

Electronic Waste Recycling Regulations

Part 173 of PA 451, 2008

Common Concept of Ewaste Recycling



Times have changed

25 states have programs regulating electronics recycling



Michigan has a Collection Infrastructure



Michigan Takeback Law

- **Producer responsibility law**
- **Covers material from residential and small business sources**
- **Covered devices: computers, monitors, printers, tablets, televisions**

The Michigan Law

- **Michigan Law: Passed in 2008 – full effect April 2010.**
 - **Requires manufacturers to set up takeback programs**
 - **Requires recyclers to be certified and follow specific rules on data destruction, safety and environmental operations**
 - **Requires retailers to sell only registered brands**

Current state

- **Michigan PY 2014 - 80 manufacturers registered**
- **Michigan PY 2014 - 31 Recyclers registered**
 - **17 registered recycling facilities in MI.**
- **PY 2014 exceeded 3.05 lbs./person recycled**

Typical Methods of Collection

Events



Collection site



Responsibility under the law

Manufacturers selling covered devices

- § Register with the DEQ
- § Have an electronic recycling (takeback) program
 - § free and convenient for households and small businesses (less than 10 employees)
- § Maintain a web site and otherwise inform consumers how to recycle TVs and computers
- § Submit annual information about their takeback program

Responsibility under the law

Recyclers of Covered Devices:

- Register with the DEQ
 - DEQ inspects but does not "Certify"
- Annually report the amount of recycled material
- Provide the names and locations of recycling facilities under their direct control in Michigan.



Responsibility con't

Retailers

- **Sell only registered brands**
 - **TVs, computers, and printers produced by registered manufacturers**



What about me?

**As a generator of unwanted electronics
how does it impact me?**

- **Makes a difference if you are a:**
 - **resident or small business (<10 ppl)**
 - **commercial or industrial entity**

Why the worry?

- **Lead & other heavy metals in the material makes most electronics a hazardous waste when disposed.**
- **Especially material with cathode ray tubes (televisions and old style monitors)**
- **Flat panels: Mercury can be an issue**
 - **Backlights in flat screens**

Rules for e-Waste

- **Electronics are a solid waste**
- **Exemptions for residential and conditionally exempt small generators**
 - **Part 115 -R 299.9204 (2)(a) & .9205(2)**
 - **Part 111- R 299.9204(1)(p) exclusions**
 - **Scrap metals – aka: Circuit boards**
 - **R 299.9228 (CRTs)**

Basic Rules

- **Generator defines how it will be managed**
 - **Follow hazardous waste rules or universal waste rules**
- **Hazardous waste**
 - **Part 111-R 299.9228 – Universal wastes**
 - **Consumer electronics, lamps & batteries**

English Please

- **Electronic waste coming from residents and small businesses**
 - **Specific exemptions for recycled material (CESQG)**
 - **Michigan does allow this material to be landfilled**

Other Generators

- **Facility decides how the material will be handled**
 - **Regulated waste- full regulation**
 - **Universal waste- less regulation**
- **Not a waste until declared as such**
 - **Undergone "assessment"**
 - **Determined no useful life left = Waste**
- **Save the hassles: handle as a recyclable material**
 - **Universal waste**
 - **Use a certified recycler - Look for R2 or e-Steward**

Universal Waste

- **Reduced regulatory requirements to encourage recycling.**
- **Includes Electric lamps, Batteries, Pesticides, Mercury-containing devices; Circuit board containing electronics.**
- **Reduces generator volume, not counted as hazardous waste**
- **Fewer transportation requirements, no manifest needed in Michigan - MDOT hazardous material requirements**
- **Longer accumulation time allowance and less labeling required**

Not Eligible for Universal Status

- **Mixed wastes**
- **Speculatively accumulated material**
 - **>1 year in storage**
 - **<75% of the material recycled within a year**

What does this mean for me?

