



The  
**Aluminum**  
Association



# ANNUAL **REPORT** 2011

# PRESIDENT AND CHAIRMAN'S MESSAGE



Heidi Brock  
President  
The Aluminum Association



Thomas Brackmann  
Chairman  
The Aluminum Association

North American aluminum markets continued their gradual rebound in 2011, with overall demand up over year-earlier levels in most sectors. While this is encouraging news for both Producer and Associate members of the Aluminum Association, economic risks at the national and global levels—the sluggish U.S. housing market and the European debt crisis among them—make prospects for continued growth in the new year and beyond unclear.

Short-term trend lines aside, however, the outlook for the aluminum industry and our membership over the long term is indeed bright. As a strong, lightweight, durable, corrosion-resistant, and infinitely recyclable metal, aluminum is among the Earth's most sustainable materials. And as society looks for ways to reduce the energy and pollution associated with everything from the modes of transportation that we use, to the packaging of the goods that are shipped, to the homes and buildings in which we live and work, aluminum stands tall as a sustainable solution in each of these areas. Fuel-efficient transportation, sustainable packaging, and green construction are all a part of our future.

For instance, automakers have long recognized aluminum's value in downweighting vehicles to help meet increasingly stringent corporate average fuel economy (CAFE) standards. And in 2011, the Association's Aluminum Transportation Group announced the results of a new study by Ducker Worldwide which makes it clear that automakers are accelerating their shift to aluminum.

The Ducker survey, released in September, documents that aluminum is already the leading material in the engine and wheel markets—and is fast gaining market share in hoods, trunks, braking systems, and doors. It estimates that North American automakers will increase their average use of aluminum from 327 pounds per vehicle in 2009 to 550 pounds by 2025. The survey also shows that vehicle manufacturers' overall use of aluminum will reach an all-time high of 343 pounds per vehicle for the 2012 model year—up five percent over 2009 and the 38th consecutive year of growth for aluminum content in North American light vehicles.

This past year also brought good news on the aluminum can recycling front. In June the Can Committee announced

that the U.S. aluminum can recycling rate for 2010 reached 58.1 percent—the highest level in a decade and more than double the rate of any other beverage container. Because recycled aluminum uses only 5 percent of the energy required as compared to primary aluminum, recycling those cans saved the energy equivalent of 17 million barrels of crude oil.

While those of us in the aluminum industry may be aware of aluminum's tremendous sustainability value, many among our industry's key audiences—legislators, consumers, NGOs—are not. Partly as a result, the Aluminum Association four years ago launched its Sustainability Initiative. Under the leadership of the Sustainability Working Group, we have begun to formally measure and communicate aluminum's performance throughout its life-cycle.

At the Association's annual meeting in September, the Group unveiled the first comprehensive review of the North American aluminum industry from the corporate- and product-stewardship, as well as product life-cycle, perspectives. Among other things, the study established that aluminum's use in road vehicle downweighting in 2009 neutralized 87 percent of the energy consumption associated with aluminum production and 92 percent of the cumulative greenhouse gas emissions associated with aluminum production.

This report goes a long way toward confirming the view that the aluminum industry will soon be "greenhouse gas neutral," i.e., that the greenhouse gas emissions associated with aluminum production will be fully offset by those saved via its use in the transportation industry.

The Sustainability Working Group is nearing completion on several additional technical reports that will be unveiled in 2012, including a life-cycle assessment of semi-fabricated aluminum

and auto products and a material flow analysis designed to measure the industry's resource preservation performance in North America.

The Association's Board of Directors is so committed to the goals of the sustainability program that, at the 2011 annual meeting, it voted to incorporate sustainability as part of the Association's core budget. This has resulted in an increase in dues for both Producer and Associate Members.

The Board arrived at this decision after a year of careful deliberation. It was the Board's conclusion that this program will provide a return on investment to our members in the form of additional aluminum-related sales and revenues in the future.

We appreciate the understanding and support that the membership has shown since this decision was announced earlier this fall. And we thank the many members who have donated their time and effort to contribute to the sustainability program's technical studies that have been carried out to date. Now our challenge is to be sure we leverage this important work and build upon it.

Finally, we would be remiss if we were not to acknowledge the outstanding contributions to the Aluminum Association and to the aluminum industry of outgoing Association President Steve Larkin. For 13 years, Steve worked tirelessly on behalf of the membership and successfully led the Association through some of the toughest economic conditions in the history of our industry. His wit and wisdom will be missed, while his achievements and legacy will be celebrated.

In closing, we would like to wish all our valued members a safe, happy, and prosperous new year.

Handwritten signatures in blue ink. The first signature is "Heidi Brown" and the second is "Thomas A. Buh".

# ENVIRONMENTAL REGULATION

## Primary MACT Residual Risk Revision

The Association worked closely with the Environmental Protection Agency (EPA) through 2011 to mitigate the impact of the proposed revision of the primary aluminum MACT (Maximum Achievable Control Technology) standard. EPA will for the first time regulate emissions of carbonyl sulfide (COS) and polycyclic organic matter such as benzo[a]pyrene from aluminum reduction plants. The proposal sets work practice controls for potline startup and will set COS emissions through a mass balance calculation based on the sulfur in coke.

## Secondary MACT Development

EPA has completed preliminary residual risk analysis of the Secondary MACT Rule and found few issues with secondary smelters. The Association will continue to work with EPA on the extensive list of proposed revisions to the rule. The proposal is due for publication on January 30, 2012.

## Secondary Aluminum Processing Waste Research

The cooperative research agreement between EPA and the solid waste industry was finalized to assess secondary processing waste reactivity and develop best management plans. A secondary waste sampling procedure and contractual arrangement to receive industrial facility samples and preserve confidentiality for the members have produced a long-delayed draft report from EPA. Industry



comments on the draft are extensive, and the Association will now work with EPA to find compromise language on which all parties can agree.

