

Appendix C – Regulatory Flexibility Documents

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National EPA Cathode Ray Tube Rule:

Hazardous Waste Management System; Modification of the Hazardous Waste Program; Cathode Ray Tubes and Mercury-Containing Equipment (Federal Register)

<http://www.epa.gov/EPA-WASTE/2002/June/Day-12/f13116.htm>

Region 3 eCycling Pilot Rule

Pilot-Specific Rule for Electronic Materials in the EPA Region III Mid-Atlantic States; Hazardous Waste Management System; Modification of the Hazardous Waste Program; Cathode Ray Tubes (Federal Register)

<http://www.epa.gov/fedrgstr/EPA-WASTE/2002/December/Day-26/f32547.htm>

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Environmental Council of States (ECOS) Regulatory Flexibility Proposal

Delaware, District of Columbia, Maryland,
Pennsylvania, Virginia, West Virginia
Regulatory Innovation Proposal
July 12, 2001

Title: Regulatory Exclusion for End-of-Life Electronic Materials That are Dismantled for Recovery of Useful Elements

OBJECTIVE: Encourage recycling of electronic goods by conditionally excluding from federal hazardous waste and solid waste requirements the management of end-of-life electronics (“electronics”), when these materials are physically dismantled (i.e., “demanufactured”) for the recovery of useful elements.

EXPECTED BENEFITS

Encouraging Recycling: Private citizens can dispose of electronics at a solid waste facility unless otherwise prohibited by state statute or regulation, or by a policy of the facility. In states that so allow, generators of very small quantities of hazardous waste may also dispose of their electronics at solid waste facilities (SWFs), even if the waste fails a toxicity characteristic. Although many solid waste landfills have been constructed with liners and leachate collection systems, the general waste management hierarchy under RCRA encourages recycling and reuse, and discourages disposal when alternatives exist. The availability of a program encouraging the availability of electronics dismantlers for businesses and industry will result in more electronics being reused and recycled by both citizens and businesses. Manufacturers, wholesalers, and retailers may agree to take back electronics as part of their marketing and sales efforts. Governmental agencies may also offer to collect household electronic devices, either at a solid waste facility or through curbside pickup, for proper dismantling and reclamation.

Expected benefits of an end-of-life electronics recycling program include:

Encouraging beneficial reuse of electronics

Encouraging business activities for brokers and businesses engaged in the recycling of electronics

Reduction in the amount of toxic metals managed in landfills or other SWFs

Reduction of hazardous constituents in the environment

Possible energy savings in using recycled materials to substitute for virgin materials in the manufacture of new goods

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DESCRIPTION OF ACTIVITIES

The management of end-of-life electronics has become a national issue. Many electronic devices, such as cathode ray tubes, personal computers, televisions, and the like, contain high concentrations of metals and may, upon testing, exhibit a hazardous characteristic. When such items are refurbished or resold, they are not wastes (although waste may be generated in the process of refurbishment). Additionally, if business or industry must dispose of such items, the cost of managing these materials as hazardous waste can be high. Even though private households enjoy an exclusion from hazardous waste requirements, agencies should encourage the recycling of end-of-life electronics. Also, environmental concerns or citizen pressures may eventually result in SWFs no longer accepting (or being allowed to accept) such materials. Complete deregulation is not warranted, however, as several states have seen persons accumulate substantial quantities of electronics, ostensibly for recycling, then abandon the materials in warehouses or trucks.

There are several facilities in existence, and more are planned, that dismantle or "demanufacture" electronics, removing hazardous components, reusable elements, metals, and other recoverable materials. This occurs on a dismantling or disassembly line, much like in a solid waste materials recovery facility. The dismantling facilities may recycle all electronic components or may crush and dispose of unusable residue. Any material from the dismantling process determined to be waste for disposal would still be subject to a hazardous waste determination or management as a solid waste if it is to be discarded.

