

Southern California Waste Management Association Forum

EPR IN THE ELECTRO-PRODUCT INDUSTRY

** PERSPECTIVES AND ACTIVITIES **

MARK A. KOHORST

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION

November 2008

NEMA VITAL STATISTICS

- Created 1926, Largest U.S. Trade Association of Electro-Industry Manufacturers
- Membership: Appr 450 US Manufacturers
 - Products used in Generation, Transmission, Distribution, and End-Use of Electricity
 - 8 Industry Divisions, ~50 Product Sections
 - Dry Batteries to Motors to Traffic Signaling Equip to MRIs, etc.
- Principally a Standards Organization
 - More than 500 Industry Standards; Internally and With ANSI and IEC
- Also Advocacy, Data Collection & Analysis, International Collaboration, Safety Promotion

EPR

- EPR = Prescriptive form of *Product Stewardship*
- *Primary Goal of Product Stewardship* - Reduce adverse impacts of products on the environment and public health. Focus on all phases of product cycle; design through end-of-life.
- NEMA's View - Ideal approach is one that best serves that goal in the most efficient and effective way
- Ideal approach can *differ* by product type, market conditions, etc.
(What works for thermostats will not work for lamps)

**** Key is to Recognize and Make Use of **
Strengths/Advantages of Various Stakeholders**

NEMA PREFERRED APPROACH

- **Shared Responsibility**
 - All stakeholders should be engaged. Financial and administrative responsibility, and enforcement, should not fall on one group.

- **Rational and Attainable Program Goals**
 - Key: Parties are responsible for actions/functions *they can control!!*

- **Cost Efficient**
 - Minimize expense, particularly to consumers

- **Accessible**
 - Key factor for collection programs

- **Environmental Benefits Commensurate with Costs**
 - If benefits < costs, what's the point?

WHY SHARED RESPONSIBILITY?

- “No matter what term (for product stewardship) is used in the United States, Europe, Canada, or Asia, *no one entity* can solely eliminate the social, economic, and environmental impacts from consumer products.”
- “. . . .each stakeholder - including manufacturers, retailers, government, and consumers - has a responsibility to eliminate, or at least reduce, product impacts.”
- “Even so-called model producer responsibility systems in Europe rely on government to assist in planning, policy, legislative development, enforcement, etc. And some require local governments to pay to collect the products.”

Scott Cassel, PSI - Waste News, May 8, 2006

WHAT IS INDUSTRY'S KEY FUNCTION?

Q: What is the most *effective* way to achieve the goals of Product Stewardship?

A: *Eliminate* haz subs where possible and *reduce* levels in products still on the market!

- This is industry's most important and most logical function in Product Stewardship
- Arguably most significant factor affecting success of recycling, if focus is on release of haz substances

WHAT HAS ELECTRO-INDUSTRY DONE?

➤ Batteries

- Removed mercury from all consumer batteries except button/coin cells in mid-90s
- Committed to stop manufacturing Hg-added button cells by July 2011

➤ Lamps

- Dramatically reduced Hg levels in fluorescent lamps (5-6 mg *ceiling* for CFLs)
- LEDs, high efficiency halogen alternatives emerging

➤ Thermostats

- Developed electronic programmable device
- Largest mfr discontinued sales of Hg thermostats in 2006

