

**NEPSI Summary of US Regulations for Collection, Reuse, and Recycling of Electronics**

	<b>Regulatory Status</b>	<b>Consumers</b>	<b>Collectors</b>	<b>Transporters</b>	<b>Recyclers</b>	<b>Comments</b>
<b>Federal</b>	<p>Many used cathode ray tubes are currently classified as characteristic hazardous waste under RCRA and are therefore subject to hazardous waste regulations of RCRA Subtitle C unless they come from a household or Conditionally Exempt Small Quantity Generator (CESQG).</p> <p><u>Proposed:</u> Exclusion from definition of solid waste to streamline RCRA requirements for used CRTs and glass recovered from CRTs sent for recycling.</p>	<p>Households that dispose CRTs are exempt from hazardous waste management requirements under 40 CFR 261.4(b)(1).</p> <p>Non-residential generators of &lt;100 kg of hazardous waste in a calendar month are CESQG and not subject to most RCRA Subtitle C hazardous waste management standards. (40 CFR 261.5)</p> <p>User sending a CRT to a reseller for potential reuse is not a RCRA generator.</p>	<p>Currently subject to Subtitle C requirements unless CRTs are from a household or CESQG. Individual state requirements may be different from federal regulatory requirements.</p>	<p>Currently subject to Subtitle C requirements unless CRTs are from a household or CESQG. Individual state requirements may be different from federal regulatory requirements.</p>	<p>Currently subject to Subtitle C requirements unless CRTs are from a household or CESQG. Individual state requirements may be different from federal regulatory requirements.</p> <p>Used CRTs undergoing repairs before resale or distribution are not being “reclaimed” and are considered to be products “in use” rather than solid wastes.</p>	<p>EPA previously determined that used whole circuit boards are considered scrap metal when sent for reclamation and therefore exempt from RCRA regulation.</p> <p>EPA also provided exclusion for shredded circuit boards being reclaimed provided they met certain requirements.</p> <p>Under the proposed rule, disposal in a landfill or incinerator would be regulated under full Subtitle C, if the disposer is not a household or CESQG.</p>
<b>EPA Region 3 E-waste Proposal</b>	<p>Conditional exclusion from hazardous waste conclusion for electronics (CRTs, PCs, TVs, radios, tape players, cell phones, CD/DVD players) when “the materials are physically dismantled for the recovery of useful elements.”</p>	<p>Proposal is not specific to consumers.</p> <p>Exclusion from hazardous waste requirements applies to generation, transportation, collection, and dismantling (although any applicable requires for transportation of hazardous materials would still apply)</p>	<p>Applies to generation, transportation, collection, accumulation, storage, and dismantling (although any applicable requires for transportation of hazardous materials would still apply)</p>	<p>Applies to generation, transportation, collection, accumulation, storage, and dismantling (although any applicable requires for transportation of hazardous materials would still apply)</p>	<p>Receiving/dismantling facilities must have an environmental management system approved by the Regional EPA Administrator or State Director.</p> <p>Speculative accumulation would not be allowed. Have to demonstrate that at least 75% of electronics inventory that was present on January 1 was recycled by end of the year.</p>	<p>Proposed exclusion is similar to the one for shredded circuit boards found in 40 CFR § 261.4 (a) (14).</p> <p>Exclusion is only for EOL electronics that are physically dismantled for recovery of useable elements. Chemical or thermal treatment is not included. Wastes that are disposed of must be properly managed under existing requirements.</p>
<b>STATES</b>						
<b>Alabama</b>	<p>Electronic equipment, including CRTs, is currently classified as a "solid waste" and those generators of such waste are responsible for making a determination whether the waste is hazardous.</p> <p>UWR exists, does not include CRTs.</p>					<p><u>Guidance Document:</u> Management of CRTs and other Electronic Devices August 2001</p>
<b>Arkansas</b>	<p>UWR exists, does not include CRTs.</p>					<p>Procurement legislation passed that included: “The</p>

