Globalization and Trade: Current Policies Need Review

THE RECENT ECONOMIC recoverv has lifted some segments of the nation's manufacturing base, but gains remain modest and uneven at best. Moreover, the prospects for a substantial future rebound of America's manufacturing prowess are highly uncertain, and recent trends are troubling. Even with the laudable economic progress the nation has made since the recession, manufacturing is still down 2.5 million jobs. The U.S. trade deficit was \$60 billion just for the month of February and will likely continue to skyrocket to record annual levels in 2005.

Free Trade Must Mean "Fair Trade"

Our industrial production and R&D commitments in both basic manufactured goods and advanced technology products are slipping away, and some of our major trading partners such as China—are enjoying immense economic benefits by boldly eluding their commitments to the existing global trade regime on issues ranging from intellectual property rights and illegal government subsidies to currency manipulation that severely tilts the competitive balance away from U.S.-based manufacturing operations.

The finishing industry vigorously supports the principles of free trade, but it also demands we have fair trade. We have practical, not ideological, questions about whether we are pursuing the right mix of trade, economic and manufacturing policies.

Indeed, during the Senate Finance Committee's April 2005 hearing to nominate Ohio Congressman Rob Portman as the U.S. Trade Representative, Committee Chairman Charles Grassley (R-IA) and Ranking Minority Member Max Baucus (D-MT) gave Mr. Portman high marks as a well-qualified candidate for the nation's top trade advisor and negotiator. Yet both Senators voiced serious concerns over whether the U.S. is truly benefiting by our current policy approach to global trade and manufacturing.

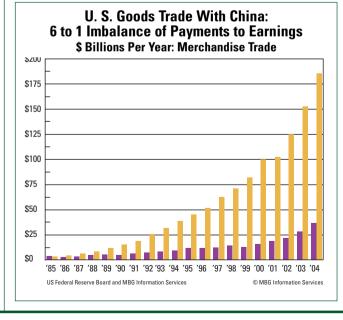
Moreover, Congress is now engaged in major discussions over passage of the Central American Free Trade Agreement (CAFTA). Opposition from members of both parties partly reflects the fact that legitimate questions are being voiced on Capitol Hill about how well the nation is faring under the rapid pace of global economic integration, and whether U.S. trade policies and actions with our trading partners are working effectively.

Recent Trends in Surface Finishing

The transformation of the global marketplace continues to reshape and place intense competitive demands on the surface coatings industry. The finishing sector's recent experience aligns with important trends in the larger manufacturing base. A recent informal survey of metal finishing firms shows some niche sectors improving, with many small- to medium-sized companies responding to lost markets either by shedding jobs to survive or by pursuing high risk business opportunities in China and elsewhere.

On other fronts, the finishing industry has seen a surge in bankruptcies, although some segments of the industry have been boosted by demand from large global customers, such as U.S.-based Japanese and European automotive facilities. The shift overseas of high-volume production runs for millions of product lines by large multinationals has left many U.S. finishing firms doing

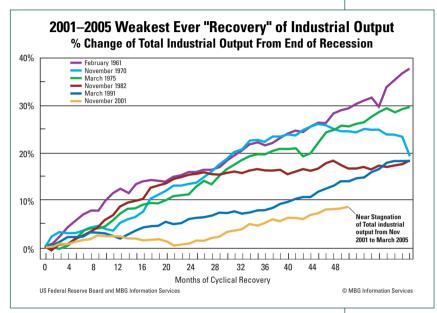
The finishing industry vigorously supports the principles of free trade, but it also demands we have fair trade.



mainly prototype and design work that will ultimately be produced in low-wage countries. As a consequence, the finishing industry has shed approximately 50,000–70,000 jobs in the past several years.

Congress and the Administration Must Engage in New Discussion

Like others in the U.S. manufacturing community, the finishing industry doesn't want protection—we simply want fair competition. Our industry will continue to innovate, compete and pursue new strategies for success. But all the innovation in the world means little if our competitors are enjoying unfair advantages by participating in international trading institutions while at the same time undermining them without consequence. Now is the time for Congress and the Administration to engage in a serious discussion over about the future of the U.S. economy, the role of new policy approaches to ensuring a vibrant manufacturing base, and U.S. options for more aggressive action to halt our competitors' trading practices that severely and unjustifiably harm the nation's manufacturing base. The time to act is **now!**



Energy Policy and Manufacturing Competitiveness

THE FINISHING INDUSTRY supports passage of energy legislation in the 109th Congress that will improve American competitiveness by increasing energy supplies, improving the reliability of the transmission and distribution infrastructure, and reducing the cost of oil and natural gas. The U.S. finishing industry uses natural gas and electricity to keep facilities and production operations running, and relies on reasonably priced gasoline for product shipments and related business activities.