## Greenhouse Gas Regulation Under the Clean Air Act

The Association filed comments on several issues during EPA's efforts to regulate greenhouse gases (GHGs) under the Clean Air Act, including those:

- Opposing EPA's GHG endangerment finding;
- Opposing EPA's "tailoring rule" to set GHG emission regulatory thresholds;
- Opposing EPA proposals to limit confidential business information (CBI) protections for GHG reporting requirements; and
- Offering technical corrections for

GHG reporting requirements, which were adopted by EPA.

## Boiler and Process Heater MACT Proposal

The Boiler MACT Rule was withdrawn for reassessment in May 2011. EPA has re-issued the rule, and it was due for publication in the *Federal Register* in December 2011. The re-issued rule contains all of the work practice controls for melter processing units that were included in the previous rule. The Association conducted a survey in February and March 2009 of member company annealing furnaces and process heaters to establish a basis for subcategorization in the anticipated EPA boiler and process heater MACT proposal. As a result of this effort, EPA proposed in June 2010 a new boiler and process heater MACT standard that includes for major sources a separate subcategory for “metal processing” furnaces, including annealing, preheat, reheat, aging, and heat treat furnaces. This subcategory, unlike others in the proposal, does not include stringent hazardous air pollution emission limits, only work practice requirements.

## SO2 NAAQS Proposal

EPA issued a final Sulfur Dioxide (SO<sub>2</sub>) NAAQS Rule in June 2010 setting a stringent 75-ppb one-hour standard. EPA added in the rule the intention to determine ambient air compliance through site-specific air modeling rather than the traditional usage of air-monitoring networks. Litigation challenging the SO<sub>2</sub> NAAQS Rule is ongoing. Briefs are currently being filed through February 2012. EPA published a proposed guideline for compliance with the SO<sub>2</sub> rule that details the method for modeling data for compliance.

The Association filed comments in opposition to the use of modeling data, including a comparison of modeling versus actual data at a facility that illustrated the profound over-estimation of emissions resulting from modeling.

## Toxic Substances Control Act Inventory Update Rule

The Association will publish an updated guidance document to aid in compliance with the newly published Inventory Update Rule (now referred to as the “Chemical Data Reporting Rule”). All reporting will begin at the same 25,000-lb. threshold for process and use data. The reporting period begins in February 2012.

## Recycling Resolution

The Association successfully worked in coalition with the Recycling Roundtable to author Senate Resolution 251, which passed by unanimous affirmation on November 16, 2011. The resolution expresses support “for improvement in the collection, processing, and consumption of recyclable material throughout the United States in order to create well paying jobs, foster innovation and investment in the United States recycling infrastructure, and stimulate the economy of the United States.”



## Primary Aluminum Division

For 2011, the Primary Aluminum Division supported funding efforts to address flame-retardant fabric testing.

## HEALTH AND SAFETY

### WHO Codex

The Association successfully represented the aluminum industry in global negotiations of the World Health Organization. The Provisional Tolerable Weekly Intake for aluminum was reassessed in 2011 and amended from 1 mg/kg body weight to 2 mg/kg body weight. This revision favorably impacts the use of aluminum in food contact applications.

### Health Research

The global aluminum industry benefited from the completion of a decade-long review of aluminum and health issues carried out by Health Canada. Industry-sponsored research was central to a finding of no adverse health effects from the use of aluminum in the treatment of drinking water.

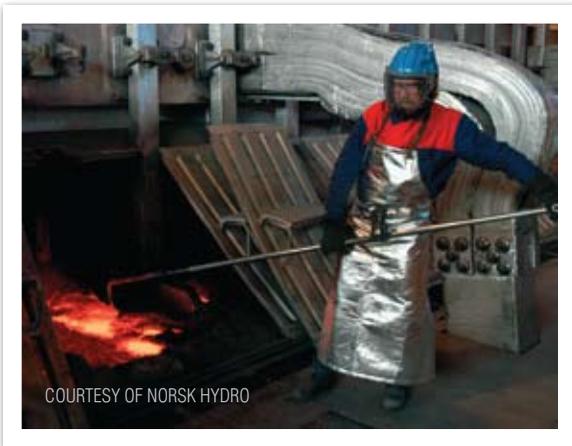
## Casthouse Safety

The Association conducted a successful Casthouse Safety Workshop November 16–17 in Ontario, Calif., attracting 78 participants. Industry experts presented the latest information on the safe handling of molten aluminum for sow casting and charging, as well as DC casting and scrap inspection and melting. New information on the proper application and care of pit coatings was added to the agenda, and recent regulatory developments in the area of combustible dusts were discussed.

## SUSTAINABILITY

The Association's Sustainability Initiative, launched in 2008, involves the assessment and communication of aluminum's performance throughout its life-cycle, with the goal of developing a complete understanding of the positive contributions that aluminum makes to society's environmental and economic well-being; any negative economic or environmental impacts associated with its production and fabrication; and the balance between these positives and negatives during the life-cycle of the material.

Pursuant to this initiative, the Sustainability Working Group has launched a number of technical studies designed to benchmark the energy and environmental efficiency of the North American aluminum industry's operations and the products it makes on a "cradle-to-cradle" basis. The first such technical study—a life-cycle analysis of the aluminum can, released in 2010—documented a reduction in the overall carbon footprint of the aluminum can by 43 percent since 1993.