A working group has been formed between EPA Region III and representatives of the states in that region. The working group has held numerous conference calls and meetings, and has visited an electronics dismantling facility in Hagerstown, Maryland. Region III and the states are working together to establish a region-wide pilot program for the management of e-waste beginning in fall of 2001. A meeting of key decision-makers from original equipment manufacturers, retailers, transporters, dismantlers, and government agencies was held on June 6, 2001. Regulatory issues, including hazardous waste issues, are considered a significant impediment to the recycling of electronics.

The Region III states propose to conditionally exclude from the classification as a hazardous waste end-of-life electronics that may exhibit a toxicity characteristic, when the materials are physically dismantled for the recovery of useful elements. For these purposes end-of-life electronics would include: cathode ray tubes (CRTs), personal computers and components, televisions, radios, tape recorders/players, cellular telephones, and compact disk/DVD recorders/players.² The exclusion would apply to the generation, transportation, collection, accumulation, storage, and dismantling of such materials (although any applicable requirements for transportation of hazardous materials would still apply). This exclusion would be done by amendment to 40 CFR 261.4(a) (and state analogue), by enforcement discretion, or by other appropriate mechanism. The Region III states seek authorization to pursue this course of action prior to a final regulatory amendment, if needed. The proposed exclusion is similar to the one for shredded circuit boards found in 40 CFR § 261.4(a)(14). The purpose is to exclude end-of-life electronic materials and their management from hazardous waste requirements upon certain conditions, including:

² Although not all of these items may exhibit a toxicity characteristic, they are included here for completeness and to give a better understanding of the scope of the Region III Pilot Project.

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1. The exclusion is only for end-of-life electronics that are physically dismantled (demanufactured) for recovery of useable elements. Chemical or thermal treatment is not included. Wastes that are disposed of must be properly classified and managed under existing requirements.
2. After physical dismantling, further extraction of the metals or other useable materials may be done if other exemptions apply. For example, magnetic recovery of ferrous metals for reuse would be exempt from any requirements as part of the physical dismantling.
3. The exclusion from hazardous waste requirements would apply to the generation, transportation, collection, accumulation, storage, and dismantling of electronic materials, subject to these conditions.
4. To minimize the possibility of under-funded, ill-conceived dismantling operations, it is required that the receiving/dismantling facilities have an environmental management system approved by the Regional Administrator or state Director.
5. A conditional exclusion from being regulated as solid waste or hazardous waste under federal regulations would be given to electronics that are being recycled as part of the project. Note that individual states may have specific requirements in their state solid waste laws and regulations, with which project participants will be expected to comply. The project would establish minimum management standards applicable throughout Region III that participants would have to meet in order to be eligible for the conditional exclusion. Persons who fail to adhere to the conditions of the exclusion would be subject to applicable state solid and hazardous waste regulations. Operators of dismantling facilities would agree, for example, to:
 1. Have a responsible individual supervising operations at all times
 2. Operate and maintain the facility so as to prevent threats to human health or the environment
 3. Conduct all physical dismantling activity inside an enclosed facility
 4. Provide adequate personnel and equipment to ensure proper operation of the facility
 5. Control litter, dust, noise and other nuisances in operating the facility
 6. Have measures in place to prevent and control fires
 7. Allow authorized agency representatives access to the facility to assess compliance with the conditions of the exclusion

(This list may be expanded or modified as the final project design is established.)

6. To be eligible for the conditional exclusion, the participant would have to be actively recycling collected materials. To reduce the possibility that under-financed or poorly run facilities will go out of business, leaving warehouses full of material for the states to dispose of, "speculative accumulation" would not be allowed. Persons would have to demonstrate that at least 75% of their inventory of electronics that was present on January 1 was recycled by the end of the year.

The project of Region III and the Region III states is being designed to provide the benefits discussed above in the section entitled "Expected Benefits" and to provide information for the design of a nationwide program. Information will be gathered on factors affecting participation rates, and benefits of the

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program will be measured. This information will be used in making recommendations on whether to expand the program nationally and whether revisions are needed to increase the program's effectiveness.

