



MRC Holds 12th Annual Conference

The 12th Annual Conference of the Maryland Recyclers Coalition was held in June at Chesapeake College. It included training sessions and an exposition sponsored, in part, by the Authority. The theme of this year's conference was Make Recycling Your Business. Participants took part in recycling sessions that covered the major sectors of recycling—federal, state and local, and private. Each year, the conference offers recycling professionals and manufacturers an opportunity to meet and exchange information. Vendors participated by displaying and discussing their products and services.

LEGISLATURE APPROVES VOLUNTARY WASTE DIVERSION GOAL

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resolution was recommended and supported by both the Maryland Recycling Advisory Group (1997) and the Governor's Solid Waste Management Task Force (1998). Senate Joint Resolution 6 (SJ6) also establishes a voluntary statewide waste diversion goal of 40 percent by the year 2005.

Richard W. Collins, director of MDE's Waste Management Division, noted that "having a system in hand for awarding the source reduction credit added to the credibility of the diversion goal."

A copy of SJ6 is available through the Internet at www.mlis.state.md.us.

SWANA Conference Meets to Review Virginia's Legislative Session

In May, Authority Executive Director Robin Davidov spoke at a conference sponsored by the Old Dominion chapter of SWANA to review recent and future solid waste legislation in Virginia.

More than 36 waste related bills were introduced during the 1998-1999 Virginia legislative session in an attempt to thwart the federal law and regulate interstate commerce of waste. Major legislative bills capped the amount of trash that landfills can take, banned garbage barges from Virginia's major rivers and required the state to regulate trash-hauling trucks. Before the ink was dry, large waste companies challenged the legislation. The challenges are not yet resolved.

This year, nine solid waste bills were introduced and only five passed. Two of the bills require additional financial assurance. Two other bills require applications for existing landfill expansion to include more information.

During the controversy over imported waste last year, it came to light that many of Virginia's small, publicly owned landfills did not meet the environmental standards that large, mostly privately owned landfills meet. In response, the Legislature passed HB 1228, which requires all landfills to meet current standards by 2020. It allows the least proficient landfills in the state to remain open an additional 20 years without having to meet current standards. Local governments in Virginia opposed any regulations that would raise costs for landfill construction and operation.

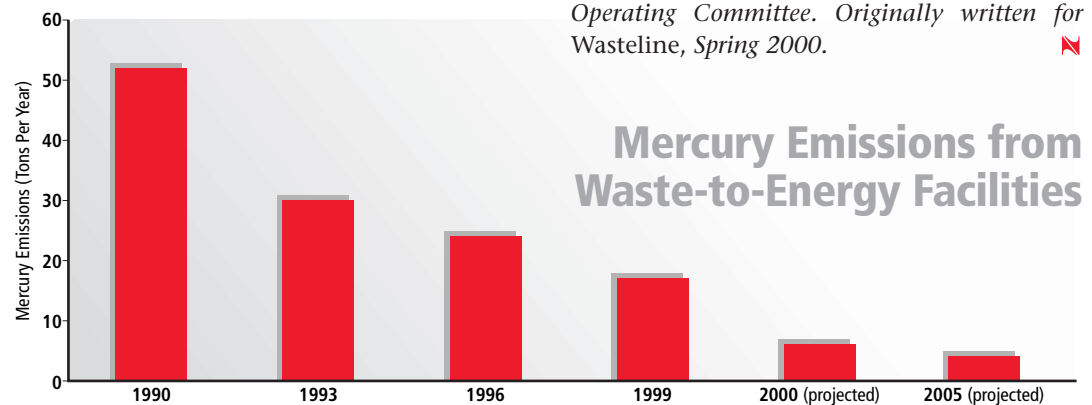
Ms. Davidov informed the group that the Authority requires all landfills that it contracts with to meet current Subtitle D liner and leachate standards. "We have the same high standards for out-of-state waste disposal as we do for our own landfills," said Davidov.

