Climate Change and New Drinking Water Standard May Be Industry's Next Big Challenges

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Emerging Policies on Climate Change May Impact U.S. Surface Finishing Operations

As U.S. policies on global warming and climate change continue to emerge, the surface finishing industry may face new business challenges within the next few years. Although some critics are not convinced by the science evidence to support climate change, restrictions and limitations on carbon dioxide and greenhouse gases (GHG) appear to be a reality for the U.S. Political momentum for action to reduce GHG at the national level is accelerating, new legal precedents and scientific research are reshaping the priorities of the U.S. Environmental Protection Agency (EPA) and states, and the results of the 2008 elections are likely to drive more aggressive requirements that may place constraints on the growth of key U.S. manufacturing sectors.

Recent Developments

A wide range of activity has occurred on climate change in the past year, including: reignited international negotiations, California's highly controversial carbon initiatives and a new energy law signed by President Bush on December 19, 2007. The following less-visible activities will also be critical in shaping the political and regulatory agenda for U.S. climate change policy

- **U.S. Supreme Court** – The court ruled six months ago in ***Massachusetts v. EPA*** that EPA has the authority to regulate greenhouse gases under the Clean Air Act, a decision legal observers note may be "the most important case in the history of environmental law" in the U.S.

- **U.S. Environmental Protection Agency** – EPA is reacting to the Court's decision and reviewing the scope of its regulatory reach to regulate carbon dioxide under the Clean Air Act affecting not only automobiles but also manufacturing plants, which means major requirements for many segments of manufacturing.

- **U.S. Senate Committee on Environment and Public Works** – Under the leadership of Chairwoman Barbara Boxer, the panel by a vote of 11-8 approved legislation on December 5, 2007 to set limits on U.S. GHG emissions at 70% of 2005 levels by 2050.

- **Midwest Greenhouse Gas Reduction Accord** – In one of three major U.S. regional efforts pursued by groups of states, nine Midwestern states and a Canadian province formalized an agreement on November 15, 2007 to set emission reduction targets and create a market-based system within the next twelve months to achieve these goals.

Outlook and Industry Approach

Regardless of whether Congress enacts major climate change legislation in 2008, EPA must sort through several major regulatory and legal matters that will set the stage for future action, and key state regional agreements will advance new arrangements for regulating GHGs. In the meantime, the November elections will serve as a milestone for how far and how fast climate change policy will move forward.

As all of these new events unfold, the surface finishing industry leadership is considering the potential impacts (such as additional regulatory controls and potential energy cost increases), opportunities and necessary actions that may be required by the NASF in the near and long term. The NASF will continue to educate NASF members on the emerging issues and help prepare them to respond appropriately to the new policies and challenges facing them. The issue of climate change and its potential impact on the surface finishing industry will also be featured at the NASF Washington Forum, April 22-24, 2008.

Congress Mandates New Hexavalent Chromium Drinking Water Standard

Before the end of 2007 Congress passed the fiscal 2008 government omnibus spending bill (H.R. 2764) that included funding for the Department of Interior, EPA and other agencies. President Bush signed the omnibus spending bill on December 26, 2007.

Buried in the nearly 200-page bill was an "eleventh-hour" addition that requires EPA "to develop an updated health standard for ingested hexavalent chromium, which then should be used to revise the Maximum Contaminant Level Goal as soon as possible." This provision was not in the earlier versions of the bill, so water utilities and several EPA officials were unaware of this requirement until recently. Because EPA uses the drinking water standard to set risk levels for other regulatory programs, this congressional mandate puts a new health and regulatory focus on hexavalent chromium in a number of areas.

The revised health goal mandated by the funding bill could lead to an enforceable drinking water standard for hexavalent chromium. EPA currently has a drinking water standard for total chromium of 0.1 milligram per liter set to protect against allergic dermatitis.

Updating the health standard for hexavalent chromium would include a risk assessment from EPA's Office of Research and Development. Developing a risk assessment is one of the first steps in helping to determine a maximum contaminant level goal (a drinking water health goal) and a maximum contaminant level (a drinking water standard).

To develop an enforceable drinking water standard, EPA must set a goal--the level of a contaminant at which there would be no risk to human health. The goal is not always economically or technologically feasible and it is not legally enforceable.
A maximum contaminant level, or drinking water standard, is the highest level of a contaminant that EPA allows in drinking water. The maximum contaminant level would be set as close to the new goal as is feasible.

EPA will begin its risk assessment process this year. In a related separate action, EPA had also decided to include hexavalent chromium in a list of 20 chemicals on which the Agency will develop an updated scientific position with respect to human health risk. This efforts centers around the Agency's Integrated Risk Information System (IRIS), which is a database containing EPA's scientific position on the health effects resulting from exposure to certain chemicals.

The agency will conduct literature searches for hexavalent chromium. Based on the results of the literature searches and as resources allow, the agency will begin assessments on hexavalent chromium ingestion to support the development of toxicity values that could be used to support health protection levels for drinking water and/or soil cleanup. ***P&SF***

Test Your Plating I.Q. #438

By Dr. James H. Lindsay

Trivalent chromium plating

1. Analytical control of trivalent chromium solutions is more critical than hexavalent. Why?
2. When the current is interrupted in a hexavalent chromium bath, the deposit may take on a dull white appearance. Is this a problem in trivalent chromium?
3. Is the current efficiency of a trivalent chromium bath higher or lower than values for hexavalent chromium. What is the range for trivalent?
4. Trivalent chromium deposits darken in the presence of iron, copper or nickel impurities. True or false?
5. What are the two primary trivalent chromium process categories?

Answers on page 23.

NASF Welcomes New Members

As of 01/17/08

SUPPLIER MEMBERS, TIER I-IV

JBC 2001 Ltd.
Chatham, Ontario, Canada

Plating Process Systems
Mentor, OH

INDIVIDUAL MEMBERS, TIER VII

Michelle Bowlin
Brenntag Midsouth, Henderson, KY

Bob Berger
Univertical Corporation, Angola IN

Art Brooks
KCH Services, Inc., Forest City, NC

Eric Earl
Univertical Corporation, Angola IN

Paul Filan
KCH Services, Inc., Forest City, NC

John Forrey
Avon Lake, OH

Yutaka Fujiwara
Osaka Municipal Technical Research Institute, Osaka, Japan

James Hankinson
KCH Services, Inc., Forest City, NC

Gerald Harvey
Triumph Fabrications, Hot Springs, AZ

Gabriel Landry
Galvano, Beloeil, Québec, Canada

David Rudder
Siegel-Robert Inc., St. Louis, MO

Dale Spurio
Wright Tool Co., Barberton, OH

Jose Vazquez
Purecoat International, West Palm Beach, FL

Brett Watkins
United Hard Chrome Corporation, Canton, OH