## North American Aluminum Industry Sustainability Report

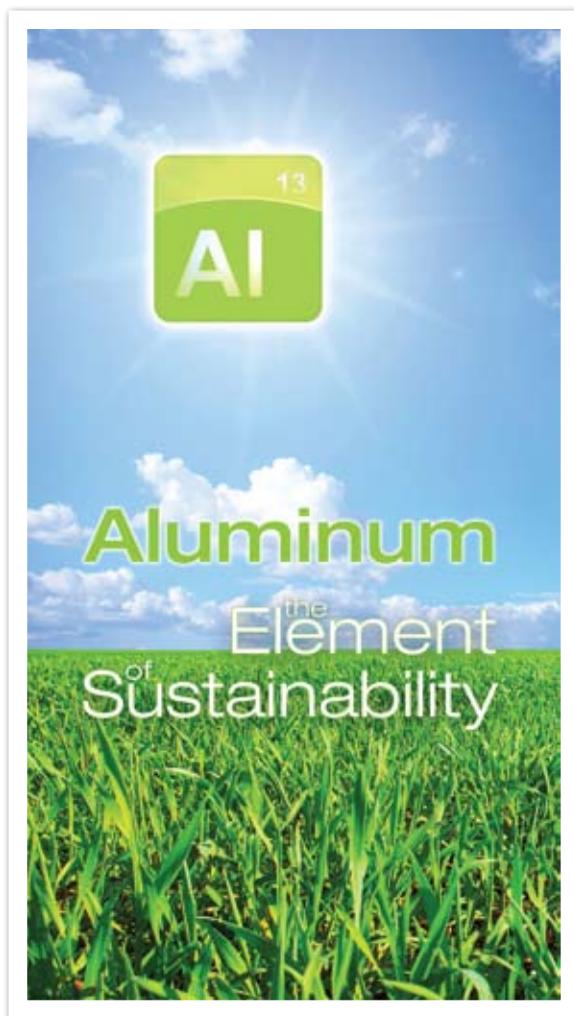
“Aluminum: The Element of Sustainability,” released in 2011, is the first comprehensive review of the North American aluminum industry from the corporate- and product-stewardship, as well as product life-cycle, perspectives. The study confirmed an:

- 87 percent neutralization of energy consumption associated with all aluminum production via the energy savings achieved through aluminum’s use in road vehicle downweighting in 2009; and
- 92 percent neutralization of cumulative greenhouse gas emissions associated with all aluminum production via GHG avoidance achieved through aluminum’s use in road vehicle downweighting in 2009.

The report provides extensive data to help consumers and other users of aluminum to understand the material from its production through its usage phase and to its recycling at the end of the product life. Case studies for different market sectors were included in the report to show aluminum’s role as a sustainable solution across many applications and markets. The report can be downloaded at [www.aluminum.org/sustainabilityreport](http://www.aluminum.org/sustainabilityreport).

### LCA of Semi-Fabricated Aluminum and Auto Products

A multi-year project examining the life-cycle environmental footprints of all major categories of semi-fabricated aluminum products—flat-rolled, extruded, cast, and forged—is nearing completion. While preliminary modeling for primary and secondary ingots is finished, correction of



data survey reporting errors for semi-fabrication processes by individual production facilities has taken longer than expected. The collaboration and support from individual companies and facilities has been commendable—an indication that the industry understands the importance of the project and its benefit to the industry, to society, and to future generations.

The final report of the project is expected to be published in spring 2012.

## Material Flow Analysis

Also nearing completion is a material flow analysis designed to measure the industry's resource preservation performance in North America—with particular focus on documenting historical productions, current in-use stocks, and the overall losses of aluminum. This project represents the first time that the North American aluminum industry has assessed the disposition of its products after the end of their useful life.

The Association is currently reviewing a draft report from the research team which, after comments have been incorporated, will be forwarded to the Sustainability Working Group for further review. The final report of the project is expected to be released in spring 2012.

## Technical Support to Product Committees and Divisions

Ongoing technical support on sustainability issues has been provided by Association staff for individual product committees and divisions, particularly the Can Committee, the Aluminum Transportation Group, the Building and Construction Committee, the Casting and Recycling Division, and the Sheet and Plate Division. Information has been distributed in a timely fashion, and inquiries have been answered in as complete a manner as possible. With the release of the sustainability report in 2011, such tasks are expected to be less demanding and less time-consuming in the future.

## MEDIA/ COMMUNICATIONS

The Association carried out an expansive earned media campaign in 2011—placing op-eds and other editorial material on such topics as recycling, sustainable building, and the Association's participation at Greenbuild in national newspapers and trade magazines alike.

One particularly successful placement, an opinion piece entitled "Private Sector 'Green Jobs' Trump Federally Subsidized Ones," was picked up by the McClatchy news service and published in 21 newspapers—including the *Miami Herald*, *Atlanta Journal-Constitution*, *Cleveland Plain Dealer*, and *Kansas City Star*. The piece, which held the aluminum industry's efforts in establishing the can recycling infrastructure as a model for the provision of non-federally subsidized "green jobs," reached an estimated three million readers.

The Communications Department also worked to secure TV and radio coverage for allied causes throughout the year—arranging media coverage for the organizers of "The Cans Fest" on Portland's KGW-TV and KPTV and setting up an interview for Curbside Value Partnership board member Matt McKenna on Jim Bohannon's nationally syndicated radio show.

The Association sponsored four media tours in 2011. The Association developed



scripts for delivery by professional spokespersons on a variety of topics—including aluminum’s growing importance as an auto material, in electronics, as a sustainable package during the holiday season, and in modern household applications. In all, the tours resulted in over 70 network TV and radio placements, resulting in approximately 80 million media impressions.

The Association ramped up its e-communications and social media programs considerably during the year. A determined effort to boost the Association’s Facebook “friends” saw that number increase tenfold—to almost 4,000, the highest among any of the materials-related trade groups. Twitter followers doubled, to over 2,000. The Association used this opportunity to engage its newfound audiences more directly—conducting a photo scavenger hunt for its Facebook friends to celebrate the 125<sup>th</sup> anniversary of the development of the electrolytic reduction method for producing aluminum, as well as several polls/surveys to facilitate two-way communication.

Aluminum.org was upgraded with new types of content geared for emerging technologies and audiences. The website published its first eBook—for use on iPads and other tablet/mobile devices. A richly illustrated history/timeline of aluminum covering everything from the discovery of the electrolytic reduction method for producing primary aluminum to the development of automotive aluminum space-frame architecture, the eBook is designed to help kids with school reports and essays—and includes factoids on the major markets and applications for aluminum, the importance of recycling, and aluminum’s sustainable characteristics.



