

Bay Area Hazardous Waste Management
Technical Advisory Committee
September 7th, 2007 10:00
ABAG Conf Room B

1. Welcome and Introductions
2. Discuss/provide input on agenda for next Hazardous Waste Committee Meeting 10/19/07. Tentative Agenda Items:
 - a. Elect Vice Chair
 - b. Green Business Program Update
 - c. Revised Project Work Program (Hazardous Waste draft scope below item 3)
 - d. Website Update (The website is launched and has the Green Chemistry Fact Sheet approved by the TAC available for download. The site also has links to issues of interest to the committee.)
 - e. Green Chemistry Initiative Update – DTSC is still soliciting input from interested parties. Shall we extend an invitation to address the committee to Michael Wilson or Kim Wilhelm from DTSC?
 - f. Haz Waste Data Update
 - g. Extended Producer Responsibility – SB 966 has been amended so that the retailer take-back provisions have been removed. Meanwhile, the CIWMB has heard a report on “Framework for Evaluation End-of-Life Produce Management Systems in California” & will consider in September a policy item on this subject. Shall we invite Heidi Sanborn or speaker from CIWMB?
 - h. Next steps for committee regarding EPR and Green Chemistry Initiatives – best role for committee – become more activist in getting involved with legislation or just keep officials knowledgeable?
3. Discuss/Update Proposed Hazardous Waste Budget/Scope for FY 07/08 (not including Green Business activities)
 - a. Keep abreast of State Green Chemistry Initiative: Attend webcasts and/or meetings in Sacramento. Prepare updates for committee. Update Hazardous Waste Website with new information. Work with James Stettler and others of DTSC to apprise the committee of opportunities to comment, etc. 50 hours
 - b. Track EPP/EPR initiatives in Sacramento – Work with Rob Darcy, other members of the California Product Stewardship Council, and CIWMB staff to apprise committee members of activities such as product take backs, legislative initiatives to broaden take back and recycling programs. Update website with new information. 30 hours
 - c. Haz Waste Updates – Per Lucy Lopez of DTSC on 8/30/07, the 2006 Tanner data will be available in 7-10 days (mid September). The 2005 data has not yet been revised (many 2006 waste records had not been properly loaded). Options – seeking TAC suggestion -

- i. Review 2006 data and discuss with TAC/DTSC issues involving new manifests and how we might change Hazardous Waste data analysis in the future. Then run full analysis on 2005 (if it is fixed), 2006 and 2007 in next FY. (This is roughly what was discussed at last TAC meeting). Describe what is done in memo - 50 hours
 - ii. Analyze 2006 data, alerting TAC to any issues that may arise. Write report on findings. (Try to update 2005 data when 2007 data is available). Data analysis and report - 100 hours (this will mean cutting back on other projects)
- d. U-Waste Updates – follow regulatory changes from DTSC and apprise committee member of such activities, opportunities to comment. Update website. 15 hours.
- e. Green Chemistry for Local Governments (per Green Chemistry brochure, EPP Focus). Work with TAC members, Institute for Local Governments, Product Stewardship Council and others, to organize a conference or other initiative for Bay Area local governments about EPP policies' success in reducing toxics. Subtasks include determining the audience, finding sponsors/other funding sources, local panelists/presenters, developing agenda, etc. 50 hours

Bay Area Hazardous Waste Management
Technical Advisory Committee
May 8th, 2007 1:30
ABAG Conf Room B
Meeting Summary

TAC members in attendance: Steve Lederer, Napa; Rob D'Arcy, Santa Clara; Robin Bedell-Waite, Contra Costa; Michael Frost and Alex Soulard, Marin; Andy Parson, Sonoma; Jennifer Krebs, ABAG.