The energy bill—HR 6 sponsored by Energy and Commerce Committee Chairman Joe Barton (R-TX) and passed by the House, is a solid step toward enhancing the nation's manufacturing competitiveness. Overall, U.S. manufacturers consume about 30% of the nation's electricity and 40% of its natural gas. Recent experience, including the August 2003 blackout, prompts the finishing industry to have a critical interest in the commitment of resources in the area of energy that impact our competitiveness, productivity and profitability.

While Congress must continue to work to address a wide array of manufacturing challenges—including reasonable reforms to U.S. tax policy, the tort system, health care and the high cost of regulation—sound energy policy changes in the near term will boost the health of industrial energy consumers as well as the overall jobs picture.

CONTINUES ON PAGE 4



The finishing industry has practical, not ideological, questions about whether we are pursuing the right mix of trade, economic and manufacturing policies. **Energy Policy and Manufacturing Competitiveness** CONTINUED FROM PAGE 3

Natural Gas Prices— Responsible Access to Domestic Supplies

On natural gas policy in particular, it is important that Congress consider action that will right the balance in the current domestic supply shortage and high U.S. prices for natural gas. Although the "supply gap" for manufacturing has widened in recent years, the U.S. has ample domestic natural gas sources, but current federal moratoria on natural gas exploration in the Outer Continental Shelf prohibits access to these supplies. This, along with related factors, is part of the reason why natural gas prices are 344% of 1998 levels and the highest in the world, recently reaching \$7 per million BTUs at the wholesale price. In the meantime, from 2001 to 2004, U.S. production declined by 4.9% and Canadian imports of natural gas fell by 19%.

and environmentally responsible. Opponents of tapping domestic natural gas sources are right to raise concerns, including potential environmental degradation of marine resources. However, history shows that the natural gas drilling record on the environmental front has been successful and poses a lower risk than oil tankers.

Senator Lamar Alexander (R-TN) recently introduced legislation, "The Natural Gas Price Reduction Act of 2005," in an effort to solve what some observers have called a "crisis" in the natural gas area. We support this and related legislation aimed at removing barriers in order to increase the affordability and reliability of energy especially natural gas.

Natural Gas Markets— Reduce Volatility and Exercise Market Oversight

One of the problems in the natural gas area receiving insufficient attention lately is the fact that natural gas prices—by a long shot—are the most volatile

South Korea: \$4.50 Japan: \$4.50 China: \$4.50

Taiwan: \$4.65

Singapore: \$3.20 Indonesia: \$2.70

Australia: \$3.75

commodity in the world. More

fundamentally, the price of nat-

ural gas is often separated from

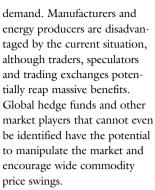
the fundamentals of supply and

April, 2005

Consumers of America

Energy (

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Bringing this unnecessary price volatility back into line, along with the lack of transparency in trading that encourages it, requires two simple actions: (1) a requirement for reasonable trading limits; and (2) restoring much of the market oversight exercised by the Commodity Futures Trading Commission (CFTC) prior to the enactment of the Commodity Futures Modernization Act of 2000 (CFMA).

While the House-passed energy bill includes provisions designed to address the highly speculative features of natural gas markets, it does not go far enough. To better address the problem, the finishing industry supports the more aggressive legislation (HR 1638) sponsored by congressmen Sam Graves (R-MO) and John Barrow (D-GA). This legislation offers a practical and immediate solution by establishing both reasonable trading limits and restoring CFTC oversight in this area. The bill would not impede the ability of market players to buy or sell energy products, but would encourage transparency, boost efficiency in the market and prevent costly abuse that hampers U.S. manufacturing competitiveness.

Sound energy policy changes in the near term will boost the health of industrial energy consumers as well as the overall jobs picture.

