insoluble cadmium pigment encased in a vitrified enamel applied at high temperature to the surface of the glassware. Thus, the cadmium was insoluble, not bioavailable, and presented virtually no health risk to humans. Both the Society of Glass and Ceramic Decorated Products (SGCD pro) and the International Cadmium Association became involved with the misrepresentation of the science in this case and protested to the Consumer Product Safety Commission and to representatives in the U.S. Congress that the misrepresentation had led to damage to certain industries and to an unnecessary recall of 12 million decorated glasses that had met all the leaching tests for extractable cadmium for this product. The letters sent to the Consumer Product Safety Commission from United States Senator Sherrod Brown of Ohio and United States Member of Congress Zack Space of Ohio's 18th District are attached to these Minutes as Annexes XIII and XIV. These discussions and letters make it clear that all cadmium-containing substances cannot be considered to be the same, that there are species and process differences regarding cadmium in products that greatly affect the relative risks from cadmium in products, and that these differences must be acknowledged and understood before adopting any legislation, regulation or product policy regarding cadmium in products.

Revision of the EPA Integrated Risk Information System (IRIS) Cadmium File – Hugh Morrow distributed a copy of the latest IRIS file for Cadmium (Annex XV) and the most recent listing for the peer review plan to update the file (Annex XVI). The IRIS dossier is EPA's scientific file that they utilize as the basis to establish regulation and policy regarding a given chemical. Any changes in the reference values presented in the files would be a justifiable basis for revising regulations governing that chemical. Thus, it is important for industry to have what is considered the most recent and most authoritative information in the file so that EPA regulations are not made based on out-dated or incomplete studies. The IRIS Cadmium File in fact has not been updated since 1998, and therefore it would appear that a considerable amount of information could be added to the file. Hugh Morrow noted that he had contacted Lynn Flowers, the Peer Review Leader for the IRIS Cadmium File, and she indicated that work on this review was behind schedule but that she would welcome input from industry. ICdA will review the IRIS Cadmium File and update information as appropriate.

Revision of the NIOSH IDLH Levels for Cadmium – The NIOSH documentation for cadmium levels Immediately Dangerous to Health and Life (IDLH) was distributed to the committee and is shown as Annex XVII attached to these Minutes. The original level for cadmium fume was specified as 9 mg cadmium per cubic meter of air and is based as a level considered lethal in a 30-minute time period. However, this level is based on documentation most of which goes back to the 1940-1980 time period. In view of the more recent OSHA PEL, the ACGIH TLV and the EU’s SCOEL OEL numbers that have been markedly reduced in the time period from 1990-2010, it would appear logical that the NIOSH IDLH values might be reduced as well. It does appear now as if NIOSH is proposing or has adopted the 9 mg per cubic meter as the IDLH level for all cadmium compounds and that the “most protective” respirators be worn for cadmium compounds at any detectable concentration because of its designation of cadmium and compounds as carcinogens.

Revision of the JECFA Tolerable Intake Levels for Cadmium – Hugh Morrow reviewed the most recent information on establishment of tolerable intake levels for cadmium contaminants by the World Health Organization (WHO) and Food and Agricultural Organization (FAO) Joint Expert Committee on Food Additives (JECFA). At their June 2010 meeting in Geneva, they reviewed the information on cadmium and made some changes in the tolerable intake levels for cadmium. They noted that cadmium intake levels had previously been expressed on a daily or weekly basis (1 µg per kg body weight per day or 7 µg per kg body weight per week). However, due to cadmium’s exceptionally long half-life, they now considered that a provisional tolerable monthly level was more appropriate. The Committee therefore withdrew the Provisional Tolerable Weekly Intake (PTWI) of 7 µg per kg body weight and replaced it with a Provisional Tolerable Monthly Intake (PTMI) of 25 µg per kg body weight. However, since months vary in their number of days, a comparison between the old level and the new level must be made on the basis of a yearly intake level. The old PTWI corresponds to a Provisional Tolerable Yearly Level of 365 µg per kg body weight, while the new PTMI corresponds to a Provisional Tolerable Yearly Intake of 300 µg per kg body weight, a reduction of 17.8%. This reduction is not nearly as much as the 50% reduction that some parties were calling for. The Committee concluded “the estimates of exposure to cadmium through the diets of all age groups, including consumers with high exposures and subgroups with special dietary habits (vegetarians) are below the PTMI.” This conclusion will prove useful in future discussions regarding the effects of cadmium exposure on the general population. The relevant section of the JECFA Summary and Conclusions of its June 2010 meeting in Geneva are attached to these Minutes as Annex XVIII.

8. NEXT MEETING DATE AND ADJOURNMENT

The date of the next meeting of the North American Regulatory Affairs Committee was left open, pending discussions between the Chairman and ICdA staff. The Chairman expressed a desire to have shorter meetings more frequently, and mutually convenient dates and times will have to be established with Committee Members.

There being no further business before the Committee, the meeting was adjourned by its Chairman, Max Cossette, at 2:10 PM.

Respectfully Submitted,

Approved,

Hugh Morrow
Secretary Pro-Tempore

Maxime Cossette
Chairman