



# Current Activities/Issues in Government

Willie E. May

Director, Chemical Science and Technology Laboratory,  
National Institutes of Standards and Technology

## **ACTION AND REACTION**

*Developing a sustainable approach to emerging  
chemical issues*

August 9-10, 2007

# Current Activities/Issues in Government “Stakeholders Speak”

*The second stakeholders speak panel introduces regulatory and voluntary programs now underway in several federal agencies.*

***Moderator:***

- **Willie May**, Director, Chemical Science and Technology Laboratory, National Institutes of Standards and Technology

***Panelists:***

- **Maureen O'Donnell**, Senior Industrial Hygienist/Project Officer, Occupational Safety and Health Administration
- **Paul Yaroschak**, Deputy Director for Emerging Contaminants, Office of the Deputy Under Secretary of Defense
- **Charlie Auer**, Director, Office of Pollution Prevention and Toxics, U.S. Environmental Protection Agency

# Session Overview

## □ Emerging Chemicals Issues

### — EU “Green” Directives

- REACH
- RoHS
- WEEE

### — Other global and national “Green” Initiatives

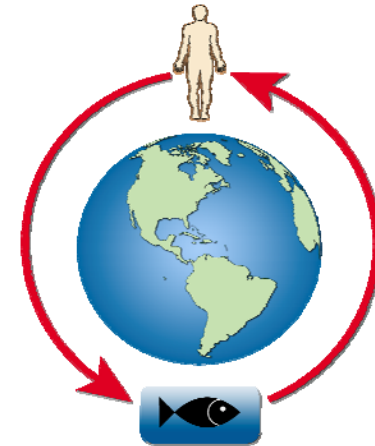
- UN initiatives
  - GHS
  - SAICM
- NOAA OHHI





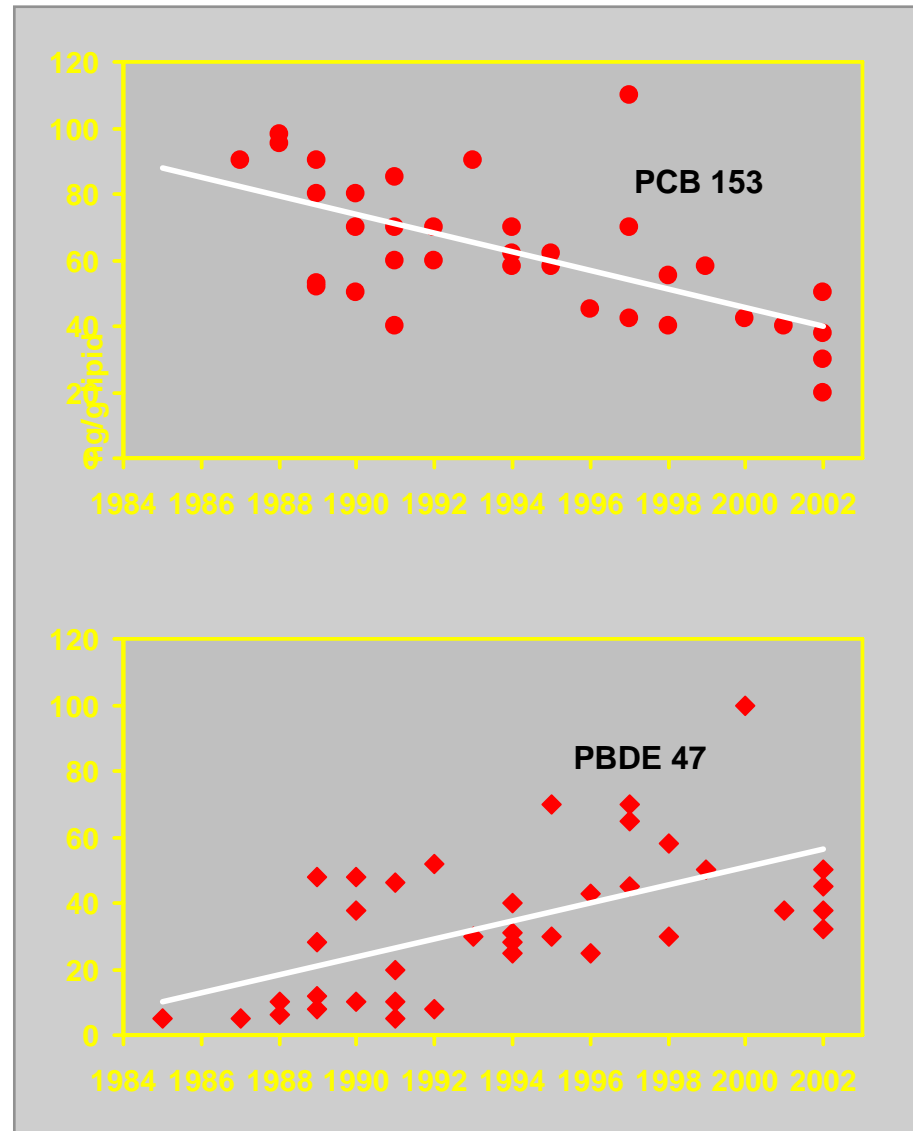
# Oceans and Human Health Initiative

To provide science and biotechnology for evaluating and understanding linkages between coastal development, the condition of the marine ecosystems, and public health.



