



**MINUTES
GENERAL ASSEMBLY OF MEMBERS
INTERNATIONAL CADMIUM ASSOCIATION
Thursday, October 15, 2009 – 1:00 PM**

**The Royal Aeronautical Society
4 Hamilton Place, London W1J 7BQ United Kingdom**

CALL TO ORDER

The General Assembly of Members of the International Cadmium Association was called to order at 1:05 PM by its Chairman, Emil Josendal of Boliden AB., representing the International Zinc Association. The following persons participated in person or by web teleconference or were represented by their Proxy as follows:

REPRESENTATIVE

Colin Thirlaway (Proxy for Tim Pugh)
Emil Josendal
Laurent Smits
Albert Hardies (Proxy to Patrick de Metz)
Michael Hughes
Howard Winbow
Yasuo Tamura (Proxy to Emil Josendal)
Anne Dekker
Mark Booth (Proxy to Emil Josendal)
Patrick de Metz
Eric Nottez
Mark Edwards (By Web Conference)

MEMBER COMPANY

Black & Decker Corporation
Boliden AB for IZA
Floridienne Chimie SA
INMETCO
James M. Brown Ltd.
James M. Brown Ltd.
Japan Mining Industry Association
Nyrstar for IZA
Rockwood Pigments (UK) Ltd.
SAFT
SNAM
Teck Resources for IZA

GUESTS AND STAFF

Maria Kokkinou-Boege
Christian Canoo
Hugh Morrow
Stephen Wilkinson
Frank Van Assche
Andrew Green

ORGANIZATION

EU MAP Consulting
International Cadmium Association
International Cadmium Association
International Zinc Association
International Zinc Association
International Zinc Association

An attendance roster was circulated for each attendee to sign. The Chairman welcomed all attendees to the meeting, noted that Statements of Compliance (see Slide No. 3 of Annex I attached) had been circulated and that all Member Company representatives were asked to sign these statements for the meeting's official records, and asked Hugh Morrow to serve as the Secretary Pro-Tempore to record the Minutes of the General Assembly. He then asked each attendee to introduce himself/ herself and his/her affiliation.

It was noted that representatives of 9 of the association's 13 Official Members were either present in person or were represented by Proxies, and that therefore a quorum was officially established for the transaction of business. The entire slide presentation of materials presented at the General Assembly is attached to these Minutes as Annex I. The Proposed Agenda for the General Assembly is shown in

Slide No. 2. The Chairman asked if there were any additions or corrections to the Proposed Agenda. They're being none, the agenda was adopted as presented. Since there are many acronyms and abbreviations utilized throughout these Minutes, a complete list of these acronyms and abbreviations and their meanings is also attached to these Minutes for reference as Annex IV.

It was announced that ICdA staff member, Mrs. Noomi Lombaert, was not in attendance at the meeting because she had just given birth to her new daughter, Esther. The General Assembly of Members unanimously approved a Vote of Congratulations to Mr. And Mrs. Lambaert on the birth of their daughter, Esther.

APPROVAL OF THE MINUTES OF OCTOBER 16, 2008 GENERAL ASSEMBLY

The Minutes of the previous ICdA General Assembly of Members, held in London on October 16, 2008, had previously been distributed to the membership for review and comment and are posted on the ICdA Members Only website. A brief outline of these Minutes is shown in Slide No. 4 of Annex I attached. Chairman Emil Josendal asked if there were any additions or corrections to these Minutes or whether the Secretary, Hugh Morrow, had received any comments to the Minutes as previously distributed. None being forthcoming, the Chairman asked for a Motion to approve the Minutes of the October 16, 2008 General Assembly of Members. **Upon motion made by Eric Nottez, seconded by Colin Thirlaway, and carried unanimously, the Minutes of the October 16, 2008 ICdA General Assembly of Members were approved as submitted.**

OPERATIONAL MATTERS

Priorities of the International Cadmium Association – The association's operational priorities, as established by the 2008 General Assembly of Members, ICdA Board of Directors' meetings in February 2009 and July 2009, and a number of meetings of the ICdA Health & Safety Subcommittee in 2008 and 2009, were briefly reviewed. These priorities are summarized in Slide No. 5 of Annex I attached. These priorities pertain especially to the activities of the Health & Safety Subcommittee in the European Union.