1. Recommendation to MOU Committee on how to proceed with Fair Share Formula analysis based upon new (uniform federal) manifests.
In July 2008, ABAG staff should request the revised 2005, 2006 and 2007 data. ABAG staff should attempt to meld this data with previous years & run the Fair Share Formula on the 2007 data. If in July 2008, the 2007 data is not available, ABAG staff should run the Fair Share Formula on the 2006 data.
2. Green Chemistry Fact Sheet: members provided feedback to ABAG staff. Modified Fact Sheet Follows. It will be presented to the MOU Haz Waste Committee as draft final for the July 2007 meeting.
3. Haz Waste Project(s) 2007/08 – After discussion, the TAC expressed interest in the following, which will be presented to the Haz Waste Committee in July 2007 as workplan recommendations for ABAG staff:
 - a. Invite Michael Wilson to attend a meeting and discuss Green Chemistry with Committee members
 - b. Post Hazardous Waste Committee website as a hub of information for topics of interest: Environmentally Preferable Purchasing, Extended Producer Responsibility, hazardous waste legislation to track in Sacramento
 - c. Write letters of support to support legislation that the Committee supports
 - d. Develop and put on an EPP workshop (in collaboration with Stopwaste.org and the CIWMB) for local government and private sector purchasing departments

What is Green Chemistry?

A Guide for Local Governments

"Green" or "sustainable" chemistry refers to a creative approach to chemistry that has become increasingly popular globally over the last decade. This growing movement of chemists, regulators, and policy-makers champion the design and use of chemicals that are safe to produce, safe to use in industrial, commercial and/or home settings, and are benign as wastes.

"The 12 principles of Green Chemistry," by Paul Anastos and John Warner, states that Green Chemistry is a logical outcome of pollution prevention starting from the bench scale. The 12 principles are:

1. **Prevent waste:** Design chemical syntheses to prevent waste, leaving no waste to treat or clean up.
2. **Design safer chemicals and products:** Design chemical products to be fully effective, yet have little or no toxicity.
3. **Design less hazardous chemical syntheses:** Design syntheses to use and generate substances with little or no toxicity to humans and the environment.
4. **Use renewable feedstocks:** Use raw materials and feedstocks that are renewable (often from agricultural products) rather than depleting (often from fossil fuels).
5. **Use catalysts, not stoichiometric reagents:** Minimize waste by using catalytic reactions. Catalysts are used in small amounts and can carry out a single reaction many times (stoichiometric reagents, which are used in excess, work only once).
6. **Avoid chemical derivatives:** Derivatives use additional reagents and generate waste.
7. **Maximize atom economy:** Design syntheses so that the final product contains the maximum proportion of the starting materials. There should be few, if any, wasted atoms.
8. **Use safer solvents and reaction conditions:** Avoid using solvents, separation agents, or other auxiliary chemicals. If these chemicals are necessary, use less harmful or dangerous chemicals.
9. **Increase energy efficiency:** Run chemical reactions at background or room temperature and pressure whenever possible.
10. **Design chemicals and products to degrade after use:** Design chemical products to break down to innocuous substances after use so that they do not accumulate in the environment.
11. **Analyze in real time to prevent pollution:** Include in-process real-time monitoring and control during syntheses to minimize or eliminate the formation of byproducts.
12. **Minimize the potential for accidents:** Design chemicals and their forms (solid, liquid, or gas) to minimize the potential for chemical accidents including explosions, fires, and releases to the environment.

Nanotechnology – creating atomic structures, devices and systems – may lead to less waste and may be considered green chemistry. However, as of 2007, the field cannot be considered a green chemistry panacea as there is little

data about the environmental and human health effects of nanoparticles and no regulatory program to monitor the growing field.

European Green Chemistry

Efforts In 2007, The European Union's REACH directive becomes law. REACH stands for Registration, Evaluation, and Authorization of Chemicals. It supersedes 40 chemical laws in 27 European countries and is the first chemical regulatory scheme that applies to all chemicals, not just new ones but an estimated 30,000 existing chemicals.

REACH is being phased in from 2007 to 2018. After the establishment of a new European Chemicals Agency (2007/2008), the registration phase will begin. During this phase, which ends in November 2008, all existing chemicals with a usage of over one ton/year (throughout Europe) need to register. After this phase, rigorous chemical testing data will need to be submitted for each chemical. Those that are more widely used and/or have known risks will be evaluated, and possibly restricted, first.

Authorization will be required for substances considered to be Carcinogenic, Mutagenic, or Reproductive toxicant (CMR), and/or Persistent Bioaccumulative and Toxic (PBT's), and/or very (v)PBT's. Authorization may be given if the risk can be controlled or there is no substitute. But

authorization will only occur if no substitute can be found after chemical producers/users testing for alternatives.