➤ Medical Imaging and Therapy Devices

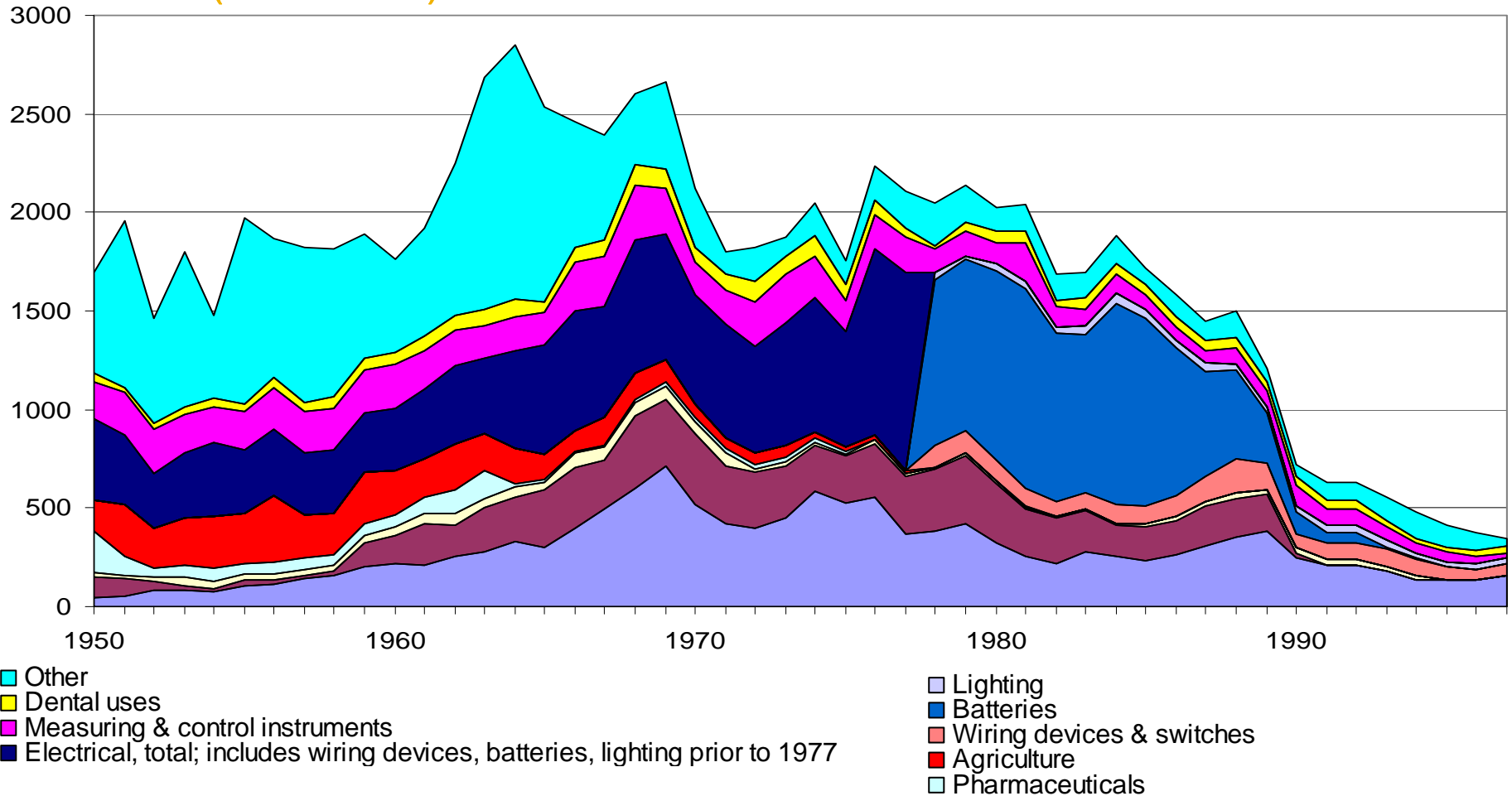
- Eliminated Hg-switches in all new medical imaging devices (*e.g.*, Rad Oncol, x-ray)