Membership Report – The Membership Report for the association as of October 15, 2009 was presented and is shown in Slide No. 6 of Annex I attached to these Minutes. The current membership includes 13 companies or organizations, the most recent being Enersys, a nickel-cadmium battery manufacturer, whose application for membership was approved at the February 19, 2009 ICdA Board of Directors' meeting. It was also reported that inquiries regarding ICdA membership had been received from the solar cell manufacturers, 5N+ and First Solar, and from the NiCd battery recycler, Accurec GmbH. A formal application had subsequently been received from 5N+. The Chairman, Emil Josendal, asked if there was any discussion or objections to the membership of these companies. None was noted. It was noted that First Solar had previously been a member of both the International Cadmium Association and The Cadmium Council, Inc., but had dropped out due to management changes and reorganizations. It was suggested that ICdA contact Lisa Kreuger of First Solar again to establish their present interest in membership.

The point was raised about the comparative memberships of ICdA and the REACH Cadmium Consortium. It was noted that there were 25 members of the REACH Cadmium Consortium, many of whom were not members of ICdA, and that perhaps some of these companies would be worth approaching with regard to ICdA membership. Some are already represented through IZA (HC Miasteczko Slakie, JSC Chelyabinsk, KCM, Korea Zinc, Portovesme, Southern Copper, Umicore, Votorantim, Xstrata), but others (Ami Doduco, Bochemie, Cerac, Recyclex, ZM Silesia) are not, and perhaps might be viable ICdA membership candidates. Three traders (LN, Todini and Traxys) are REACH Cadmium Consortium members, but not ICdA members. Traders have generally not participated in ICdA in the past, but indications of interest in ICdA membership from some traders have been received within the past few years.

Officers and Directors of the International Cadmium Association – No changes were proposed regarding the Officers and Directors of the International Cadmium Association during its General Assembly held on October 15, 2009 in London, UK. The Officers and Directors of the association in 2010 remain as follows:

Chairman	Emil Josendal	Boliden AB for IZA
Vice Chairman	Patrick de Metz	SAFT S.A.
Vice Chairman	Laurent Smits	Floridienne Chimie S.A.
Director	Anne Dekker	Nyrstar for IZA
Director	Colin Graham	Rockwood Pigments (UK) Ltd.
Director	Mitsunori Takao	Sanyo Electric Co., Ltd.
Director	Timothy G. Pugh	Black & Decker Corporation
Director	Al Hardies	INMETCO
Director	Eric Nottez	SNAM
Director	Mark Edwards	Teck Resources

Patrick de Metz of SAFT S.A. remains as Chairman of the Health & Safety Subcommittee.

FINANCIAL REPORT FOR 2008

The ICdA Financial Report for 2007 and 2008, as audited by Deloitte Touche Tohmatsu, was presented and is summarized in Slides 7 and 8 of Annex I attached. The detailed Accountant's Opinion of Deloitte Touche Tohmatsu is also attached to these Minutes as Annex II. The official results for 2007 were previously presented and approved at the ICdA General Assembly of Members on October 16, 2008. The total audited costs for 2008 were 124,381.23 Euros against total income of 175,569.65 Euros for a 2008 year-end surplus of 51,188.42 Euros. Combined with the surplus brought forward from previous years, the total surplus carried forward into 2009 was 163,501.46 Euros. The un-audited forecast expenses for 2009 are projected to be 175,221 Euros against projected income of 180,835 Euros for an expected year-end 2008 surplus of 5,604 Euros. Therefore the balance carried forward into 2010 is expected to be approximately 169,105 Euros.