Canada: \$5.55

Bolivia: \$1.60

USA: \$7.00

We recognize that tackling this problem is not easy. We

Natural Gas Costs around the World

(\$US per million BTUs)

support a solution that address-

supply and demand sides of the

equation that are cost effective

es policy options on both the

UK: \$5.15

North Africa: \$0.80

Belgium: \$5.25

Russia: \$0.95 Belarus: \$1.20 Ukraine: \$1.70

> Iran: \$1.25 Kuwait: \$1.25

Saudi Arabia: \$0.75



Trinidad: \$1.60

Argentina: \$1.50

Chromium: Science, Technology and the Future

CHROMIUM IS ONE OF THE most essential materials used in modern civilization. Why? It remains nearly unrivaled in a wide range of manufacturing uses as the "supreme additive," endowing millions of products and materials, alloys and super alloys with critical properties:

- strength,
- hardness,
- permanence,
- hygiene,
- corrosion and wear resistance; and
- color.

This versatility and strength has made chromium virtually indispensable in countless everyday applications. From preventing corrosion and performance failure in aircraft, to imparting hardness, wear resistance and safety in industrial equipment and transportation uses, to providing a mirror-like shine on a Harley Davidson motorcycle, chromium is a versatile metal. It is the 13th most common element on earth, and is the most abundant in its "family" of elements, which includes tungsten and molybdenum.

Chromium is one of many surface coatings applied to products through electrolytic or other means in an industrial setting. Traditionally a preferred material due to its range of functional properties, health and environmental concerns associated with certain uses of the material has prompted enactment of restrictive emissions, discharge and workplace safety controls on chromium in its hexavalent form.

Research & Development Efforts

Significant research and development efforts have been undertaken in the surface finishing industry, and other settings, to develop suitable replacements for hexavalent chromium. The Department of Defense has undertaken one of the most well-funded research efforts on hexavalent chromium replacements through such initiatives as the Strategic Environmental Research and Development Program (SERDP).

This effort, along with industry research, has found a "plug in" alternative to be rather elusive, although commercial success has been achieved in certain applications, either through the introduction of such materials as "trivalent" chromium, nickel-based alloys, or other applications, such as thermal sprays. Depending on the application, these relatively recent alternatives provide some similar features to hexavalent chromium, but for most applications, most alternatives cannot match the functional performance, product appearance or cost-effectiveness of hexavalent chromium finishes.

As a sector with a solid track record in partnering with government to improve industrial performance in the area of environmental and health protection, the surface finishing industry supports "green chemistry" and related initiatives advanced by Rep. Phil Gingrey (R-GA), Rep. Vern Ehlers (R-MI), Rep. Sherwood Boehlert (R-NY), and others. The industry is committed to working with the federal government, through the Environmental Protection Agency, the Department of Defense, the Department of Energy, the Department of Commerce National Institute for Standards & Technology (NIST), to: (1) provide research and technical expertise on optimizing chromium-based processes to minimize health and environmental impacts, and Chromium's versatility and strength make it virtually indispensable in countless everyday applications.



(2) develop a research agenda to identify suitable alternatives to processes and materials that pose potential hazards to the environment and human health.

Selected Industrial and Consumer Products that Use Chromium

Aircraft Automobiles Barrels Food Processing Equipment Buses Cans Electrical Appliances Flatware Lumber Machinery Pharmaceuticals Pigments & Dyes Ships

OSHA Chromium Rule Revision U.S. Compliance Costs Will Exceed \$3 Billion and

Will Cripple the Domestic Finishing Industry

LITIGATION IN THE LAST DECADE has prompted the Occupational Safety and Health Administration (OSHA) to review and



No Major Industrialized Nation Has a Limit as Stringent as OSHA's Proposed Standard make changes to the existing workplace exposure standard for chromium. While the court has allowed OSHA considerable latitude in selecting an appropriate new standard, the agency's recently proposed permissible exposure limit (PEL) would dramatically lower the existing workplace limit by 50-foldfrom 52 to 1.0 micrograms per cubic meter (ug/m^3). In addition to the new PEL limit, facilities would be required under the rule to consistently operate under a new OSHA "Action Level" (AL) of 0.5 ug/m^3 , which is a full two orders of magnitude lower than the existing standard. OSHA must finalize a new standard, per court order, by January 18, 2006.

No Major Industrialized Nation Has an Occupational Exposure Limit as Stringent as OSHA's Proposed Standard of 1 ug/m³ Most major U.S. trading partners have set an exposure limit of 50 ug/m³, including Japan, China, the European Union and South Africa. Most EU member states, such as Germany, France, the United Kingdom and Finland, have set limits at 50 ug/m³. Sweden has a limit of 20 ug/m³. The most restrictive among EU member states is Denmark, with a limit of 5 ug/m³.

