

An abstract graphic on the left side of the slide, consisting of a network of thin, light green lines and small circles, resembling a circuit board or a stylized tree structure, set against a dark green gradient background.

ELECTRONIC WASTE

WHERE DO WE GO NOW?

FIRST THINGS FIRST

- What are some toxic substances in electronics?
 - Heavy metals, rare earth metals
 - Exposure to many of these can have significant physiological and neurological side effects
 - Some are classified as dangerous goods (IATA Dangerous Goods Regulation, currently 58th edition)
 - Class 5: Oxidizing Substances
 - Class 6: Toxic and Infectious Substances
 - Class 7: Radioactive Material
 - Class 9: Miscellaneous Dangerous Goods

Nine Classes of Hazardous Materials

Class 1: Explosives Divisions: 1.1, 1.2, 1.3, 1.4, 1.5, 1.6	Class 2: Gases Divisions: 2.1, 2.2, 2.3	Class 3: Flammable Liquid and Combustible Liquid	Class 4: Flammable Solid, Spontaneously Combustible, and Dangerous When Wet Divisions 4.1, 4.2, 4.3	Class 5: Oxidizer and Organic Peroxide Divisions 5.1, 5.2
Class 6: Poison (Toxic) and Poison Inhalation Hazard	Class 7: Radioactive	Class 8: Corrosive	Class 9: Miscellaneous	Dangerous

Federal Motor Carrier Safety Administration

U.S. Department of Transportation
www.fmcsa.dot.gov

Revised 06/05

FIRST THINGS FIRST

- The Material Safety Data Sheet
 - Covers many safety aspects of electronic devices
 - Materials used, potential risks, first aid, handling, etc.
 - That includes how they should be disposed
 - However, they often say something akin to 'Check Local Regulations'
 - What are the local regulations?

ELECTRONIC WASTE

- Known as 'Universal Waste' in CA.
 - Seven categories
 - Electronic devices
 - Batteries (Li-ion)
 - Electric lamps
 - Anything containing Mercury
 - CRTs (And their glass)
 - Non-empty aerosol cans
- Three regulatory levels: Handlers, Transporters, Destinations

- [Laws](#)
- [Regulations](#)
- [Policies](#)



Quick Links:

- [California Statutory Law](#)
- [Official California Legislative Information](#)
- [DTSC Legislative Summaries](#)
- [CA Code Excerpts / Health and Safety Codes](#)
- [Hazardous Waste Fee Summary](#)
- [Governor's Reorganization Plan 1 of 1991 \(uncodified\)](#)
- [U.S. EPA List of Major Environmental Laws](#)

Official California Code of Regulations (CCR), Title 22, Division 4.5

[Laws](#) | [Regulations](#) | [Policies](#)

The list below of the Chapters of CCR, Title 22, Division 4.5 are links to the OFFICIAL version of CCR, Title 22, Division 4.5, that is maintained by Thomson Reuters under contract with the California Office of Administrative Law.

By clicking the links below to the different Chapters, you will be taken to a site maintained by Thomson Reuters ("WestLaw"). DTSC is not responsible for the content at that website.



Chapter	Title	Section Range
10	Hazardous Waste Management System: General	§66250 - §66260.210
11	Identification and Listing of Hazardous Waste	§66261.1 - §66260.210
12	Standards Applicable to Generators of Hazardous Waste	§66262.10 - §66262.89
13	Standards Applicable to Transporters of Hazardous Waste	§66263.10 - §66263.50
14	Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities	§66264.1 - §66264.1103
15	Interim Status Standards for Owners and Operators of Hazardous Waste Transfer, Treatment, Storage, and Disposal Facilities	§66265.1 - §66265.1103
16	Recyclable Materials (Recyclable Hazardous Waste)	§66266.1 - §66266.120
17	Military Munitions	§66267.10 - §
18	Land Disposal Restrictions	§66268.1 - §66268.124
19	Fees	§66269.1 - §66269.2
20	The Hazardous Waste Permit Program	§66270.1 - §66270.73
21	Procedures for Hazardous Waste Permit Decisions	§66271.1 - §66271.33
22	Enforcement, Inspections, and Informant Rewards	§66272.1 - §66272.69
23	Standards for Universal Waste Management	§66273.1 - §66273.101
24	Mercury Thermostat Collection and Performance Requirements	§66274.1 - §66279
29	Standards For the Management of Used Oil	§66279.1 - §67100
31	Waste Minimization	§67100.1 - §67282

ELECTRONIC WASTE

- Covered by ‘Official California Code of Regulations (CCR), Title 22, Division 4.5’
- HAZMAT regulations



ELECTRONIC WASTE

- Let's not forget the supply chain
- There's a before before the after
- There's even a before before that, which leads to a slew of moral and ethical concerns

CONFLICT MINERALS

- You may have heard the term Blood Diamonds
- Conflict minerals are the same general problem
 - How they're mined
 - How the labor is sourced
 - Where the funds are funneled
- Estimates of 5 million killed so far in the Congo, funded largely by these substances*