Mercury Consumption by End Use

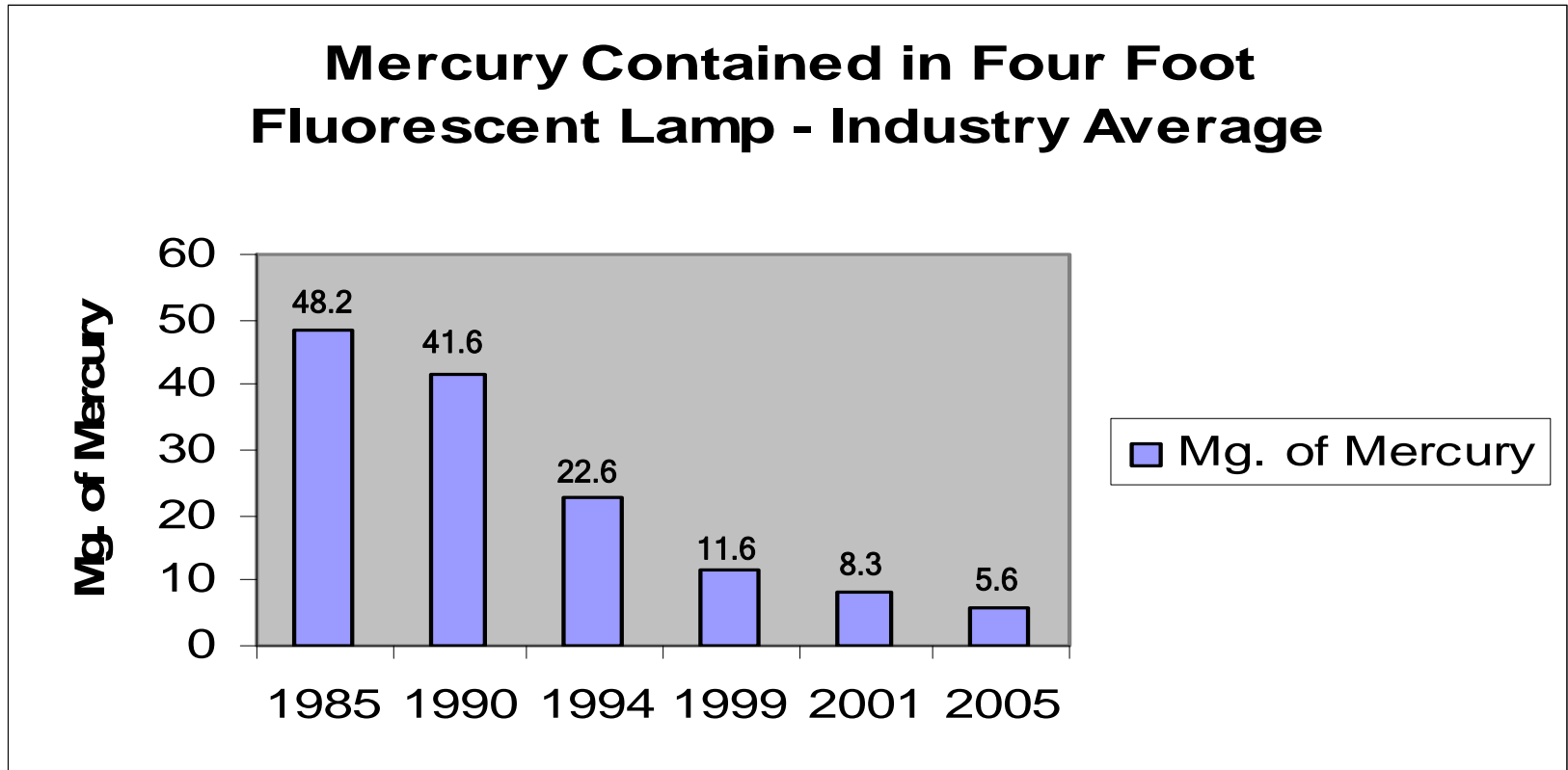
Metric Tons

US Market (Global Trend)



LIGHTING

**** Lamp Industry - Steady Progress in Reducing Hg Content ****



NEMA IMERC REPORTING: 2001- 2007

Pounds of Mercury Reported

| <u>Product</u> | <u>2001</u> | <u>2004</u> | <u>2007</u> |
|-----------------|----------------------|----------------------|----------------------|
| Lamps | 17,902 | 15,925 | 16,291 |
| Batteries | 3,975 | 2,874 | 1,990 ** |
| Thermostats | 28,485 | 27,659 | 6,495 |
| Medical Devices | 3.9 | 4.07 | 4.31 |
| TOTAL | 50,365.9 (25.18t) | 46,464.07 (22.9t) | 24,780.31 (12.4t) |

** Under Review

OTHER NEMA PS ACTIVITIES

**** Thermostat Recycling Corporation ****



- Only national thermostat recycling program in US
- Formed by Honeywell, GE, White-Rodgers in 1998; now has 17 members
- Operates in 48 states, accepts all t-stats regardless of brand

- Historically functioned through wholesalers + contractors + HHW facilities; now includes >100 retailers
- TRC absorbs all costs aside from one-time fee for bins
- Has collected ~750,000 thermostats, 3.5 tons of Hg

OTHER NEMA PS ACTIVITIES Contd

➤ Lamp Recycling Promotion

- www.lamprecycle.org - one stop center for recycling info
- Lists recycling facilities, state recycling authorities, EPA resources
- Guidance, info on lamp breakage and cleanup
- Dedicated MA page, related to state education program
- 60-70,000 hits per month, soon to be revamped
- NEMA proposed a framework for recycling to Calif AB1109 WG

➤ Rechargeable Battery Recycling Corp (RBRC)

- North American program; > 50,000 locations in US
- Funded by mfrs and marketers of rechargeable batteries and battery powered products

OTHER NEMA PS ACTIVITIES Contd

**** NEMA “Call to Action” Initiative ****

- Two Phase Industry Commitment to Reduce Hazardous Substances in Electrical Products
 - **Phase I - By July 2010**
 - NEMA products within scope of RoHS Directive will meet RoHS thresholds worldwide, unless exempted
 - Currently basis of Federal legislative proposal
 - **Phase II - By July 2014**
 - Aimed at further haz materials reductions, other product stewardship measures
 - Actions determined by individual sections

CONTACT INFORMATION

- Mark A. Kohorst
- 703-841-3249
- Mar_kohorst@nema.org
- NEMA
Suite 1752
1300 North 17th Street
Rosslyn, Va. 22209