The Association’s primary e-communications vehicle, *The Briefing* e-newsletter, upped its frequency of publication by over 10 percent during the year. It was supplemented by a biweekly President’s email on Association activities distributed to the Board of Directors and Division and Committee members.

## MEMBERSHIP/ MEETINGS

### Membership

*Membership at all-time high:* Throughout the year, the Membership Development Committee continued to market to the aluminum industry the value of membership in the Association. In May, Committee chair Kevin Kramer, President of Alcoa Growth Initiatives, appeared in a short video explaining the benefits of joining, which was distributed to prospective members. Despite the uneven economic conditions that prevailed throughout the industry and the larger economy in 2011, the Association attracted new companies to the membership throughout the year. As the annual report went to press, total membership stood at 95 members—eclipsing the record year-end total at the end of the preceding year.

*Sustainability program now part of core budget:* As the Association's sustainability program has become more prominent—and greater staff time and other resources have been devoted to it—the Board in 2011 authorized its inclusion as a core, rather than voluntary, program. The Board's decision came after lengthy deliberation and the conclusion that the benefits of a concerted sustainability effort—i.e., the production of data to benchmark the sustainability of our industry and its products, and its communication to all stakeholders—warrant an increased budget that is achievable only through its assignment as a core Association function.

*International cooperation:* The Association continued its cooperation with overseas aluminum associations—hosting a South African delegation at Association headquarters in June and signing a memorandum of understanding (MOU) with the Aluminium Association of India in December. The meeting with the South African Department of Science and Technology provided a forum in which interested Associate Members could give overviews of their companies' expertise in such areas as reducing energy expenditures and improving productivity. The Association's MOU with the Aluminium Association of India, in December, cements cooperation between the organizations on the exchange of information in the areas of recycling, sustainability, statistical data exchange, and health and safety benchmarking.

## Meetings

The Association typically holds two meetings annually that afford the opportunity



for representatives from member companies to interact both with industry peers and Aluminum Association leaders and to gain a deeper insight into topical issues that may impact their business.

The 2011 Spring Meeting shed light on “Aluminum's Transformed Horizon.” Co-locating with the Aluminum Extruders Council (AEC), the meeting lineup featured Parks Dodd, President of Aluminomics LLC, who predicted a mixed bag as far as the nation's economic recovery over the near term. In his keynote presentation, “The Hard Choices Ahead to Assure America's Greatness,” former Florida Governor Jeb Bush contended that burdensome regulations are killing business investment, and in many cases their implementation costs are greater than their benefits.

The Annual Meeting was an occasion to “Celebrate Sustainability” and featured the unveiling of the Association's North American aluminum industry sustainability report. The meeting also featured the biennial change in Board leadership, with Thomas Brackmann, President, Nichols Aluminum, ascending to the Chairmanship and Jean-Marc Germain, Senior Vice-President and President of Novelis

North America, elected Vice-Chairman. Michael Falk, President and CEO of Falk PLI Engineering and Surveying, and Andrew Fellon, President and CEO of Fellon-McCord and Associates LLC, were elected as new Directors representing Associate Members.

Heidi Brock (see picture at left), the newly appointed President of the Association, was also introduced as the successor to Steve Larkin, who had announced his retirement to the Board at the Spring Meeting. Brock has visited several member companies since joining on October 1, with more visits planned for 2012.

## STANDARDS AND TECHNOLOGY

The Association's Standards and Technology programs comprise a wide range of activities designed to promote and facilitate the use of aluminum and its alloys—including developing and maintaining industry product standards and nomenclature; developing and publishing documents that help facilitate aluminum's use in product markets; promoting the development of sound technical practices for the use of aluminum through workshops, seminars, and short courses; and facilitating technical interactions with the government, academic community, and professional societies.

Major technical publications updated in 2011 were *Tempers for Aluminum and Aluminum Alloy Products* ("Yellow Sheets") and its metric analog, the "Tan Sheets," which list the designations and mechanical properties of the alloy/temper products not included in the two *Aluminum Standards and Data* publications.

The majority of the Association's standards activities are carried out by the Technical Committee on Product Standards (TCPS). In 2011, the Committee worked on projects covering a broad range of standards activities, including registration of alloys and product standards; modifications to the registration system; ongoing revisions to the *Aluminum Standards and Data* and *Aluminum Standards and Data—Metric* publications, as well as to the "Rainbow" series and ANSI H35 series of publications; maintenance of online international registration records and their addenda; and harmonization of various national and international standards and specifications. In addition, Department staff participated at standards meetings of ASTM International, the American Society of Mechanical Engineers (ASME), the International Organization for Standardization (ISO), and the European Aluminium Association (EAA) to promote the application of standards developed by TCPS and the global harmonization of aluminum standards.



In keeping with its mandate to promote the use of aluminum and its alloys, the Standards and Technology Department answered hundreds of technical questions from aluminum producers, users, and the general public throughout the year regarding aluminum products and processes. In September, it also co-sponsored, with the American Welding Society, an international seminar/workshop on aluminum welding.

## SHEET AND PLATE DIVISION

The Sheet and Plate Division supports activities that help educate aluminum producers, distributors, and end users and broaden the use of aluminum rolled products. In 2011, these activities in-



cluded participation in the Metals Service Center Institute's End Use and Application Seminar and co-sponsorship of the Aluminum Association's booth at the Metal Construction Association's (MCA's) annual Metalcon International Conference and Exhibition. Most members of the

Division also participate in one or more of the Association's marketing committees: Aluminum Transportation Group, Can Committee, and Building and Construction Committee.

To help promote the knowledge of aluminum products and their capabilities, the Division sponsored the distribution of approximately 1,000 CDs of *Aluminum Standards and Data* and the *Aluminum Design Manual* to university professors and their students in materials and structural design courses.

## STATISTICS/ BUSINESS INFORMATION

As the principal source for statistics on the North American aluminum industry, the Aluminum Association provides timely industry data on key areas of operations, including primary aluminum production, mill products, new orders and shipments, shipment of ingot for castings, foreign trade, recycling and secondary recovery, end-use market estimates, and inventories.

