

Universal Waste Workshop October 24, 2005

California EPA
Department of Toxic Substances Control
Hazardous Waste Management Program
Regulatory and Program Development Division





Brief Background

- In 2001, DTSC adopted regulatory exemptions allowing households and CESQUWGs to temporarily dispose of certain universal wastes (batteries, lamps, mercury thermostats and electronic devices) in municipal solid waste landfills.
- The intent was to allow for time for the collection and recycling infrastructure to develop, without placing a sudden overload on the hazardous waste management system.
- Primary concerns were the need for adequate collection infrastructure and recycling capacity.



Purpose of Workshop....

- To discuss the impacts of the disposal exemption expiration on interested parties and the potential benefits or negative impacts of extending the deadline for one or more of the wastes.
- To provide an opportunity for interested parties to discuss potential regulatory alternatives to extending the universal waste disposal exemptions.
- To collect additional information on the current universal waste collection infrastructure and recycling capacity.

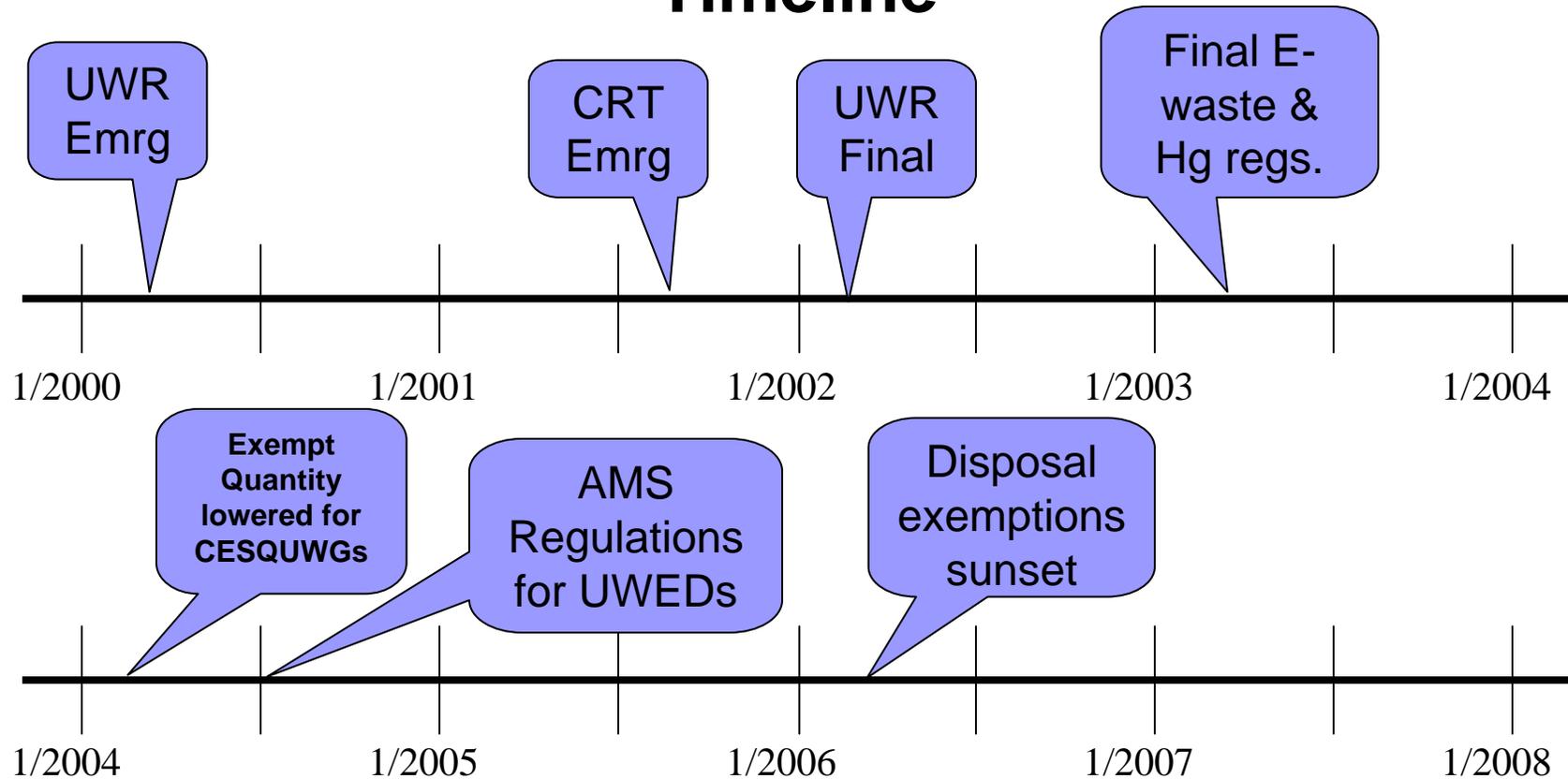


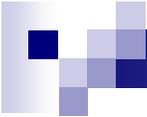
California's Universal Waste Rule History

- February 1993 – EPA Proposes UWR
- May 1995 – EPA's final rule for batteries, thermostats, and pesticides
- July 1999 – EPA's final rule for lamps
- February 2000 – DTSC adopts emergency UWR for batteries, lamps, and thermostats
- August 2001 – DTSC's emergency regulations add CRT materials
- February 2002 – Final UWR for batteries, lamps, and thermostats
- February 2003 – Final rules for CRT materials, mercury-containing universal wastes and Consumer Electronic Devices (CEDs later changed to Universal Waste Electronic Devices, or UWEDs)
- June 2004 – Alternative management standards for UW electronic devices - 2-year emergency regulations

California Universal Waste Rule

Timeline

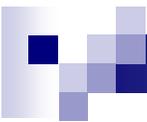




California's Universal Wastes (CCR§66273.1)

- **Batteries**
- **Mercury thermostats**
- **Lamps**
- Cathode ray tube devices
- **Electronic devices (UWEDs)**
- Non-empty aerosol cans
- Mercury containing motor vehicle light switches
- Non-automotive light switches
- Dental amalgam wastes
- Mercury containing gauges
- Mercury added novelties
- Counterweights and dampers
- Mercury thermometers
- Mercury containing medical devices
- Mercury containing rubber flooring
- Mercury gas flow regulators

Note: Bolded wastes are those subject to the disposal exemption.