An inquiry was made regarding the efforts of ICdA staff to improve the association's recovery of the Value Added Tax (VAT) from the Belgian authorities, and whether these efforts had been successful. It was responded that the association was now recovering 85% of the VAT that was the full amount ICdA could recover under Belgian Law. Several noted that the surplus funds presently in the association's accounts were planned for use to fund additional external support, such as the human health and environmental consultants to support the work of the Health & Safety Committee.

Upon motion duly made by Patrick de Metz, seconded by Laurent Smits, and unanimously approved by the meeting, the audited accounts of the International Cadmium Association for 2008 were accepted as presented in Annex II and as summarized in Slide Nos. 7 and 8 of Annex I.

PROPOSED OPERATING PLAN AND BUDGETS FOR 2010-2012

The ICdA Proposed Business Plan and Financial Forecast for 2010-2011-2012 was presented for approval by the Members of the General Assembly and is summarized in Slide Nos. 9 and 10 of Annex I. The entire 2010 Business Plan and Financial Forecast for 2010-2012 is attached to these Minutes as Annex III. The basic objectives of the association will remain the same in 2010 as they have in recent years, and the staff and structure of the association is likewise expected to remain the same. The 2010 proposed Business Plan calls for 0.30 man-years effort from Christian Canoo as General Manager, 0.35 man-years work from Hugh Morrow as Senior Consultant to cover North American and International Regulatory Affairs, and 0.33 man-years time from Mrs. Noomi Lombaert as a Human Health Assistant dealing with EU and International Regulatory Affairs. It is envisioned that additional scientific support will be drawn, as needed, from outside organizations. Provision has been made in the proposed 2010 budget for 20,000 Euros for scientific support on health issues and 10,000 Euros for scientific support on environmental issues. Total staffing and operational costs for 2010 are proposed at levels higher than those planned or realized for 2008 and 2009 because it is anticipated that staffing will be at fully planned levels for the first time in the past two years.

The proposed Business Plan for 2010, 2011 and 2012 forecasts total expenses to slightly exceed total income in each of these three years, thus resulting in successive decreases in the surplus carried forward at the end of each year. However, these forecasts do not include new subscription income from prospective members, as outlined in the Membership Report, nor do they anticipate any income generated from the International Cadmium Conference in Shanghai in April 2011.

Specific proposed regulatory activities of the association for the European Union, North America and international organizations were also summarized as follows:

- internal communications and association meetings activities including plans to develop an Eighth International Cadmium Conference in Shanghai, China for April 2011;
- communications activities including a specific project to produce a “user-friendly” version of the *Cadmium Guidance Document*;
- statistics and market information.

Further details for each of these activity areas are shown in Section 4 (pages 3-6) of the attached 2010/2012 Business Plan as Annex III.

Chairman Emil Josendal then called for a motion to approve the 2010 Business Plan and Financial Forecast for 2010-2012. Upon motion duly made by Anne Dekker, seconded by Colin Thirlaway, and unanimously approved by the General Assembly of Members, the 2010 Business Plan and Financial Forecast for 2010-2012 for the International Cadmium Association was adopted as presented.

UPDATE ON REGULATORY ISSUES

An overview of the present status of cadmium regulatory affairs in Europe was presented including the EU Risk Reduction Strategy for Cadmium and the status of the Cadmium REACH Consortium. This was followed by a summary of North American cadmium regulatory issues and international cadmium regulatory initiatives such as the US EPA Chemicals Management Program, UNECE LRTAP Heavy Metals Protocol, the UNEP Heavy Metals Program, and the Strategic Assessment for International Chemicals Management (SAICM).

European Union – The two principal issues facing the cadmium industry in the European Union are the implementation of the Risk Reduction Strategy for Cadmium and compliance with the EU Registration, Evaluation, and Authorization of Chemicals (REACH) Directive by the industry. The emphasis of the Risk Reduction Strategy is on occupational exposure in the workplace, and the Health & Safety Subcommittee has formulated a work plan to deal with this problem. Compliance with the REACH requirements is being accomplished through the Cadmium REACH Consortium. The complete EU regulatory affairs presentation is attached to these Minutes as Slide Nos. 11-26 of Annex I attached to these Minutes.