Proposed Rule Has Broader, Deeper Impact on U.S. Manufacturing than OSHA Considers

Lowering the standard so sharply will impact a wide range of manufacturing operations and their suppliers. Along with metal finishing, the rule revision will affect aerospace and defense, automotive repair, industrial and medical equipment, shipbuilding, steel, welding, pigments and dyes, some of which have not been included in OSHA's analysis. For some of the industry sectors on which OSHA predicted impacts, many have operations that are not traditionally viewed as chromium-based processes and involve relatively small amounts of hexavalent chromium (e.g., zinc finishing, plastics coating operations) and would be heavily impacted by this rule.

These operations will incur large costs with few, if any, benefits, and should be appropriately identified and evaluated by OSHA. And, among industries that do use chromium extensively (e.g., chrome plating, stainless steel), the very tight standard will bring under regulation larger numbers of employees who are not directly involved in chromium operations (supervisors, maintenance and shipping personnel). The rule also affects larger numbers of service activities that OSHA does not recognize, including auto repair shops, HVAC contractors, industrial laundries, and others.

OSHA Has Substantially Underestimated Compliance Costs

OSHA asserts that to achieve the new limit, facilities will simply need to "tweak" existing control systems, with minimal additional costs. To illustrate, OSHA estimates the new limit will cost small metal finishing operations \$14,000 annually, vet industry's engineering studies show annual costs at least 10 times this level, and as high as \$226,000 for a model small "job shop." This amounts to 15% of annual sales for typical family-owned metal finishing firms, many of which would likely close under the new rule. Based on recent estimates, the Department of Defense could face annual compliance costs exceeding \$1 billion, if OSHA sets the workplace exposure standard at the proposed level of 1.0 ug/m^3 . Total costs of the rule for all impacted sectors will likely exceed \$3 billion annually, not \$220 million as OSHA estimates.

OSHA's Estimate of Benefits from the Rule Are Greatly Exaggerated

OSHA asserts that the proposed rule has benefits exceeding its costs, yet relies on questionable methodologies and data to draw this conclusion. OSHA estimates that the benefits associated with the 1.0 ug/m³ proposed standard could range anywhere from \$25 million to \$700 million annually, an astonishingly wide range reflecting considerable uncertainty with respect to health protection. To demonstrate that the rule has positive net benefits, OSHA selects the midpoint of this range and compares it with an unreasonable low compliance cost estimate. Industry has re-estimated benefits using more accurate methods, and benefits fall well short of even OSHA's underestimated costs.

OSHA's Risk Modeling Efforts Are Characterized by Significant Uncertainty

OSHA's risk modeling efforts on potential adverse health effects are based on worst-case scenario assumptions and considerable scientific uncertainties. Using this approach, OSHA assumes that health effects will occur at 1.0 ug/m^3 in direct proportion with those found to occur historically (i.e., 50-70 years ago) at exposure levels significantly greater than 52 ug/m^3 . A more reasonable and scientifically defensible approach recognizes the uncertainties and lack of precision with the data and employs more reasonable assumptions regarding the cancer slope factor, latency period, and baseline for existing workplace exposure levels.

Accordingly, credible health experts assessing the same data as OSHA have concluded that 23 ug/m^3 is a protective workplace standard.

State of the Art **Engineering Controls Cannot Ensure** Compliance for Key **Industry Sectors**

Industry sectors that handle significant amounts of hexavalent chromium generally have engineering controls in place to reduce workplace exposure levels to protect their employees. The proposed workplace exposure level of 1.0 ug/m^3 and action level of 0.5 ug/m^3 are so low that even those facilities with the most advanced engineering controls cannot ensure consistent compliance with the new standard.

Economic Impact of Proposed Rule Will Be Severe, Including Facility Closures, Job Losses, Supply Chain **Disruptions and Continuing Movement** of Manufacturing **Jobs Abroad**

OSHA concluded that the proposed standard would have no significant impact on any affected industry sectors. Industry strongly disagrees with this conclusion. For a different regulatory action potentially affecting the metal finishing industry, EPA recently estimated that annual compliance costs of \$61,000 would close more than 50% of the industry. The proposed OSHA rule may cost more than \$200,000 annually per finishing facility, yielding even more severe impacts than

EPA predicted. More than 80,000 U.S. jobs will be lost in the finishing industry alone. Intense global competition and continuing downturn pressure on prices for domestic manufactured goods suggest that key U.S. industry sectors affected by the rule will be unable to absorb these costs and survive in today's markets.