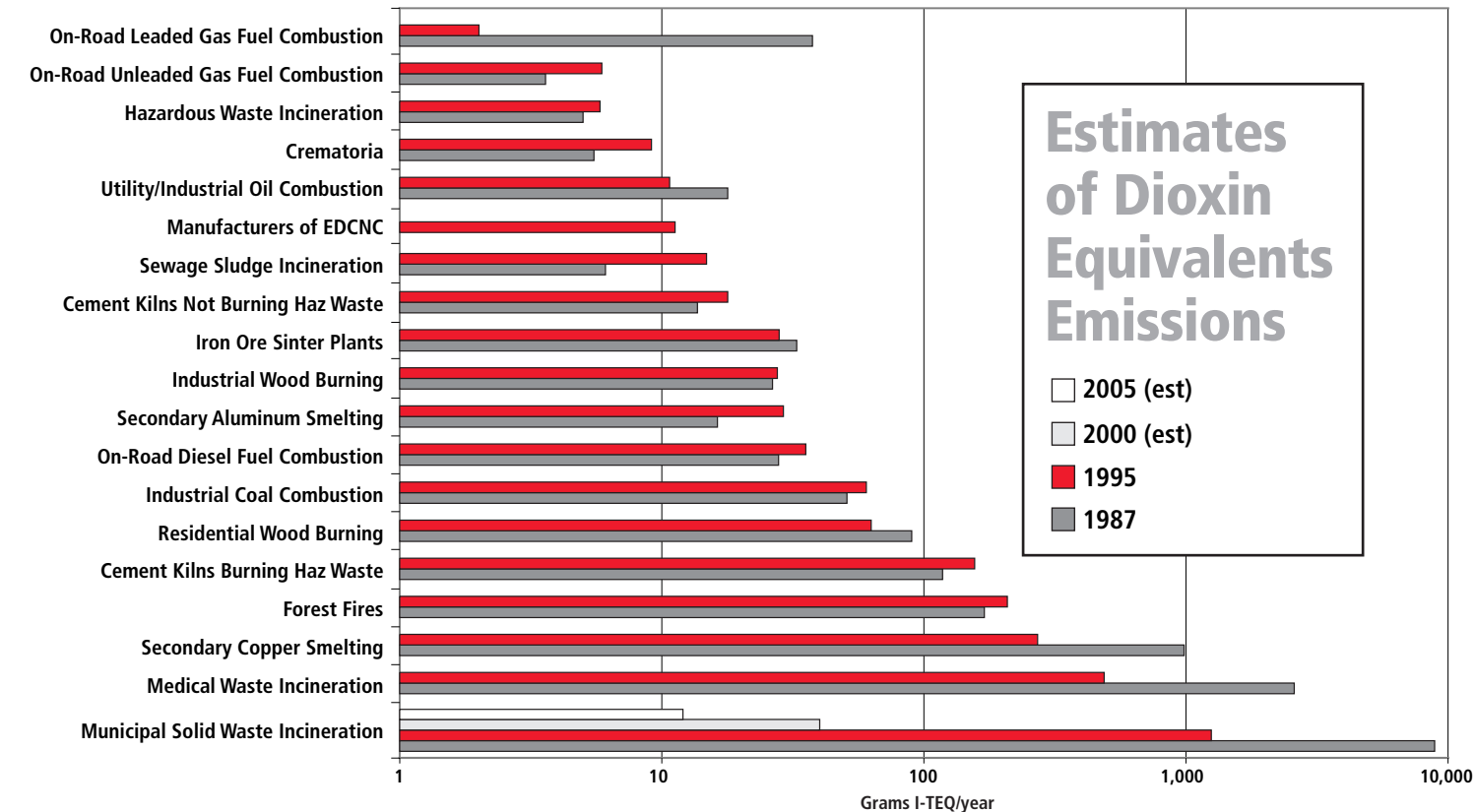
Waste-To-Energy Emissions On The Decline

A memorandum prepared for the Environmental Protection Agency (EPA) by Eastern Research Group (ERG) indicates that emissions from municipal waste combustion plants have been dramatically reduced since 1990. The memorandum also indicates that further reductions will occur in the coming years, as additional air pollution control devices are retrofitted at these waste-to-energy plants. The ERG report, which was issued in the fall, includes emissions data for dioxin, mercury (Hg), lead (Pb), cadmium (Cd), hydrochloric acid (HCl), particulate matter (PM), sulfur dioxide (SO₂) and nitrogen oxides (NOx).

The ERG memorandum notes that while the total number of municipal waste combustion facilities has dropped over the last ten years (from 126 to 106), daily combustion capacity has increased nearly 10 percent. The big news is that despite this overall increase in waste combustion, emissions have significantly dropped for each of the eight pollutants monitored in the study, with dioxin emissions leading the way with a 99 percent reduction, followed by an 88 percent reduction in mercury (see accompanying chart).