POLICY, LEGAL AND REGULATORY DETERMINATION

It will be necessary to address the following:

- (a) Conditional exclusion from the classification as a hazardous waste for end-of-life electronic waste that exhibits a toxicity characteristic, when that waste is physically dismantled for the recovery of useful elements. This includes not only the dismantling operation itself, but also the prior management of the materials. This would be done by amendment to 40 CFR 261.4(a) (and state analogue), by enforcement discretion, or by other appropriate mechanism. The Region III states seek authorization to pursue this course of action prior to a final regulatory amendment, if needed.
- (b) State solid waste management requirements may need to be examined, so that legitimate "take-back" programs by manufacturers, wholesalers, or retailers (at "recycling depots") are not impeded. The project is not intended to preclude the continued operation of existing collection programs.
- (c) Any final changes to regulatory language should be carefully considered in open discussions with all affected parties and in accordance with administrative process requirements.

CONFORMITY OF PROPOSAL TO JOINT EPA/STATE AGREEMENT

This proposal meets the seven principles announced in the Joint EPA/State Agreement to Pursue Regulatory Innovation (EPA/State Agreement), which was published in the Federal Register on May 5, 1998.

A. Experimentation: A conditional exclusion for electronics involves a change from the current methods of management. Recycling of electronics, whether currently subject to hazardous waste requirements or not, would be encouraged. Protection for environmental and public health will be maintained and improved as electronics are diverted from the waste stream for recovery and reuse. The Regional project will involve experimentation with operational variables (for example, type of collection point, type of publicity, use of financial incentives such as rebates or coupons, etc.) to determine the main influences on participation rates and to aid in designing a program that could be extended nationwide.

B. Environmental Performance: Recovery and reuse of materials is a more effective and efficient management method than treatment and disposal, and supports pollution prevention. There are clear environmental and ecosystem benefits. There will be no adverse impact on: environmental protection, public access to information, or public access to the decision-making process. The innovation is designed to fit the transportation infrastructure of the Region III states and take advantage of economies of scale. Methods of collecting electronics will vary depending on local conditions. Requiring receiving/dismantling facilities to have an acceptable environmental management system in place as a condition for participation will reduce the possibility of adverse environmental consequences being caused by poorly run or undercapitalized operations.

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- C. Smarter Approaches: This proposal is designed to remove a regulatory barrier that prevents a prudent, common sense solution to the problem of managing end-of-life electronics. The Region III States and the Region III EPA office are committed to quick implementation of the project. The regulatory agencies have sought the participation of the relevant stakeholders in designing the project and are using a collaborative process with stakeholders to work out the project details.
- D. Stakeholder Involvement: Stakeholders from original equipment manufacturers, recyclers, transporters and local governments were all present at the June 6th E-Cycle meeting in Philadelphia. They were briefed on this proposal. This process is completely transparent. The work from the initial stakeholder meeting will be carried forward through a series of conference calls on various aspects of the design and implementation of the pilot project.
- E. Measuring and Verifying Results: A team comprised of EPA, state, and stakeholder representatives has been established to collect data and measure the results of the Region III Project. The project is targeting 35% of the population of the Region III states.
- F. Accountability/Enforcement: The innovators will be accountable to the public both for alternative regulatory requirements and for meeting commitments that go beyond compliance with current requirements. Exclusions offered to participants are conditional – if the conditions of the exclusion are violated, regulators would retain authority to address such circumstances as imminent and substantial endangerment, actual harm, or criminal conduct. Mechanisms to implement and enforce the program may vary according to individual states' statutory or regulatory constraints, and could take the form of voluntary consent agreements, modifications of permits, etc. Nothing in this agreement authorizes any facility to be exempt from any state or local laws or regulations.
- G. State-EPA Partnership: This proposal has been the product of a full and extended partnership between the states and EPA Region III.