Statistical data are drawn from both external sources and Association surveys. The Statistical Department circulates 27 such surveys covering 90 U.S. and Canadian producers that provide data on 100 percent of primary and 85 percent of mill output. In 2011, the Association published 31 discrete statistical reports of varying frequency—weekly, monthly, quarterly, and annually—derived from these sources.

The Association also publishes an annual survey of aluminum foundry castings by major market for the U.S. and Canada. Conducted by an outside market research

firm, the study covers approximately 300 companies and is extrapolated to provide an estimate of the larger industry. All surveys are managed by the Association's Statistics Department with the oversight of the Statistics Committee and legal counsel, which ensures adherence to U.S. anti-trust law and the Association's own rules of confidentiality.

## Reporting Programs

Timeliness is critical to the value of Association statistics and relies heavily on the responsiveness of our members and other survey participants to meet reporting deadlines. During 2011, monthly survey results were released on an average of 2.5 days following the due date compared with an average of 3.6 days in 2010. Improvements made during 2011 included a software upgrade for improved performance; an interactive database to be brought online by year's end; a new billet survey; increased coverage of net new orders and reset base year; and improved methodology for estimating total domestic volume of extrusion production.

## Publication Sales

The Association has increased visibility of its statistics through the use of Facebook, Twitter, and its RSS feed. Beginning in May, a quarterly series of web-based conferences was launched to further promote the Department's products and services. Additionally, customized reports on a fee-for-service basis continued to be promoted to potential customers identified from industry databases, membership lists from allied organizations, and the Association's online buyer's guide.



## Canada

For the past 10 years, Association statistics have incorporated Canadian data and currently account for 100 percent of primary production and a significant share of semi-fabricated and foundry production. The Association also has continued to work closely with Natural Resources Canada and to track Canadian statistics on current economic accounts and key economic indicators.

## Mexico

The Association signed a memorandum of understanding with Mexico's *Instituto del Aluminio A.C.* (IMEDAL) in 2007 and, since that time, has continued cooperative efforts with them on statistics, health and safety, and other shared interests. As a result of this, IMEDAL's annual fact book is available from the Association's online bookstore, providing members with access to key aluminum statistics on Mexico.

# CAN COMMITTEE

## Advertising

The Can Committee rang in the New Year with a message to Times Square revelers: buy your beverages in aluminum cans—and recycle them. The Committee purchased advertising space on the three-story-high CBS Super Screen, located in the heart of Times Square Plaza, during the holiday season. Over the course of the month-long campaign, a 15-second visual ad touting the aluminum can's sustainability ran approximately 1,150 times—during which an estimated 20 million people passed through the plaza.

## Can Crusade

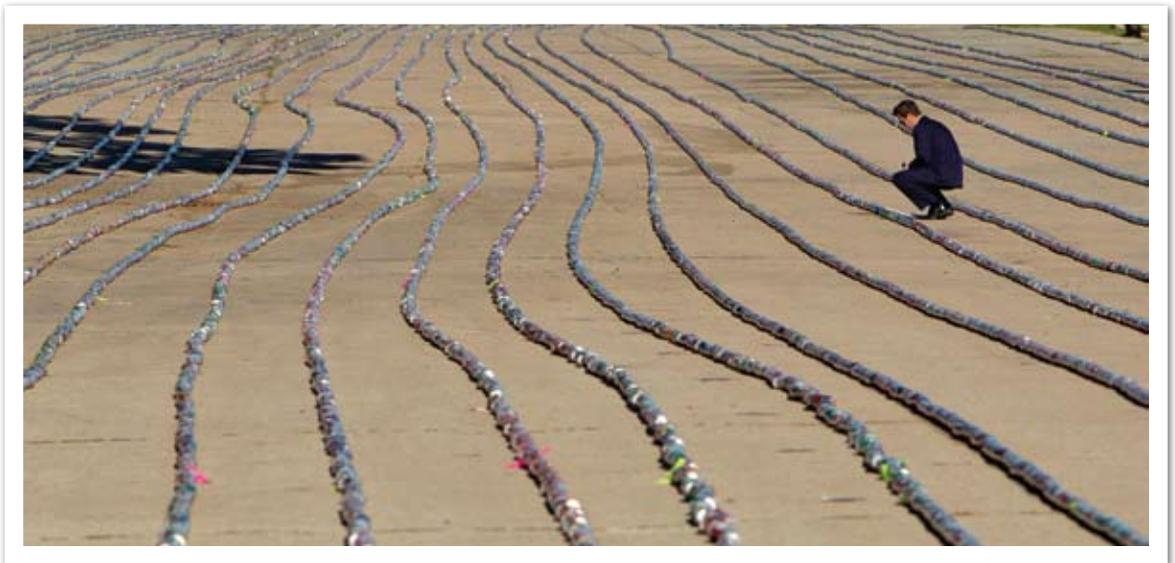
The start of the National Football League (NFL) season afforded the Committee the opportunity to launch its “Can Crusade.” The Committee retained the services of “Commissioner of Tailgating” Joe Cahn to travel to stadiums each Sunday and share with fellow football fans beverages, barbecuing tips, and—above all—the message

that aluminum cans are the smart container from which to drink at tailgate parties.

To help propel the campaign into the media spotlight, Cahn and volunteers on the eve of the NFL season opener successfully challenged the existing Guinness World Record for the longest-ever chain of aluminum cans. Can Crusade volunteers strung together 66,343 cans—spanning nearly five miles in length.

Once the record was verified by a Guinness World Records adjudicator, the cans were delivered to a local recycling plant and the proceeds donated to a local food pantry. The Committee donated an additional \$5,000 to the charity.

A multi-media effort, the Can Crusade—which concludes after the Super Bowl in February—incorporates a website, [www.can crusade.com](http://www.can crusade.com), as well as social media such as Facebook, Twitter, and YouTube to broaden its reach and facilitate interaction with consumers. To date, the Can Crusade has amassed 150 million media impressions and 6,000 broadcast hits.