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The Facts about Dioxin and Waste-to-Energy

by Chris Skaggs

The Environmental Protection Agency (EPA) recently issued a draft report for public comment titled "The Dioxin Assessment." In the report, EPA presents an inventory of source dioxin and dioxins like PCB's. However, the report results are based on data that is five years old and reflects poorly on the waste-to-energy (WTE) industry.

By the end of 2000, all large WTE facilities will have to meet strict air pollution requirements. Many facilities, including BRESCO, are upgrading their pollution control equipment in order to accomplish the emission reductions set by the EPA and the Maryland Department of the Environment (MDE). As a result of the upgrades to BRESCO and other large WTE facilities, the amount of dioxin emitted by WTE facilities has dramatically decreased during the past five years.

The Montgomery County Resource Recovery Facility was built with advanced air pollution control equipment already in place and has met stricter emission compliance guidelines since it started operating in 1995.

An EPA fact sheet from October 1995 states that the WTE industry will reduce dioxin emissions by at least 99 percent and that the industry will represent less than one percent of the known sources of dioxin after 2000. As

such, the ranking of the WTE facilities in the list of major sources of dioxin emissions contained within the EPA's draft report changes dramatically. The EPA chart, above, was modified recently by the Authority to show 2000 and 2005 estimate levels of dioxin.

It shows that WTE facilities will be producing less dioxin than coal power plants, residential wood burning, and the combined on-road burning of diesel fuel and unleaded gasoline by the end of this year. By 2005, smaller WTE facilities will meet stricter emission guidelines for dioxin as well, further reducing the amount of dioxin emitted by the WTE industry.

Additionally, the report asserts that the level of human exposure to dioxin is decreasing. The report states that the average amount of dioxin found in the tissue level of the U.S. adult population appears to be declining, and the amount of dioxin released into the environment has been decreasing since 1970.

The WTE industry has been a good environmental citizen, working hard to decrease and nearly eliminate the emission of dioxin. ✘

Chris Skaggs is Project Manager for the Authority

Utility Restructuring:

Green Power, Clean Power, Renewable Energy

by Chris Skaggs

Editor's Note: As we go to press, consumer choice in the BGE service area was blocked by a court order.

DO YOU REMEMBER when long distance telephone service was deregulated? Now the same thing is happening to the electricity industry. On July 1, customers of local utilities became consumers with an array of choices.

So what is electricity restructuring and why do we need it? Utility restructuring in Maryland will break-up the utility monopolies that exist today, allowing for competition and lower prices to consumers. Prior to open competition, utility companies generated electricity at their own plants and transmitted electricity over their own wires. They were paid a rate approved by the Public Service Commission (PSC) to cover their costs and to allow for a fixed profit margin. Restructuring will allow many electricity producers, from inside and outside of the region, to compete for business and residential customers in Maryland. The regulated utility companies will continue to operate and maintain the power lines.

As the marketplace begins to expand, electricity producers—such as waste-to-energy facilities—are looking at ways to distinguish their products. One of these ways is to provide electricity that is more environmentally friendly. Studies show that consumers who have an interest in the environment will shop for cleaner, greener power. Many federal, state and local agencies require a mix of renewable fuels in their purchase contracts. Certain ways of generating electricity produce less air pollution, use non-fossil fuels or conserve waterways. There have been many names given to describe these types of generation including “Clean Power,” “Green Power” and “Renewable Energy.” However, the definitions for these terms vary from state to state.

Maryland's law requires electricity providers to disclose the amount of pollutants emitted on a pound per megawatt-hour basis. This disclosure, found on the generator's website, helps the consumer compare different generation technologies. For example, waste-to-energy facilities produce less sulfur dioxide, which causes acid rain; fewer nitrogen oxides, which are a precursor to ground level smog, and less particulate matter and dioxins per megawatt-hour basis than coal fired plants. Specific data can be found on the Authority's website (www.nmwda.org).

If you have any questions regarding waste-to-energy's role in the new electricity market, please contact Chris Skaggs at the Authority.