CONCLUSION

Even if fully implemented, this is not a complete solution to the problem of electronic waste. Unlike other material recovery programs, the value of recovered electronic components probably will not offset the cost of transporting the material and operating the dismantling facility. Also, unless otherwise prohibited by state statute or regulation or a policy of a solid waste facility, private citizens can still dispose of their electronics at such a facility. However, with a program encouraging the availability of electronics dismantlers for businesses and industry, more citizens can be expected to recycle their electronics. Manufacturers, wholesalers, and retailers may agree to take back electronics as part of their marketing and sales efforts. In addition, more governmental agencies may offer to collect household electronic devices for proper dismantling and reclamation. It is likely that some businesses would ship electronics directly to the dismantler. All of these recycling and resource recovery activities would be encouraged by a conditional exclusion from hazardous waste and solid waste requirements. These benefits will not come at the expense of environmental protection, since failure of a participant to live up to the terms of the conditional exclusion will allow recourse to all remedies available under existing state regulatory provisions.

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MEMORANDUM OF UNDERSTANDING

BETWEEN

THE DELAWARE DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL

AND

THE DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH

AND

THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

AND

THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AND

THE VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

AND

THE WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

AND

THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION III

CONCERNING

REGULATORY INNOVATION AND THE E-CYCLING PILOT PROJECT

October 18, 2001

Memorandum of Understanding Between Region 3 EPA and Region 3 States

I. Introduction

In April 1998, the United States Environmental Protection Agency (EPA) and senior environmental officials from a number of states that are members of the Environmental Council of States (ECOS) signed an *Agreement to Pursue Regulatory Innovation* (EPA-ECOS Agreement). Under the EPA-ECOS Agreement, the EPA and individual states agreed to experiment with new regulatory approaches to help identify and implement cleaner, cheaper, and smarter ways to ensure a clean environment and healthy ecosystems. The EPA and the states recognize that the states, as the implementing agencies for Federally-approved, authorized, or delegated environmental programs, have first-hand knowledge of environmental problems, facility issues, and community concerns affecting their respective citizens. Through the EPA-ECOS Agreement the EPA and the states are committed to working in an open and collaborative atmosphere to encourage, pursue, and test new ideas that can achieve environmental and ecosystem goals.

In October 2000, EPA and the State Environmental Agencies (the Delaware Department of Natural Resources and Environmental Control (DNREC), District of Columbia Health Department (DCHD), Maryland Department of the Environment (MDE), Pennsylvania Department of Environmental Protection (PADEP), Virginia Department of Environmental Quality (VADEQ), and West Virginia Department of Environmental Protection (WVDEP), hereafter State Agencies@, agreed to develop and implement, with the help of members of the electronics and related industries, one such new idea: the e-Cycling Pilot Project. The e-Cycling Pilot Project is a joint effort between EPA Region III and the State Agencies.

Through the e-Cycling Pilot Project, EPA Region III and the State Agencies expect to foster the development of a sustainable collection, reuse, and recycling system for end-of-life electronics in the Region III states, diverting such materials from landfills and other disposal sites to facilities at which useful materials may be recovered for reuse or recycling.

On July 12, 2001, the State Agencies submitted a proposal entitled, A Regulatory Exclusion for End-of-life Electronic Materials that Are Dismantled for Recovery of Useful Elements@ for consideration to EPA Region III; that proposal was accepted in principle on August 10, 2001. (Copies attached as Appendices A and B.) This Memorandum of Understanding (MOU) documents the expectations and commitments of EPA Region III and the State Agencies to further support the e-Cycling Pilot Project.

II. Background: the Environmental Problem Posed by End-of-life Electronics

The management of end-of-life electronics has become an issue of national importance. A large quantity of used electronic devices such as cathode ray tubes (CRTs), personal computers, televisions, and other personal electronics are routinely, and legally, disposed of in municipal solid waste landfills (MSWLFs) despite the fact that some may contain heavy metals, which may, upon testing, exhibit a hazardous characteristic under RCRA.³ For example, households are allowed to dispose of their wastes,

³ Resource Conservation and Recovery Act, codified in the Solid Waste Disposal Act as amended, 42 U.S.C. " 6901-6991(i) (2001). EPA and the State Agencies are not aware that CRTs are likely to contain certain substances which, when disposed,

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whether hazardous or not, as part of the municipal solid waste stream, as are commercial small volume generators in certain states.