EU Cadmium / Cadmium Oxide Risk Reduction Strategy: The activities of the Health & Safety Subcommittee have included work on the ICdA Cadmium Guidance Document, the convening of a series of industry meetings to review various occupational exposure issues related to cadmium, and reacting to the work of the EU’s Scientific Committee on Occupational Exposure Limits (SCOEL) as they prepare recommendations for occupational exposure limits and biological exposure indices for the EU. Four out of ten planned meetings have now been held covering such subjects as air quality measurement, medical surveillance programs, and individual and collective hygiene procedures. It has been found that the level of awareness of these issues amongst cadmium industry plants is “strong, but not yet excellent.” The SCOEL issued their first draft of the Summary Document (SUMDOC) on cadmium and cadmium oxide in August 2009. Public consultation on this draft is open until the end of November and the ICdA is expected to react officially to this draft, including scientific input by Professor Bernard with results of a large workers cohort, and resolutions of difference standards and practices employed by different companies.

The occupational exposure levels and biological exposure indices that have been used in the past and that are expected to be imposed under the new Risk Reduction Strategy were reviewed in detail. Currently in Europe, occupational exposure levels for cadmium-in-air range from 2 to 30 $\mu\text{g}/\text{m}^3$ (measured as respirable cadmium) or from 10 to 50 $\mu\text{g}/\text{m}^3$ (measured as total cadmium). Under the proposals made in the SCOEL SUMDOC of August 2009, the occupational exposure levels would be maintained at 4 $\mu\text{g}/\text{m}^3$ measured as a respirable fraction. Levels of cadmium-in-blood and cadmium in-urine would be maintained below a level of 5 μg cadmium / gram Creatinine while biological indicators such as β -2 Microglobulin must be maintained below 300 μg / gram Creatinine as well. Thus, the proposed SCOEL Risk Management Program for cadmium in the workplace is an integrated one based on cadmium-in-air, cadmium-in-blood, cadmium-in-urine, and biological indicators of

kidney function such as β -2 Microglobulin. The point was also made that the “Healthy Worker Effect” that is normally found in occupationally exposed workers who are closely monitored would also have to be considered by the SCOEL in setting their proposed risk management strategy for cadmium. The ICdA Cadmium Guidance Document would also have to be revised per the outcome of whatever final standards are adopted.

Cadmium REACH Consortium: The present status of the activities of the Cadmium REACH Consortium were also reviewed. This presentation is shown in Slide Nos. 19-26 of Annex I attached to these Minutes. The Consortium was formed in July 2007 and now contains 25 Members. At present Chemical Safety Reports (CSRs) are being prepared for cadmium and cadmium oxide, and data is being entered in the standard IUCLID (International Uniform Chemical Information Database) format. The planned IUCLID data entry and Chemical Safety Report preparation timetables are summarized in Slide Nos. 24 and 25. The finalization of this work is expected by the end of the Third Quarter 2010 in order to comply with the registration requirements of chemicals under REACH by December 2010. Meeting attendees were reminded that further information on the Cadmium REACH Consortium and its activities could also be accessed at www.reach-cadmium.eu.

The point was raised that current Chemicals Management proposals in the United States may require producers, users and importers of cadmium chemicals to demonstrate that the use of these chemicals is safe, not unlike the requirements of the REACH program. Thus, industry in the US may have to utilize the information already gathered under REACH to satisfy US EPA requirements. It was noted that there are provisions within the REACH Consortium for others to utilize the Cadmium REACH Consortium data for the appropriate fees.

North America and International Issues –The major regulatory developments affecting cadmium in North America and in several international organizations were reviewed. This summary is attached to these Minutes as Slide Nos. 40-58 of Annex I attached to these Minutes. In North America, these included a revised report by the U.S. Geological Survey (USGS) regarding cadmium in municipal solid waste from spent nickel-cadmium batteries; EPA’s Chemicals Assessment and Management Program (ChAMP); US State actions on cadmium in Maine and Oregon; and re-evaluations of the toxicity of cadmium and its compounds. All of these programs have potential implications for cadmium, cadmium compounds and/or cadmium-containing products. The most important international programs involving cadmium (UNECE, UNEP and SAICM) and which of these programs posed increasing threats for cadmium products were also summarized.