Chris Skaggs is Project Manager for the Authority

*The State of Maryland has defined Renewable Energy as one or more of the following sources of energy, energy technology, or related credit:**

- ▶ Solar
- ▶ Wind
- ▶ Tidal
- ▶ Geothermal
- ▶ Biomass, including waste-to-energy and landfill gas recovery
- ▶ Hydroelectric facilities
- ▶ Digester Gas
- ▶ A manufacturing or commercial waste-to-energy system or facility.

* Public Utility Companies article of the Annotated Code of Maryland Section 1-101(Z).



▲ A continuous emissions monitoring system will measure O₂ and SO₂ at the inlet of the Spray Dryer Absorber and CO, O₂, SO₂ and NO_x at the outlet of the electrostatic precipitator. This shelter will house the gas analyzers along with the data acquisition system.



▲ A newly formed trench drain behind the lime preparation building will support the collection of stormwater.



▲ Spray Dryer Absorbers #2 and #3 assembled and insulated.

BRESCO RETROFIT

update:

The BRESCO Retrofit project is well on its way to completion. Forty-two of 70 milestones have been met. Wheelabrator Air Pollution Control and Burns & Roe, the project engineers, continue to resolve field questions and have begun preparing the Operations and Maintenance Manual for the upgraded plant.


All of the major equipment has been purchased and received. United Coatings, Inc. was awarded the subcontract to finish painting and all other major subcontracts have been awarded with the exception of landscaping and stack testing. Air compliance testing, to determine whether the retrofitted facility meets its permit and regulatory requirements, will take place in the fall.

The lime preparation building was a top priority. The masonry walls, roof and doors are now completely installed and piping work is nearly completed. The existing paving, curbing and concrete slab were demolished in this area to make way for the new construction. Storm water management at the lime preparation building included installing a trench drain, setting the drain sump manhole and setting the storm water inlet. A four-inch force main was installed from the lime preparation sump to the boiler building. Power for the lime preparation building will be supplied by a 4160 switchgear. The installation and testing of the electrical equipment was performed and conduit installation was completed.

The boiler building and the roof installation at the spray dryer absorber's (SDA's) was completed and the siding is nearly finished. In addition, two roof ventilators were installed and wired up. The SDA's are fully erected and insulated. All of the welding is done except for where the tie-ins will connect to existing equipment. SDA #1 was tied in to the

existing equipment ahead of schedule. In the SDA penthouses, the instrument wiring was completed and lighting was installed. Piping in the penthouse of SDA #1 is complete and SDAs' #2 and #3, the piping is more than 90 percent complete. During the outage for unit #3, the remaining rappers in the electrostatic precipitator (ESP) needed to be replaced and the downstream expansion joints were replaced. The inside of the ESP's were inspected and proved to be in good shape. Also, the ESP #3 hopper screw conveyor was installed. These conveyors have a higher capacity than the older conveyors.

The last of three wet vent scrubbers was installed. Located at the ash loadout building, the wet vent scrubber will minimize fugitive dust emissions. A platform was built for its installation. The fly ash conveyor, which will transport ash from the SDA hopper and ash discharge point to the drag conveyor, was installed for unit #3.

Personnel training is already underway, with BRESCO's plant personnel visiting similar facilities. The project remains on track for a mechanical completion date of September 2000 and a compliance deadline of December 19, 2000. To learn more, visit the project web site at www.brescougrade.com. 




▲ The new Allen Bradley 4160 switchgear in the lime preparation building will service the power requirements of the new air pollution control equipment.

Banner Year for BCCF Compost Sales

The Baltimore City Compost Facility held its Annual Meeting at the Authority in April.

Preston Cloke, BCCF project manager, reported that fiscal year 1999 sales revenues rose 14 percent. He attributed the increase in sales to expanded marketing and distribution. Mr. Cloke also said the facility has maintained its high standards of quality in the production of compost. Nearly 80 percent of the compost, marketed as ORGRO, is sold locally.

The facility, in its twelfth year of operation, has been operated and managed by Professional Service Group, Inc. (PSG) since 1996. PSG has worked to provide consistent compost production and reliable sewage sludge recycling service. 