If a risk cannot adequately be controlled, then the EU Commission or a member state can propose to restrict the use and marketing of a substance. The EU Commission will decide whether or not to authorize the chemical.

REACH chemical data will be posted on the web, so chemical users and regulators world-wide will have extensive environmental and toxicological information on chemicals.

State and National Green Chemistry Efforts

US EPA has a Green Chemistry Program, which produced a fact sheet on Green Chemistry (attached) and sponsors an annual awards program for Green Chemistry pioneers and champions. The link to the US EPA program is: <http://www.epa.gov/greenchemistry/>

DTSC has a Green Chemistry Program. Its goals, as stated on the program homepage are:

DTSC and Green Chemistry share a common principle - preventing the generation of waste. California law directs DTSC to place the reduction of hazardous waste as its highest priority when developing new programs or carrying out the provisions of the Hazardous Waste Control Law. DTSC also promotes

the application of Green Chemistry through its Source Reduction Programs...As part of its source reduction mandate, DTSC also implements cooperative technical assistance and outreach programs with industry to promote multi-media pollution prevention.

DTSC is sponsoring a symposia series on Green Chemistry and related pollution prevention topics such as nanotechnology and the recent European and Canadian efforts to regulate chemicals. The link to the DTSC Green Chemistry website, which includes links to the symposia series is:

<http://www.dtsc.ca.gov/PollutionPrevention/GreenChemistry.cfm>

State Senator Joe Simitian introduced SB291 in February 2007, which adds a new chapter to Division 20 of the Health and Safety Code, relating to pollution prevention, entitled "Design for the Environment Program." The program goals would be "related to pollution prevention, including goals concerning green chemistry and green engineering. The link to the bill page to check its status is:

http://www.legislature.ca.gov/cgi-bin/port-postquery?bill_number=sb_291&sess=CUR&house=B&author=simitian

In the California Assembly, AB558 Feuer, a placeholder bill called the Toxic Use Reduction Act of 2007, was also introduced in February 2007 to significantly reduce the use of toxic chemicals. The link to the bill page to check its status is <http://www.legislature.ca.gov/cgi-bin/port->

[postquery?bill_number=ab_558&sess=CUR&house=B&author=feuer](http://www.legislature.ca.gov/cgi-bin/port-postquery?bill_number=ab_558&sess=CUR&house=B&author=feuer)

How Local Governments can Promote Green Chemistry Some actions for local governments to consider are:

1. Writing letters of support for the above green chemistry legislation. Also encourage state and federal representatives to consider implementing regulatory frameworks like REACH or extended producer responsibility for chemicals, frameworks that would promote development of green chemistry and/or decrease the use of hazardous chemicals.

2. Establish and implement Environmentally Preferable Purchasing policies at the local government level and encourage local businesses to do the same.

More information on how to start an EPP program can be found on the CIWMB website

<http://www.green.ca.gov/EPP/Introduction/default.htm>.

Or StopWaste.org

<http://stopwaste.org/home/index.asp?page=372>

Green Chem Update

TO: Interested Parties

FROM: Maureen Gorsen, Director
Department of Toxic Substances Control

DATE: June 18, 2007

SUBJECT: CALIFORNIA GREEN CHEMISTRY INITIATIVE - LET THE CONVERSATION BEGIN!

The California Green Chemistry Initiative seeks your thoughts and involvement as we begin to establish the blueprint for keeping California in the forefront of protecting health and the environment in a robust economy.

Our time for this effort is very short. The creation of a viable list of options to advance Green Chemistry must be submitted to Secretary Linda Adams by January 2008. From that list proposed recommendations for a final policy are due by July 1, 2008. We have a tremendous amount of work ahead and look forward to working with you on this effort.

To facilitate the most creative and constructive public participation process, we have entitled the Conversation with California. The Conversation with California includes a wide array of opportunities for you to participate. I invite you to join the Conversation with California and contribute to developing a comprehensive chemical policy and long-term environmental protection for California.