While properly regulated MSWLFs are designed and operated with a number of measures to ensure that public health and the environment are protected (use of liners, leachate collection systems, long-term monitoring) the disposal of end-of-life electronics in MSWLFs does increase the potential stress on the waste management unit itself, as well as on the leachate treatment and disposal system. Additionally, such disposal keeps useful components from end-of-life electronics from being put back to useful purposes.

The e-Cycling Pilot Project offers an environmentally and economically beneficial way to encourage the recovery of useful materials from used electronic devices. Under existing environmental programs in some states, several facilities dismantle or "demanufacture" electronics, removing hazardous components, reusable elements, metals, and other recoverable materials. RCRA generally encourages recycling, reuse, and recovery, and discourages land disposal when environmentally protective alternatives exist. Moreover, EPA recognizes that such facilities are typically in a better position than the last user of the electronic devices to decide whether such material, including its individual components, is best suited for reuse or recovery, or for treatment or disposal elsewhere. However, the State Agencies believe that a larger number of facilities engaged in the beneficial reuse and recovery of useful materials from used electronics has been unduly discouraged by the concern that the commercial dismantling of electronics might be deemed to require a RCRA Treatment, Storage, Disposal Facility (TSDF⁴) permit, at substantial outlay of time and money.

EPA Region III and the State Agencies believe that the public health and welfare can be more than adequately protected at such facilities by implementation of measures apart from TSDF permitting, in consultation with EPA Region III and under state supervision. Working together pursuant to this MOU, EPA Region III and the State Agencies intend to further the goals of the e-Cycling Pilot Project in several ways. First, EPA Region III intends to promulgate a conditional exclusion to RCRA's definition of solid waste, applicable to end-of-life electronics within the Region III states, which (a) would conditionally exempt CRTs from RCRA's definition of solid waste when they are sent for recycling, and (b) will as part of its preamble clarify EPA's understanding of when end-of-life electronics become solid wastes under RCRA. Second, each State Agency intends to exercise existing authorities under its solid waste programs to further the goals of the e-Cycling Pilot Project by (a) ensuring that the conditions of EPA Region III's conditional exclusion are met at affected facilities, and (b) otherwise taking steps to ensure that the public health and the environment is protected at these facilities.

For purposes of the e-Cycling Pilot Project, end-of-life electronics include: CRTs, personal computers and related components/peripherals, televisions, radios, tape recorders/players, cellular telephones, and compact disks/digital video disk recorders/players.

are likely to fail RCRA's TCLP test. Neither EPA nor the State Agencies are aware of information suggesting that other computer components (other than CRTs) or other electronic products would generally be hazardous wastes.

⁴ Facilities that engage in the treatment, storage, or disposal of hazardous wastes typically require a permit under 40 C.F.R. Parts 264 and 265.

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III. Principles for Agency Regulatory Innovations Under the e-Cycling Pilot Project

EPA Region III and the State Agencies agree to the seven principles set forth in the EPA-ECOS Agreement. In summary, the principles described below, which are set forth in the EPA-ECOS Agreement, form the basis of the e-Cycling Pilot Project principles.

1. Experimentation: The EPA-ECOS Agreement recognizes that innovations that involve new ideas, experimentation, and changes, may carry some risk of failure. However, experiments that may help us better achieve environmental goals are worth pursuing when the objectives are clearly defined, costs are reasonable, and environmental and public health protections are maintained and even improved.

e-Cycling Pilot Experimentation: The e-Cycling Pilot Project involves a change from the current methods of management of end-of-life electronics, to a more uniform process within the EPA Region III states. Recycling of electronics is encouraged and protection of the environment and public health will be maintained and improved as end-of-life electronics are diverted from MSWLFs and other disposal facilities for recovery and reuse. The e-Cycling Pilot Project involves experimentation with the following: (1) use of a multi-state collection, transportation, and recycling approach; (2) collaboration between government and industry; and (3) development of a regional infrastructure (that could be adopted more broadly in other states/Regions).