Montgomery County RRF Named Waste-to-Energy Facility of the Year


The American Society of Mechanical Engineers (ASME) selected the Montgomery County Resource Recovery Facility for its Waste-to-Energy Facility of the Year award. It was presented at the North American Waste-to-Energy Conference on May 22 in Nashville, Tennessee. The award is given each year to a waste-to-energy facility that demonstrates outstanding operational performance. Roy Simpson (left), plant manager for Ogden Martin and Albert Genetti (right), director of the Department of Public Works and Transportation for Montgomery County were on hand to accept the award. The Montgomery County RRF was a co-winner with a facility in Montgomery County, Pennsylvania.



MDE FORMALIZES PHASE THREE OF NOx REDUCTION PLAN *(continued from page 1)*

NOx SIP Call to reduce ozone transport in the Eastern United States. It requires 22 states, including Maryland, to submit regulations and a revision to State Implementation Plans (SIPs) that would further reduce NOx emissions by 2007. Maryland's Phase III regulations will satisfy all of the federal requirements as mandated by the EPA. It also will enable trading in the Ozone Transport Region (OTR) and in the 22 state region, while reducing emissions by an additional 23 percent. Unlike plants powered by fossil fuel, waste-to-energy

plants will meet a compliance deadline of December 2000.

This action will further Maryland's progress in achieving the health related one-hour ozone standard as expeditiously as possible and will reduce the downwind impact within Maryland and other states. The NOx emission reductions to be achieved are included in Maryland's Attainment Plans for Baltimore, Washington D.C. and Cecil County non-attainment areas submitted to the EPA on October 9, 1998. 



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WTE Emissions have Dropped

A recent EPA report indicates that WTE emissions have declined and will continue to do so.

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Green, Clean Power

Authority Project Manager Chris Skaggs explains how WTE facilities will seek the competitive edge in power sales by offering environmentally friendly energy. Page **4**

BRESCO Retrofit Update

The BRESCO Retrofit project is more than half-way complete. For the latest construction update see Page **5**

Montgomery RRF Wins Again

ASME has selected the Montgomery County RRF as Waste-to-Energy Facility of the Year.

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MDE Formalizes Phase Three of NOx Reduction Plan

In order to reduce major nitrogen oxide (NOx) source emissions by May 1, 2003 and meet federal Clean Air Act requirements, the Maryland Department of the Environment (MDE) has formalized a plan that addresses stationary source NOx reductions in three phases.

Phase I, referred to as the NOx RACT regulation (Nitrogen Oxide Reasonably Available Control Technology), was implemented in 1993. It established cost-effective controls on all installations located at major emission sources. The result was a 22 percent reduction in NOx emissions.

Phase II, referred to as the NOx Budget rule, is part of a coordinated regulatory initiative among the Ozone Transport Region (OTR)

states to reduce emissions in the Northeast. This rule was challenged by two Maryland utilities for three reasons. First, it requires large stationary sources like power plants, cement kilns and large industrial boilers to reduce summertime NOx emissions by 65 percent from 1990 levels. Second, it also requires sources to have NOx emissions measuring devices, such as continuous emission monitors. Lastly, sources must appoint a representative to provide and certify emissions data and represent the source when allowances are being traded. The rule was sent back to MDE and a new compliance date was proposed.

In 1998, the EPA adopted a rule for a regional NOx reduction program called the

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Legislature Approves Voluntary Waste Diversion Goal

Earlier this year, Authority staff member Cathy Coble participated in the Maryland Department of the Environment's (MDE) Source Reduction Work Group. The group consisted of members of the Maryland Recyclers Coalition (MRC). Its mission was to develop a source reduction credit system that would encourage subdivisions to promote and engage in more source reduction activities. The group's work would also be used to support legislation establishing a voluntary statewide waste diversion goal.

Source reduction is at the top of the solid waste management hierarchy because it is superior to both recycling and disposal from an environmental and economic perspective. Yet some subdivisions may be reluctant to encourage SR, such as grasscycling and home

composting, because SR activities reduce recycling rates, which are mandated by the state. SR credits offset any reduction in recycling rates that may occur because of SR activities.

The work group completed its task in February by developing a checklist of more than 30 SR activities. Participants will complete a form to report on how many SR activities are executed during the calendar year — the more activities, the more credits.

Based on the group's recommendation, Senator Roy Dyson introduced a resolution that calls for maintaining the mandatory county recycling rates of 15 percent and 20 percent set by the Maryland Recycling Act. It also defines the diversion rate as the recycling rate plus up to five percent for counties that qualify for a source reduction credit. The

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