- ◆ Detecting, identifying and determining the sources of human pathogens in coastal waters.
- ◆ **Identifying and quantifying emerging chemical contaminants in coastal waters and assess their potential effects.**
- ◆ Assessing the health status of key marine organisms using genomic technology (oyster and shrimp).
- ◆ Monitoring and assessing coastal environmental quality and associated public health threats.

# Emerging Contaminants in Human Monitoring



# How NIST is supporting industry to Address Emerging Chemicals Issues

## *NIST Role:*

- Develop and critically evaluate *test procedures*
- Develop wide *variety of SRMs* with certified values for restricted substances
- Represent US on *SDO committees*, e.g. IEC TC111 and ASTM F40
- Standardize *declaration protocols*

## ***“Emerging Chemicals” Regulations:***

European Union member nations have restricted the use of hazardous substances in electrical and electronic products and components.

China recently announced similar restrictions as part of their drive to reduce the problem of electronic waste in their country.

In Japan, electronics manufacturers recently set specifications to restrict the use of 24 substances by their suppliers and their own manufacturing facilities.

**California has banned from sale any product that can't be sold in the EU.**

**Other US States have WEEE-like regulations, including Maryland.**

These regulations and specifications are aimed at products going to market.

# EU “Green” Directives

The **Waste Electrical and Electronic Equipment Directive** (WEEE Directive) is the EC directive 2002/96/EC on waste electrical and electronic equipment which, together with the **Restriction on Hazardous Substances** (RoHS) Directive 2002/95/EC, became European Law in February 2003, setting **collection, recycling and recovery targets** for all types of electrical goods.



**WEEE** – The directive imposes:

- the **responsibility for the disposal** and of waste electrical and electronic equipment **on the manufacturers** of such equipment.
- use the collected waste in an ecological-friendly manner, either by ecological disposal or by reuse/refurbishment.
- came into force August 2005

**RoHS** – its principles and reach are global

- covers and defines electrical equipment as that which is “dependent on electric currents or electromagnetic fields to work ...”
- came into force July, 2006

**RoHS** 

***Restricted Materials:***

Lead, mercury, cadmium, hexavalent chromium, certain flame retardants (PBB and PBDE)

# EU “Green” Directives - REACH

- **REACH** (Registration, Evaluation, Authorisation and Restriction of Chemicals)
- **Goal:** to improve the protection of human health and the environment through the better and earlier identification of the properties of chemical substances.
- **REACH** regulation gives **greater responsibility to industry** to manage the risks from chemicals and to provide safety information on all substances.
- **European Chemicals Agency** will act as the central point in the REACH system, and manage database
- entered into force on 1 June 2007
- **Long term investment:** “The benefits of the REACH system will come gradually...”







## UN Efforts



Chemicals  
Strategic Approach to International Chemicals Management



- ***Strategic Approach to International Chemicals Management*** (SAICM) is a policy framework for international action on chemical hazards.
- ***Adopted*** by the International Conference on Chemicals Management (ICCM) on ***6 February 2006*** in Dubai, United Arab Emirates
- SAICM was ***developed by a multi-stakeholder and multi-sectoral*** Preparatory Committee and supports the achievement of the goal agreed at the 2002 Johannesburg World Summit on Sustainable Development
  - ***ensuring that, by the year 2020, chemicals are produced and used in ways that minimize significant adverse impacts on the environment and human health.***



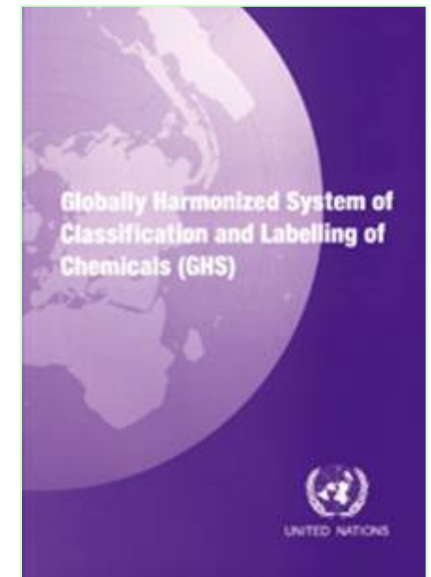
## UN Efforts

# Globally Harmonized System of Classification and Labelling of Chemicals (GHS)



**Context:** "... given the reality of the extensive global trade in chemicals and the need to develop national programs to ensure their safe use, transport and disposal, it was recognized that an internationally-harmonized approach to classification and labelling would provide the foundation for such programs". **World Summit on Sustainable Development adopted in Johannesburg in 2002**

- GHS is ... "a new global system, that is able to protect people from the mismanagement of chemicals, classify them according to their hazard and create a labelling system based on pictograms universally understandable ..."
- "... the youngest, poorest and least educated are the most vulnerable."



- First published in 2003, **second revised edition of the GHS was published in July 2007.**
- Countries should implement the GHS as soon as possible with a view to having the system fully operational by 2008