						Arkansas Department of Environmental Quality may establish and implement rules and regulations banning the disposal of all computer and electronic equipment in Arkansas landfills. (SB 807, Smith)
<b>California</b>	<p><u>DTSC Regulations for CRTs adopted 8/01 (Modified - UWR)</u> Streamline the regulatory requirements for management of waste CRT devices and CRTs. The regulations place waste CRT devices and CRTs under the CA UWR.</p> <p>DTSC now working on final regulations.</p> <p>See 22 CCR 66273</p>	<p>Generators of five or fewer CRT devices per year from most of the UW requirements are exempt (see the electronic product generator exemption), but disposal and treatment of the waste CRT device is prohibited. (Note: CA does not have a household hazardous waste exemption.)</p> <p>All other CRT handlers must comply with: Proper handling, Labeling, Accumulation (one year), Notification (5000Kg), and Employee training universal waste-like requirements.</p>	<p>Collectors are CRT handlers under the California rule. However, all handlers that accept more than five (5) CRT devices from offsite sources must notify DTSC and the local environmental health agency.</p>	<p>Transporters must comply with the requirements for transporters of UW waste. These are very similar to those found in 40 CFR 273.50 et. seq.</p>	<p>Recyclers are defined as those who dismantle, break or crush the cathode ray tube. These handlers have additional management standards that they must comply with such as, maintaining liability insurance and financial responsibility for closure, providing additional training for employees. There are restrictions on the types of treatment processes that recyclers may perform without a HW permit.</p>	<p>Note: The UW rule for CRTs applies only to CRTs destined to a glass-to-glass recycler or a lead smelter. CRTs destined for disposal in a class I landfill are managed as hazardous waste.</p> <p>Note: CRT Handlers may remove the cathode ray tube from the CRT device as allowable treatment under the UW rule.</p> <p><b>Other E-waste:</b> Any generator of electronic waste that exhibits any characteristic of a hazardous waste (i.e., fails the TCLP) and is not excluded (e.g., scrap metal exemption) would be regulated as a hazardous waste generator. The storage, transport and reclamation of the waste would be subject to all applicable State and federal hazardous waste regulations.</p>
<b>Colorado</b>	<p>No current or pending regulations regarding electronics waste.</p> <p>UWR exists, does not include CRTs.</p>					<p>Legislation passed to create a "CRT Recycling Account" and to establish a CRT Pilot Program to encourage private to industry to undertake R&amp;D of new technologies for recycling, disposal, and waste minimization of CRTs through grants and loans. (H1106, Madden)</p>
<b>Connecticut</b>	<p>No specific regulations exist at this time for residential consumer</p>	<p>Consumers have the typical HH exemption from hazardous waste</p>	<p>There are no specific regulations pertaining to consumer electronics from</p>	<p>Transporters of hazardous waste need to obtain a state permit.</p>	<p>Recyclers fall under existing hazardous and solid waste regulations.</p>	

	electronics.  Proposed: Connecticut is considering regulations to incorporate the UWR for consumer electronics.	regulations.	regulated sources. Such sources fall under existing hazardous and solid waste regulations.			
<b>Florida</b>	Guidance Document explains strategy for Proper Management of EOL CRTs, Computers and other Electronic Equipment, DEP Memo from J. Ruddell dated October 28, 1999. The electronic products are not considered hazardous waste until it is determined that they no longer work and are destined for recycling or disposal.  UWR exists, does not include CRTs.	Nothing proposed--the household exemption under RCRA will continue. Florida is encouraging all the HHW/county recycling programs to expand their services to collect and recycle electronics.	No specific regulations--electronics being collected for recycling and not being "discarded" and therefore are not waste so they are not regulated.	No specific regulations--electronics being transported to a recycling facility are not being "discarded" and therefore are not waste so they are not regulated.	In Florida the recycler/demanufacturer is the "point of generation" and the recycler becomes the generator and it is at this point that the existing RCRA Subtitle D regulations take effect. All the recycler in Florida that the DEP has talked with accept this position and are very comfortable with generator status. Florida also does not require permits for recyclers.	Note: If a "regulated" entity (business, institution, etc.) were to "dispose" of CRT-containing electronics in the waste they would be liable for RCRA subtitle D violation for disposing of hazardous waste.  More on Florida's regulatory scheme can be found on our web site at:  <a href="http://www.dep.state.fl.us/waste/categories/electronics">www.dep.state.fl.us/waste/categories/electronics</a>
<b>Hawaii</b>	No specific regulations exist for electronics waste.  UWR exists, does not include CRTs.					
<b>Idaho</b>	UWR exists, does not include CRTs	CRTs from households or CESQGs may be disposed at MSWLFs.				
<b>Indiana</b>	Indiana Department of Environmental Management stated that intact computers, monitors, televisions and other electronic devices or intact parts of these devices for the purpose of dismantling and salvaging components for legitimate reuse or reclamation does not need a hazardous waste management permit.  UWR exists, does not include CRTs.					<u>Guidance document</u> from Indiana Department of Environmental Management (IDEM)
<b>Massachusetts</b>	<u>MA Regs. Code 310 § 30.010</u> MA exempts intact CRTs that can be reused (without reclamation)	Consumers are not regulated; the <u>solid waste bans occur at the disposal facility.</u>	Collectors are not regulated unless they are processing or storing.	Transporters are not regulated unless they are processing or storing.	Processors--those that crush CRTs-- are regulated HW facilities.	A significant part of MA regulations are intake vs. broken CRTs and the solid waste regulation language pertaining to