2. Environmental Performance: EPA-ECOS Agreement innovations seek more efficient and effective ways to achieve environmental and programmatic goals, move toward a cleaner, healthier environment, and promote sustainable ecosystems.

e-Cycling Pilot Environmental Performance: Under the e-Cycling Pilot Project, the recovery and reuse of materials is expected to provide a more environmentally protective, effective and efficient management method for end-of-life electronics than land disposal typically provides, thus supporting pollution prevention goals. Protection of the environment, public access to information, and public access to the decision-making process will be assured via the protective measures being adopted under the e-Cycling Pilot Project. As detailed below, collection, storage, dismantling, and recycling facilities will be required to operate to reduce the potential risks to the environment from poorly-run or undercapitalized operations. The innovation is designed to fit the extensive transportation infrastructure of the Mid-Atlantic States and to take advantage of economies of scale as State Agencies develop methods of collecting electronics appropriate to their local conditions.

3. Smarter Approaches: The EPA-ECOS Agreement encourages regulators to seek creative ways to remedy environmental problems and improve the environmental protection system.

e-Cycling Pilot Smarter Approaches: The e-Cycling Pilot Project is designed to encourage a simplified, prudent, common-sense solution to the problem of managing end-of-life electronics. As RCRA itself recognizes, it is better to recover and reuse materials than to dispose of them, as long as adequate protections for public health and the environment are in place.

4. Stakeholder Involvement: The EPA-ECOS Agreement recognizes that effective stakeholder involvement enhances the effectiveness of environmental improvement efforts. Stakeholders must have an opportunity for meaningful involvement in the design, implementation and evaluation of innovation projects.

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Stakeholders may include other government agencies, the regulated community, citizen organizations, environmental groups, and individual members of the public. Stakeholder involvement should be appropriate to the type and complexity of the innovation proposal.

e-Cycling Pilot Stakeholder Involvement: The EPA and the State Agencies are working with stakeholders from original equipment manufacturers, electronics recyclers, waste transport and management companies, electronics retailers, non-governmental organizations, and local governments to develop and implement the Pilot Project. These stakeholders met on June 6, 2001 and on August 29, 2001 in Philadelphia, Pennsylvania to develop the Project implementation strategy. These groups will continue to work together toward Project completion. Prior to the Pilot Project kick-off, the State Agencies will announce the Project to the public through publicity of local collection events, an e-Cycling website, TV and radio public service announcements, newspaper articles, and mailings. The EPA has conducted extensive outreach nationally on some of the issues raised by this Project as part of its proposed amendments to certain RCRA regulations concerning used CRTs and processed CRT glass sent for reuse and recycling, as part of the Common Sense Initiative conducted between 1994 and 1998. In addition, the EPA Region III will publish a Pilot Project specific regulation in the Federal Register that will solicit and consider comments from all members of the public.

5. Measuring and Verifying Results: The EPA-ECOS Agreement recognizes that innovation efforts are likely to be more effective when based on measurable goals and objectives. Effective measurement and monitoring allows regulators and stakeholders to monitor progress, analyze results, and respond appropriately.

e-Cycling Pilot Measuring and Verifying Results: An e-Cycling Data Collection and Analysis group composed of EPA, state, and stakeholder representatives has been established to collect data and measure the results of the Project. After one year, and periodically thereafter as agreed by the parties, the EPA and State Agencies will evaluate the results of this Pilot Project to determine its effectiveness (see discussion of Project Evaluation, below). In the event that it is determined pursuant to this evaluation that the pilot project and the regional rule should be terminated, the regulators will take all necessary steps to facilitate the participants' transition to governance by the terms of the controlling national or state regulations in a timely manner.

6. Accountability/Enforcement: The EPA-ECOS Agreement recognizes that innovators must be accountable to the public. For innovations that can be implemented within the current regulatory framework, current systems of accountability and mechanisms of enforcement remain in place. For innovations that involve some degree of regulatory flexibility, innovators must be accountable to the public, both for alternative regulatory requirements that replace existing regulations and for meeting commitments that go beyond compliance with current requirements. Regulators will reserve full authority to enforce alternative regulatory requirements to ensure that public health and environmental protections are maintained, and must be willing to explore new approaches to establish accountability for beyond compliance commitments.