Universal Waste Rule Definitions (CCR§66273.9)

Conditionally Exempt Small Quantity Universal Waste Generators (CESQUWGs)

Defined as a generator of universal waste who

- a.) generates no more than 100 kilograms (220 lbs) of RCRA hazardous wastes and no more than 1 kilogram (2.2 lbs) of acutely hazardous wastes in any calendar month (quantity determinations must include all universal waste except CRT materials and all RCRA hazardous waste) and
- b.) generates a total of five or less CRT devices in a calendar year and
- c.) remains in compliance with 40 CFR section 261.5 (CESQG requirements).



Universal Waste Rule Definitions (CCR§66273.9)

continued

Household

Defined as a private residence, not including hotels, motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds or day-use recreation facilities.



Universal Waste Exemptions (CCR§66273.8)

- **§66273.8. Exemptions.**
- (a) Temporary disposal exemption for specific universal wastes.
- (1) Through February 8, 2006, universal waste batteries, universal waste lamps and universal waste mercury thermostats, and universal waste electronic devices produced by a household..... are not classified as hazardous waste and may be managed as non-hazardous solid waste, provided the wastes are disposed in a landfill permitted to accept municipal solid waste or hazardous waste.



Universal Waste Exemptions (CCR§66273.8)

- I. CESQUWG temporary disposal exemption for specific universal wastes w/ additional exemption provisions.
 - A.) universal wastes are disposed of as non hazardous waste in no more than the following quantities
 - no more than 30 u-waste lamps in any calendar month and
 - no more than 20 lbs. of u-waste batteries in any calendar month and
 - no mercury thermostats;
 - B.) the generators total of RCRA hazardous waste and universal waste does not exceed 100 kg or, if the generator generates acutely hazardous waste, 1 kg of acutely hazardous waste in any calendar month;
 - C.) the waste is recycled by a destination facility or disposed of in a landfill permitted to accept municipal solid waste or hazardous waste and
 - D.) The generator remains in compliance with 40 CFR section 261.5.

HHW Collection Infrastructure

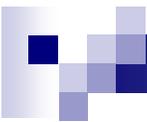
Data & Findings

- According to data published in the 2002 Household Universal Waste Generation in California report by the CIWMB, less than 1 % of universal waste lamps, thermostats and batteries is collected via HHW programs. Estimates for HHW collections of all types of HHW range around 4%, based on participation rates.

Table 4
FY 2000–01 Collections as a Percent of 2001 Sales

U-Waste Type	FY 2000–01 Collection Volume	2001 Sales for 32 Respondents	FY 2000–01 Collections as a Percent of 2001 Sales for 32 Respondents
Fluorescent Lamps	18,814 lamps	8,968,280 lamps	.21%
Batteries	162,509 pounds	29,566,818 pounds	.55%
Thermostats^[1]	N/A	356,648 thermostats	N/A

^[1] Due to the incomparability of units of measurement used to report thermostats, volume cannot be summed across counties.



HHW Collection Infrastructure Data & Findings

continued

- US EPA published a study in 2003 evaluating volumes of waste types in municipal solid waste streams.
- Electronic devices totaled roughly 2,790,000 tons, or approximately 1.2% of all municipal solid waste generated.



Awareness

- Public awareness of universal waste is limited.
- A 2002 phone survey conducted by the CIWMB found:
 - 72% of households surveyed were cognizant of what constituted HHW
 - 56% indicated they were aware of a HHW facility or a HHW collection event in their area.



Collection Options for Specific U-waste Streams

- Thermostats
 - HHW programs
 - HVAC contractors via Thermostat Recycling Corp (www.nema.org/trc)
- UWEDs
 - HHW programs
 - CED collection programs (40 Recycling facilities and over 300 approved collectors)
- Lamps
 - HHW programs
 - mail in recycling services
- Batteries
 - HHW programs
 - Retail recycling program (Radio Shack, Ace)
 - Rechargeable Battery Recycling Corporation (RBRC)



Recycling Capacity Issues

- Most HHW facilities are limited in space, but capacity can be increased due to “contracted capacity.” Limiting factor may be capacity for traffic at facilities.
- Historic recycling rates of all HHW is very low.
- Recycling facility capacity exists for lamps, batteries, thermostats and many UWEDs.



Alternatives....

- 1.) Allow the exemptions to sunset.
- 2.) Extend the exemption deadlines for both CESQUWGs and households.
- 3.) Extend the exemption deadline for households only.
- 4.) Extend the exemption deadline for one or more specific waste streams and not for others.



DTSC's Perspective:

- Allowing existing disposal exemptions to sunset would be the best way to protect human health and the environment, as well as to stimulate further development of proper waste management and recycling infrastructure.
- In the last 4 years both capacity and collection infrastructure for affected wastes has increased.
- Extending disposal exemptions will not address the need for adequate funding for collection infrastructure development.



Comments and/or Questions

- Please submit all comments and/or questions to:

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