	<p>from all hazardous waste regulations. (Incidental numbers of unintentionally broken CRTs will still be considered intact.) Intact CRTs that are sent for reclamation or other types of recycling are subject to reduced hazardous waste requirements that substantially track the federal UWR. Intact and crushed CRTs sent for disposal are subject to full hazardous waste requirements. 65 Fed. Reg. 68,915 (Nov. 15, 2000)</p> <p><u>MA Reg. Code 310 § 16.05(3)(f)</u>: CRT operations are subject to a variety of requirements including labeling of their CRTs and holding the CRTs for no longer than one year.</p> <p>All parties are impacted by the solid waste ban.</p>					management when storing or receiving CRTs.
<b>Michigan</b>	<p>CRT's are considered to be electric lamps and fall under Michigan's adopted universal waste rules. Under UWR electric lamps may not be purposely crushed or broken.</p> <p>Nothing else specific to electronics exists regulatorily.</p>	Households are exempt and can dispose of CRTs in municipal solid waste landfills or incinerators depending on the operators' discretion, the state has not banned them.	There are a number of general management regulations that impact the storage, transportation, and processing of electronics if they impact the environment because of their inherent hazards but these regulations apply to any waste, not just electronics.	There are a number of general management regulations that impact the storage, transportation, and processing of electronics if they impact the environment because of their inherent hazards but these regulations apply to any waste, not just electronics.	There are a number of general management regulations that impact the storage, transportation, and processing of electronics if they impact the environment because of their inherent hazards but these regulations apply to any waste, not just electronics.	<u>Guidance Document</u> : DEQ - Electronic Equipment
<b>Missouri</b>	Hazardous electronics intended for disposal are subject to state and federal hazardous waste regulations. Hazardous electronics intended for legitimate use/reuse may be exempt according to 40 CFR 261.2(e). If legitimately used or reused, the materials are	Households that dispose of electronics wastes are exempt from state/federal hazardous waste regulations under 40 CFR 261.4(b)(1), unless they pose a threat to human health and the environment or create a public nuisance.	Collectors who store electronics intended for disposal are subject to hazardous waste regulation. If the electronics are from households or the electronics is still reasonably intended for use or reuse, it is exempt from hazardous waste	Transporters of hazardous electronics intended for disposal are subject to hazardous waste regulations. However, transporters who meet state and federal transfer facility regulations may store the electronics as long as the waste arrives at its destination within	For Demanufacturers (i.e., those who separate useable portions from unusable portions of electronic devices), when all useable portions of the device have been separated, must characterize all unusable residual waste material and manage the residual	According to state/federal regulation, used whole circuit boards are scrap metal when sent for reclamation and are exempt from hazardous waste regulation. Missouri also adopted EPA's exclusion for shredded circuit boards being reclaimed provided

