



August 16, 2005

The Honorable John Thune
Chairman, Superfund and Waste Management Subcommittee
Environment and Public Works Committee
United States Senate
Washington DC 20510

Dear Senator Thune:

The National Solid Wastes Management Association (NSWMA) and the Solid Waste Association of North America (SWANA) represent companies and professionals in the solid waste and recycling industries. NSWMA is a not-for-profit association representing private sector solid waste collection, disposal, and recycling companies. SWANA is a professional education association in the solid waste management field with members from both the public and private sectors.

Our members are intensely involved in all aspects of managing solid wastes, including discarded electronic products. They collect and recycle electronic products and operate disposal facilities for electronic products that cannot be recycled. We strongly support the recycling of electronic products as the first priority waste management option for these materials. We believe that resource conservation is an unassailable reason for recycling electronic products. Moreover, waste reduction and product stewardship play a critical role in an integrated waste management system. NSWMA and SWANA stand ready to assist you in your efforts to reduce the amount of electronic waste going into our nation's landfills. However, we also believe that federal and state solid waste policy must be based on facts and that recycling programs are most likely to succeed when they are designed and implemented for the right reasons.

A number of inaccurate allegations were made at the July 26 electronic waste hearing concerning the safe disposal of electronic products in Subtitle D (municipal solid waste "MSW") landfills. MSW landfills and other facilities are regulated not only by the federal Resource Conservation and Recovery Act (RCRA), but also by numerous state laws and regulations ensuring that the public health and safety is protected. We assure you that electronic products can be safely managed in these facilities.

SWANA Research on MSW Landfills and Heavy Metals

In response to the banning of certain materials from disposal and the concern of the effects of heavy metals in landfills, SWANA's Applied Research Foundation conducted a project to establish reliable scientific and technical information on this subject. In the final report, "The Effectiveness of Municipal Solid Waste Landfills in Controlling the Releases of Heavy Metals to the Environment" (March 2004), the Foundation found that the natural processes occurring within a MSW landfill, such as precipitation

and absorption, effectively inhibit heavy metals from dissolving into the leachate or being released from the landfill in the form of landfill gas. Landfill liner systems substantially prevent leaking of leachate from the landfill to the land upon which the landfill is constructed. Due to the effectiveness of landfill liner systems that have been constructed with good quality assurance programs, it appears that 99 percent or more of the leachate generated in MSW landfills is collected and treated by recirculation or other on-site or off-site wastewater treatment systems. SWANA is more than happy to submit the full report to the Subcommittee at your request.

Further Research on TCLP and MSW Landfills

Much was said at the hearing about the relationship between the Toxicity Characteristics Leaching Procedure (TCLP) and electronic waste. TCLP is the EPA-mandated test to determine if a substance should be regulated as a toxic (hazardous) waste under the requirements of RCRA. This test determines if, in fact, a hazardous material such as lead leaches out of a product. As noted at the hearing, tests conducted by Dr. Timothy Townsend, University of Florida, for the Florida Center for Solid and Hazardous Waste Management, show that a majority of the cathode ray tubes (CRTs) tested for lead exceeded the regulatory level for characterization as a hazardous waste (Report #99-5, Characterization of Lead Leachability from Cathode Ray Tubes Using the Toxicity Characteristic Leaching Procedure).

However, as Dr. Townsend and others have noted, the TCLP is a conservative test designed to determine the worst-case scenario. To conduct the TCLP test, a diamond-tipped tool grinds up the test material into tiny bits. In the Florida test, the largest bit was less than half an inch. The pieces are then placed in an acid solution and tumbled for 18 hours. Then, the pieces are tested for toxic constituents such as lead.

These test conditions, regardless of how effective they are for determining if ground-up acid-bathed materials can leach lead, do not approximate the conditions in a Subtitle D landfill. Solid waste disposed in Subtitle D landfills is not generally ground or shredded. While a CRT can be crushed when it is collected and placed in a landfill, few if any pieces will be smaller than half an inch in size.

Significantly, EPA's Science Advisory Board has raised questions about the use of the TCLP (see EPA-SAB-EEC-COM-99-002, February 26, 1999, "Waste Leachability: The Need for Review of Current Agency Procedures), arguing that the TCLP is applied too broadly and when used to characterize toxicity can be improved by accounting for additional parameters.

EPA Testimony on E-waste in Landfills

Barry Breen, Deputy Assistant Administrator of the U.S. EPA's Office of Solid Waste and Emergency Response, testified at the July 20, 2005 hearing of the U.S. House Subcommittee on the Environment and Hazardous Materials, that the pH in a mature landfill is usually close to neutral (usually around 6.8, neutral is 7.0). In other words, the landfill is a neutral environment and not acidic. As such, CRTs in a Subtitle D landfill will not be bathing in an acid solution.

Mr. Breen further testified, in regard to MSW landfills that accept CRTs for disposal, that "EPA has found pH levels and leachate collection systems have kept contaminants from harming the environment." "If a landfill leachate collection system were to fail," he said, "the level of contaminants would rise to twice the level of national safe drinking water standards; however, these contaminants would be rendered harmless by being diluted" (July 21 BNA *Daily Report for Executives*, page A-35).

We would add that Dr. Townsend noted at the RCRA National Conference in the summer of 2003 that there is no compelling evidence of the impact of e-waste on landfill leachate. Dr. Townsend and his research team are now conducting an "Assessment of True Impacts of E-Waste Disposal in Florida." The

first annual report was issued in December 2003 (Florida Center for Solid and Hazardous Waste Management, Report #04-0232008). This report explains why and how the study is being conducted and gives preliminary results. These results include a finding that “concentrations of heavy metals in landfills were relatively low.” Further work is being conducted and the final report will be released in January 2006.

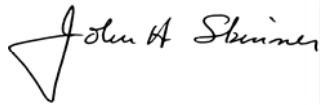
Conclusion

Based on our understanding of the results of numerous studies, as shown by the SWANA report, and our understanding of the nature of the TCLP test and the normal operations at a Subtitle D landfill, we believe the allegations made at the hearing that toxic leachate generated from CRTs and other electronic products is going into groundwater are without factual basis.

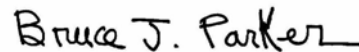
We respect the dangers that lead can cause to human health. As owners and operators of Subtitle D landfills, our members are dedicated to protecting the public health and the environment. In order to operate our facilities as safely, efficiently, and economically as possible, we need to know the real impact of electronic products in a landfill so that we can take the necessary steps to ensure that the public health and safety are protected while not wasting public funds on unnecessary procedures, unnecessarily alarming the general public, or fueling the “not in my backyard” (“NIMBY”) approach to opposing new or expanded waste management and recycling facilities that are fully compliant with federal, state, and local laws.

If you have any questions about electronic product recycling or disposal, please contact us. Bruce Parker or Chaz Miller of NSWMA can be reached at 202-244-4700 and John Skinner or Mac Bybee of SWANA can be reached at 301-585-2898.

Sincerely,



John Skinner, Ph.D
Executive Director and CEO
SWANA



Bruce J. Parker
President and CEO
NSWMA