e-Cycling Pilot Accountability: EPA and the State Agencies will remain accountable to the public during the implementation of the E-Cycle pilot project by both engaging public stakeholders during the design of the Pilot Project and by following their existing procedures to inform and seek public comment on their actions. The conditional exclusion, which EPA Region III intends to propose in a Region III specific rule (described further below), will be promulgated in accordance with all

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applicable public notice and comment requirements. The State Agencies will implement the conditional exclusion in accordance with the requirements of their respective state laws and their authorized RCRA programs. The facilities participating in the Pilot Project will remain accountable to the public, and will be subject to all applicable requirements (including enforcement actions where appropriate) if they fail to meet the conditions established in EPA Region III=s specific rule or the states' legal implementation mechanisms.

7. EPA-State Partnership: The Agencies will support innovations at all levels to increase the efficiency and effectiveness of environmental programs. This is best accomplished by working together in the design, implementation, and evaluation of innovative ideas and programs.

e-Cycling Pilot EPA-State Partnership: The design of the e-Cycling Pilot Project has been the product of a full and extended partnership between the states and EPA Region III. This partnership will continue throughout the implementation and evaluation phases of the Pilot Project.

IV. The EPA Region III and Mid-Atlantic States e-Cycling Pilot Project

This MOU describes how the EPA and the State Agencies are working together to develop and implement innovations under the e-Cycling Pilot Project. The goal and objectives of the e-Cycling Pilot Project are the following:

Goal: Encourage the reuse and recycling of end-of-life electronic goods.

Objectives/Benefits:

Reduce hazardous constituents in the environment by reducing the volume of toxic metals in landfills.

Encourage beneficial reuse of electronics (de-manufacturing).

Create energy savings through the use of recycled material substituted for virgin materials in the manufacture of new goods.

EPA Region III and the State Agencies recognize that this Project will not provide a complete solution to the problem of electronic waste; but believe it will facilitate the development of a materials recovery program. The Project developers recognize that, unlike many other recycled materials, the value of recovered electronic components may not offset the cost to transport the materials and to operate the dismantling facilities, and that households and small quantity commercial generators in certain states remain free to dispose of their end-of-life electronics at solid waste transfer/disposal facilities. Nonetheless, EPA Region III and the State Agencies do expect that the e-Cycling Project will encourage the recovery of useful elements from end-of-life electronics, and will encourage the development of commercial facilities to accomplish this goal.

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Description of Project Activities

EPA - EPA Region III may provide contract funding to support the Project (in accordance with applicable procurement, ethics, and other regulations) and will help facilitate work and discussions among the various stakeholders. EPA will review and comment on criteria developed by each state to assess the ability of proposed dismantling facilities to operate so as to assure that the public health and welfare are adequately protected.

In order to legally implement the conditional exclusion requested by the State Agencies (described in Section I), EPA Region III intends to publish in the Federal Register a direct final rule (based on the current draft of a nationally applicable Federal rule presently under consideration) that would conditionally exclude certain types of CRTs from the Federal definition of solid waste in each of the Region III states. Additionally, EPA anticipates that the preamble to the Regional rule will state that, under current rules, EPA recognizes that electronic devices, including but not limited to CRTs, frequently are taken out of service before their useful life is over and that the person taking such a device out of service typically lacks the expert knowledge needed to determine whether the device can remain in use. Consequently, EPA does not view the person taking the device out of service as a waste generator (unless that person decides to dispose of the device). Devices (including their components), which go on to further use either directly, or after minor repair, are not solid wastes. Finally, EPA Region III anticipates that the Regional Rule will reflect that EPA is not aware of information suggesting that any end-of-life electronics that is solid waste (other than CRTs) generally comprise RCRA hazardous waste.

With respect to CRTs that are being recycled in a way that would normally make them RCRA solid wastes, EPA Region III anticipates that the Regional rule will provide that such CRTs will be conditionally excluded from RCRA's definition of solid waste when they are sent for recycling.

The direct final rule that EPA intends to promulgate will take effect 60 days after publication, giving the public 60 days to submit any comments. If the public submits any significant comments, the Region would withdraw the final rule and continue with the proposal. Region III would need to revise the rule as needed to respond to comment.