Lowering the Existing Limit by More Than Half—to 23 ug/m^3 **Provides Protection** for Workers and is Technically and **Economically Feasible**

Based on independent evaluations of health data, risk modeling, control measures, economic impacts and benefits assessment, lowering the standard to 23 ug/m^3 is both protective and operationally feasible. This level represents a reduction by more than half from the existing standard of 52 mg/m³ and would avoid unnecessary compliance costs and economic impacts for operations that already have relatively low workplace exposure levels.

The new standard will have a broader, deeper impact on U.S. manufacturing than OSHA considers.



Surface Finishing in the Nanotechnology Era

CONTINUED FROM PAGE 3 faster, safer and cheaper.

With the passage two years ago of the 21st Century Nanotechnology Research and Development Act, nearly \$1

billion in federal funding is now being committed over time to a wide range of new research activities that, among other things, promise to revolutionize the way manufacturing is done and the way we utilize materials, products and energy.

The industry looks forward to establishing closer working relationships with the federal government and other partners to advance research on coatings and bring valuable, real-world applications to market on the nanotechnology front.

Surface Finishing Government Relations Office

Surface Finishing Government Relations Office c/o The Policy Group One Thomas Circle, NW 10th Floor Washington, DC 20005 Phone: 202-457-0630 Fax: 202-530-0659 E-mail: crichter@thepolicygroup.com

Surface Finishing Industry Government Advisory Committee

Bill Wiggins, Chairman Automation Plating Corp. Glendale, CA

David Jacobs Northwestern Plating Works Chicago, IL

> Richard Leopold Vulcanium Corp. Northbrook, IL

John Lindstedt, CEF-2 Artistic Plating, Co., Inc. Milwaukee, WI

BJ Mason Mid-Atlantic Finishing, Inc. Capitol Heights, MD

> Mike McMonagle Superior Plating St. Paul, MN

J Kelly Mowry Gull Industries Houston, TX

Mike Kelly ASKO Processing, Inc. Seattle, WA

Joelie Zak, CEF-4 Scientific Control Laboratories Chicago, IL

> INDUSTRY LIAISON: David Marsh Marsh Plating Corp. Ypsilanti, MI

The Surface Finishing Industry Council

THE SURFACE FINISHING INDUSTRY COUNCIL is the joint effort of the three leading national metal finishing trade associations: the National Association of Metal Finishers (NAMF), the American Electroplaters and Surface Finishers Society (AESF) and the Metal Finishing Suppliers Association (MFSA). The NAMF has 800 member companies, the AESF has over 4,000 individual members, and the MFSA has over 100 member companies.

Together these three organizations represent the business, management, technical, and educational programs, as well as the regulatory and legislative advocacy interests, of the metal finishing industry in the U.S. The surface finishing industry is critical to this nation, its security, and its economic future. Americans rely on surface finishing, whether they realize it or not, to maximize their productivity, their safety, and their quality of life.

For electroplating specifically, there are over 5,000 job-shop and "captive" electroplating operations in the U.S., with employment exceeding 150,000 nationwide.

According to a recent survey by the Surface Finishing Market Research Board, over 80% of U.S. job-shops employ fewer than 75 people, while nearly 40% employ fewer than 20. Most job-shop surface finishing firms are family-owned businesses, located in urban areas, with a large percentage of minority employees.

While data on total employment for captive finishing operations are unavailable, these

operations in large Fortune 1000 manufacturing companies may employ several to several hundred



workers per site. The surface finishing supplier industry is comprised of a range of regional to global-scale chemical and equipment producers. Photograph: Nickel Development Institute



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GETTING IN CONTACT WITH OUR LEADING TRADE ASSOCIATIONS



David Jacobs NAMF President Northwestern Plating 3660 Maguire Blvd. Suite 250 Orlando, FL 32803 P: (407) 281-6445 F: (407) 281-7345



Gene Burman AESF President Chemtech Finishing Systems 3660 Maguire Blvd. Suite 250 Orlando, FL 32803 P: (407) 281-6441 F: (407) 281-6446



William Saas MFSA President Taskem, Inc. 3660 Maguire Blvd. Suite 250 Orlando, FL 32803 P: (407) 281-6441 F: (407) 281-6446