

# **US Dioxin Program Overview**

**CEC/SMOC**

**Workshop on Reductions in  
Environmental Releases of  
Dioxins, Furans, and Hexachlorobenzene**

**January 31 - Feb 1, 2007**

**Monterrey, Mexico**

# **MANY AGENCIES MANY PROGRAMS**

- **Environmental Protection Agency**
- **Food and Drug Administration**
- **Department of Agriculture**
- **Center for Disease Control**
- **Veterans Administration**
- **National Atmospheric and Oceanic Admen.**
- **Department of State**
- **50 State Governments**
- **Tribal Governments**

# WHAT SHAPES EPA'S PROGRAMS

- **Legal Mandates**
  - Clean Air Act
  - Clean Water Act
  - Toxic Substance Control Act
  - RCRA (Waste management)
  - CERCLA (Superfund)
- **Executive Branch Policy Direction**
- **Science**
- **Stakeholder Dialogue**
- **Litigation**
- **International Conventions**
- **Resources**

# **CONTROL OF AIR EMISSIONS**

- **CAA/RCRA Technology Based Standards**
  - **Municipal Waste Combustors (MACT)**
  - **Medical Waste Incinerators (MACT)**
  - **Hazardous Waste Combustion (RCRA)**
    - **Incinerators**
    - **Boilers**
    - **Industrial Furnaces**
    - **Cement Kilns**
    - **Lightweight Aggregate Kilns**

# Municipal Waste Combustors

- **1987**
  - 8,900 gTEQ
  - 66% of Total
- **2000**
  - 83 gTEQ
  - 6% of Total

# MEDICAL WASTE INCINERATORS

- **1987**
  - 2,570 gTEQ
  - 19% of Total
- **2000**
  - 83 gTEQ
  - 6% of Total

# CONTROL OF WATER DISCHARGE

- **Water Quality Criteria**
- **Drinking Water Standards**
- **Discharge Permits**
- **Effluent Guidelines**
  - **Pulp and Paper**
  - **Chlorinated Organic Chemicals**

# PULP AND PAPER

- **1987**
  - 356 gTEQ
  - 2.6% of Total
- **2000**
  - 1 gTEQ
  - .08% of Total

# WASTE DISPOSAL

- **RCRA Listed Wastes**
  - Listed wastes require “best demonstrated available treatment” before they can be land disposed
- **Special Attention Given to Land Treatment with Certain Dioxin Containing Waste Streams**
  - Pulp and paper sludge
  - Cement kiln dust
  - Zinc bag house dust

# **CLEAN UP OF DIOXIN CONTAMINATED SITES**

- **RCRA Addresses Cleanup of Active Sites.**
- **Super Fund Addresses Cleanup of Old and Abandoned Sites**
- **Interim Guidance for Residential Soil Clean Up 1ppb TEQ**

# DIOXIN CONTAMINATED CHEMICALS

- **Dioxin Furan Test Rule**
- **Chloranil MOU and SNUR**
- **New Chemicals Program**

# Monitoring and Management of the of Food Supply

- **State Fish Advisories**
- **National Market Basket Surveys --FDA**
- **National Meat Surveys-- USDA/EPA**
- **Food Incident Follow Up Action - Interagency**
  - **Ball Clay**
  - **Zinc Dust**
  - **Carbosan Copper**
- **National Academy of Science Report on Dioxin and Food**

# HUMAN EXPOSURE MONITORING

- **National Human Adipose Network**
- **NHANES --- CDC**
  - **Ongoing Human Serum Sampling**
  - **State of the Art Analytical Chemistry**

# Development of Dioxin Science

- **EPA Dioxin Reassessment  
State of Science Document**
  - Sources
  - Fate and Transport
  - Exposure
  - Toxicology
  - Risk
- **Dioxin Exposure Initiative**

# **HCB ACTIONS**

- **Ban Pesticidal Use of HCB**
- **MACT Standards for:**
  - **Can Coating Facilities**
  - **Chlorine Production**
  - **Municipal and Medical Incinerators**
  - **Cement and Light Aggregate Kilns**
- **NESHAP Emissions from Can Coating Facilities**
- **Inventory of Sources Under Development**