- **If facility generates nothing but electronics potentially not a generator.**
 - **Universal wastes do not count towards generator status**
 - **Accumulation up to 1 year**
 - **Less labeling**
 - **No manifest required**
 - **Transporting waste**
 - **Self Transport**
 - **Small or large quantity handlers**

Universal Waste Requirements

Any electronic waste material should go to:

- **DEQ Registered Recycler OR**
- **Disposal Facility – Proper license**
- **Registered Small Quantity Handler**
- **Registered Large Quantity Handler**



Choosing a Recycler

- § **Registered with DEQ?**
 - § **Ewaste program website**
 - § **DEQ does not certify recyclers**
- § **National Certification: R2 or E-stewards**
- § **Security and data destruction program**
- § **Adequate compliance record**
 - § **Check Internet & DEQ website for records**
- § **Ask about the management of materials**
 - § **Where does the material go?**
 - § **Down stream vendors**

Know where your waste is going

- **Electronics are no different than any other regulated material.**
 - **Cradle-to-grave responsibility**
 - **60 Minutes expose' on electronics**
 - **Chemetco clean up**
 - **2TRG facility in Cincinnati**



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Case Summary: Settlement reached at the Chemetco Superfund Site

On September 13, 2013 a consent decree between EPA, the Department of Justice (DOJ), the State of Illinois, the bankruptcy trustee for the estate of defendant Chemetco, Inc., and Paradigm Minerals and Environmental Services LLC (Paradigm) was approved by the U.S. District Court for the Southern District of Illinois.

Under the settlement, Paradigm, the trustee and potential purchaser of the site, will implement a Superfund removal action to address existing contamination at the site at an estimated cost of \$20 million and cleanup.

The settlement also resolves EPA and Illinois' consolidated complaint against Chemetco under the Resource Conservation and Recovery Action (RCRA) and the Clean Water Act (CWA), as well as their bankruptcy proofs of claim.

On this page:

- [Information about the Company](#)
- [Information about the Chemetco Superfund Site](#)
- [Pollutants and Environmental Effects](#)
- [Background Information on Bankruptcy Proceedings](#)
- [Summary of the Consent Decree](#)
- [Contact Information](#)

Chemetco Superfund Site Settlement Resources

[Consent Decree \(PDF\)](#) (114 pp, 421 K, [About PDF](#))

Appendices 1 - 5 to the Consent Decree are available from the [technical documents section on the Chemetco Site web page](#)

Closed Cincinnati firm leaves behind major CRT stockpile

By Bobby Elliott and Dan Leif, *E-Scrap News*

March 7, 2014

E-scrap processor 2TRG has left behind significant tonnages of CRT glass as its former Cincinnati facility, several sources, including the Ohio EPA, have informed *E-Scrap News*.

After closing the doors to its 11093 Kenwood Road facility in Cincinnati last year, 2TRG, a former R2- and e-Stewards-certified processor, abandoned "tons upon tons of [CRT] glass" in Gaylord boxes, Global Environmental Services (GES) president Kenny Gravitt told *E-Scrap News*. Apparently unable to pay for downstream processing, 2TRG left at least 1,500 tons of the glass at the facility, Gravitt said.

Another processor who also toured the facility estimated there were upwards of 3,000 tons of intact and crushed CRT glass on-site.

While declining to confirm either estimate, the Ohio EPA did verify the existence of the glass at the former 2TRG facility. "Ohio EPA staff has visited the site," Dina Pierce, the state agency's media coordinator, told *E-Scrap News*. "Staff saw a large number of Gaylord boxes onsite containing various computer parts (not just CRT glass)."

So, know where your waste goes

- **Visit the collectors or recyclers facility**
 - **Basics: clean, organized, safe work practices,**
 - **Ask about key items: data security/destruction, recycling of material.**
 - **Ask about downstream vendors.**
 - **If not processed on site then where?**

It is your waste

- **Ask for business references**
- **Shipped out-of-state?**
 - **MI exemptions may not apply**
- **Know the rules- ignorance is not bliss!**

Use a Destination Facility

- **"A destination facility is a company that treats, disposes of, or recycles a particular category of universal waste."**
 - - e.g., collect and store ewaste.
- **Destination facilities need to register with DEQ**
 - **DEQ Waste database**
 - <http://www.deq.state.mi.us/wdsp/Home.aspx>

Questions?



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