USGS Report on Flow of Cadmium from Rechargeable Batteries in US, 1996-2005: This report was originally issued by the US Geological Survey in 2008 and had concluded that enormous amounts of cadmium were present in municipal solid waste (MSW) due to waste NiCd batteries. ICdA, in cooperation with the Portable Rechargeable Battery Association (PRBA) and the Rechargeable Battery Recycling Corporation (RBRC) filed extensive comments on the report, which was clearly based on many factual errors and unwarranted assumptions, and the report was withdrawn. A newly revised version of this report was re-issued in September 2009 which corrected many of the previous errors, but which still attempted to insinuate that enormous amounts of cadmium were present in MSW due to discarded NiCd batteries. It still appears as if the hoarding or home storage factor has not been sufficiently accounted for, and it appears as if no direct comparisons have been made between the amounts of NiCd batteries actually measured in MSW and those predicted from this study which is based on modeling of the commercial flow of NiCd battery-powered appliances and NiCd batteries.

U.S. EPA Chemical Assessment and Management Program (ChAMP): The program to establish risk-based characterizations and prioritizations for chemicals in the United States, designated ChAMP (Chemicals Assessment and Management Program), was abruptly terminated in June 2009 even though industry had generally supported the program. Apparently, environmental groups had criticized the program as based on insufficient data which they claimed led to faulty or no prioritizations. A new proposal was announced at the end of September 2009 that will ultimately effect revision of the Toxic Substances Control Act (TSCA), the legislation under which hazardous substances such as cadmium and cadmium compounds are regulated. The new system will be based on six core principles, three of which appear to be strikingly similar to the provisions of REACH. These are:

- Risk-based safety standards based on sound science
- Provision of data to EPA to demonstrate chemical safety
- Risk management decisions to consider sensitive subpopulations, cost and substitutes

- Initial priorities on lead and mercury but not cadmium
- Encourage green chemistry and program transparency
- Funding for the program must be sustained

US State Programs on Cadmium: A number of States in the United States have initiated programs that list cadmium and/or cadmium compounds as priority pollutants, possibly subject to regulation under various forms of legislation. In most cases, the listing of cadmium and cadmium compounds is a result of their presence on other hazardous chemical lists, even lists from the Nordic Council of Ministers and the Oslo-Paris Convention. In other cases, the legislation emphasizes potential effects on children's health. A program in Oregon lists dissolved cadmium salts, cites the electroplating industry as the pollutant source, and only really emphasizes surface water monitoring. There is only one known cadmium electroplater in the State of Oregon. Another program in Maine lists cadmium based on its presence on other lists, and presents the possibility that it could be restricted under that State's Toxic Chemicals in Children's Products Law.

UNECE Long Range Trans-Boundary Air Pollution Heavy Metals Protocol: The recent and planned activities on this program for 2009 were reviewed. A meeting of the Task Force on Heavy Metals was held in Stockholm in June; a meeting of the Working Group on Strategies and Review was held in Geneva in September; and a meeting of the Executive Body will be held in Geneva in December. The principal work under the Heavy Metals Protocol at present is to incorporate mercury products into the mandatory restrictions of Annex VI of the Protocol. These mercury products include electrical and electronic equipment, batteries, gauges, vehicles, fluorescent lamps and dental amalgams. These restrictions now appear to have found worldwide support and are expected to be recommended for adoption by the Executive Body. Of concern to the cadmium industry will be the precedent set by restrictions on virtually all mercury products, and the virtual certainty that countries such as Sweden and The Netherlands will propose similar measures for all cadmium products in the next few years. Sweden has already tabled proposals to change the BATs and ELVs of the Protocol based on the 2007-2008 Sufficiency & Effectiveness Review, and Switzerland will table a similar motion to amend all the Annexes (including Annex VI on Mandatory Restrictions on Products) in accordance with the Sufficiency & Effectiveness Review.

