

Ewaste Recycling

Third world country recycling model is going away

Times have changed

- Michigan has a great recycling infrastructure creating jobs for Michigan families.
- Michigan Takeback Program makes proper recycling easy.
- You should know where your material is going when it heads out of your driveway.

The Michigan Ewaste Takeback Law

It follows the Producer Responsibility Model . . .

- Part 173 Electronics was passed in 2008, started in 2009, fully implemented in 2010.
- Applies to residential and small business generated material.
- Material generated from business, municipalities, hospitals, service industries, and manufacturing industries benefit from the law...established registered recyclers.
- Covers computers, monitors, printers, tablets, televisions.

What is Happening Now?

- Ewaste Takeback Programs in 25 states –
 - Majority are producer responsibility model
 - One advance recovery fee program.
- Michigan Registrations: In 2014, 80 Manufacturers, 32-Recyclers (17 Michigan based)
- 300 plus drop-off locations or collection points – majority in southern 1/3 of the state.
- For 2013 Michigan average was 3.05 pounds recycled per person.
- Rate is less than half of surrounding states: Wisconsin 6.8 lbs/person, Minnesota 6.5 lbs/person

Who Has What Responsibility Under the Electronic Takeback Law?

- Manufacturers selling covered devices
 - Register your brand with the program
 - Establish a takeback program for consumers
 - Provide education & outreach
 - Submit Annual report
- Recyclers of Covered Devices
 - Register with DEQ
 - Report recycling volumes
 - Provide names of recycling locations under your direct control
 - Meet environmental, safety and health requirements for your operation
 - Submit to inspections and site visits by DEQ
- Retailers
 - Sell only registered brands

How Does This Apply to Me, a Generator of Unwanted Electronics?

- **A residence or small business (<10 employees)**
 - [Part 173](#), Electronics applies to you
- **If you are a business**
 - [Part 111](#), Hazardous Waste

- Federal regulations can also apply- out of state shipping of electronics
- Either class: your electronics can go to a Part 173 registered recycler.

Why all the fuss?

- Electronics contain heavy metals: Lead, Cadmium, Mercury
- The material is readily recyclable
- The material has valuable componentry that can be reused.

Rules for Electronic Waste Disposal

In general, all unwanted electronics are a solid waste . . .

- There are exemptions for residential and small business
 - Material can be landfilled
 - Recycled for free through Part 173 Program
- Business waste handled via exemptions: scrap metals (circuit boards) & CRTs

Rules for Business Wastes

- Generator will define how the material is going to be handled
 - Universal waste rules
 - Hazardous waste rules
- Hazardous Waste Part 111- R 299.9228 (consumer electronics)

Electronics from Residence and Small Business = Michigan Takeback program

- Material has to be processed within 1 year of acceptance at recycler
- Material can be landfilled
- Material can be recycled for FREE through takeback program recycler

Electronics from other Business Sources

- Universal Waste- Managed for recycling or disposal
- Hazardous waste- Recycling or disposal in a properly regulated landfill

Bottom Line: all electronics can be recycled at same facility.

How is the Material Recycled?

- Collection days
- Collection sites
- Pickup at your facility
- Material dismantled down to components
- Components are recycled

Let's talk about Universal Waste

- What is it? Waste classification under hazardous waste rules
- Alternative way to manage material that would otherwise be considered Hazardous Wastes
- Reduces regulatory requirements to encourage recycling
- Includes a variety of material: Bulb, lamps, batteries, consumer electronics, mercury containing devices
- Volume is not included in count for generator status if managed as Universal Waste

Material Not Eligible to be Managed for Universal Wastes

- Mixed hazardous wastes
- Speculatively accumulated material-over 1 yr. accumulation

Business waste

- Facility decides how it will be managed
 - Full regulated waste
 - Universal waste
- Key issue: material is not a waste until declared so
 - Assessment should be conducted to determine reuse potential.
- If handled as recyclable material
 - Use a registered waste hauler
 - Use a certified recycler
 - Look for R2, E-steward or ISO 14001/18001 certifications

Choose your Recycler Wisely

- Are they registered with the DEQ?
- Ask about National Certifications
- Ask about data security and destruction methods
 - Part 173 recyclers required to provide data security & destruction
- Review compliance records-Call DEQ or EPA
- Ask where the material goes and how it is handled
 - If they cannot tell you, it should be a red flag in your mind.

Know Where the Material is Going

- Electronics are no different than any other regulated waste material
 - 60 minutes expose'
 - Recent announcements of Chemetco Clean up
 - Clean up of 2 TRG facility in Cincinnati
- If you have the time visit the facility
 - Look for the basics-cleanliness, recordkeeping, work practices
- Ask for business references
- If material is shipped out of state, where is it going?
 - Some of the Michigan exemptions may not apply.