	<p>not considered solid or hazardous waste until the decision to dispose is made. Missouri uses the criteria in the Federal Register Vol. 50, No. 3, January 4, 1985, p. 638 to evaluate use/reuse claims for legitimacy. Household hazardous wastes as defined in 40 CFR 261.4(b)(1) are exempt from regulation. All exempt hazardous wastes remain exempt unless managed in a way that poses a threat to human health and the environment or creates a public nuisance.</p> <p>UWR exists, does not include CRTs.</p>		<p>regulation.</p> <p>A collection event whereby hazardous electronics are collected from non-exempt generators (i.e., regulated businesses and others) and the electronics are sent directly to a demanufacturer, or to a facility that legitimately uses, reuses or recycles the electronics is not subject to hazardous waste regulation.</p>	<p>the 10 calendar day period as explained in 10 CSR 25-6.273(2)(A)10.</p> <p>Transporters of exempt materials as previously noted are not subject to hazardous waste regulations but may be subject to DOT hazardous materials regulation.</p>	<p>as hazardous waste if appropriate. Separated components that are still useable are not solid or hazardous waste. Recyclers (i.e., defined in Missouri Resource Recovery Regulations as those that reclaim or reuse the non-exempt hazardous electronics waste) or that transform it into another product are subject to those regulations found at 10 CSR 25-9.020. Under these regulations, one must have applied for and received a resource recovery certification to manage the material in question.</p>	<p>they meet certain requirements.</p> <p>Missouri is preparing guidance bulletins for electronics waste management that will be made available on the website of the Department of Natural Resources.</p>
<b>New Jersey</b>	<p>Spent consumer electronics are exempted from management as hazardous waste if they are managed as a recyclable and sent to one of NJ's approved facilities. The approved facilities have been participating in a study conducted by the NJDEP, to determine the feasibility of adding consumer electronics to the current Universal Waste Rule.</p> <p><u>Proposed:</u> UW in NJ are considered Class D recyclable materials. Amendments to the "Universal Waste Rule" are in the process of being promulgated by NJDEP. When adopted, consumer electronics, electronic products and cathode ray tubes will be considered Class D recyclable materials and, would</p>		<p>The NJDEP is also allowing facilities to consolidate spent consumer electronics as a "recycling depot". These facilities must not process the consumer electronics in any manner. As a recycling depot, the facilities are only allowed to consolidate and store consumer electronics. Storage of the electronics may not exceed sixty (60) days.</p>		<p>Companies that are strictly refurbishing computers for resale or donation do not need an approval from the NJDEP to operate. However, if the company will be storing any unusable electronics, they will be regulated as a recycling depot. This proposal is scheduled for readoption on May 2002.</p>	<p><u>Guidance document:</u> Management of Spent Computers and CRT's in NJ</p>

	subsequently be subject to the above regulations.					
<b>New York</b>	<p>Most discarded electronics may be regarded as scrap metal and therefore are exempt from regulation as hazardous waste, provided the two basic conditions are met: 1) generator is not a conditionally exempt small quantity generator (CESQG) both the generator and the subsequent handlers in NY are required to submit notification to the Department giving basic information, 2) scrap metal exemption requires that scrap metal pieces actually be reclaimed from the hazardous electronics and recycling. The letter further advises that materials that become separated from the scrap metal portions are not eligible for exemption.</p> <p>UWR exists, does not include CRTs.</p>					<p><u>Guidance Document:</u> Letter to Dismantlers and Recyclers of Used Electronics re Scrap Metal Exemption</p>
<b>North Carolina</b>	<p>Intact CRTs may be considered scrap metal and therefore are not subject to hazardous waste regulation when recycled. DEHNR encourages generators of CRTs to identify alternatives to disposing including: donating to schools and churches, recycling recoverable materials, and using longer useful life products and manufacturer take back services where available.</p> <p>UWR exists, does not include CRTs</p>					<p><u>Guidance Document:</u> Management of CRTs from Electronic Devices</p>
<b>Ohio</b>	Used CRTs are considered hazardous waste unless tests prove					<p><u>Guidance Document:</u> CRT Recycling</p>