It was pointed out, however, that there are substantial differences between cadmium products and mercury products. These include only short range national or regional transport for cadmium compared to long range transboundary transport for mercury; cadmium bioavailability issues and the methyl mercury factor; most cadmium environmental and human exposure does not originate from products whereas a major portion does for mercury; and there is now worldwide political consensus on mercury products restrictions but no such political consensus on cadmium products. For these reasons, it was argued that adoption of cadmium product restrictions under the UNECE Heavy Metals Protocol is probably unlikely for several years if ever. Nonetheless, ICdA must remain involved with the Task Force on Heavy Metals and attend all their meetings, should continue its close relationships with the USA and Canada delegations, perhaps expand relationships with other EU countries who might have more sympathetic views, continue to compare cadmium product emissions as a very minor source with respect to total cadmium air emissions, continue to emphasize that cadmium air emissions are not long range transboundary in nature, and finally either present a coherent industry voluntary plan to minimize cadmium air emissions or develop a white paper which summarizes exactly the significant reductions in cadmium air emissions the industry has achieved since the UNECE base year of 1990. Most attendees applauded these final suggestions and asked that they be developed further.

UNEP Heavy Metals Program: The three programs on cadmium being carried out at present under the auspices of the United Nations Environment Program were also summarized and reviewed. These include the UNEP *Scientific Review on Cadmium* which was prepared by a Danish consultant and which has appeared in perhaps at least three drafts since 2006. The International Cadmium Association has commented extensively on these drafts as have other governments and other organizations. The most recent draft, issued in November 2008 as a "Final Draft" virtually ignored ICdA's extensive comments. The International Lead Zinc Research Organization (ILZRO) and the International Lead Association (ILA) as well as ICdA have filed direct protests with the UNEP Secretariat on the lack of incorporation of industry commentary. The future of the document remains uncertain as "Information Gaps" were still noted in the most recent UNEP Governing Council meeting (GC 25) in Nairobi in February 2009. That meeting did request the UNEP Executive Director to finalize the scientific reviews

on both lead and cadmium by the time of the next Governing Council meeting, GC 26, in Nairobi in February 2011.

The second UNEP initiative of importance to the cadmium industry is the report prepared by Chemicals Branch of the Department of Trade, Industry and Environment (DTIE) on the trade in lead and cadmium products in Africa. Since the UNECE LRTAP forum has already established that cadmium contamination does not occur by air transport over intercontinental distances, countries such as Sweden and Switzerland are proposing that such contamination occurs due to heavy trade in cadmium-containing products to continents such as Africa which does not have the technology or infrastructure to properly treat the solid waste generated by these products. To this end, UNEP DTIE Chemicals Branch prepared a report in an attempt to quantify the amounts of cadmium contamination. Although this report was dated December 2008, it was completed in January 2009, and not released for comment until May 2009. The International Cadmium Association filed over 20 pages of comments detailing the many errors, inconsistencies, and impossible conclusions. The report, for example, assumed that all PVC and rubber products imported into Africa were stabilized by cadmium compounds, resulting in the absurd conclusion that over 90% of cadmium consumed in Africa is found in PVC and rubber, when it is well known that about 85% of all cadmium consumption occurs in NiCd batteries. Extrapolation of the UNEP DTIE results produces the unreasonable conclusion that worldwide cadmium consumption is over 100,000 mt per year when the known figure is approximately 20,000 mt per year. The DTIE report produces extraordinarily high figures for cadmium consumption in NiCd batteries as well, probably five times greater than ICdA estimates. The DTIE report also mixes cadmium products and wastes together. ICdA has now received assurances from other national delegations that this report will have to be revised.

A recent report on the recycling of metals that was prepared by a UNEP panel, the International Panel on Sustainable Resource Management (IPSRM) was also described. ICdA was asked to comment on the cadmium recycling section of this report, and did file some brief comments. The report was apparently prepared with initial industry and academia input, and was generally found to be a fair analysis. The data presented on cadmium was somewhat out of date, and was appropriately updated and corrected with more recent recycling figures and returned with only minor comments.