COURTESY OF REXAM

## CVP Becomes Independent Nonprofit Organization

In January, the Curbside Value Partnership (CVP) officially became an independent, tax-exempt nonprofit 501(c)(3) organization, with a board of directors comprising representatives from Alcoa, Novelis, Tri-Arrows Aluminum, Ball Corporation, Coca-Cola Recycling, Keep America Beautiful, and the American Beverage Association.

Established in 2003 by the Aluminum Association and the Can Manufacturers Institute to help grow and sustain participation and collection in residential curbside recycling programs through education and measurement, CVP has since partnered with 27 communities and four states. Partner communities report a 23 percent average increase in recycling volume and an 18 percent average increase

in participation.

CVP is currently the only national program that engages all recycling stakeholders to identify solutions to improving curbside recycling—and is recognized as a leading voice in the recycling arena.

## UBC Recycling Rate

In June, the Committee reported that the 2010 U.S. recycling rate for aluminum beverage cans reached 58.1 percent—its highest level in a decade and nearly double the rate of any other beverage container. Almost 56 billion aluminum cans were recycled, helping to boost the average recycled content per can to 68 percent—also the highest figure among beverage packages.

As part of its Sustainability Initiative, the Aluminum Association in 2008 adopted a goal of achieving a recycling rate of 75 percent for aluminum cans by 2015. The Committee continues to pursue a range of strategies, including expansion of curbside recycling programs, to help boost can recycling rates further.

## Craft Beers

Throughout the year, the Committee heavily promoted the aluminum can's use in the packaging of craft beers—landing media coverage in support of Portland's "The Cans Fest" event in July, co-sponsoring Reno's third-annual "Can-Fest" in November, and interviewing with *CraftCans.com*—a leading canned craft beer website and blog.

Craft beers represent a rapidly growing market for aluminum cans—with *CraftCans.com* reporting that there are now 441 canned craft beers from 147 different breweries in the U.S. alone. Many

### Aluminum—The Beer Brewer's Choice

**Recently the trend** amongst small to medium size brewers, especially microbrewers and craft brewers committed to a sustainable and flavorful beer, has been to trade traditional glass beer bottles in favor of the more sustainable and beverage protecting aluminum can. Over 100 craft brewers including Stone Heads, Shock Top and Purple Haze are naming their products—**BUT WHY?**

**Sam Tan Brewing:** "It's better for the beer, better for the environment."

**Branding** >>>  
The aluminum can offers a variety of shapes, sizes, and printing options.

**Cost** >>>  
**Jeff Hamilton, President of Sprecher Brewing:** "When it comes down, it's considerably cheaper than the glass bottle."

**Taste** >>>  
**Jason Carmel, owner Gaidi Pale:** "Every beer you've ever had on tap is coming out of a metal can."

**John Childen of AshMon:** "The biggest misconception about canned beer is that the aluminum can imparts a metallic taste... there is absolutely no reaction between the beer and the aluminum."

**Protection** >>>  
**David Bloomer, President Ashio Brewing:** "Cans are much better for the beer. Beer doesn't like light and beer doesn't like oxygen and the can completely keeps the beer in the dark and it's hermetically sealed so that no oxygen can get in."  
**Bloomer:** "You can take cans to places where glass might not be convenient or allowed."

**Megan Flynn, editor Beer-Brew Magazine:** "Lighter to ship... it's cheaper for them [local brewers] to ship their beer into the US."

**Sustainability** >>>

- The aluminum can recycling rate is 58.1% and the average can contains 80% recycled content, THE HIGHEST OF ANY CONTAINER.
- Recycling a 24-pack of carefully crafted beer SAVES ENOUGH ENERGY TO POWER A WII FOR 33 DAYS.
- After the starter grain, there's tons of energy gone. If recycled SAVES ENERGY TO POWER YOUR ZIP CODE FOR THE NEXT 20 HOURS OF GAMER and adds a little to next week's rent fund.
- Used aluminum can value: RECYCLED CANS HELP FUND LOCAL RECYCLING.

**Praise** >>>

**Jim Mills, owner of Colders Brewing:** "Cans have 30 advantages over bottles."

**Ken Johnson, Fearless Brewing:** "Cans are perfect for the way we live out... you can't take bottles to the golf course, you can't take them out on the river and you don't want to pack them into your carports. Cans are lighter, they chill faster and they don't break."

**Chris Newbold, co-owner of Fort George Brewery:** "Blagaming... now that's something you just can't do with a bottle."



100% RECYCLED MATERIAL



brewers prefer cans because they provide a superior barrier to light, water, and air. Additionally, canning lines typically are a quicker-filling option than bottling.

## Canned Water for Tornado Relief

The Committee provided assistance in the form of canned water to victims of a devastating tornado system that struck Mississippi and Alabama in April, leaving thousands of residents homeless. Over two thousand cases—amounting to over 50,000 cans—were delivered to the Columbus, Miss., Red Cross for distribution to 15 counties throughout the affected region.

## FOIL DIVISION

In 2011 the Foil Division continued its co-sponsorship, with the Aluminum Foil Container Manufacturers Association, of the Aluminum Foil Lecture Series, presented at leading packaging schools throughout North America. Now in its fifth year, the lecture series is a popular forum for educating aluminum packaging students and professionals—providing an overview of aluminum and aluminum foil production with an emphasis on the favorable and unique characteristics of aluminum foil packaging. All packaging students received the updated Aluminum Foil Manual CD.

Following the retirement of former Clemson University Professor Robert Testin in the 2011 spring semester, the lecture series was taken over by J. Coke Williams, a past chairman of the Aluminum Association’s Foil Division with over three decades of foil manufacturing and marketing experience. He delivered

fall semester lectures at the University of Florida, Clemson University, Michigan State, and the University of Wisconsin-Stout. Spring semester lectures are planned for Cal Poly, San Jose State, Penn State, Rochester Institute of Technology, and Michigan State.

