TO: Internet Address: rcra-docket@epa.gov

RE: RCRA Docket #F-2002-CRTP-FFFFF
Modification of the Hazardous Waste Program;
Cathode Ray Tubes (CRT) and Mercury-Containing Equipment

DATE: August 12, 2002

RCRA DOCKET:

Please find enclosed the Ohio Environmental Protection Agency's comments on EPA's proposal to modify the hazardous waste rules to exclude used cathode ray tubes from the definition of solid waste. This proposal was issued June 12, 2002, in the *Federal Register* (Vol. 67, No. 113, pg. 40508).

Ohio EPA requests that these comments be made an official part of the record. If you have any questions or need additional clarification regarding the enclosed comments, please do not hesitate to contact Karen Hale, Division of Hazardous Waste Management, at (614) 644-2917 or karen.hale@epa.state.oh.us.

Sincerely,

Christopher Jones
Director

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cc: Michael A. Savage, Chief, DHWM
Dave Sholtis, Assistant Chief, DHWM
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1. Section (III)(H)(1): Should used CRTs and processed CRT glass be defined as a universal waste and subject to management under the universal waste program?

Ohio EPA supports the development of a conditional exclusion for used CRTs and processed CRT glass in lieu of defining them as universal wastes and regulating them under the universal waste rules. We believe the exclusion will better promote the development of an infrastructure to recycle CRTs and processed glass. Also, the requirements of the universal waste rules would be overly burdensome for collectors, processors and recyclers in light of the low potential for lead to be released from CRTs and the recycling uses for processed CRT glass by CRT glass manufacturers and smelters.

The proposed conditional exclusion will better promote the development of the reuse and recycling infrastructure necessary to handle the large number of CRTs that are already out of service and that will be taken out of service in the future. Such an infrastructure needs to include persons who: collect and evaluate the reusability of CRTs; return reusable units back into commerce; dismantle CRTs into the recyclable components of plastic, glass, and metal and recycle plastic, glass, and metal.

If all of these facilities are not available, used CRTs may be perpetually stored or they will be disposed of - both properly and improperly. In either case, the recyclable components of the CRTs will be lost. Furthermore, if we develop the necessary infrastructure and markets to recycle CRT components here, in the United States, less CRTs will be exported to foreign countries where they are being recycled by less sophisticated methods that may be harmful to both the workers and the environment.

In addition, the extent of regulatory requirements imposed under the universal waste rules is not warranted for persons who collect, process and recycle used CRTs and processed CRT glass. The overall handling and processing of CRTs includes: evaluating the CRT for reuse, dismantling the unit into its components of plastic, glass, wiring, and metals; releasing the vacuum of the CRT by drilling a hole into the anode, separating the CRT into its different glass types and breaking the glass.

Many of these activities can be considered incidental processing of the CRTs where the processing results in a minimal change to the chemical composition or mass of the CRT glass. Furthermore, the hazardous constituent of concern, lead, is not in a form that is readily available for release to the environment during CRT collection and processing. Therefore, the management conditions of the exclusion applicable to persons who collect and process CRTs are appropriate for the activities performed at these facilities.

Lastly, under the universal waste rules, recyclers of processed CRT glass (i.e., CRT glass manufacturers and smelters) would be defined as destination facilities and subject to obtaining a hazardous waste permit for the storage of processed CRT glass prior to its incorporation into the manufacturing process. We do not believe that this extent of regulation is warranted for CRT manufacturers, and lead and coppers smelters who can directly use CRTs or processed glass as substitutes for feedstock materials in their manufacturing processes.

In CRT glassmaking, processed CRT glass is used in place of the ingredients silica and lead. In the smelting process, it can be used as a substitute for fluxing agents to remove impurities from the desired metal. In both processes, the processed CRT glass is being used in a manner similar to the materials it replaces; therefore the processed CRT glass is commodity-like and not waste-like. In addition, under the current hazardous waste recycling program, the processed glass used by CRT glass manufacturers and smelters is excluded from the definition of waste, per 40 CFR §261.2 (e), when it is used as a substitute for a commercial chemical product or as an ingredient to make a product.

2. Section (III)(H)(3): Should a longer accumulation period be provided for broken used CRTs?

Ohio EPA does not believe it is necessary to provide an extended speculative accumulation period for persons who produce broken CRTs. Due to the manner in which the current speculative accumulation provision is constructed, a CRT breaker can initially accumulate broken CRTs for nearly two calendar years before he must demonstrate he is recycling the required percentage of material. As a general requirement, we believe this period of time is sufficient for a person to find outlets for the broken CRTs.

However, we understand that a shortfall of reusing CRT glass to make new CRT glass is the inconsistent sorting of the glass. Better technologies are needed to improve the composition of CRT glass destined for glassmakers in order to increase the amount of CRT glass recycled in this manner. Therefore, if a person is developing such a technology, it may be appropriate that he be able to accumulate broken CRTs for an extended time period. Under such a situation, the producer of broken CRTs could be issued a variance from the definition of solid waste for the speculative accumulation of a secondary material according to 40 CFR §260.30.

3. Section (III)(H)(3): Should intact CRTs sent for recycling be subject to the speculative accumulation provisions?

In general, intact CRTs being managed by a generator or a collector who sends them on for recycling or disposal should not be subject to the speculative accumulation provisions since the potential of release of hazardous constituents from the intact CRTs into the environment is nearly non-existent. However, we do have concerns that a person could initiate a sham recycling business of collecting CRTs for a fee with no intention of sending the CRTs on for recycling or disposal. Under the proposed exclusion for used intact CRTs, it would be difficult for the overseeing agency to require the person to either recycle or dispose of the over accumulated units.