Strategic Approach to International Chemicals Management (SAICM): The Second International Conference on Chemicals Management (ICCM-2) was held under the SAICM program on May 11-15 2009 in Geneva. Of particular interest to the cadmium industry is the effort titled “Emerging Policy Issues” which considers worldwide, multi-stakeholder action on several chemicals management issues. These include Chemicals in Products (sponsored by Sweden), Electronic Waste (tabled by a consortium of African Nations and Peru), and Lead in Paint (proposed by the USA and the IFCS). The issue that is most likely to affect the cadmium industry is the chemicals in products area. It is planned to establish working groups of experts in each one of these issue areas, and ICdA hopes to participate on this group on behalf of cadmium-containing products. The Swedish presentation made in Geneva on this issue emphasized development of information contained in products rather than any proposals for specific bans on certain chemicals in products. The only items of concern in the Swedish proposal were the points to (1) identify and prioritize product groups and (2) determine chemicals of concern. It would be reasonably anticipated that Sweden would identify cadmium-containing products as priority product groups and would label cadmium as a chemical of concern. It was noted that Dr. John Atherton of ICMM, who was formerly with ICdA, regularly attends these SAICM meetings on behalf of the metals industry.

PROPOSAL FOR AN INTERNATIONAL CADMIUM CONFERENCE IN 2011

Based on discussions at previous General Assemblies and Board of Directors meetings, it was suggested that a proposal be developed for an Eighth International Cadmium Conference. This proposal is shown in Slide Nos. 27-39 of Annex I attached to these Minutes. In the past, The International Lead Zinc Research Organization (ILZRO), the Cadmium Association (CA) and The Cadmium Council, Inc. (CCI) together co-sponsored seven of international cadmium conferences previously (1977, 1979, 1981, 1983, 1986, 1989 and 1992) in locations that alternated between Europe and North America. These conferences normally were attended by 150 to 300 delegates and included experts on all aspects of cadmium from around the world. These conferences were always self-sustaining financially. The Cadmium Association and Cadmium Council and subsequently the International Cadmium Association later sponsored International Nickel-Cadmium Battery Seminars (1984, 1988, 1990, 1992, 1994, 1996

and 1998), mostly in Europe to share expenses with the European Lead Battery Conference sponsored by the Lead Development Association (LDA), subsequently the International Lead Association (ILA). Again the NiCd Battery Seminars were well attended and self-sustaining.

After discussions with personnel at the International Cadmium Association and International Zinc Association, and in particular, with IZA's Shanghai, China office, it was decided to propose that the Eighth International Cadmium Conference be held in Shanghai, China in April 2011. A two and one-half to three day conference is envisioned, attended by 200 to 300 attendees, a large portion of them coming from the Far East where most of the world's present cadmium production and consumption is realized (China, Korea and Japan). It is estimated that the approximate costs for the conference would be 60,000 Euros, which would include 25,000 Euros for conference arrangements, 25,000 Euros for invited speakers costs, and 10,000 Euros for publication of the conference proceedings, most likely in an electronic form. Thus, if the conference registration fee were, for example, 600 Euros, then only 100 paying attendees would be required to cover the total conference costs.

A number of potential topic areas for the conference were suggested that might include the following:

- Welcoming Speeches and Organizational Overviews
- Cadmium Supply and Demand Situation
- Cadmium Technology and Applications
- Cadmium and Human Health
 - o Carcinogenicity
 - o Renal Dysfunction
 - o Other Health Effects
- Cadmium in the Environment
- Cadmium in Wastes and Emissions
- Cadmium Recycling
- Cadmium Standards and Regulations

A number of specific papers in each of these general topic areas and specific organizations or speakers of known worldwide expertise who might be solicited to present these papers were further suggested. A number of these speakers would probably have to be subsidized, but their participation would potentially attract many attendees. No formal vote was taken to approve the proposal for this conference. However, the General Assembly directed ICdA staff to continue to plan further organizational details. The next step will be to organize an International Cadmium Conference Program Committee to begin to establish the specific sessions and speakers. The IZA Shanghai office informs us that the actual arrangements at a Shanghai hotel could be made as late as Fall 2010, and thus there appears to be sufficient time to carefully plan the conference.