	<p>samples non-hazardous; CRTs from computers are not regulated as hazardous waste if the generator destines them for recycling. Discarded IC are considered scrap metal and therefore are not regulated as hazardous waste if reclaimed or recycled.</p> <p>UWR exists, does not include CRTs.</p>					
<b>Oregon</b>	<p>UWR exists, does not include CRTs</p>					<p>Legislation passed establishing a computer recycling task force to establish a program to encourage the recycling of PCs.</p>
<b>South Carolina</b>	<p>SC DHEC states that CRTs do not need to be managed as hazardous waste when they are intact and sent for recycling rather than disposal.</p> <p>UWR exists, does not include CRTs</p>					<p><u>Guidance Document:</u> CRTs and Electronics Management, bureau of Solid and Hazardous Waste Management, Fact Sheet (August 15, 2000)</p>
<b>Vermont</b>	<p>With respect to CRTs, Vermont is planning to add this category of waste to its Universal Waste rule (Subchapter 9) within the next year.</p>	<p>Collectors, transporters and recyclers of used electronics from households are not subject to Vermont HW regulations since household-generated waste is exempt.</p>	<p>Electronics that are not (or can not) be reused, can be managed according to the conditional "shredded circuit board exemption" included under Section 7-204(h) of the Vermont HW Management Regulations.</p>	<p>Electronics that are not (or can not) be reused, can be managed according to the conditional "shredded circuit board exemption" included under Section 7-204(h) of the Vermont HW Management Regulations.</p>	<p>Electronics that are not (or can not) be reused, can be managed according to the conditional "shredded circuit board exemption" included under Section 7-204(h) of the Vermont HW Management Regulations.</p>	<p>Business-generated electronics that are collected for reuse or de-manufacture are not considered to be waste by Vermont, and therefore are not subject to waste management regulation.</p>
<b>Washington</b>	<p>Used cathode ray tubes from regulated generators are considered to be characteristic hazardous waste under the State's Dangerous Waste Regulations (chapter 173-303 WAC) and are therefore subject to hazardous waste regulations unless they come from a household or Conditionally Exempt Small Quantity Generator (CESQG). Generators can always test to demonstrate that the</p>	<p>Currently subject to Dangerous Waste Regulations unless CRTs are from a household or CESQG.</p>	<p>Currently subject to Dangerous Waste Regulations unless CRTs are from a household or CESQG.</p>	<p>Currently subject to Dangerous Waste Regulations unless CRTs are from a household or CESQG.</p>	<p>Currently subject to Dangerous Waste Regulations unless CRTs are from a household or CESQG.</p>	<p>The State has adopted the federal exemptions for whole circuit boards being considered scrap metal when sent for reclamation and for shredded circuit boards being reclaimed provided they met certain requirements.</p>

	<p>CRTs do not designate.</p> <p><b>Proposed:</b> The State is developing an interim policy for a conditional exclusion to streamline hazardous waste requirements for used CRTs and glass recovered from CRTs sent for recycling. This policy, or something similar, will be adopted as rule following a trial period of time where the policy is in place.</p>					
<b>MUNICIPALITIES</b>						
<b>Santa Cruz, CA</b>	<p>Santa Cruz County, expects to have a policy approved in January, summarized as follows:</p> <ul style="list-style-type: none"> <li>- All household electronic waste accepted at County landfill and transfer station.</li> <li>- Fee of \$9 charged for TV or computer monitor (CRTs), except that 2 of these items are accepted free per trip.</li> <li>- No charge for other electronic waste.</li> </ul>					
<b>Seattle, WA</b>	<p>The City of Seattle regulates what may legally be deposited in municipal solid waste, whether at curbside or at transfer facilities, for landfilling. City ordinance prohibits any materials that meet the definition of "dangerous waste" in WA (RCRA definition) and, going further than state and federal law, specifically prohibit such materials from households and small quantity generators. Seattle Municipal Code 21.36.025 (Unlawful disposal); 026 (Household); 027 (SQG).</p>	<p>Therefore, any product or material that exhibits the characteristics of RCRA waste is and has for years been prohibited. Until TCLP data was publicized, electronics had not attracted attention relating to disposal. City ordinances do not address accumulation quantities or times, or transportation.</p> <p>CRTs or other specific electronic products are not named in City ordinance. However, Seattle is considering whether to adopt a departmental rule referring to CRTs or some CRTs.</p>			<p>Recyclers may be subject to "solid waste operations permit" requirements under local Health Department jurisdiction, but this has not been the case to date.</p>	<p>Seattle Muni Code language at: <a href="http://www.cityofseattle.net/clk/ci.seattle.wa.us/~public/code1.htm">www.cityofseattle.net/clk/ci.seattle.wa.us/~public/code1.htm</a></p>
<b>Solid Waste Management</b>	Special Hazardous Waste Pilot Project regulatory		Accumulation Time: -Collectors may store	Shipments: -Electronics must be	There are additional requirements for recyclers	Notification requirements to the county vary.

<p><b>Coordinating Board Counties (SWMCB). MN</b></p>	<p>standards are as follows:</p>		<p>under 20 tons of electronics (1 single semi trailer) for up to one year at the collection site. -All electronics must be shipped within 48 hours of reaching 20 tons or 1 year.</p> <p>Storage: -Store electronics unbroken in a manner that will prevent breakage in a container that will prevent a release of hazardous constituents to the environment. -Label each container with the words "Electronics For Recycling".</p>	<p>shipped to: a recycler, a hazardous waste facility or another registered consolidator. -A shipping paper, bill of lading or manifest must accompany shipments of electronics. -Copies of all shipping documents must be kept at the collection site for three year.</p>	<p>and processors as outlined in Section III, Consolidation Sites Requirements, of the Special Hazardous Waste Pilot Project.</p>	
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