Therefore, in order for the overseeing agency to be better able to regulate persons who accumulate intact CRTs with no intent of recycling them, the exclusion for intact CRTs needs to include a provision that makes it clear that 40 CFR §261.2 (f) applies to the collection or storage of CRTs. Also, we suggest that the exclusion for intact CRTs be revised so that it is evident that there is a presumption that intact CRTs should be recycled. For example, the exclusion could be revised as follows: "Used intact CRTs, as defined in §260.10, *destined for recycling* (new language) are not solid wastes unless disposed. No restrictions on speculative accumulation as defined in §261.1 apply."

In addition, we suggest that a condition be added to the exclusion that requires CRT collectors, breakers, and processors to inform the overseeing

agency of their existence even if they already have an EPA identification number. We believe it is important to know where these facilities are so that we can pass the information on to the public and for inspection purposes. The notice should contain the following information, facility name and location and services provided. Also, the notice should not result in the person receiving an EPA identification number.

4. Section (III)(H)(3): Should processed CRT glass be prohibited from being used in a manner constituting disposal?

Ohio EPA does not support the addition of a condition that prohibits processed CRT glass from being used in a manner constituting disposal. The proposed exclusion allows processed CRT glass to be recycled in a manner that is use constituting disposal if the processed CRT glass is handled according to the management conditions of the exclusion and the resulting product meets the requirements of 40 CFR part 266, subpart C. We agree with this approach. Such an approach keeps available recycling options that are presently unknown to us and allows persons to pursue and develop innovative uses for CRT glass while ensuring that CRT glass derived products that will be used on the land will be in a form that has a low potential to adversely impact the environment.

5. Section (III)(H)(4): Is glass processing conducted at high temperatures an indication of waste management?

The use of a thermal process within the context of recycling is not in and of itself an indication of waste management. Thermal processes are commonly used in all types of manufacturing. To determine whether a thermal processing step within a recycling scheme may be waste management, one needs to consider all of the following: the purpose of the overall recycling scheme, the intent of the thermal processing step, the types and quantity of constituent(s) lost during the thermal processing and the types of constituents not lost during the thermal processing.

6. Section (III)(H)(4): Should glass processors implement a procedure for advising local communities of the nature of their activities, including the potential for resident and worker exposure to lead or chemical coatings?

Ohio EPA does not support adding a condition to the exclusion that requires glass processors to inform their local communities of the nature of their activities. Imposing a public notice procedure for these recycling facilities through the hazardous waste program would be duplicative to the public participation and involvement processes already implemented by local governments and the air pollution control program.

With regards to informing the public and workers of exposure concerns due to lead and glass chemical coatings, these issues are more appropriately addressed through programs other than the hazardous waste program. Under OSHA, many companies are required to train employees about the hazards of their workplace.

As for informing residents of the potential emissions of lead, in Ohio, glass processors will be subject to the requirements of the air pollution control program. Should an air permit be required for emissions of glass particulates from a CRT processor, this would indicate a potential for residents to be exposed to lead. However, there are several public participation opportunities during the issuing of permits under the air pollution control program where residents can learn about the facility and its operations, and express their concerns.

7. Section (III)(H)(5): Should processed glass, recycled by being sent to a lead smelter, be excluded from the definition of solid waste?

Yes, CRTs and processed glass used in the lead smelting process should be excluded from the definition of solid waste. This is an excellent recycling option for CRT glass. The whole CRT is of value to the lead smelting process. By recycling CRTs in this manner, as with glass to glass recycling, natural resources, including the use of energy, are conserved since the amount of virgin feedstock materials needed in the smelting process are reduced.

CRT glass contains approximately 15-20% lead. This lead concentration exceeds the lead ore concentration of commercial interest which is 2-6% lead. Therefore, the CRT glass is an appropriate substitute for lead ore in the smelting process.

Fluxing agents are used in smelting processes to remove impurities from the desired metals. Silica is a common fluxing agent. CRT glass is composed of approximately 55% silica and can be used as a substitute for the raw material, silica.

8. Section (III)(H)(5): Should CRT glass sent to a copper smelter be excluded from the definition of solid waste?

CRT glass, which is 55% silica, can be used as a substitute for the fluxing agent, silica, used in the copper smelting process. Therefore, we believe the use of CRT glass in the copper smelting process is a legitimate use for the CRT glass and should be a recycling option for excluded CRT glass.

We are aware that CRT glass contains lead and that the lead is not the component of CRT glass that is of value to the copper smelting process. Also, we are aware that the slag from copper smelting is a Bevill waste and exempt from regulation according to 40 CFR §261.4. However, it is our general position that hazardous secondary materials can be legitimately recycled for components or material characteristics that are not hazardous if the hazardous components are properly managed during processing and the process residues are subject to regulatory oversight under another regulatory program such as air pollution control, nonhazardous waste disposal, and/or water pollution control.

Furthermore, primary copper concentrate contains approximately 1% lead. Therefore, lead is a constituent that is already present in the copper smelting process and being managed in process residues. Due to the ratio of primary ore concentrate versus CRT glass introduced into the smelting process, we do not believe that the use of CRT glass in the copper smelting process will significantly increase the amount of lead already inherent in the copper smelting process and being managed in the slag or air pollution control sludge.