Throughout the year, the Division continued to promote and distribute the revised Aluminum Foil Manual CD, Version 3.0, which is designed for use by aluminum and packaging producers, packaging schools and technical colleges, and all others who work with aluminum foil. The CD has proven to be popular with all customer groups, providing updated information on foil’s unique advantages, foil markets, and sustainable packaging.



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# ALUMINUM TRANSPORTATION GROUP

During 2011, the Aluminum Transportation Group (ATG) worked to promote aluminum applications throughout the transport sector—with particular emphasis on the automotive and commercial vehicle markets.

## Regulatory/Public Affairs Activities

On the regulatory front, ATG supplied key data to the Obama administration and federal agencies involved in the development of enhanced fuel and environmental standards for light-duty and commercial vehicles. The efforts culminated in standards that are favorable to the increased application of aluminum in both the automotive and heavy truck sectors.

ATG held meetings with federal regulators and other stakeholders over the course of the year, including White House officials, the National Highway Safety Administrator and his staff, the senior advisor to the Secretary of the Department of Energy, the team at the Environmental Protection Agency leading development of CAFE standards, and NGOs such as the Union of Concerned Scientists and the Sierra Club. ATG supplied decision-makers within these entities with data relating to aluminum's utility as a material suitable for downweighting vehicles effectively and safely.

The Group's efforts were rewarded, and its input expressly recognized, when the EPA and the National Highway Traffic Safety Administration (NHTSA) in August unveiled their final fuel efficiency

and greenhouse gas emissions standards for medium- and heavy-duty engines and vehicles. The regulations specifically noted, "DOE reviewed prospective lightweighting alternative materials and found that aluminum has a potential to reduce mass by 40 to 60 percent." In contrast, the same DOE report cited in the rule "...identified opportunities to reduce mass by 10 percent through high strength steel." The regulators further concluded, "... we do not believe [plastics and composites] technologies have advanced far enough to quantify the benefits of these materials ..."

As the year came to a close, the ATG was reviewing current research on the effects of light-duty vehicle mass and size on safety in preparation for developing comments to submit to the docket in January 2012 on the recently proposed CAFE standards for light-duty vehicles.

## Communications

ATG's calendar included a full slate of media and communications activities relating to the unveiling of the *Ducker Worldwide North American Light Vehicle Aluminum Survey*. The media rollout for the study—which detailed the accelerating growth of aluminum in light-vehicle applications—included a national radio media tour comprising 29 interviews among stations nationwide that reached an estimated 30 million listeners. The Group also hosted a well-attended webinar reviewing the study's findings with auto manufacturers, suppliers, media, and other key audiences.

Ongoing proactive media relations are a priority for the ATG, and throughout the year it continued to build relationships with high-profile media. In May and



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June, the ATG participated in briefings with reporters from Reuters and *Automotive News*. The engagement led to their inclusion, in several articles on the issue of vehicle weight reduction, of data, ATG quotes, and information on the role of auto aluminum in downweighting vehicles to help them meet stringent federal fuel economy and emissions standards. ATG also successfully worked with the *Detroit News* to include more of the aluminum perspective in its vehicle coverage.

ATG representatives presented research at prominent automotive conferences throughout the year—among them a technical keynote speech at the SAE World Congress. In his keynote address, ATG Chairman Randall Scheps shared the findings of a University of Aachen study that concluded that using aluminum in select automotive components could reduce vehicle body structure weight up to an additional 40 percent, while the weight reduction potential using high-strength steel is limited to only an additional 11 percent.

The Group presented additional research and data at a variety of other forums, including:

- NHTSA's Enhanced Safety of Vehicles Conference
- SAE International's Government and Industry Meeting, as well as its High Efficiency Heavy Duty Vehicles Symposium
- Platts' Aluminum Symposium
- ITB Group's Automotive Weight Reduction Strategies Conference
- The IQPC Advanced Lightweight Materials Summit
- *Automotive World's* Commercial Vehicle Innovation Summit.

The ATG continued to upgrade its website, [aluminumintransportation.org](http://aluminumintransportation.org), helping to maintain its status as a centralized repository for research and resources relating to aluminum's use in transportation. ATG also continued its cooperation with other aluminum associations—the European Aluminium Association and the International Aluminium Institute—to share and distribute each other's content to multiple audiences.

## BUILDING AND CONSTRUCTION COMMITTEE

The Building and Construction Committee co-sponsored the first ever sustainable building summit at the 2011 Asia-Pacific Economic Cooperation (APEC) ministerial meeting in Washington, D.C. in May. The cornerstone of the meeting was a survey of APEC countries that detailed the rise of sustainable building codes in the Pacific Rim region. The APEC initiative is expected to continue and to build on the data gathering that has taken place to date.

The Committee also exhibited at both the Metalcon International and Greenbuild trade shows and distributed sustainability information to the green building community.



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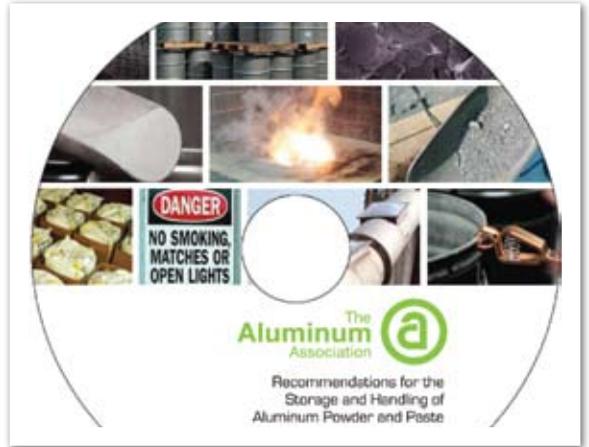
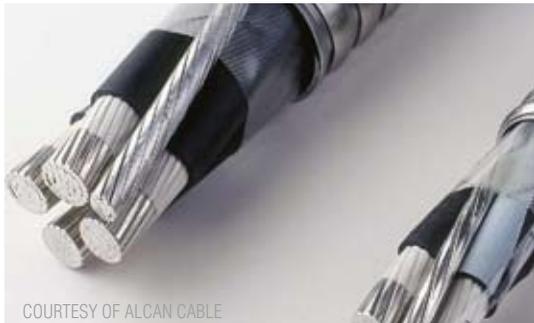


## ELECTRICAL DIVISION

The Electrical Division's mission is to promote the proper specification and use of aluminum and aluminum alloy conductors, components, and metallic sheaths. It pursues this goal through participation in codes and standards activities and the development and distribution of technical information.