UPDATE ON MARKET AND MARKET DEVELOPMENT ISSUES

The current supply and demand situation for cadmium was reviewed in detail, and is shown in Slide Nos. 59 through 75 of Annex I attached. While consumption of primary cadmium has continued to decline, production of primary cadmium is actually beginning to increase slightly, due in part to increased production from Eastern Europe (Poland and Bulgaria) and continuing increases in Asia (Korea, China and Japan). The bulk of the world's cadmium primary cadmium production (>60%) still originates in Asia. China, Korea and Japan are the largest primary producers in Asia, while Canada and Mexico are the dominant producers in North America. Estimates of recycled or secondary cadmium production continue to indicate increases in recycling, although only a slight increase in 2009 compared to 2008. It is now estimated that secondary cadmium production accounts for about 22% of total cadmium production. Almost all of this secondary cadmium production comes from the recycling of NiCd batteries through the voluntary programs organized by industry in Europe, Japan and North America.

Cadmium consumption in NiCd batteries is now 85% of total cadmium consumption. The largest users are Belgium, which converts cadmium metal into cadmium oxide for subsequent shipment to China and Japan for NiCd battery production, and China and Japan, the world's largest producers of NiCd batteries. Significant consumption also occurs in Sweden and the USA, again mainly for the battery application. The two other niche markets for cadmium consumption, pigments and coatings, have remained steady or decreased slowly in the past ten years, but still remain at approximately 10% and

5% of total consumption respectively today. Cadmium consumption in stabilizers, alloys and solar cells are very small compared to the other applications, and solar cells is the only one of these technologies which appears to be growing. Forecasts for the consumer NiCd battery market continue to predict decreases in demand for the next ten years as new battery chemistries take over the market. The lithium-ion battery types, in particular, are displacing most other rechargeable battery chemistries across a wide range of applications, and nickel-cadmium batteries are expected to remain only in certain low-cost or other applications that require their performance characteristics.

Yet, cadmium price continues to remain reasonably strong, and has ranged from \$1 to \$6 per pound for 99.99% purity material in recent years. Demand from the Chinese NiCd battery manufacturers as well as an increase in consumption in India, along with some production curtailments, has produced an apparent tightness of supply that has maintained recent market prices at around the \$2 per pound level.

NEXT MEETING DATES

Chairman Emil Josendal announced that the next General Assembly of Members of the International Cadmium Association would be held during London Metals Exchange Week on Thursday, October 14, 2010, from 1 PM to 4 PM. The venue will probably again be the Royal Aeronautical Society at 4 Hamilton Place, but these details will subsequently be confirmed to the Membership.

The next ICdA Board of Directors' Meeting will be held on December 15th, 16th or 17th, probably by web teleconference. The date, time and meeting place or mode will subsequently be confirmed to all ICdA Board Members.

The next ICdA Informational Meeting, normally held for the benefit of North American Members, will be held on April 13th, 14th or 15th, or April 27th, 28th, or 29th, 2010. The meeting could be held in either Washington, DC or Durham, NC or by web teleconference, based on Members' wishes and ability to attend. The exact date, place and nature of the Informational Meeting will be established by the Membership, and announced to all.

The next three meetings of the Environmental Health & Safety Subcommittee are planned as follows:

- February 2, 2010
- June 8, 2010
- October 19, 2010

The locations of these meetings will be announced, as they are determined.

ADJOURNMENT

There being no further business before the General Assembly of Members and upon motion duly made Laurent Smits, seconded by Patrick de Metz, and approved by the meeting, the General Assembly of Members of the International Cadmium Association was adjourned by its Chairman, Emil Josendal, at 4:30 PM.

Respectfully Submitted,

Approved,

Hugh Morrow
Secretary, Pro-Tempore

Emil Josendal
Chairman