State Agencies - Each State Agency participating will be responsible for implementing the Pilot Project in its respective state. State Agencies will work directly with counties and municipalities to solicit their participation in the Project, assist them in establishing collection programs for the electronic materials, where needed, and publicize the date and location of established collection events. State Agencies are planning kick-off events to maximize public participation in the Project.

The State Agencies will use their solid waste authorities to manage the collection, accumulation, storage, transport, de-manufacture, and processing of end-of-life electronics dismantled for recovery of useful elements. The State Agencies expect that any regulatory changes adopted will include substantially all of the conditions set forth in their July 12, 2001 proposal. (See Appendix A.)

Some State Agencies may require financial assurance from some types of businesses to protect against the potential abandonment of end-of-life electronics. Additionally, each State Agency will

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develop criteria to assess the ability of proposed dismantling facilities to operate so as to assure that the public health and welfare are adequately protected. These criteria may incorporate elements of an environmental management system. EPA Region III will be afforded an opportunity to comment on the criteria.

Other Federal and State Agencies EPA Region III and the State Agencies will work to encourage other governmental agencies to offer to collect household end-of-life electronics for proper dismantling and reclamation.

Retailers - Retailers will be encouraged to take back electronics as part of their marketing and sales efforts. Participating retailers are expected to experiment with different collection scenarios to collect data on which collection methods generate the greatest participation. Retailers will contract directly with recyclers to handle the material collected.

Original Equipment Manufacturers - Manufacturers and wholesalers retailers will be encouraged to take back electronics as part of their marketing and sales efforts. Some manufacturers of electronics involved in the Project have agreed to pay for the recycling of their own brand of products for the purpose of this Project. Appropriate stakeholders in the e-Cycling Pilot Project will contact other manufacturers to solicit their involvement in the Project. In addition, the Electronics Industries Alliance (EIA), which represents hundreds of electronics manufacturers, is also expected to support the Project through grant funding.

Collection Centers, Recyclers, De-manufacturers, and Transporters - Collection centers, recyclers, de-manufacturers, and transporters will be expected by all State Agencies and the EPA to operate in a manner that is protective of human health and the environment. Some State Agencies may require financial assurance from some types of businesses to protect against the potential abandonment of end-of-life electronics. State Agencies may request some degree of an environmental management system from a facility to demonstrate its ability to properly manage these materials. Nothing in this agreement authorizes any facility to be exempt from any state or local law or regulations.

Evaluation of Lessons Learned and Replication of Successful Innovations - The EPA and State Agencies agree that evaluating the progress of the e-Cycling Project is an integral step in making systemic improvements to environmental protection programs. EPA and the State Agencies will work with all stakeholders to develop protocols to measure the success of the e-Cycling Pilot Project. The e-Cycling Data Collection and Analysis group will measure Project success based on existing baseline data regarding waste disposal practices, using criteria in the following categories: citizen participation, material characteristics, collection and transportation costs, recycling volumes, secondary material recovery, economies of scale, and profitability (as a measure of sustainability). The data group will prepare and make available a catalog of Project data elements. Also, the Pilot Project stakeholders will evaluate and publicize Project status during implementation and following Pilot Project completion.

Memorandum of Understanding Between Region 3 EPA and Region 3 States

V. Duration

This MOU will remain in effect for the duration of the e-Cycling Pilot Project, or until modified or terminated by one or more of the signatories. This MOU is not intended to supercede any other agreement between the EPA and the State Agencies.

VI. Relationship with Other Laws and Agreements

This MOU (including its substantive and the procedural provisions) does not create legal rights or obligations, and it is not an enforceable contract or a regulatory action such as a permit or a rule. Nothing in this agreement exempts any facility from any state or local laws or regulations. This MOU will be implemented in a manner consistent with EPA Region III's and the State Agencies' responsibilities under existing state programs as approved or authorized by EPA.

This MOU does not establish privity between EPA Region III and DNREC, DCHD, MDE, PADEP, VADEQ, and WVDEP.

No waiver of sovereign immunity is implied or assumed by this MOU.

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