We hope you will join us at our first public stakeholder's meeting scheduled for Wednesday, June 27th 1:30 p.m. - 3:30 p.m., Sierra Hearing Room, Cal/EPA Building, 1001 I Street, Sacramento. If you cannot attend, you will be able to listen via web cast.

A Website has been set up that allows an open and transparent exchange of ideas. We are A Journal/Blog space gives you the opportunity to share your thoughts and see what others think about the four main Green Chemistry topics areas:

Cradle to Cradle: Through product design and industrial innovation, produce products that reduce the use of harmful chemicals, thus generating fewer emissions and less waste. How do you think California should move to a Cradle to Cradle framework?

Green Chemistry: Consider public health and the environmental effects of chemicals during the process of designing products and processes.
How do you think California should stimulate Green Chemistry?

Toxics in Products by Design: Identify strategies to encourage manufacturers to take greater responsibility for the products they produce that contain toxic materials. How do you think California should address the issue of toxics in products by design?

Toxics in Products by Accident: Develop information on approaches that encourage cleaner and less polluting industrial processes. How do you think California should address the issue of toxics in products by accident?

Please visit and participate at:
<http://californiagreenchemistry.squarespace.com/welcome>

You can sign up to receive e-mail updates about the California Green Chemistry Initiative from DTSC's listserv.

We always look forward to written comments. Please send your mail to:

Green Chemistry Initiative
Department of Toxic Substances Control
P.O. Box 806
Sacramento, CA 95812-0806

If you have any questions about the Conversation with California please contact Ms. Margaret Graham at (916) 324-3149 or mgraham@dtsc.ca.gov .

Symposium 2 – Rob Participated
Stakeholder meeting – Mark Luce, Debbie Raphael



SBA Information Notice

TO: All SBA Field Employees and SBA
Resource Partners

CONTROL NO.: 0000-2011

SUBJECT: Green Manufacturing Day

EFFECTIVE: 6/28/2007

The International Trade Administration of the U.S. Department of Commerce has proposed to organize a “Green Manufacturing Day,” aimed at enhancing public-private cooperation and interaction in the field of sustainable manufacturing. The Department of Commerce wants to hear from small businesses concerning areas of discussion at the proposed “Green Manufacturing Day.”

Sustainable manufacturing has gained attention in the manufacturing industry as its cost-effectiveness and profitability have become realized. To promote sustainable manufacturing, increases in public-private interaction can help to both identify opportunities and issues faced by manufacturers in pursuing this production as well as promote capacity building among individual firms and industry sectors as a whole.

The purpose of the proposed day will be to: (1) Disseminate and promote best business practices in sustainable manufacturing, (2) assist small and medium sized enterprises in identifying and implementing practical sustainable manufacturing solutions, (3) provide information on relevant emerging technologies, (4) educate participants on Federal Government efforts to promote sustainable manufacturing, and (5) provide information on international sustainable manufacturing initiatives, projects, and opportunities.

In preparation for this proposed event, which is tentatively scheduled for September 2007, the Department of Commerce is requesting feedback from the public on the following: (1) topic areas of interest to U.S. businesses with regard to sustainable manufacturing, (2) types of information U.S. businesses seek in these topic areas including specific feedback on the following--

- Sustainable manufacturing implementation issues affecting small and medium-sized enterprises.
- Emerging technologies for clean manufacturing that are technologically proven, but have not yet been widely recognized.
- Federal government practices or voluntary programs that have been particularly useful in promoting clean or sustainable manufacturing or business practices.

Comments concerning “Green Manufacturing Day” must be submitted no later than June 29, 2007.

Please address all comments and requests to participate to:

William McElnea, U.S. Department of Commerce
1401 Constitution Avenue, N.W., Room 2213
Washington, DC 20230
william.mcelnea@mail.doc.gov

For more information, please see the Federal Register Notice: (Federal Register / Vol. 72, No. 102 / Tuesday, May 29, 2007 / Notices).

Daniel Horowitz
Assistant Administrator for Policy and Strategic Planning

EXPIRES:

6/1/2008

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SBA Form 1353.3 (4-93) MS Word Edition; previous editions obsolete
Must be accompanied by SBA Form 58

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