This year, the Electrical Division broadened the range of technical and educational materials available to the public by expanding its presence on the Aluminum Association website. Eight publications and articles were added to the website—including the *Aluminum Electrical Conductor Handbook*—which are available for free viewing and download. The Division anticipates adding a new publication addressing the proper installation of aluminum building wire and cable—a critical topic for apprentices, electricians, and electrical inspectors.

Division representatives continued to serve on NEC code-making panels, with several members nominated as new panel representatives for the upcoming term. The Association now has representatives on seven NEC code-making panels, as well as the NFPA 70E technical committee.



## PIGMENTS AND POWDER DIVISION

The Pigments and Powder Division promotes health and safety in plant operations, adopts and maintains prudent product standards, and develops and expands markets for aluminum powder and paste. As part of its mission, the Division produces and updates an array of publications on aluminum powder metallurgy and the safe handling and storage of aluminum powder and paste. Several of these titles are available for free download from the Powder and Paste section of the Association's website.

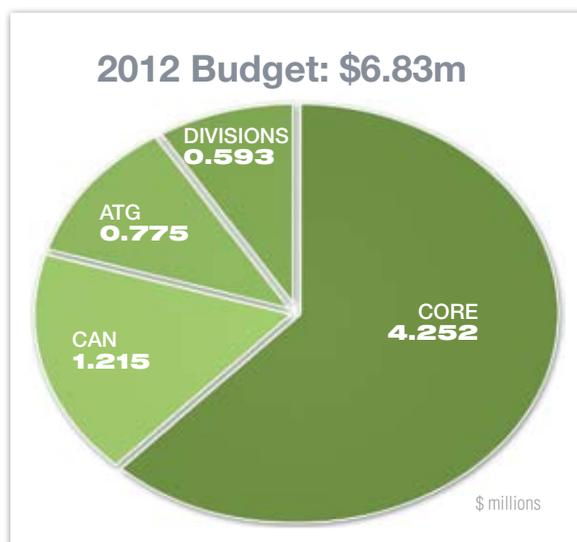
In 2011, the Division updated with new content its *Recommendations for the Storage and Handling of Aluminum Powder and Paste* video. Filmed on location at Ampal Inc., in Palmerton, Pa., the new 16-minute DVD updates information from the original video, produced in 1995, including instruction on basic rules for the storage and handling of aluminum powder and paste; general safety recommendations and precautions; and firefighting methods. It is available for purchase from the Aluminum Association Bookstore.

## FINANCE COMMITTEE

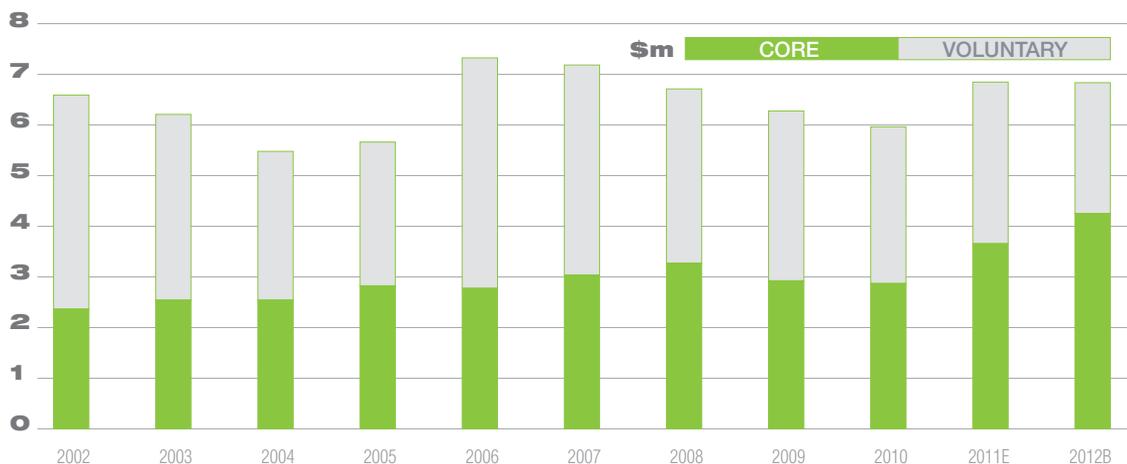
The 2011 core spending budget was \$3.3 million and the overall budgeted spending, including voluntary programs, was set at \$6.49 million. Revenue for the year was on target, with additional income from the Aluminum Industry Buyer's Guide offsetting a decline in income from publication sales and CD interest.

Direct costs were lower than budget, but a change in the Association's leadership during 2011 resulted in additional general and administrative expense. Consequently, pre-audited estimated results show an anticipated loss of approximately \$200,000 for 2011 compared with the budgeted surplus of \$156,000. This shortfall will be covered from the Association's reserves. Actual results will vary and may include an adjustment for the pension plan liability once these figures are disclosed early in 2012.

The 2012 budget has been approved at \$6.83 million. This budget includes the Board of Directors' decision to transition the previously voluntary Sustainability program into Core. Budget books were mailed to member representatives in November and are available from the Treasurer.



**The Aluminum Association Program Spending, 2002–2012**



# COMMITTEES/DIVISIONS/DIRECTORS

The Aluminum Association expresses its sincere appreciation to the following members, and others, who donated their time and effort to serve on our Committees, Divisions, and Board of Directors (lists current as of year-end 2011).

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